BONNEVILLE POWER ADMINISTRATION
31-DAY SALE OF 20 MW TO PORT TOWNSEND PAPER COMPANY
COMMENCING OCTOBER 1, 2009
ADMINISTRATOR'S RECORD OF DECISION

September 30, 2009

BACKGROUND

In September 2006, the Bonneville Power Administration ("BPA") entered into a surplus firm power agreement (the "BPA/Clallam Contract") with Public Utility District No. 1 of Clallam County, Washington ("Clallam"), whereby BPA agreed to sell to Clallam 17 aMW for the period October 1, 2006, through September 30, 2011. The power to be sold by BPA to Clallam under the BPA/Clallam Contract was for the purpose of, and was expressly conditioned upon, resale by Clallam to Port Townsend Paper Company ("Port Townsend") under a contract by and between Clallam and Port Townsend (the "Clallam/Port Townsend Contract"). The rate paid by Port Townsend under the Clallam/Port Townsend Contract equaled the rate paid by Clallam under the BPA/Clallam Contract, plus a mark-up to cover certain of Clallam's costs associated with providing such service.

In December 2008, the United States Court of Appeals for the Ninth Circuit issued its opinion in *Pacific Northwest Generating Cooperative v. Bonneville Power Administration*, 550 F.3d 846 (2008) ("*PNGC I*"), in which the Court, among other things, held that the rate in the BPA/Clallam Contract was below both the market rate and the Industrial Firm (IP) Power rate and was therefore invalid. *Id*. at 879.

Port Townsend filed a petition for panel rehearing in February 2009, and BPA filed a motion seeking clarification of certain aspects of the opinion in March 2009. On August 5, 2009, the Court amended its original opinion in certain respects in response to BPA's petition but denied Port Townsend's requests for panel rehearing. Port Townsend then filed a motion to stay issuance of the mandate in the case for 90 days. On August 14, 2009, the Court issued an order staying issuance of the mandate in *PNGC I* for 30 days "to provide Port Townsend and the Bonneville Power Administration time to attempt to arrange for the provision of power to Port Townsend." The Court stated no additional extension of the stay would be forthcoming.

STATUS QUO

BPA continued to serve Port Townsend through Clallam under the terms and conditions, and at the rate, specified in the BPA/Clallam Contract after the Court issued its opinion in *PNGC I* in December 2008. BPA believed that maintaining the status quo was appropriate until such time as the Court, through its order denying Port Townsend's petition for panel rehearing, foreclosed any possibility that it would reconsider its holding in *PNGC I* that the rate in the BPA/Clallam Contract was invalid. While the court subsequently stayed issuance of the mandate until September 14, 2009, the purpose of the stay, as expressed in the Court's order, was solely to provide the parties additional time to determine whether a replacement agreement which satisfied the Court's ruling could be developed. So as not to be delayed if, as anticipated, the mandate did ultimately issue, BPA posted for public comment on June 22, 2009, a draft contract by and between BPA and Port Townsend for the period October 1, 2009, through September 30, 2011, which would have served as a replacement contract for the two years remaining in the BPA/Clallam Contract. After close of the comment period, BPA determined that it would not make a final determination on the contract until shortly before October 1, 2009. BPA decided that it needed more time to fully consider the issues surrounding DSI service in general and felt that, during this interim period, the Court might rule on petitions for review of the Alcoa amendment, under which service to Alcoa was to be provided for a nine month period commencing on January 1, 2009, and ending on September 30, 2009. BPA believed that such a ruling could provide additional clarity with respect to the legal requirements for providing service to DSIs.

As a result, BPA and Port Townsend entered into a contract for the period September 1, 2009, through September 30, 2009. That contract is described in a Record of Decision issued on August 27, 2009. On August 28, 2009, the Ninth Circuit did issue its opinion on the *Pacific Northwest Generating Cooperative v. BPA*, Slip Op. 09-70228 (August 28, 2009) ("*PNGC II*"). Based on concerns that have arisen as a result of that opinion, BPA has determined that it cannot reach a final decision whether to offer the two-year contract referenced above, or some other contract, prior to October 1st. BPA needs additional time to complete the analysis required by the Court for determining whether offering service to DSIs, including Port Townsend, is consistent with sound business principles, as that standard has been described in *PNGC II*.

In order to avoid disruption of power service at the Port Townsend facility, and because BPA believes it can do so consistent with the holdings in *PNGC I* and *PNGC II*, BPA is now offering a second one-month contract with a term commencing on October 1, 2009, and ending on October 31, 2009. This arrangement will provide BPA the time necessary to fully assess the ramifications of the recent Ninth Circuit opinions and determine whether a contract with a longer term can be offered consistent with existing law. In most respects, this contract is identical to the previous one-month interim agreement. The key differences are that, under the new arrangement, BPA will provide 20 aMW of power flat instead of 17 aMW and Port Townsend will provide contingency reserves to BPA consistent with law. As explained below, the increased amount is consistent with Port Townsend's contract demand under its 1981 contract demand, particularly when due consideration is given to the status of service to Port Townsend's old corrugated containers (OCC) recycled pulp facility. The Reserve Provisions in the second substitute interim transaction are intended to implement a contingency reserve equivalent to the requirement that DSIs purchasing power pursuant to the IP-10 rate schedule provide the Minimum DSI Operating Reserve – Supplemental, as described in the General Rate Schedule Provisions (GRSPs).

SECOND SUBSTITUTE INTERIM TRANSACTION

In light of the foregoing, BPA and Port Townsend, have entered into a surplus firm power transaction under BPA's Firm Power Products and Services (FPS-10) rate schedule, for the period October 1, 2009, through October 31, 2009, whereby BPA will sell to Port Townsend 20

MWs of power in a flat block each hour at a FPS-10 rate equal to the monthly average rate for October reflected in the IP-10 rate schedule, which equals $32.62/MWh. Its purpose is to satisfy Port Townsend's Contract Demand under section 5(d) of the Northwest Power Act. BPA, Clallam, and Port Townsend have agreed this transaction replaces deliveries of surplus firm power to Port Townsend under the BPA/Clallam and Clallam/Port Townsend Contracts for October 2009, and those contracts will continue to remain in suspension upon commencement of deliveries under this second substitute interim transaction. The nature of the transactions and the reasons underlying BPA's decision are discussed below.

1. **The sale to Port Townsend will be priced at a rate equivalent to the IP rate for the month of October pursuant to the FPS-10 rate schedule.**

As with the first substitute interim transaction, BPA considered making this second substitute interim transaction pursuant to a standard "block sale contract" under section 5(d) of the Pacific Northwest Electric Power Planning and Conservation Act and applying the IP rate schedule directly to the sale. This option, as determined by BPA in the Record of Decision for the prior interim agreement, would have required the parties to separately negotiate the terms of a block sale contract, delaying the start date of the interim transaction by at least several weeks. Thus, once again, the transaction will be effected through the existing Enabling Agreement by and between BPA and Port Townsend (Contract No. 08PB-11920), available for the sale of surplus firm power by BPA to Port Townsend. The Enabling Agreement, in turn, provides that transactions thereunder are subject to the terms and conditions of the Western System Power Pool Agreement. A copy of the Enabling Agreement, and the Confirmation Agreement specifying the essential terms and conditions of the second substitute interim transaction, are each attached hereto as Attachments 1 and 2, respectively.

2. **The quantity of power offered will be 20aMW instead of the 17aMW offered in the prior interim agreement.**

On May 1, 2009, Clallam requested to serve the OCC portion of the Port Townsend electric load with firm power purchased from BPA at the Priority Firm (PF) Power Rate. As envisioned by the request, such purchase would be made under Clallam's Subscription Full Service Power Sales Agreement No. 00PB-12051 (Subscription Contract). Specifically, Clallam requested BPA increase the amount of Contracted Power supplied under the Subscription Contract by approximately 3 aMW to serve production load at Port Townsend's OCC recycled pulp facility.

In 1996, Port Townsend's contract demand under the 1981 contract was adjusted from 16.6 MW to 20.5 MW as the result of a Technological Allowance, as provided for in Section 5(d) of the contract. In 2005, the Administrator determined that a portion of the Technological Allowance, the part associated with the OCC facility, was not in fact a Technological Allowance but rather a plant expansion. Thus, it was eligible to receive service from a preference utility pursuant to BPA's Atochem policy. Because the OCC facility was less than 10 MW, it was not a new large single load and thus Clallam could purchase firm power at the applicable PF rate rather than the new resources (NR) rate.

Clallam's request cited a portion of the February 2005 Record of Decision (ROD), concerning Bonneville Power Administration's Policy for Power Supply Role for Fiscal Years 2007-2011. Included, from page 56 of that ROD, are statements memorializing the Administrator' conclusion that the approximately 3 aMWs of production load at Port Townsend's OCC recycled pulp facility could be served at the PF rate. The ROD states, in pertinent part:

> BPA knows that in 1996 Port Townsend added a new facility at its site to reprocess old corrugated cardboard (OCC) and that this new facility could have taken service from the District because the load associated with the new OCC facility was in excess of Port Townsend's (formerly Crown Zellerbach) then Contract Demand. BPA will continue to apply the Atochem decision to any current or former DSI production load that takes service from a local utility and will not penalize Port Townsend for requesting additional service from BPA in 1996 rather than taking service from the District at that time. BPA finds that the OCC facility was completed in 1996 and would have been eligible to be served separately from Port Townsend's Contract Demand load by the District. As such it represents the only known instance of a separate facility at a DSI that qualifies for non-NLSL local utility service under the Atochem policy. BPA believes that for current or former DSI production load, only load that meets the test of being (1) a production load added to a DSI site after November 16, 1992, (the date of the Atochem ROD) and therefore load that was not part of the DSIs Contract Demand under its initial 1981 contract Exhibit C; and, (2) new load that is a separate production of a different product, is eligible to be served by the local utility under Atochem. The approximately 3 aMWs of production load at Port Townsend's OCC recycled pulp facility is the only DSI load that BPA is aware of that meets the above tests.

A copy of Bonneville Power Administration's Policy for Power Supply Role for Fiscal Years 2007-2011, Administrator's Record of Decision (February 2005) is attached hereto as Attachment 3.

In correspondence dated June 16th BPA approved Clallam's request to increase the amount of Contracted Power available under its Subscription Contract to serve only the OCC portion of Port Townsend's total load. If Clallam ultimately serves the OCC facility, Port Townsend's contract demand will be reduced accordingly by approximately 3.275 MW. A copy of BPA's June 16th letter responding to Clallam is attached hereto as Attachment 4.

At this time, it is BPA's understanding that Port Townsend and Clallam have been working together to determine how best to satisfy their respective needs with respect to transfer of the OCC load to Clallam. However, their consideration of this issue was driven by the assumption that BPA would be providing service to Port Townsend's non-OCC load for a longer term, based on the two-year contract that had been distributed for public comment. Had BPA moved forward with that proposal prior to October 1st, it is likely that Clallam and Port Townsend would have worked out all of the details needed for Clallam to provide service to the OCC load and Port Townsend would be receiving service for the OCC load from Clallam at the PF (preference) rate. However, Port Townsend and Clallam are reluctant to take these final steps if, in the final analysis, BPA is unable to provide service to the non-OCC load over a longer time horizon, at least significantly longer than this one-month second substitute interim transaction that BPA is now offering, for the remaining portion of Port Townsend's load. Thus, given the continuing service uncertainties, it is appropriate to allow Clallam and Port Townsend to defer any further consideration of Clallam providing service to the OCC load until a final decision is made with respect to longer-term non-OCC service. Thus, for the term of this second substitute interim transaction, BPA will serve the OCC load and the other Port Townsend facility load by providing 20 MW of firm power in a flat block each hour to Port Townsend at a FPS-10 rate that is equivalent to the currently applicable IP-10 rate for the period.

3. **BPA will not be required to make additional purchases to provide Port Townsend with power under this agreement.**

BPA does not forecast the need to make any purchases to serve Port Townsend under this second substitute interim transaction. BPA has determined it has the surplus power available to serve the additional 3 MW associated with the OCC load. Thus, additional or incremental purchases during the one month term of this second substitute interim transaction will not be required.

4. **The Second Substitute Interim Transaction with Port Townsend makes economic sense for BPA.**

On September 2, 2009, BPA began discussions with Port Townsend regarding the need for an October transaction, and provided the contract for signature on September 24, 2009. Port Townsend signed the agreement the next day.

BPA's analysis indicates that the benefits to BPA of entering into the second substitute interim transaction equal or exceed any costs associated with the transaction. In considering the economics of the second substitute interim transaction BPA evaluated the benefits it would obtain by entering into the transaction as compared to the potential opportunity costs of a firm surplus sale of a comparable energy product delivered at Mid-Columbia (Mid-C) market trading hub that might arguably have been foregone.

Forward market prices for flat blocks of power for October delivery as determined by the following are all below the IP-10 equivalent rate of $32.62/MWh for a sale of the same period (see copies of the FPS-10 and IP-10 rate schedules as well as BPA's calculation of the IP equivalent rate for October 2009 attached hereto as Attachment 5):

1) BPA's mean forecast of market prices for flat blocks of power for October delivery equals $25.87/MWh (see copy of Aurora market price forecast result for October 2009 attached hereto as Attachment 6);

2) When BPA began discussions with Port Townsend on September 2nd, prices quoted by brokers for flat blocks of power for October delivery (*i.e.,* prices based on transactable market quotes for delivery at Mid-C) equaled $26.42/MWh. This established that the market price was well below the IP rate for October, and provided a basis to begin drafting a confirmation agreement that would memorialize a sale of power to Port Townsend at an IP equivalent rate. Over the 16-day period that BPA drafted the agreement with Port Townsend, the market price moved both upward and downward, averaging $32.17/MWh. BPA's average of prices quoted by brokers for flat blocks of power for October delivery (*i.e.*, prices based on transactable market

quotes for delivery at Mid-C) from September 2nd through September 24th and the average for the period are attached hereto as Attachment 7. The market price on the day BPA provided the agreement for Port Townsend's signature was $34.96/MWh.

Because simple day to day price volatility is common to the electricity commodity, BPA did not consider the temporary price movements to reflect any substantive change in the opportunity value of the energy. When BPA makes sales like this, which are not simply standard commodity transactions, it relies much less on the hour to hour, and day to day price fluctuations quoted in the broker market for forward delivery and relies more on pricing that reflects the period of the negotiations. BPA also takes into consideration where it believes the price will trend as time moves closer to the delivery period. In September BPA considered it very likely that prices would drop as we move closer to October and into spot deliveries during the month of October. BPA recognizes that natural gas price movements contribute to price movements in electric power markets in the Pacific Northwest as a preponderance of the generating resources establishing marginal prices for electric power are fueled by natural gas. BPA based its expectation of a downward trend for spot deliveries throughout the month of October on the Short-Term Energy Outlook of the Department of Energy's Energy Information Administration (EIA), the EIA's natural gas storage levels published in its Weekly Natural Gas Storage Report and the continuing slow economic recovery. The EIA's Short-Term Energy Outlook for September 2009, the EIA's Weekly Natural Gas Storage Report for September 24, 2009 and a September 30, 2009 article in the Wall Street Journal are attached hereto as Attachment 8.

Further consideration of additional benefits accruing to BPA as a result of entering into this transaction reinforce the market analysis supporting BPA's determination that the market value of the energy it will sell Port Townsend is less than the value of the same energy sold at the IP equivalent rate for October. By adjusting both the value of the IP equivalent sale and the value of a market equivalent sale to make these two pricing scenarios comparable, BPA's effective market price is reduced even further below that of an IP equivalent sale:

a. The IP rate assumes power delivery at the federal busbar (where it is generated) and the DSI/buyer purchases its own transmission to take the power from the federal busbar to its load. Prices quoted in the broker market assume power is delivered by the seller (BPA) to the buyer at the Mid-C market hub. Thus, BPA incurs an incremental transmission cost when it sells power at Mid-C at a price equal to the broker quotes. BPA has subtracted this transmission cost from a quoted Mid-C market price to determine BPA's opportunity cost of an equivalent IP sale to Port Townsend. This savings to BPA drives the comparable market value of the energy even further below the value of an IP equivalent sale.

b. The energy rate table in the IP-10 rate schedule reflects an $0.80/MWh credit for the value of the Minimum DSI Operating Reserve – Supplemental to compensate DSIs for their provision of contingency reserves to BPA. The Reserve Provisions in the second substitute interim transaction with Port Townsend are intended to implement a contingency reserve equivalent to the requirement that sales under the IP rate provide the Minimum DSI Operating Reserve – Supplemental, which permits BPA to interrupt deliveries of electric power to Port Townsend in the event of a power system disturbance. To accurately compare an interruptible IP sale to a firm sale at the market price, this $0.80/MWh would be added back into the IP equivalent rate because the market price quotes do not have any discount to compensate the buyer for providing contingency reserves. By considering the addition of the $0.80/MWh back into the IP equivalent rate, the comparative market value of the energy is even further below the value of an IP equivalent sale.

Finally, Port Townsend will pre-pay BPA on October 1 for all deliveries for the entire month, thereby fully mitigating any payment default risk.

This agreement represents a continuation of service to Port Townsend at a rate consistent with the court's decisions in *PNGC I* and *PNGC II*, and the sale will not lead to any changes in environmental effects. Further, this type of agreement is consistent with BPA's Short-Term Marketing and Operating Arrangements ROD of January 22, 1996, a copy of which is attached hereto as Attachment 9.

CONCLUSION

For the foregoing reasons, BPA has decided to enter into a second substitute interim transaction (31 days) commencing October 1, 2009, for the sale of 20 MW of power flat each hour to Port Townsend at a FPS-10 rate equal to the average IP-10 rate for October 2009, pending a final decision by BPA in a separate record of decision with respect to service to Port Townsend beginning November 1, 2009.

//s// Allen Burns

Allen Burns
Acting Deputy Administrator

Attachments

ATTACHMENT 1

Contract No. 08PB-11920

AGREEMENT TO ENABLE
FUTURE PURCHASES, SALES AND EXCHANGES
OF POWER AND OTHER SERVICES
executed by the
BONNEVILLE POWER ADMINISTRATION
and
PORT TOWNSEND PAPER CORPORATION

Table of Contents

This AGREEMENT TO ENABLE FUTURE PURCHASES, SALES AND EXCHANGES OF POWER AND OTHER SERVICES (Agreement), is executed by the UNITED STATES OF AMERICA, Department of Energy, acting by and through the BONNEVILLE POWER ADMINISTRATION (BPA), and PORT TOWNSEND PAPER CORPORATION (Customer), a corporation incorporated under the laws of the State of Washington. BPA and Customer are sometimes referred to individually as "Party" and collectively as "Parties."

RECITALS

The Parties wish to provide a contractual mechanism for future purchases, sales and exchanges of Power (firm and nonfirm) and other products and services which the Parties may agree from time to time to make available as specified below.

This Agreement is not a present purchase, sale or exchange of such Power, or other products and services, and does not constitute any advance agreement or obligation for any Party to make available or to purchase or exchange any amount of such Power or other products and services.

BPA is authorized pursuant to law to market electric power and energy generated at various Federal hydroelectric projects in the Pacific Northwest or acquired from other resources, to construct and operate transmission facilities, to provide transmission and other services, and to enter into agreements to carry out such authority.

The Parties agree as follows:

1. TERM OF AGREEMENT

This Agreement shall become effective at 2400 hours on the date of execution (Effective Date), and shall terminate three years from the Effective Date, unless terminated earlier in accordance with the termination provisions specified in section 7. All obligations and liabilities accrued hereunder are preserved until satisfied. Execution of this Agreement shall terminate any prior agreement to enable future purchases, sales, or exchanges of Power and other products and services between the Parties.

2. UNDERLYING PROVISIONS

Unless otherwise specified in this Agreement, all provisions required to perform either Party's obligations under this Agreement shall be as described in the Western Systems Power Pool (WSPP) Agreement, attached hereto as Exhibit C.

3. DEFINITIONS

(a) "Excess Federal Power" means excess Federal power as defined in section 508 of Public Law 104-46.

(b) "Power" means Excess Federal Power or firm or nonfirm Surplus Power (or both) made available by BPA, and firm or nonfirm capacity or energy or both made available by Customer.

(c) "Surplus Power" means surplus peaking capacity, or surplus energy or both, as defined in sections 5(f) and 9(c) of Public Law 96-501, and sections 1(c) and 1(d) of Public Law 88-552.

4. REVISION OF EXHIBITS; INTERPRETATION

(a) **Revision of Exhibit A**
The Wholesale Power Rate Schedules and General Rate Schedule Provisions included in Exhibit A shall be replaced by successor Wholesale Power Rate Schedules and General Rate Schedule Provisions established in accordance with the provisions of section 7(i) of the Northwest Power Act and Federal Energy Regulatory Commission rules.

(b) **Revision of Exhibit B**
BPA shall revise and replace Exhibit B in accordance with the provisions contained in Exhibit B.

(c) **Revision of Exhibit C**
Exhibit C shall be revised unilaterally by BPA to include all future WSPP amendments and revisions, unless a Party notifies the other Party in writing that all or a portion of an amendment or revision is unacceptable within 30 days of its effective date. If either Party finds such future amendments and revisions unacceptable, then such amendments or revisions shall not be included in Exhibit C of this Agreement.

(d) **Interpretation**
In the event of a conflict between the terms of any Exhibit and the terms of the body of this Agreement, the terms of the body of this Agreement shall prevail.

5. RESALE PROVISIONS

(a) Resale by Customer of Surplus Power sold by BPA under this Agreement shall, to the extent required by law, comply with the requirements of Section 5(a) of the Bonneville Project Act, as amended (16 U.S.C. section 832). This provision shall not apply to sales of Excess Federal Power. BPA will identify in each Confirmation Agreement that the Power it sells to the Customer is either: (1) Surplus Power; or (2) Excess Federal Power.

(b) Customer may purchase any Surplus Power under this Agreement only pursuant to section 5(a) of this Agreement. In the event that BPA discovers that Customer violated this section 5 in the course of its performance pursuant to a Confirmation Agreement, such Confirmation Agreement shall be immediately terminated; *provided, however*, any and all liabilities incurred prior to such termination shall remain until satisfied.

6. POWER SCHEDULING PROVISIONS

All power transactions under this Agreement shall be scheduled and implemented in accordance with the Scheduling Provisions in Exhibit B. The procedures for scheduling described in Exhibit B are the standard utility procedures followed by BPA for power transactions between BPA and other utilities or entities that require scheduling.

7. **TERMINATION PROVISIONS**

Each Party shall have the right to terminate this Agreement upon 30 calendar days' written notice to the other Party; *provided, however*, that if any Confirmation Agreement between the Parties remains in effect after the termination date of this Agreement and incorporates by reference, individually or generally, provisions of this Agreement, such provisions shall survive the termination of this Agreement and be binding on the Parties until after the termination of the last such agreement.

8. **APPLICABLE LAW**

All transactions under this Agreement shall be subject to Federal law governing the sale, exchange, or other disposition of Power and other services, including but not limited to, Public Law 75-329 (the Bonneville Project Act, as amended, 16 U.S.C. 832 et seq.), Public Law 88-552 (the Pacific Northwest Preference Act of August 31, 1964, as amended, 16 U.S.C. 837 et seq.), Public Law 93-454 (the Federal Columbia River Transmission System Act, as amended, 16 U.S.C. 838(a) et seq.), Public Law 96-501 (Pacific Northwest Electric Power Planning and Conservation Act, 16 U.S.C. 839 et seq.), and Section 508 of Public Law 104-46 (codified at 16 U.S.C.A. 832m (West Cum. Ann. Pock. Pt. 1996)).

All sales of Surplus Power for use outside the Pacific Northwest under this agreement are subject to the provisions of Public Law 88-552 and section 9(c) of Public Law 96-501, and the Parties hereby acknowledge their respective responsibilities thereunder. Pursuant to Public Law 88-552, BPA shall have the right to curtail a portion of, or terminate all of: (a) the capacity associated with a surplus firm peaking capacity sale on 60 months' written notice; or (b) the energy associated with a surplus energy sale on a 60-day written notice specifying the amounts and duration of the curtailment or termination, if such capacity and/or energy is needed to meet the capacity and/or energy requirements in the Pacific Northwest. Such curtailments to Customer shall be limited to the amounts and duration necessary to cover BPA's projected Pacific Northwest needs. The sale of capacity and/or energy to Customer under this Agreement shall continue in months during which such capacity and/or energy is not needed, as determined by BPA, in the Pacific Northwest.

9. **NOTICES**

Either Party may change the address for notices by giving notice of such change in accordance with this section.

BPA representative for Power transactions:

Bonneville Power Administration
P.O. Box 3621
905 NE. 11th Avenue
Portland, OR 97232
Attn: Mark E. Miller - PTL-5
Account Executive
Phone: 503-230-4003
FAX: 503-230-3681

with a copy to: Bonneville Power Administration
P.O. Box 3621
905 NE. 11th Avenue
Portland, OR 97208-3621
Attn: Vice President, Bulk Marketing - PT-5
Phone: 503-230-3295
FAX: 503-230-3681

Customer representative for Power transactions:

Port Townsend Paper Corporation
Bruce McComas, Vice President and Assistant Mill Manager
100 Paper Mill Hill Road
Port Townsend, WA 98368-3170
Phone: 360-379-2158
FAX: 360-385-0355

10. ENTIRE AGREEMENT

This Agreement, including all provisions, exhibits, and documents incorporated by reference, constitutes the entire agreement between the Parties. It supersedes all previous communications, representations, or agreements, either written or oral, which purport to describe or embody the subject matter of this Agreement.

11. SIGNATURES

The signatories represent that they are authorized to enter into this Agreement on behalf of the Party for whom they sign.

PORT TOWNSEND PAPER CORPORATION	UNITED STATES OF AMERICA Department of Energy Bonneville Power Administration
By Bruce McComas	By Mark E. Miller
Name BRUCE MCCOMAS (Print / Type)	Name Mark E. Miller (Print / Type)
Title VP - GENERAL MANAGER	Title Account Executive
Date 3/13/08	Date 03/07/08

W:\PSC\PM\CT\11920.doc 3/6/2008

Exhibit B
BPA POWER SERVICES SCHEDULING PROVISIONS

1. PURPOSE OF THIS EXHIBIT

Unless otherwise specified in this Exhibit B, all transactions shall be scheduled in accordance with the Western Electricity Coordinating Council (WECC) and the North American Electric Reliability Council (NERC). The purpose of this exhibit is to identify power scheduling requirements and coordination procedures necessary for the delivery of electric power products bought or sold under this Agreement. All provisions apply equally to all BPAP Counter Parties (as defined in section 2 below) and their authorized scheduling agents. Transmission scheduling arrangements are provided under separate agreements/provisions with the designated transmission provider.

2. DEFINITIONS

(a) **After the Fact**: The process of reconciling all transactions, Schedules, and accounts after they have occurred.

(b) **APOD**: Alternate Point Of Delivery. Any point other than the POD specified in a Confirmation Agreement or other contract to which this Exhibit B applies.

(c) **BPAP**: Bonneville Power Administration Power Services.

(d) **BPAP Counter Party**: A PSE (Purchasing Selling Entity, as defined by NERC) that has contracted to purchase from BPAP or sell to BPAP electric power products.

(e) **COB**: California-Oregon Border or COI (California-Oregon Intertie). Consists of the Pacific AC Intertie (PACI or Malin) and 3rd AC Intertie (3A or Captain Jack) transmission lines to California. N to S indicates that the energy is flowing on the transmission path North to South. S to N indicates energy is flowing on the transmission path South to North.

(f) **NOB**: Nevada-Oregon Border. Consists of the Pacific DC Intertie (PDCI or Celilo) transmission line to California. N to S indicates that the energy is flowing on the transmission path North to South. S to N indicates energy is flowing on the transmission path South to North.

(g) **POD**: Point of Delivery, as defined by NERC.

(h) **Preschedule Day**: Preschedule Day is in accordance with WECC practice and variations are identified in the WECC calendar to allow for Holidays, WECC meetings, etc.

(i) **Prescheduling**: The process (verbally and in writing) of establishing and balancing (checking out) schedules on the Preschedule Day.

(j) **Real-Time Scheduling**: Any new or modified Transaction that occurs after prescheduling is completed.

(k) **Schedule**: The planned Transaction approved and accepted by all counterparties and Control Areas involved in the Transaction.

3. COORDINATION: GENERAL, CONTROL AREA, PRESCHEDULE, REAL-TIME, AND AFTER-THE-FACT REQUIREMENTS

(a) General Requirements

(1) BPAP shall have the right to revise and replace this Exhibit B: (1) in the event that scheduling procedures are changed due to agreement among scheduling parties in the WECC; (2) to comply with rules or orders issued by the Federal Energy Regulatory Commission (FERC) or NERC, or (3) to implement changes reasonably necessary for BPAP to administer its power scheduling function in a more efficient manner.

(2) BPAP and each BPAP Counter Party must have necessary staff available during both parties' Prescheduling, Real-Time Scheduling, and After the Fact check out processes, including the completion of the NERC Etag.

(3) All transactions shall be stated in the Pacific Prevailing Time (PT), beginning with the 0100 hour ending.

(4) BPAP and each BPAP Counter Party shall notify each other of changes to telephone or fax numbers of key personnel (for Prescheduling, Real-Time Scheduling, After the Fact, or scheduling agents, etc.).

(b) Prescheduling Requirements

(1) Information Required For Any Preschedule

(A) When the NERC Tag is prepared, the BPAP Counter Party purchasing from BPAP shall use commercially reasonable efforts to ensure the BPAP Confirmation Agreement contract number is included within the generation/load segment, in the XML "Contract Number" element of the Etag.

(B) Transactions to or from COB must identify the use of either Malin or Captain Jack.

(2) **Preschedule Coordination**
Final hourly Schedules must be submitted by each BPAP Counter Party to BPAP for the next day(s) transactions by 1100 PT of each Preschedule Day, unless otherwise agreed. After 1100 PT Preschedules can be accepted if mutually agreed to by BPAP and the BPAP Counter Party, and the Preschedules are accepted by the transmission provider(s).

(c) **Real-Time Scheduling Requirements**

(1) BPAP Counter Parties may not make real-time changes to the schedules unless such changes are allowed under specific Confirmation Agreements or other contracts to which this Exhibit B applies, and by mutual agreement.

(2) If real-time changes to the schedule become necessary and are allowable as described in section 3(c)(1) above, the requesting BPAP Counter Party must submit requests for such changes no later than specified in the contract or BPAP Confirmation Agreement. Emergency schedule changes (including mid-hour changes) will be handled in accordance with WECC procedures.

(4) Multi-hour changes to the schedule shall specify an "hour beginning" and an "hour ending" and shall not be stated as "until further notice."

(d) **After the Fact Reconciliation Requirements**
Each BPAP Counter Party agrees to reconcile all transactions, Schedules, and accounts following the end of each month (within the first 10 calendar days of the next month).

W:\PSC\PM\CT\11920.doc 3/6/2008

ATTACHMENT 2

Department of Energy
Bonneville Power Administration
Power Business Line

CONFIRMATION AGREEMENT

From: Bonneville Power Administration
P O Box 3621
Portland, OR 97208-3621
BPA Preschedule: 503-230-3813
BPA Real Time: 503-230-3341

To: Port Townsend Paper Company
Fax: 360-385-2971

BPA Contract: 09PB-12149
Trade Date: 09/23/2009

The following memorializes the terms of a transaction agreed to by Bonneville Power Administration (BPA) and Port Townsend Paper Company (PORT). Transactions hereunder are in accordance with Agreement 08PB-11920.

Buyer: PORT
Seller: BPA
BPA Trader: Alex Spain
Phone: 503-230-3183
PORT Trader: Roger Loney
Broker: None
Holiday: NERC
Product: Surplus Firm (WSPP Schedule C)
Product Description: Energy
Point of Delivery: Where the Federal generating system interconnects with BPA's transmission network. Customer will provide transmission from the Federal generating system.

Start Date	End Date	Demand Limit	Energy Price $/MWh	Hours	Amount (MWh / hr)	Total MWh	Revenue / Cost
10/01/2009	10/31/2009	20	$32.62	Flat	20	14,880	$485,385.60
				Transaction Total		14,880	$485,385.60

Additional Provisions:

The parties have agreed to early-payment, via wire transfer, payable as follows, below. Wire Transfer information will be provided to PORT by separate letter. If the early-payment is not received on the date specified herein Bonneville may terminate this contract.

Date Payable	Amount due
Oct. 1, 2009	$485,385.60

BPA shall submit a schedule on PORT's behalf for 20 MW Flat, commencing on the Start Date and ending on the End Date. unless notified otherwise by PORT.

The Energy Price in this confirmation agreement was established using the applicable rate determinants contained in the Industrial Firm (IP) Power rate schedule (IP-10) for the term.

PORT shall provide reserves pursuant to the Reserve Provisions of this contract.

This confirmation agreement replaces sales BPA would have made to Clallam PUD under Contract No. 06PB-11694, for resale by Clallam to PORT.

All energy will be shown in Pacific Prevailing Time.
HLHs are defined as HE 0700 - HE 2200, Monday through Saturday (excludes Sundays and NERC holidays).
LLHs are defined as HE 0100 - HE 0600, HE 2300 and HE 2400, Monday through Saturday and all day Sunday and NERC holidays.
Flat is defined as HE 0100 - HE 2400.

SEP 29 2009

Pursuant to the WSPP, this transaction shall be prescheduled. The preschedule day is defined by the Western Electricity Coordinating Council's Preschedule Calendar. Energy shall be prescheduled, identifying source and sink, by 1100 on the preschedule day or as mutually agreed. Real Time modifications will not be allowed except by mutual agreement or due to an uncontrollable force.

Reserve Provisions:

1. DEFINITIONS

(a) "Event" is a system condition under which PS needs additional power to meet its obligations during a system disturbance. The beginning of an Event shall be identified by alarm notice to the PS Loads Scheduler/Hydro Duty Schedule of a system disturbance, and the Loads Scheduler will notify PORT that Restricted Energy is required. The end of the Event shall occur the earlier of when; a) initially established; b) PORT's scheduling agent has notified PORT that full service has been restored; or c) 105 minutes from the beginning of the Event. An Event shall not include BPA electing not to purchase power for economic reasons, nor shall an Event include circumstances in which BPA elects not to purchase available transmission capacity to avoid the need to impose a restriction.

(b) "Event Duration" shall be the total cumulative Event Minutes of the Event.

(c) "Event Minute" shall be the minutes of restriction (or any portion thereof) during an Event.

(d) "Contingency Reserves" are those reserves provided by PORT under this Agreement for purposes of providing reserves for BPA's firm power loads within the region, as provided for in the Northwest Power Act.

(e) "Reserve Amount" shall be the kilowatt (kW) amount of Contingency Reserves available to BPA by PORT specified in Section 2 of the Reserve Provisions.

(f) "Restricted Energy" means the requested megawatt-hour (MWh) amount of energy not made available to PORT hereunder because of an Event pursuant to section 2 below.

2. AMOUNT AND TYPES RESERVES

When necessary to provide Contingency Reserves, BPA may restrict the Reserve Amount, or the requested portion thereof, for a period of time (Restricted Energy). The Reserve Amount shall equal 2,000 kilowatts, or 10% of the Amount, consistent with the amount of Minimum DSI Operating Reserve – Supplemental specified in the 2010 GRSP, or its successor.

PORT shall provide the Restricted Energy to BPA by an interruption of its loads or increased generation in an amount equal to or greater than the amount of such specified Restricted Energy, and in each case shall continue such load interruption for the duration of the Event.

3. QUALITY AND CHARACTER OF RESERVES

Contingency Reserves provided by PORT shall be consistent with North American Electric Reliability Council (NERC), Western Electricity Coordinating Council (WECC), and Northwest Power Pool (NWPP) standards and criteria:

(a) the Reserve Amount, or the requested portion thereof, must be offline within ten (10) minutes of an Event and pursuant to the Notification section below;

(b) the Reserve Amount, or the requested portion thereof, must be available to be offline for up to one-hundred five (105) minutes.

4. NOTIFICATION

PORT shall provide a contact at the Facility at the following phone number:

Port Townsend
Phone: 360-379-2197

PORT shall maintain such contact for every hour in the Term of the Agreement in which the Minimum DSI Operating Reserve – Supplemental amount is greater than zero megawatts.

The Loads Scheduler will notify PORT of each contingency event by means of a pre-programmed phone call or other electronic means. <u>Within eight (8) minutes</u> following the first such notice by the Loads Scheduler of an Event, PORT shall commence providing the Restricted Energy to BPA. PORT shall not restore its use of the Restricted Energy until the lesser of: (a) one-hundred five (105) minutes; or (b) immediately following notice from the Loads Scheduler terminating an Event.

5. VERIFICATION

PS retains the right to verify PORT's provision of Restricted Energy by comparing the metered amounts before an Event, during an Event, and after an Event is terminated. If such verification fails to demonstrate that the Restricted Energy was made available to BPA by PORT for the Event Duration, then PS, in its sole discretion, may: (a) terminate the compensation specified in Section 6 of the Reserve Provision of this contract for the undemonstrated portion of the Reserve Amount for the remaining Term of the Agreement; and, (b) notify TS of the undemonstrated portion of the Reserve Amount. PORT acknowledges that any undemonstrated portion of the Reserve Amount may cause its transmission supplier to take additional actions subject to the provisions of transmission service agreements PORT maintains with its transmission supplier, that may include an assessment of the monetary penalty described in the Failure to Comply provision of the prevailing TS tariff for transmission service.

6. COMPENSATION FOR CONTINGENCY RESERVES

PORT will be compensated by PS for Minimum DSI Operating Reserve - Supplemental provided in this Agreement through an adjustment to the IP rate determinants, as provided for in the Northwest Power Act.

BPA will bill and PORT shall pay for the Restricted Energy as though actually delivered to PORT.

7. RETURNED ENERGY

BPA must make any Restricted Energy during an Event available to PORT within 24 hours ("Returned Energy") in mutually agreed flat hourly amounts and hours. Parties agree Returned Energy does not need to be scheduled during hours immediately following an Event and that the Returned Energy will likely be made available during Light Load Hours.

Returned Energy amounts scheduled will be in addition to federal power purchased pursuant to this contract.

8. TESTING OF RESERVES

BPA shall have the right to conduct tests of the procedure specified in this contract.

We are pleased to have this agreed upon transaction. Please confirm the terms by signing and returning an executed copy of this Confirmation via fax to BPA 503-230-7463.

AGREED AND ACCEPTED

Bonneville Power Administration	Port Townsend Paper Company
Mark E. Miller	Print Name: Roger A. Loney
Trading Floor Manager Date: 9/25/09	Title: Sr VP Operations Date: 9/25/09

ATTACHMENT 3

BONNEVILLE POWER ADMINISTRATION'S POLICY FOR POWER SUPPLY ROLE FOR FISCAL YEARS 2007-2011

ADMINISTRATOR'S RECORD OF DECISION

Bonneville Power Administration
U.S. Department of Energy

February 2005

Table of Contents

INTRODUCTION – BPA'S POWER SUPPLY ROLE FOR FY 2007-2011

The Bonneville Power Administration (BPA) is adopting a Regional Dialogue policy on the agency's regional power marketing for Fiscal Years (FY) 2007-2011. Since embarking upon its Power Subscription Strategy over 5 years ago, BPA and its regional customers and stakeholders have continued to discuss matters of critical importance that pertain to the sale and purchase of Federal power marketed by BPA. Now, in the aftermath of the 2000-2001 West Coast electricity crisis, this policy will serve as an important signpost for customers and others who have an interest in BPA's regional power marketing activities. Importantly, this policy is intended to provide BPA's customers with greater clarity about their Federal power supply so they can effectively plan for the future and make capital investments in long-term electricity infrastructure if they so choose. It is also intended to provide guidance on certain rate matters BPA expects will be addressed in the next rate period while assuring that the agency's long-term strategic goals and its long-term responsibilities to the region are aligned.

This Record of Decision (ROD) is organized by section in the same order as the Regional Dialogue Policy. This ROD addresses the issues raised by commenters who responded during the public comment period to BPA's Regional Dialogue policy proposal released on July 7, 2004. The list of commenters, including abbreviations, is shown in Appendix A. This ROD also addresses issued raised in 2001 during the comment period regarding BPA's New Large Single Load (NLSL) policy. The list of commenters for that comment process is shown in Appendix B.

PUBLIC PROCESS

The Regional Dialogue process began in April 2002 when a group of BPA's Pacific Northwest electric utility customers submitted a "joint customer proposal" to BPA. This proposal focused on settling outstanding litigation on the Residential Exchange Program Settlement Agreements signed in 2000, as well as on determining how to market Federal power and distribute the costs and benefits of the Federal Columbia River Power System for 20 years.

In June 2002, BPA and the Northwest Power and Conservation Council (Council) jointly initiated a public process regarding BPA's marketing of Federal power post-2006. In September 2002, several jointly sponsored public meetings were held throughout the region for interested parties to discuss their proposals and provide new ideas and suggestions. BPA and the Council accepted comments and proposals from all interested parties. This phase of the Regional Dialogue ended in December 2002 when the Council submitted final recommendations to BPA on "The Future Role of Bonneville."

In February 2003, faced with a continuing financial crisis, BPA announced that it would proceed with a rate-setting process for the Safety Net Cost Recovery Adjustment Clause (SN CRAC). Consequently, BPA decided that the Regional Dialogue discussions should take a slower, more deliberate pace, focusing only on a few key items, such as the level of benefits for the residential and small-farm consumers of the region's investor-owned utilities (IOUs), until the rate case concluded.

In early 2003, BPA initiated a detailed examination of events beginning in 2000 that led to significant rate increases and deterioration of BPA's financial condition. On April 18, 2003, BPA released a Report to the Region that included lessons the agency learned, with the intention of translating those lessons into future actions.

In a June 5, 2003, letter, the Governors of the four Pacific Northwest states encouraged BPA and the Council to jointly restart the Regional Dialogue. In response, BPA and the Council hosted a series of informal meetings with customers and interested parties throughout the region in the fall of 2003. Shortly thereafter, the Council released a set of principles and an issue paper entitled "Proposed Council Principles for the Future Role of the Bonneville Power Administration in Power Supply" for public comment. Following the close of comment in December 2003, the Council held several workgroup meetings aimed at gathering input from customers and others to help guide its next round of recommendations on the future role of BPA in power supply.

Following conclusion of the work group meetings, the Council released in April 2004 its draft recommendations on "The Future Role of the Bonneville Power Administration in Power Supply" and took public comment. Those recommendations were finalized and sent to BPA in May 2004.

On February 27, 2004, BPA sent a letter to the region updating BPA's plans for resolving Regional Dialogue issues. In the letter, BPA identified issues that are a priority to resolve for the FY 2007-2011 period. While this Regional Dialogue proposal focuses primarily on the FY 2007-2011 issues, key long-term questions remain unanswered. BPA is committed to resolving the long-term issues soon after the conclusion of this current process.

In March 2004, BPA publicly released information about its long-term strategic direction as a springboard for discussions with customers and other stakeholders. The issues addressed in the strategic direction, as mentioned above, serve as the foundation for the Regional Dialogue. BPA account executives held informal meetings and conversations with customers and discussed and recorded their comments. Some customers, as well as other constituents, also submitted written comments.

In the process of developing this proposal, BPA analyzed and considered 388 comments related to Regional Dialogue issues. Many who commented said that allocation of the system is a high priority issue and now is the appropriate time to review this issue. They cautioned that discussions regarding BPA's long-term obligation to provide service at lowest cost-based rates for Pacific Northwest firm requirements loads and related decisions would be difficult, and their objections to tiered rates were much more frequent than statements in support. Commenters said that any allocation discussion should be completed before entering into the ratemaking process to tier power rates. In July 2004, BPA published its revised Strategic Direction.

On July 7, BPA published its policy proposal and posted the document on its Regional Dialogue Web site. The policy proposal was published in the Federal Register on July 20, 2004. The public was invited to participate in six public meetings on the proposal.

Between August 17 and September 15, 2004, BPA held a series of six public meetings in Seattle, Washington; Eugene, Oregon; Spokane, Washington; Boise, Idaho; Portland, Oregon; and Kalispell, Montana. In those meetings, the agency presented its draft policy proposal and took comment. Meetings were held throughout the region with customers, constituents, tribes and other interested stakeholders during the additional comment period, which closed on November 12, 2004.

By the end of the public comment period on September 22, 2004, BPA received over 130 written comments. On September 29, 2004, those public comments, along with summaries from the six public meetings, were posted to BPA's Regional Dialogue Web site.

In a letter dated August 31, 2004, Mike Weedall, vice president for Energy Efficiency, invited interested parties to participate in a conservation work group. The purpose of the work group is to develop a proposed conservation program for the post-2006 period as indicated in the Regional Dialogue policy proposal. The deadline for expressing interest was September 13, 2004. The letter noted that future information about this topic will be available on the Post-2006 Conservation Program page on the BPA Energy Efficiency (EE) Web site. The first meeting of the work group was held on October 7, 2004.

On October 7, 2004, Paul Norman, senior vice president of BPA's Power Business Line sent a letter to the region summarizing public comments received on the Regional Dialogue Policy Proposal. The letter stated there may be follow-up discussions on some Regional Dialogue issues before policy decisions were made in December. A summary of next steps in the decision-making process was included in the letter.

On October 21, 2004, Helen Goodwin, Regional Dialogue project manager, sent a letter to the region that identified four issues on which BPA was open to having further discussions. The four issues were Service to Direct-Service Industries, Future Service to Customers with 5-Year Purchase Commitments that Do Not Contain the Lowest PF Rate Guarantee, Product Availability, and New Publics. These discussions were concluded on November 12, 2004. Summaries of these meetings were posted to BPA's Regional Dialogue Web site. All comments received by November 12, 2004, were considered in the ROD and the National Environmental Policy Act (NEPA) ROD.

An October 21, 2004, letter indicated that a large number of comments was received on Conservation and Renewables and that BPA would continue to work with interested parties on developing a post-2006 conservation program. Subsequently, a Renewables Focus Group was formed to provide feedback on BPA's proposals for the FY 2007-2011 renewables program. The group will continue to work collaboratively to develop suggestions for renewables programs and products.

SUMMARY OF KEY ISSUES AND CONCERNS

BPA developed its Regional Dialogue policy for its power supply role for FY 2007-2011 after considering public comment on its policy proposal and subsequent discussions on the four specified issue areas. The policy incorporates information received from customers, tribes, constituents, industries, and the general public. The Regional Dialogue policy and ROD set the stage for BPA's next power rate case, which will begin in FY 2005 and set power rates for the rate period beginning in FY 2007. It also prepares the way for later discussions that will set long-term policy direction for FY 2012 and beyond.

BPA received over 170 separate written comments from customers, constituent groups, unions, tribes, and individuals and the six regional public meetings. Those separate comments have been organized by subject to reflect the organization of the policy itself.

Most comments were addressed to conservation resources, post-2006 service to the direct-service industries, renewable resources, limiting BPA's long-term load service obligation at lowest cost-based rates for Pacific Northwest requirements loads, controlling costs and consulting with BPA stakeholders, and service to publics with expiring 5-year purchase commitments that do not contain the lowest-PF rate guarantee.

SCOPE

BPA's public involvement on the Regional Dialogue was extensive. Ann issue-by-issue analysis of the comments received in six public meetings as well as by mail, e-mail, and fax produced about 1,300 total comments by the September 22, 2004, close of comment. Slightly over 30 individual comments were on matters outside the scope of this process.

The majority of comments outside the scope of this process address BPA's fish and wildlife program. Many who provided these comments urged BPA to do more to further the recovery of listed fish under the Endangered Species Act, while others questioned whether the money being spent on the effort was a good use of ratepayer funds. Some comments addressed issues such as summer spill for migrating fish.

Fish and wildlife funding and operations are important issues. Funding levels are being addressed in BPA's upcoming Power Function Review and the memorandum of understanding between BPA and the Northwest Power and Conservation Council. Operations issues are being addressed through the new biological opinion that directs how the Federal hydro system will be operated to assist in the recovery of listed species.

Other comments addressed issues such as BPA's participation in discussions about Grid West and the importance of regional transmission adequacy. A limited number addressed BPA's internal operations, urging changes to BPA's governance and management structure. Another group of comments centered on BPA's unique government-to-government responsibilities relating to the region's tribal groups. Again, all of these comments are important but are outside the scope of this public process.

All comments within the scope of the present process have been reviewed and considered. Comments outside of the scope of this public process have been forwarded to the responsible BPA organization for review and consideration.

BPA'S REGIONAL DIALOGUE POLICY

The Policy is based on BPA's strategic direction that calls on BPA to advance its Pacific Northwest's future leadership in four core values:

1. High reliability;
2. Low rates consistent with sound business principles;
3. Responsible environmental stewardship; and,
4. Clear accountability to the Region.

As stated in Section I, the Policy reflects BPA's decisions to guide the agency's regional power marketing for FY 2007-2011. More specifically, the policy is intended to provide BPA's customers with greater clarity about their Federal power supply so they can plan effectively for the future and make capital investments in long-term electricity infrastructure if they so choose. It is also intended to provide guidance on certain rate matters BPA expects will be addressed in the next rate period, while assuring that the agency's long-term strategic goals and its long-term responsibilities to the region and the Federal taxpayer are aligned. Below is a summary of the Policy.

SUMMARY OF POLICY

For ease of reading, below is a brief summary of the Regional Dialogue Policy that is the basis for the ROD. Please be advised that, where there are differences in wording between this summary and the Policy document, the Policy is the official expression.

BPA's Near-Term Strategy

BPA's near-term strategy is intended to address certain issues that must be resolved for the next rate period that will begin on October 1, 2006.

- **FY 2007-2011 Rights to Lowest-Cost Priority Firm (PF) Rate.** BPA will apply the lowest-cost PF rates to public agency customers whose contracts contain that guarantee throughout the remaining term of the Subscription contracts.

- **Tiered Rates.** Though a tiered rates structure will very likely be needed in conjunction with new long-term contracts, BPA will exclude a tiered PF rate proposal from its FY 2007 initial rate case proposal. BPA has reached this conclusion for the following reasons: First, BPA expects that it will be in load and resource balance for at least the next 3-5 years and can be expected to meet its firm load obligations with little or no new resource purchases. Second, postponing rate tiering allows it to be done in conjunction with development of new contracts so that customers are clear on their rights to power at the lowest-cost rate as the tiered rate proposal is developed.

- **Term of the Next Rate Period.** BPA will set the next rate period for 3 years rather than the current 5 years. The shorter rate period should result in lower rate levels than would be the case if rates were set for a longer period. It will also facilitate a smoother transition to a different rate structure before 2011. BPA plans to conduct a separate rate case to ensure new rates are in place when new contracts take effect.

- **Service to Public Agency Customers with Expiring Five-Year Purchase Commitments that Do Not Contain Lowest PF Rate Guarantee through FY 2011.** Public customers whose contracts do not currently contain the guarantee of the lowest cost-based PF rates for FY 2007-2011 will receive the same rate treatment in FY 2007-2011 as customers whose contracts do contain this guarantee as long as the customers without the guarantee sign a new contract or contract amendment no later than June 30, 2005, that will extend the term of their existing contracts and commit them to purchase firm power in FY 2007-2011. Customers that do not meet the deadline and subsequently request service will not receive the lowest cost-based PF rate guarantee. Such customers will be able to purchase firm power under the PF rate but may be subject to an incremental resource rate or targeted adjustment charge. One customer has an on-ramp contract without the lowest-cost guarantee that will likely give it more, lowest-rate power than it would need to meet its recalculated net requirements. BPA's strong view is that limiting customers to the amount of lowest-cost power they actually need to meet their net requirements is most consistent with BPA's broader decision to limit its total sales at its lowest-cost rates. However, BPA has decided not to limit this customer to its recalculated net requirements because this is not consistent with the existing contract with that customer.

- **Service to New Public Agency Utilities.** As with 5-year contracts, qualifying newly formed public utilities that request service under Section 5(b)(1) of the Northwest Power Act, meet BPA's Standards for Service, and sign contracts by June 30, 2005, will also receive the lowest cost-based rate for the FY 2007-2011 period. Entities forming small public utilities that serve less than 10 aMW of retail load, up to 30 aMW in total, have an additional 6 months (until January 1, 2006) to form their utility and sign a contract to receive service at the PF rate without a targeted adjustment charge. Such new public utilities must take service by October 1, 2006. New public utilities that miss these deadlines will be subject to a targeted adjustment charge that BPA may propose during the next rate period.

- **Annexed Investor-Owned Utility (IOU) Loads.** Consistent with existing contract terms and conditions, in the FY 2007-2009 period, the increase in a public utility's load due to annexation of load that was previously residential or small-farm load served by an IOU will receive its prorated share of benefits through offsetting any incremental-cost charge or rate levied against the public utility up to the aMW amount of its prorated share of benefits during the rate period as if the annexed load had remained an IOU load. Such treatment will apply regardless of whether the annexing public agency customer is new or existing. For purposes of receiving firm power service at the lowest PF rate during the FY 2007–2009 period, a customer must complete its annexation and notify BPA of the annexed load amount by June 30, 2005. Power service for annexed IOU load requested after June 30, 2005, will be subject to a charge or rate similar to the current TAC charge, beginning in FY 2007.

- **Product Availability.** Any new public customer, or existing customer whose contract expires in FY 2006 that executes a new contract, may select from any of BPA's standard products except Complex Partial (Factoring), Block with Factoring, or Slice. For the following reasons, BPA will not offer contract amendments that would allow changes in the power products and services purchased by 10-year Subscription contract holders, including, but not limited to, changes that would increase the total Slice megawatts currently sold by BPA:
    - BPA hears clearly the strong desire of some customers to buy Slice or change Slice purchase amounts, but these customers will have to wait 2 years, not 5 years, for a new contract if the current schedule for new long-term contracts is met.
    - The effort required to negotiate changes in Slice amounts and purchasers would threaten achievement of the schedule for new long-term contracts in FY 2009, especially given that the opportunity to make changes to Slice purchases would have to be offered to all interested customers.
    - The original Slice decision and contract was for a 10-year term. It is premature to conclude that a different term is reasonable, especially in view of the fact that the first 3 years of experience with Slice have not been evaluated by the region.
    - The ongoing dispute over Slice true-up creates a significant risk of cost-shifts if more Slice is sold.

- **Service to Direct Service Industries (DSIs).** Although BPA has no statutory obligation to serve the DSIs, it recognizes that the DSIs have been an important part of the Pacific Northwest (PNW) economy for over 60 years. BPA has determined that it will provide eligible Pacific Northwest DSIs some level of Federal power service benefits, at a known quantity and capped cost, in the 2007-2011 period. Notwithstanding the difficult economics of Pacific Northwest aluminum smelting and the discretionary nature of BPA service to DSI load, BPA believes that the issue of sustaining DSI jobs is compelling. BPA is mindful of the important historic role DSIs have played as BPA customers and in the development of the Federal Columbia River Power System and the importance to local economies of the jobs they provide, which is BPA's primary consideration for any decision to continue to serve DSI load. BPA also recognizes there are rate impacts on other utilities and therefore effects on jobs in other industries associated with continuing to provide service benefits to the DSIs. While no final decision regarding the actual level of service benefits to be provided is being made at this time, it is anticipated that service will be at a substantially reduced level compared to the level contracted for in the current rate period. BPA wishes to further discuss the level of the DSI service benefit, and criteria for eligibility, with PNW regional interests before making final policies and decisions on those issues. After these further discussions, BPA will issue a supplemental policy on this topic.

- **Service to New Large Single Loads (NLSL).** BPA will continue to apply its prior interpretations of Section 3(13) of the Northwest Power Act that aggregates load of a single consumer "associated with a facility" and will not consider multiple contracts or suppliers as disaggregating large loads into 9.9 aMW increments. For most DSIs whose production load or contract demand exceeds 10 aMWs, if any portion of that load is served by the local utility with requirements power purchased from BPA, the load will be an NLSL and the applicable BPA wholesale rate will be a 7(f) rate and not the PF rate. This policy does not preclude BPA from selling surplus firm power consistent with Section 5(f) of the Northwest Power Act to utility customers at a Section 7(f) rate to serve former DSI load. If a consumer directly provides on-site cogeneration or a renewable resource to serve all or a portion of a load associated with a facility that is otherwise an NLSL and the remaining new load or load increase served by the local utility is reduced to 9.9 aMW or less, then that 9.9 aMW portion of the load on the utility will be served at the PF rate.

- **Service to Residential and Small-Farm Consumers of Investor-Owned Utilities (IOUs).** BPA recently signed agreements with all 6 regional IOUs that provide certainty in the amount and manner that benefits will be provided to their residential and small-farm consumers under their Subscription contracts. In the event a court sets aside the new agreements and amendments but leaves the underlying Subscription contracts in place, BPA is providing the IOUs a contingent notice that BPA will provide financial benefits, not power benefits, during FY 2007-2011 under those contracts. If the Subscription contracts are successfully challenged in court, the agency will follow the court's instructions in negotiating new contracts under the Northwest Power Act.

- **Conservation Resources.** BPA is relying on the current ongoing collaborative planning process to develop a fully defined proposal for conservation that can then be brought to the entire region for consideration. Development of the conservation program will be guided by the five principles proposed by BPA in July 2004, as amended.

- **Renewable Resources.** BPA will engage in an active and creative facilitation role with respect to renewable resource development. Although BPA will still consider acquisition as a viable facilitation option under the appropriate circumstances, the agency's primary focus will be to reduce the barriers and costs interested customers face in developing and acquiring renewables. BPA is establishing a management target to spend *up to* a net of $21 million per year to support its facilitation activities. The $21 million net expense is a measurement of the expected, added costs of our renewable program measured against avoided alternative long-run marginal power costs. The $21 million comprises the existing $15 million renewables fund and $6 million of annual renewables spending that is currently being accomplished through the Conservation and Renewables Discount program.

- **Controlling Costs and Consulting with BPA's Stakeholders.** For the term of existing contracts (through FY 2011), or until new contracts go into effect if that is earlier, BPA will continue to focus on non-contractual means that promote transparency under BPA's financial information disclosure policy, allow for public input on agency costs, and demonstrate management of those costs. BPA intends to take the following actions.
  1. Engage customers and non-customers in collaborative forums structured similarly to the Power Net Revenue Improvement Sounding Board and current Customer Collaborative.
  2. Continue to improve BPA's external financial reporting.
  3. Implement the BPA-wide business process improvement initiative begun in July 2004.
  4. In 2005, conduct an in-depth regional discussion regarding power function cost levels that will be used to set rates for the FY 2007-2009 rate period.

  BPA will consider additional actions to address cost control as part of the long-term regional dialogue policy to be decided in January 2006.

Long-Term Issues
BPA is establishing a long-term policy regarding its load obligations to set the stage for the second phase of the Regional Dialogue. BPA's policy is to limit its sales of firm power to its Pacific Northwest preference customers' firm requirements loads at its lowest-cost rates to approximately the firm capability of the existing Federal system. We anticipate implementing this policy decision through new long-term contracts and rates to be implemented as early as October 2008. The Regional Dialogue ROD includes a schedule to develop the long-term policies by January 2006, and offer new long-term contracts by December 2006.

I. An Integrated Strategy for FY 2007-2011

I. A. FY 2007-2011 Rights to Lowest-Cost Priority Firm (PF) Rate

Issue 1:
Should BPA apply the lowest cost-based PF rates contract guarantee throughout the remaining term of the Subscription power sales contracts?

Regional Dialogue Policy Proposal:
The Regional Dialogue Policy Proposal states,

> Most current 10-year Subscription contracts with public utility customers contain a guarantee that BPA will apply the lowest cost-based PF rates throughout the remaining term of the Subscription power sales contracts. Three 5-year contracts also contain this 10-year guarantee.
>
> Upon review, BPA believes this contractual guarantee is clear. Accordingly, even if BPA were to adopt a tiered rate design during the term of the existing contracts, BPA

would not apply a higher-priced PF Tier 2 rate to the purchases of customers whose contracts contain the rate guarantee during the term of the contract.

Public Comments:
Only a few comments were received on whether BPA should apply the lowest cost-based PF rates throughout the remaining term of the Subscription power sales contracts. All of the commenters who addressed this issue expressed support for BPA's recommendation. (Inland, RD04-0028; NWasco, RD04-0042; Benton REA, RD04-0046; Glacier, RD04-0064; NRU, RD04-0073; ICNU, RD04-0093; Tacoma, RD04-0103; WPAG, RD04-0105; EWEB, RD04-0127; Cowlitz, RD04-0128.)

Evaluation and Decision:
Comment received on this part of the proposal was supportive of BPA's policy proposal. As the proposal states, the contractual guarantee to the lowest cost-based PF rates is clear; therefore, BPA will apply the lowest cost-based PF rates guarantee throughout the remaining term of the Subscription power sales contracts.

I. B. Tiered Rates

Issue 1:
Should BPA propose a tiered rate construct for the post-2006 rate period?

Regional Dialogue Policy Proposal:
The Regional Dialogue Policy Proposal states "BPA believes tiered rates in combination with new contracts are a necessary part of the long-term solution to limit BPA's sales at embedded costs for Pacific Northwest firm requirements loads to the existing system. However, BPA also believes it is not critical to implement tiered rates in FY 2007, because BPA loads and resources are roughly in balance for the FY 2007-2011 period. Accordingly, BPA proposes to exclude tiered rates in its FY 2007 initial rate proposal. Instead, BPA proposes to explore tiered rates as part of an integrated long-term contract and rate solution that would implement the proposed long-term policy of limiting BPA sales at embedded cost for Pacific Northwest firm requirements loads."

Public Comments:
Nearly all commenters agreed that BPA should not implement tiered rates in the rate period that will start in FY 2007 and that tiered rates should be explored as an important tool in the longer term to achieve clarity about the division of load obligation between BPA and its customers. (E.g., Inland, RD04-0028; NWasco, RD04-0042; Central Lincoln, RD04-0057; NRU, RD04-0073; ICNU, RD04-0093; Tacoma, RD04-0103; Snohomish, RD04-0104; WPAG, RD04-0105; SUB, RD04-0106; PPC, RD04-0109; NWEC, RD04-0110; PNGC, RD04-0114; Seattle, RD04-0115; EWEB, RD04-0127; Cowlitz, RD04-0128; PNW SUC, RD04-0133.)

Clatskanie PUD and the Pacific Northwest IOUs commented that BPA should not delay development of a long-term price methodology for service to incremental loads at the cost of new resources to serve those loads. The IOUs go on to state: "In the absence of such a rate methodology there is a significant likelihood that BPA will be exposed to the costs and risks of serving a significant amount of new load at a melded rate. In addition, the absence of such a rate methodology will not provide BPA's customers with adequate incentives to conserve or seek power from alternative sources. BPA's customers need planning clarity in order to develop new resources needed to meet load growth over the next 5 to 20 years." (PNW IOUs, RD04-0107; Clatskanie, RD04-112.)

Both the Umatilla Tribes and the Tulalip Tribes expressed concern that, in the long run, tiered rates could work against new public utilities like tribal utilities. (Tulalip, RD04-0032; Umatilla, RD04-0130.)

Evaluation and Decision:
Comment on this issue focused on important aspects of, and need for, tiered rates. BPA's evaluation of this issue is guided by the strategic direction that BPA's lowest firm power rates reflect the cost of the undiluted Federal Base System (FBS). With that in mind, BPA expects that it will be in a load and resource balance for at least the next 3-5 years and can be expected to meet its firm load obligations with little or no new resource purchases. Consequently, BPA agrees with the majority of comments that expressed the view that tiered rates will not be needed when it establishes its next wholesale firm power rates to be effective in FY 2007. Looking ahead, BPA also agrees with the point made by the IOUs and Clatskanie that a long-term price methodology is needed. Indeed, BPA intends to thoroughly explore the use of a tiered rates mechanism as it applies to future power service. In addition, postponing rate tiering allows it to be done in conjunction with development of new contracts so that customers are clear on their rights to power at the lowest-cost rate as the tiered rate proposal is developed. Therefore, BPA will exclude from its FY 2007 initial rate proposal a tiered PF rate applicable to firm power sold to meet the net firm power load requirements of public agency customers. Tiered rates will be considered as part of an integrated long-term contract and rate solution that will implement the long-term Regional Dialogue policy of limiting BPA sales at the lowest cost based rates for Pacific Northwest firm requirements loads.

I. C. Term of the Next Rate Period

Issue 1:
Should the next wholesale firm power rate period be 2 or 3 years (establish power rates for 2 years [October 2006-September 2008] or for 3 years [October 2006-September 2009])?

Regional Dialogue Policy Proposal:
The Regional Dialogue Policy Proposal states that BPA is proposing to limit the next rate period to either 2 or 3 years.

Public Comments:
Of the 28 comments BPA received on this question, only one disagreed with BPA's proposal to set rates for a period shorter than 5 years. Benton REA disagreed with a proposal to shorten the rate period from 5 years by stating its concern that shorter rates periods not be used "if the reason is simply to reduce BPA's risk exposure, and provide more frequent rate

increases to pass the uncontrolled costs on to the northwest ratepayers." (Benton REA, RD04-0046)

Six comments supported a shorter (i.e., less than 5-year rate period), but did not express a preference for either a 2- or 3-year rate period. These commenters thought the shorter rate period would promote greater rate stability for customers by reducing risks due to more certainty with respect to BPA's costs and revenues and minimize or eliminate the use of CRACs. (Central Lincoln, RD04-0057; EWEB, RD04-0127; Idaho Falls, RD04-0023; IERP, RD04-0020; NRU, RD04-0053; Snohomish, RD04-0104.)

Eleven comments expressed preference for 2-year rate periods (as opposed to a 3-year rate period). Generally, these commenters cited reasons similar to those above (greater rate stability, reducing risks). Some commenters expressed a preference for a 2-year rate period, without additional reasons given. (Benton PUD, RD04-0068; Cowlitz, RD04-0128; Whatcom, RD04-0136.) Others suggested that a 2-year rate period would encourage BPA to focus efforts on cost control and cost reductions. (Franklin, RD04-0108; PRM, RD04-0043.) Others commented that 2-year rates allows "ample time" to complete the long-term Regional Dialogue schedule while providing a reasonable deadline for completing the contracting process. (ICNU, RD04-0093; PNGC, RD04-0114.) Tacoma supports 2-year rates to provide a near-term opportunity to implement the long-term contract allocation of the Federal system output and costs at the earliest feasible date. (Tacoma, RD04-0103.) Tacoma also commented that it would support a 3-year rate period if rate certainty can be maintained and BPA's need for planned net revenues for risk can be eliminated over the FY 2007–2009 period. WPAG expressed preference for a 2-year rate period because of an expectation of a lower rate since a financial cushion for uncertainty in the third year would not be necessary. In addition, the shorter rate period will "force" the region to stay "on task" and focused on a long-term allocation, which increases the likelihood of success in this area. (WPAG, RD04-0105.)

PPC suggested that a 2-year rate period would maximize rate relief "even if" it means having power and transmission rate cases at different times. (PPC, RD04-0109.) Springfield supports a 2-year rate period because of the expected lower rate (than a 3-year rate period) and because it prefers to not have power and transmission rate cases occur at the same time. (SUB, RD04-0106.)

Ten comments expressed a preference for a 3-year rate period. These commenters expressed a desire for a 3-year rate period as opposed to a 5-year rate period because of the expectation that it will result in lower rates. One of the main reasons given to support a 3-year rate period, compared to a 2-year rate period, was a preference to have power and transmission rate cases on the same schedule. (CRPUD, RD04-0031; Glacier, RD04-0064; NRU, RD04-0073; NWEC, RD04-0110; Orcas, RD04-0034.) The other main reason given to support a 3-year rate period was the belief that the negotiations for the new long-term contracts will take that long and that the rate case to implement the new contracts will be fairly complicated. (CRPUD, RD04-0031; Glacier, RD04-0064; NRU, RD04-0073; NWEC, RD04-0110; WA Dept Trade, RD04-0072; PNW SUC, RD04-0133.) PRM also verbally expressed a preference for a 3-year rate period. (PRM, RD04-0019.)

Northern Wasco also supported a 3-year rate period, though not strongly. (NWasco, RD04-0042). Finally, the City of Sumas also supports a 3-year rate period to lessen the administrative burden both for BPA and for Sumas. (Sumas, RD04-0132.)

Two comments were made regarding BPA's rate-making process. ICNU urged BPA to work with its customers to improve BPA's rate-making process. (ICNU, RD04-0093.) PPC noted that it would like to work with BPA in streamlining the rate case procedures and schedule. (PPC, RD04-0109.)

Evaluation and Decision:
BPA appreciates the views expressed on this matter and has decided that it will propose rates to recover costs over a 3-year rate period (FY 2007–2009). In general, either a 2-year or a 3-year rate period will result in lower rates than a 5-year rate period. Some commenters thought that a 2-year rate period would mean lower rates, but under some circumstances, for example if there are low starting reserve levels, a 3-year rate could actually be lower than a 2-year rate. Only one comment expressed support for continuation of 5-year rates. While the concern raised about long-term cost control is addressed in this ROD, other concerns about rate levels and whether BPA utilizes cost recovery adjustment clauses are properly resolved in the formal 7(i) rate setting process. Adjustments to BPA rates due to changes in BPA risks have been part of the current rate CRAC mechanisms and meeting risks or changes in risks is a necessary part of BPA meeting its statutory obligation to recover its costs. A shorter rate period may lessen the need for interim rate adjustment mechanisms during the period.

BPA believes that a 3-year rate period will allow the power and transmission rate cases to come to a common schedule at the earliest point possible. There are several advantages to having concurrent transmission and power rate cases, including the ability to have a single concurrent look with respect to financial and risk policies between the business lines and for pricing of generation inputs between the business lines.

Notwithstanding the above policy decision, BPA is committed to meeting the schedule for developing new long-term power contracts shown in Section II.B. This schedule allows for new contracts to go into effect as early as October 1, 2008, 1 year before the 3-year rate period ends. BPA plans to conduct a separate rate case to ensure new rates are in place when new contracts take affect. Depending on decisions yet to be made, this could result in BPA offering two sets of rates through 2011 (one for Subscription contract holders and one for Regional Dialogue contract holders).

The comments BPA received on the issue of the term of the rate period were fairly unanimous in expressing a desire that BPA promote stable rates through cost control and reduction of rate adjustment mechanisms such as CRACs. As mentioned above, rate levels, level of planned net revenues for risk, and other rate design features such as whether BPA utilizes cost recovery adjustment clauses are issues to be resolved in the formal 7(i) process to set power rates. BPA expects the next 7(i) rate proceeding to begin in September 2005.

BPA will consider the comments about streamlining or improving the rate case process. However, any changes to BPA's existing procedures governing Section 7(i) rate hearings would need to be made in a separate formal public process.

I. D. Service to Publics with Expiring Five-Year Purchase Commitments that Do Not Contain Lowest PF Rate Guarantee through FY 2011

Issue 1:
Should BPA adopt its policy proposal to offer all of the public customers with expiring 5-year contracts that do not contain the lowest PF rate guarantee an amendment to extend the term of their existing contracts through September 30, 2011, and offer an amendment to customers with PF off-ramps and on-ramp contract options to allow them an early opportunity to cancel or exercise such options?

Regional Dialogue Policy Proposal:
BPA proposed to offer an amendment to all of the public customers with expiring 5-year contracts that do not contain the lowest PF rate guarantee to extend the term of their existing power products and services contracts through September 30, 2011, and to offer an amendment to customers with PF off-ramps and on-ramp contract options to allow them an early opportunity to cancel such options, which would make their contracts consistent with all of the other 10-year Subscription contracts. The amendment would include language providing the same guarantee of the lowest-cost PF rates (except for New Large Single Loads (NLSL) as other public agency customers have. The guarantee of lowest cost-based PF rates would also be extended to the United States Navy. BPA would calculate the net requirements of those customers, reflect the amount where appropriate in the contract amendment, and provide service for the returning off-ramp or on-ramp load based on the results of the net requirements calculation.

The proposal included the following components: customers must accept BPA's offer within a specified window of time lasting 60 to 90 days and closing no later than June 30, 2005, and BPA would calculate each customer's net requirements and limit post-2006 service at the lowest PF rate to the calculated net requirements. Customers that do not accept BPA's offer during the prescribed time would be subject to a proposed Targeted Adjustment Charge (TAC) or its successor in BPA's next rate case.

Public Comment:
Comment received on this issue was, for the most part, supportive of the policy proposal. (Wells, RD04-0029; CRPUD, RD04-0031; Orcas, RD04-0034; NWasco, RD04-0042; Benton REA, RD04-0046; Canby, RD04-0047; Flathead, RD04-0048; NRU, RD04-0053; Central Lincoln, RD04-0057; Alcoa, RD04-0067; Benton PUD, RD04-0068; NRU, RD04-0073; Glacier, RD04-0076; Flathead, RD04-0076; WMG&T, RD04-0076; CFAC, RD04-0076; Flathead Board, RD04-0076; WMG&T, RD04-0092; ICNU, RD04-0093; Lincoln Electric, RD04-0100; SUB, RD04-0106; Franklin, RD04-0108; PPC, RD04-0109; CFAC, RD04-0111; Clatskanie, RD04-0112; PNGC, RD04-0114; EWEB, RD04-0127; Cowlitz, RD04-0128; Sumas, RD04-0132; Whatcom, RD04-0136; Hermiston, RD04-0140.) Northern Wasco PUD specifically voiced support for offering the United States Navy the lowest-cost

PF rates to cover its purchase obligations to BPA through FY 2011. (NWasco, RD04-0042.) Alcoa and ICNU commented that BPA should offer the lowest-cost PF rates to all affected customers with expiring 5-year purchase commitments. (Alcoa, RD04-0067; ICNU, RD04-0093.) Tacoma Power stated it could support the policy proposal only to the extent that BPA agreed to refund the total charges and costs to the customers who committed to agreements containing the Stepped-Up Multi-Year (SUMY) load growth products during the FY 2002-2006 period. (Tacoma, RD04-0103; Snohomish, RD04-0153.) PNGC supports aligning the 5- and 10-year customers provided doing so does not result in substantial financial impacts to BPA's other customers. (PNGC, RD04-0114.) Snohomish commented that it generally agrees with the proposal for both customers with expiring contracts or that have on/off ramp provisions because it puts all preference customers on an equal footing for an additional 5 years and allows the region to focus on the many longer-term issues that must be resolved. (Snohomish, RD04-0153.)

Several comments expressed opposition to not allowing customers to select new products, including Slice, after the 5-year contracts expire. (Emerald, RD04-0013; PRM, RD04-0019; Emerald, RD04-0020; NWasco, RD04-0042; PRM, RD04-0043; Emerald, RD04-0071; NRU, RD04-0073; Snohomish, RD04-0104; Franklin, RD04-0108; PPC, RD04-0109; Clatskanie, RD04-0112; PNGC, RD04-0114.) A few commenters urged BPA to cancel the off-ramps early or set the Block purchase early for the customers with options associated with their 10-year contracts. (Alcoa, RD04-0067; ICNU, RD04-0093.) Western Montana G&T agreed with BPA's proposal. (WMG&T, RD04-0092.)

Springfield commented that, as long as product switching is not allowed for all customers and any DSI benefits are small, Springfield agrees with BPA's proposal. (SUB, RD04-0158.)

Many commenters specifically said a net requirement determination should be a condition of offering customers the lowest-cost PF rates. (NRU, RD04-0073; CRPUD, RD04-0031; Benton REA, RD04-0046; NWasco, RD04-0042; Orcas, RD04-0034; Flathead, RD04-0048.) Western Montana G&T (WMG&T) commented that a net requirements determination should be done to ensure that the net load of each utility is at least as large as the amount of power BPA proposes to sell. If a utility wishes to purchase an amount of power greater than its load, that utility should pay a Targeted Adjustment Clause or market-based rate as opposed to the lowest-cost PF rate. (WMG&T, RD04-0092) WMG&T suggested that BPA take the opportunity to develop a process for making net requirements determinations, that are legally defensible, transparent and not onerous. Id.

Tacoma remarked that BPA should be able to manage the load of the 5-year customers without recalculating their net requirements or applying a TAC, given the relatively modest amount of load associated with these customers. (Tacoma, RD04-0152.) Snohomish commented that, while there are other preference customers with power purchase contracts that expire on the same date as Snohomish's, unlike Snohomish, they are full requirements customers and BPA will serve their entire loads at the PF rate irrespective of any net requirements determination. (Snohomish, RD04-0066.) Whatcom commented that extending the contracts but not at the lowest PF rate would constitute implementation of tiered rates, which BPA has proposed not to do. (Whatcom, RD04-0146.) WPAG commented that Snohomish would end up the sole target of a TAC and would shoulder the bulk of the cost of augmentation for the entire BPA system. (WPAG, RD04-0150.) WPAG commented that submitting customers to a net requirement calculation and imposing a TAC in the event that they do not comply with the requirement to calculate the net requirement will not solve any existing problems; it will only serve to create new controversies. Id.

Snohomish and WPAG proposed that Snohomish commit to purchase its FY 2007-2011 Block from BPA in the annual and monthly shapes outlined in the existing contract. (Snohomish, RD04-0153; WPAG, RD04-0150.) In exchange for the commitment, BPA would serve the Block at the same PF rate as charged to other Block/Slice purchasers without a TAC and without imposing an additional net requirements determination. (Snohomish, RD04-0153.)

Washington Congressman Rick Larsen remarked that Snohomish will be negatively impacted if it is not allowed to buy a Block identical to its FY 2002-2006 Block at the same or similar rate paid by other public utilities. (Larsen, RD04-0172.) He urged BPA to delay its decision on the rate at which to serve Snohomish's FY 2007-2011 Block to give Snohomish and Alcoa time to continue to collaborate on this matter and the DSI service issue. Id.

With regard to calculating net requirements, Snohomish commented that BPA would be treating it differently from other customers by requiring that either Snohomish submit to a new net requirements determination or be subject to a TAC for its existing Block commitment even though Snohomish has a contractual right to extend that commitment. (Snohomish, RD04-0104.) Snohomish commented that it is the only Slice/Block purchaser being subjected to either a new net requirements determination or application of the TAC. (Snohomish, RD04-0153.) Snohomish stated that neither of these actions was contemplated in its power purchase agreement and both are inappropriate. Id.

WPAG commented that using a new net requirement determination to define the amount of power these customers may buy at the lowest cost-based rates in the FY 2007-2011 period is not required by statute or contract and will not change BPA's service obligation since all but one of these customers are full service customers of BPA. (WPAG, RD04-0105.) WPAG added that, since BPA's policy proposal indicates that it expects to be in load/resource balance through FY 2011, these net requirement determinations are not needed for load/resource balance purposes. Id. WPAG further opined that, because Snohomish had lost load in the past but was facing recovery, now would be "a very inopportune time" to subject the utility to a net requirement calculation. Id.

PNGC commented that BPA should apply the lowest PF rate to the Block purchase of the Slice/Block customer in the 5-year group without imposing a net requirement calculation so long as that customer does not seek an increase in its Block product from what it purchased from 2002-2006. (PNGC, RD04-0159.)

Finally, Springfield Utility Board (Springfield) expressed the view that the proposed 60- to 90-day window is too generous. (SUB, RD04-0158.) As long as BPA limits service to new publics in the manner specified in the July Regional Dialogue Policy proposal, Springfield would support the BPA policy proposal regarding the acceptance window. Id. Snohomish agreed that there needs to be certainty around the load placed on BPA in the FY 2006-2011 period. (Snohomish, RD04-0153) Snohomish commented that it has already given notice to BPA of its intent to extend its current Block purchase amount over 2 years in advance of when contractually required. Id.

Evaluation and Decision:
The comments received on this issue were generally supportive. Some commenters expressed conditional support. For example, Tacoma commented that it would support the proposal only if BPA agreed to refund Tacoma's past Stepped-Up Multi-Year (SUMY) charges paid to BPA pursuant to the WP-02 firm power rates. BPA is cognizant of Tacoma's desire for a refund on its SUMY charge as Tacoma is currently challenging the SUMY charge in the U.S. Court of Appeals for the Ninth Circuit. However, BPA is not persuaded that it is necessary to reach an accord with Tacoma on its SUMY challenge in this policy proceeding.

PNGC expressed concern that there should be no economic impact on BPA's other customers resulting from an extension in the terms of the 5-year contracts. BPA shares PNGC's concern and the rate treatment proposed will be designed to address that concern. Current 5-year contract customers that meet all aspects of the proposal and who obtain the lowest-cost PF rate guarantee will be assured the same rate treatment as existing 10-year contract customers. Cost of service to all of these customers will be included in the lowest-cost PF rate established in the next power rate case. Customers that do not meet all aspects of BPA's offer will not receive the rate guarantee and consequently may be subject to rates and/or charges that recover the costs incurred by BPA to serve them, such as the TAC. A TAC or its successor will reflect the cost and risk entailed in delayed certainty about the size of BPA's purchase obligations for the rate period starting in FY 2007.

BPA received comment that expressed a general opposition to imposing any other rate than the lowest-cost PF rate. For example, Whatcom commented that extending a contract but not applying the lowest PF rate would result in implementation of tiered rates. To clarify, BPA is not proposing to tier the PF rate applicable to the firm power load requirements of public agency customers in the next rate period.

BPA believes that its decision not to perform a net requirements calculation, explained below, will ameliorate much of the concern expressed by Snohomish, WPAG, Congressman Larsen, and others. At the same time, however, BPA believes it is reasonable to seek load certainty and to establish a timeframe during which BPA can determine the amount of load BPA is obligated to serve. In its comments, Snohomish agreed that there needs to be certainty around the load placed on BPA in the FY 2006-2011 period. (Snohomish, RD04-0153)

A few customers commented that BPA should allow 5-year contract customers to select new or different products and services. (Emerald, RD04-0013; PRM, RD04-0019; Emerald, RD04-0020; NWasco, RD04-0042; PRM, RD04-0043; Emerald, RD04-0071; NRU, RD04-

0073; Snohomish, RD04-0104; Franklin, RD04-0108; PPC, RD04-0109; Clatskanie, RD04-0112; PNGC, RD04-0114.) Other comments stated that BPA should cancel the off-ramps early or set the Block purchase early for the customers with options associated with their 10-year contracts. (Alcoa, RD04-0067; ICNU, RD04-0093.) In response to the comments concerning new or different products and services, within the prescribed window a customer with a contract expiring September 30, 2006, can choose a new contract instead of simply amending the term of its existing contract. BPA notes that there are only six customers that fall into this category. Customers within this category that choose to execute a new contract are allowed to select from among the offered core Subscription products, as described in Section I.F. Availability of any BPA product to be offered and purchased under a new contract, of course, depends on the requesting customer's ability to meet required terms and operate under the selected product. As long as the request for a new contract is made within the window, BPA will include the lowest PF rate guarantee language in the new contract. Finally, in response to the comments received that BPA should cancel the off-ramps early or set the Block purchase early for the customers with options associated with their 10-year contracts, BPA cannot take a unilateral action to cancel customer rights to exercise on- or off-ramp options. BPA's proposal is intended to require customers with options to make their decisions within the prescribed window for purposes of giving BPA load certainty. BPA assumes that this will set the Block purchase amount early.

BPA received a number of comments on its proposal to recalculate the firm power load net requirements of each 5-year contract public agency customer and customers exercising PF on- and off-ramp options. Comment received on this proposal expressed two points of view. One is that a net requirements calculation is necessary and should be done as a condition of receiving the lowest-cost PF rate guarantee. (WMG&T, RD04-0092.) The second is that a net requirements calculation is not necessary because all the affected customers, except for one, are full requirements customers whose loads will be served regardless of the net requirements calculation. (Snohomish, RD04-0153.)

As a condition of offering the lowest cost-based PF rates guarantee to public agency customers currently without it, BPA noted in its July 2004 Regional Dialogue proposal that it would calculate the net requirement of customers seeking the guarantee and provide service for the returning off-ramp or on-ramp load based on the results of the net requirements calculation. BPA continues to believe that limiting each customer's BPA firm power purchases to the amount it actually need to meet its net requirements is most consistent with the customer-supported policy of limiting BPA's power sales at lowest-cost rates to the existing system. However, for a number of reasons, BPA does not believe that it is necessary to calculate the net requirements of the affected customers with 5-year purchase commitments outside of the provisions of their existing contracts and has not included this requirement in the final Regional Dialogue Policy. First, BPA is mindful that its current policy on determining net requirements (the 5(b)/9(c) Policy) requires that BPA determine the net requirements of a customer when determining the amount of Federal power for sale under Section 5(b)(1) of the Northwest Power Act. In response to WMG&T's comment about the defensibility of BPA's policy on determining net requirements, the policy was adopted in May 2000 and litigation over the policy was settled. It is currently in effect and provides BPA and its customers guidance on how BPA determines net requirements.

However, BPA will consider methods to improve the transparency of net requirements calculations in the future as suggested by WMG&T. BPA's power sales contracts with its customers require BPA to annually calculate the net requirements load of its customer consistent with the contract and its 5(b)/9(c) Policy. For a 5-year public agency customer that requests a new contract instead of extending the term of its existing contract, BPA will follow its 5(b)/9(c) Policy and offer power to serve the net firm power load requirements of the requesting customer.

Secondly, Snohomish points out that, unlike the other customers who receive full requirements service, Snohomish has a contract for Slice/Block service. Snohomish states that BPA will serve the full requirements customers' entire loads at the PF rate irrespective of any net requirements. We disagree with Snohomish's characterization that the load BPA is obligated to serve is irrespective of the net requirement calculation, but BPA acknowledges for the full service customers that it will serve their actual net requirement loads and no more. It is correct that the applicable rate for firm power service is the PF rate. Because the type of service is full requirements, the power BPA provides these customers is for their actual firm load hour by hour, and BPA is obligated to meet these customers' actual load requirement, whatever it is. Third, as Snohomish points out, Snohomish's Slice service is for 10 years and its block service is for 5 years with a contract right to continue purchasing the same amount of its Block for an additional 5 years. Consistent with the 5(b)/9(c) Policy and under the terms of its Slice/Block contract, Snohomish is already subject to BPA's annual net requirement calculations. Snohomish's contract allows Snohomish to make certain adjustments to its non-Federal resources serving its load on an annual basis, which may affect its net firm power load requirements under the contract.

Springfield commented that a 60- to 90-day window is too generous and that the window should be the same for new publics and expiring 5-year contracts. BPA does not agree that the window is too generous. Snohomish expressed agreement in the need for load certainty. BPA acknowledges receipt of Snohomish's notice to continue purchasing under its firm Block power contract. Public agency customers will have a 60- to 90-day period, specified by BPA, in which to accept BPA's offer. This period will close June 30, 2005. Based on BPA's experience with its customers, it is reasonable to afford public utilities adequate time to ensure necessary board decisions and approvals are made. Board meetings generally only occur once a month. A 60- to 90-day period should provide public agency customers adequate time to make decisions regarding BPA's offer. Finally, as addressed in Section I.E, new public agency utilities will be subject to the same window, except for a limited 30 aMW exception for new small public agency utilities.

After consideration of the above comments, BPA will offer all of the public customers with expiring 5-year contracts that do not contain the lowest-cost PF rate guarantee (1) an amendment to extend the term of their existing power products and services contracts through September 30, 2011, or (2) a new contract, in accordance with Section I.F., Product Availability. BPA will offer an amendment to customers with PF off-ramp contract options to allow them an early opportunity to cancel such options. BPA will offer an amendment to the customer with the PF on-ramp contract option to allow it an early opportunity to exercise its option. The amendments will make the affected customers' contracts consistent with the other 10-year Subscription contracts. The amendments will include language providing the same guarantee of the lowest-cost PF rates (except for New Large Single Loads (NLSL)) as other public agency customers have. The guarantee of lowest cost-based PF rates will also be extended to the United States Navy.

I.E. Service to New Publics and Annexed Investor-Owned Utility (IOU) Loads

Issue 1:
Should BPA provide flexibility regarding the date by which actions need to be completed by potential new public agency utilities to receive power at the lowest PF rate?

Regional Dialogue Policy Proposal:
For purposes of the FY 2007-2009 period, BPA proposed that, to receive power at the lowest-cost PF rate, new public agency customers need to request firm power service under Section 5(b) of the Northwest Power Act and meet BPA's standards for service. If the criteria were met, the customer would be eligible for rate treatment comparable to other BPA public agency utility customers. Conversely, BPA proposed that new public agency utilities that met BPA's standards for service and requested firm power service from BPA after June 30, 2005, would be served at the PF rate plus a charge or rate that covered any incremental cost incurred by BPA to serve the new public agency load. The charge would be similar to the current Targeted Adjustment Charge (TAC) and would be applicable for the rate period that begins in FY 2007. Long-term applicability of a PF plus incremental cost-based rate to such new public agency utilities will be part of subsequent long-term Regional Dialogue discussions and future rate cases.

Public Comments:
While the majority of the comments supported BPA's proposed policy, there were comments that recommended alternatives: the Montana Public Power Authority, Nez Perce Tribal Executive Committee Confederated Tribes of the Umatilla, ATNI, Umpqua Indian Cooperative, and Oregon Department of Energy commented that the proposal's June 30, 2005, date was unnecessarily restrictive and recommended extending the date. (MTPPA, RD04-0059; MTPPA, RD04-0165; Nez Perce, RD04-0138; Umatilla Tribes, RD04-0156; ATNI, RD04-0033; ATNI, RD04-0160; UIUC, RD04-0039; ODOE, RD04-0102.) The Tulalip Tribes recommended that BPA set aside an amount of power specifically for Tribes. (Tulalip, RD04-0032.) Some parties supportive of the June 30, 2005, date additionally recommended a megawatt cap for service to new publics for the FY 2007-2009 period. (PNGC, RD04-0114; ICNU, RD04-0093; ORECA, RD04-0005.) Montana Public Service Commissioner Tom Schneider expressed concern about the June 30, 2005, deadline and suggested a 75 MW or higher set aside instead. (MPSC, RD04-0166.) Kootenai Electric Cooperative encouraged BPA to provide service to new publics without restriction. (Kootenai Electric, RD04-0141.) Mason County PUD No. 3 and Springfield supported the original policy proposal without change. (Mason 3, RD04-0151; SUB, RD04-158) The IOUs supported the June 30, 2005, deadline for up to 75 MW of new public agency load. (PNW IOUs, RD04-0157.) Montana Public Power Authority requested that BPA confirm that a public body would qualify as a preference customer even if a portion of its service territory lies outside the service area of BPA. (MTPPA, RD04-0059.)

Evaluation and Decision:
Most comment expressed support for BPA's proposal; however, several comments expressed concern over the June 30, 2005, date for service to new public agency load at the lowest-cost PF rate. BPA observes that these comments were made by entities that are either currently taking steps to form a utility that will likely qualify for preference or desire to do so in the future. BPA understands the difficulties that may be encountered by entities pursuing legal formation, qualifying for preference, and taking power delivery. Moreover, BPA recognizes the value of the views expressed on this matter and acknowledges this is a very aggressive schedule. BPA is mindful that such entities need the maximum time possible to legally form, qualify for preference, and begin taking power delivery. BPA also recognizes that its need for reasonably early load certainty is not materially impaired if new public entities with a very limited amount load have a later deadline for formation.

Given the above concerns, entities forming small public utilities that serve less than 10 aMW of retail load, up to 30 aMW in total, must form their utility, request service under Section 5(b) of the Northwest Power Act, meet BPA's standards for service criteria, and sign a contract prior to January 1, 2006, to receive service at the PF rate without a targeted adjustment charge. BPA believes this is a reasonable amount of additional time given that formation of new publics has been an issue of wide regional interest for some time. In particular, since 1998 BPA has provided Tribes notice and opportunity to form tribal utilities eligible to receive firm power service at the PF rate. Indeed, many of the entities interested in forming new public utilities have been considering and studying the feasibility of doing so long before BPA made its Regional Dialogue proposal. See Power Subscription Strategy, Administrator's Record of Decision at 22; Power Subscription Strategy, Administrator's Supplemental Record of Decision at 4-6.

Having load certainty by January 1, 2006, provides BPA a basis upon which to establish the rates for service to such known and identified load, hence reducing the cost exposure and risk in serving an entity that is not yet a customer even after a reasonable period of time has passed. Maintaining a date certain limits BPA's risk associated with new public customer loads by assuring loads to be served at the lowest PF rate are known before rate case decisions are made. An entity that forms a new public utility that begins purchasing firm power prior to either June 30, 2005, or January 1, 2006, is subject to BPA's current effective rate schedules and would subject to the applicable TAC until the next rate period.

The Montana Public Power Authority asked whether a public body would qualify as a preference customer even if a portion of its service territory lies outside the BPA service area. While BPA does not presently serve such a public body, BPA would supply firm power under Section 5(b) of the Northwest Power Act to such a public body utility based only on the firm retail consumer load within the Pacific Northwest region, as defined under Section 3(14) of the Northwest Power Act, that is BPA's marketing area. Given that the Montana Public Power Authority is situated in the State of Montana, there exists the possibility that, upon a future redistribution of the Hungry Horse Reservation, additional power could be made available to such a new public body customer. Hungry Horse

Reservation power may be used to supply the retail firm power loads of customers east of the Continental Divide. Presently, the Hungry Horse Reservation is fully sold through 2011.

Issue 2:
Should BPA continue to treat annexed load as it does today under existing contract terms and conditions with its customers?

Regional Dialogue Policy Proposal:
To the extent an existing public agency utility requests firm power service for load that is annexed from an IOU, BPA proposed that the residential and small-farm load proportion receiving residential exchange benefits through the IOU will offset any applicable incremental cost charge, such as a targeted adjustment clause (TAC), in an amount equal to its proportionate share of benefits received from the IOU. BPA will continue to treat such annexed load as it does today under existing contract terms and conditions with its customers.

Public Comments:
The Northwest Energy Coalition asked for clarification that exchange benefits would be made available to both annexed loads and new public agency customers if the loads came from an IOU. (NWEC, RD04-0110.) Benton REA suggested that BPA not provide exchange benefits to a new public agency customer or annexed load. (Benton REA, RD04-0046.) BPA received other suggestions on how it should treat inter-public utility annexations in the longer term (i.e., beyond the conclusion of the next rate period).

Evaluation and Decision:
Contrary to Benton's suggestion, BPA's currently effective rates address the provision of exchange benefits to IOUs. If an IOU loses a portion of its underlying residential and small-farm load due to annexation by a public agency customer, it no longer has the right to continue receiving benefits for that portion of its load. Because IOUs receive power and/or financial benefits, BPA decided to apply such benefits as an offset to an otherwise applicable incremental-cost charge or rate such as a TAC. BPA's rate treatment of IOU loads annexed by a public agency customer is addressed in BPA's WP-02 general rate schedule provisions (GRSPs). The TAC provides:

> Where a public agency customer annexes residential and small-farm load previously served by an IOU and such load was receiving BPA power or financial benefits through Subscription, the public agency customer will receive by assignment through BPA the right to the IOU's power and/or financial benefits applicable to the annexed load. BPA will deliver an amount of firm power to the annexing public agency customer at the PF-02 rate equal to the amount of benefit (power and/or financial) assigned by the IOU to BPA. Power provided by BPA to the public agency customer to meet the remaining annexed load not covered by the benefits assigned from the IOU will be subject to the TAC. WP-02, GRSPs at 136.

BPA did not propose that it would change how it deals with these benefits in the next rate period. In the FY 2007-2009 period, public agency customers requesting firm power service for load that is annexed from an IOU and which contains residential or small-farm load that was receiving residential exchange benefits from an IOU prior to June 30, 2005, will receive the prorated share of such benefits during the rate period in the form of an offset to any incremental cost charge or rate applicable to the public agency customers. Such treatment will apply regardless of whether the annexing public agency customer is new or existing. Finally, although not an issue raised in BPA's draft proposal, BPA intends to continue to serve load annexed (excluding NLSLs) from one public utility customer to another public utility customer at the applicable lowest cost PF rate.

With regard to the suggestions BPA received with regard to treating inter-public utility annexations in the longer term (i.e., beyond the conclusion of the next rate period), BPA will wait to address this issue as part of the long-term Regional Dialogue.

Issue 3:
Should June 30, 2005, be the date by which load annexation by a public agency customer must be completed for purposes of being served during the FY 2007–2009 rate period at the lowest cost-based rate without being subject to a TAC or successor rate?

Regional Dialogue Policy Proposal:
The policy Proposal did not address this matter.

Public Comment:
Canby commented that, for utilities, like Canby, that serve the city and annexed areas, it would be helpful to have BPA specify a precise date by which the utilities would need to complete their annexation or possibly face a TAC or successor. Canby queried whether the deadline is the date the contract amendment is signed. (Canby, RD04-0047.)

Evaluation and Decision:
Canby's comment raises the question of when load annexation by a public agency customer must be completed in order to be served at the PF rate during the FY 2007–2009 rate period without a TAC or its successor. BPA agrees that specifying a date by which utilities need to complete such load annexation is helpful. Canby queried whether the deadline is the date the contract amendment is signed. BPA believes it is reasonable to adopt the June 30, 2005, date because it marks the close of the load-certainty window. Having certainty that a customer's load annexation is complete by June 30, 2005, provides BPA a basis upon which to include such load within the load that will be served at the lowest cost-based PF rate. Without a June 30, 2005, deadline, BPA would be exposed to the cost risk of serving annexed IOU load at the lowest cost-based PF rate at any time without the load being subject to the TAC, particularly if the cost to serve such load exceeds the cost recovered through the PF rate. Therefore, it is reasonable that BPA apply the June 30, 2005, date because it limits BPA's risk associated with annexed loads by assuring such load is known before rate case decisions are made and provides public agency customers a clear signal for when their annexations would need to be completed.

I.F. Product Availability

Issue 1:
What products should BPA offer to customers whose contracts expire in FY 2006 or new public customers?

Regional Dialogue Policy Proposal:
BPA proposes that any customer whose contract expires in FY 2006 may simply request a contract extension with no product changes under the terms described in Section I.D. above. Any new public agency customer or customer whose contract expires in FY 2006 and who elects to execute a new contract may select its choice of any of the following core requirement products: Full Requirements Service, Simple Partial Requirements Service, Partial Requirements Service with Dedicated Resources, and Block Service (with the optional feature of Shaping Capacity). The terms of the contract will be consistent with the terms described in Sections I.D. and I.E. above.

No customers currently purchase the Complex Partial or Block with Factoring products, and BPA does not intend to offer either of these products in future contracts because of the lack of interest shown and the expected complexity of administering and billing the products.

Public Comments:
The comments received on this issue were diverse and are not easily categorized. Some commenters expressed an initial position in their early comments but later modified their position in subsequent comments.

Several comments supported BPA's proposal. The Oregon Rural Electric Cooperative Association (ORECA, RD04-0005) supported BPA's continuing to offer the full requirements product and availability of basic products when there is no cross-subsidization between classes of product users in the cost of offering the product. Northern Wasco also supported BPA's proposal of products offered to 5-year customers and new public customers. However, they noted that the list of available products should also include the Slice product. (NWasco, RD-04-0042.) WPAG provided a comment of qualified support, noting that the proposal to make core products (other than Complex Partial and Slice) available to customers with expiring contracts should be implemented, as it provides a reasonable range of choice to the customer without imposing unnecessary administrative burden on BPA. (WPAG, RD04-0105.) EWEB supported the BPA policy proposal that existing customers with purchase contracts that expire in FY 2006 can extend those contracts through FY 2011 with no changes. (EWEB, RD04-0127.)

The majority of comments focused on switching to or purchasing the Slice product and did not address the other products offered. Several comments said BPA should allow 5-year customers to switch to the Slice product. ICNU supported allowing publics the flexibility to change the types of products they purchase from BPA. It asserts that this is especially true regarding the Slice product as that is the type of product that will likely result from a fixed allocation process. It also states allowing a greater number of utilities to gain experience with the risks and rewards of the Slice product should be allowed. (ICNU, RD04-0093.) Snohomish agreed with PPC, PNGC, WPAG and others that publicly owned utilities should be free to choose whatever products from BPA's existing product menu they wish, including Slice during the FY 2007-2011 time period. (Snohomish, RD04-0104.) Cowlitz PUD would not be opposed to BPA allowing a one-time election for a utility desiring to return from a Slice contract to a Requirements contract. (Cowlitz, RD04-0128.)

The PPC stated, "[w]e believe that existing full, partial or block customers should be able to switch among their existing full, partial, and block services." (PPC, RD04-0109.) Clatskanie noted "...product offerings freezes frustrates the continued optimal use of the power system, and stalls the recovery of a struggling economy." Clatskanie argued that long-term contracts must be offered to provide some certainty going forward, but utilities should be allowed to change the product mix and volume they purchase from BPA during any contract term including changing to no purchase from BPA. Those utilities with ongoing contract rights or rights to contract renewal should likewise be able to choose whatever product mix they determine to be appropriate for their customers. If BPA desires a review of any products to determine if the costs of providing the product have been appropriately assigned in the rate setting process, Clatskanie feels that a request be made that the Government Accountability Office (GAO) conduct that review. The GAO has the independence and expertise as well as familiarity with BPA necessary to conduct the review and provide an accurate and trusted determination. (Clatskanie, RD04-0112.)

This Record of Decision addresses these comments and the issue of product switching (specifically Slice) for 5- or 10-year customers in issue number two of this policy ROD below.

Evaluation and Decision:

BPA's proposed list of existing core requirements products available to customers who need new contracts covers a broad range of service types that meet the net firm load requirements for various types of customers. BPA received comments from several of its customers with expiring contracts, including statements that they prefer to stay with their current product selections through FY 2011. No party's comments opposed BPA's proposed product mix offer, although several comments focused on whether BPA should expand the product selection to include the Slice product. BPA proposed not to offer two products included in its Subscription contract process, and no comments stated that BPA should offer either of these products -- Block with Factoring and Complex Partial with factoring. BPA's decision on offering the Slice product is stated in the issue below. The BPA proposal on products offered is needed by some customers and should accommodate the net firm load requirement service of all customers who request service to extend their contracts over the next 5 years through FY2011.

BPA intends to offer new contracts in advance of 2011, but offering these products will put all customers on parity with each other even if they only executed a 5-year contract in 2001. For the reasons stated above, BPA adopts the following policy on the products it will offer other than Slice:

> Any new public agency customer or customer whose contract expires in FY 2006 and who elects to execute a new contract may select its choice of service from any of the following core requirement products: Full Requirements Service, Simple Partial Requirements Service, Partial Requirements Service with Dedicated Resources, and Block Service (with the optional feature of Shaping Capacity). The terms of the contract will be consistent with the terms described in Sections I.D. and I.E., above. BPA will not offer Complex Partial (Factoring), or Block with Factoring.

Clatskanie, a Slice purchaser, suggested that BPA request the Government Accountability Office (GAO) to perform a study of the Slice product to see if costs had been appropriately assigned. We do not see a need for such review by GAO. Assignment of costs and BPA cost recovery are assigned to the Administrator by the Northwest Power Act as a matter of rate setting. Review of overall costs and cost recovery is within Federal Energy Regulatory Commission's (FERC's) review, and then those issues and BPA's rate design are subject to review by the United States Court of Appeals for the Ninth Circuit.

Issue 2:
Should BPA allow customers with 5-year contracts to elect to purchase the Slice product and, if so, should BPA allow customers with 10-year Slice or other contracts to change the Products Currently Purchased by those Customers?

Regional Dialogue Policy Proposal:
BPA understood from discussions with customers that most customers whose contracts expire in FY 2011 want to keep their current BPA product selections. BPA did not propose to offer contracts or amendments that change the power products and services of customers whose contracts expire in FY 2011 (10-year Subscription contract holders). However, one customer with a 5-year contract expressed interest in purchasing Slice in FY 2007, and other customers with 10-year Slice contracts expressed interest in increasing or decreasing the amount of their current Slice contract amount.

BPA did not propose to change the number of Slice customers or the Slice percentage sold in FY 2007.

Public Comments:
Comments were received from customers, customer representatives, and three members of Congress regarding whether, and to what extent purchases of the Slice product should be made available to customers with expiring contracts, or whether customer should generally be allowed to switch to the product. Emerald PUD specifically requested that it be allowed to purchase the Slice product in 2006 for the next 5 years until 2011. (Emerald, RD04-0013, RD04-0020.) Emerald stated its full Board supports Emerald's effort to obtain the Slice product and "Slice would bring Emerald into the 21st century with resources." Another comment request from Emerald asked BPA to reconsider its initial decision and allow Emerald to sign a Slice contract and sent an analysis from PRM to support its position. (Emerald, RD04-0071.) EWEB stated it believes that new customers or customers with contracts expiring in FY 2006, such as Emerald, that want new contracts should be able to

select from any of the products BPA offered in the original regional Subscription process. (EWEB, RD04-0127.)

Several customers supported the offer of Slice to 5-year contract holders. Franklin PUD suggested customers with expiring contracts should be given the first option to switch to Slice. (Franklin, RD04-0108.) Some customers qualified their support for allowing 5-year contract holders to purchase the Slice product. Canby urged BPA to make a fair and equitable decision. It stated that, if BPA offers additional Slice contracts to one 5-year contract holder, it should also be made available to other 5-year contract holders. (Canby, RD04-0161.) Some parties suggested 5-year contract holders should be able to switch to the Slice product, or a combination of Slice and Block, effective October 1, 2006. (Pend Oreille, RD04-0148; Clatskanie, RD04-0155; Grays Harbor, RD04-0162.) Mason PUD No. 3 suggested the 5-year contract holders should be allowed to switch to Slice in FY 2007. (Mason 3, RD04-0151.) After further consideration, Northern Wasco PUD stated it would support the inclusion of Slice to the list of available products for those customers whose contracts expire in FY 2006 with the following qualifications:

> (1) As long as the original 1,800 aMW limit on Slice purchases is not exceeded.
> (2) After study it is the determination of BPA that the number of customers actually switching to Slice would not adversely affect the other preference customers. (NWasco RD04-0042A.)

Other comments suggested BPA should allow existing Slice customers to modestly increase their Slice percentages and reduce their Block. (PRM, RD04-0019.) In another comment, PRM noted its disagreement with BPA's proposal, and stated Slice should be available to customers if their contracts expire in FY 2006. (PRM, RD04-0043.)

WPAG stated that a BPA decision to prohibit the small number of customers who wish to switch to the Slice product from doing so seems less defensible than its decision to limit the number of products available. (WPAG, RD04-0105.)

Several commenters expressed interest in allowing existing Slice purchasers the flexibility to adjust their purchase amounts between their Block and Slice contracts. They state BPA should consider permitting existing Slice purchasers to adjust their Slice and Block amounts if they can find another Slice customer willing to make a corresponding adjustment. They suggest that permitting such changes would serve the interests of the respective customers and would not change either the number of customers or the total amount of Block or Slice product sold by BPA. They commented that this would offer customers the opportunity to bilaterally adjust the amount of these products after having some experience with them. They assert that there would be no risk to BPA, and it would be of help to the customers. (WPAG, RD04-0105.) Mason PUD No. 3 supported the WPAG position that current Slice customers should be able to adjust their Slice and Block amounts in FY 2007 without changing their total take from BPA. (Mason 3, RD04-0151.) Franklin PUD disagreed with BPA's proposal to disallow product switching on Slice. They assert that the Slice product benefits the region by increasing the size of the "pie." BPA should allow a limited amount of additional Slice product – up to the original 2,000 MW offering. (Franklin, RD04-0108.)

EWEB asserts that customers with contracts expiring in 2011 should have a limited opportunity to change their product purchase mix. Such changes would include, to the extent they could be completed without unanticipated cost shifts (e.g., not negative for BPA or customers), revisions to or a reapportionment of any Slice and Block product service they might have. (EWEB, RD04-0127.) PNGC asserts that modest adjustments to Block/Slice amounts should be entertained for the FY 2007-2011 period. (PNGC, RD04-0114.)

Some parties suggest existing Slice customers should be able to adjust their Slice amounts effective October 1, 2006, either up or down, provided, however, that the maximum net increase of Slice sales by BPA from these current Slice contract holders shall not exceed 10 percent of the total 1,600 MW of current Slice sales. Any change in an individual utility's Slice amount would be offset by a corresponding change in the Block purchase amount so that the total Net Requirement sales to an individual utility are unchanged (i.e., an increase in the Slice amount must be offset by an equal decrease in the Block purchase amount). (Grays Harbor, RD04-0162; Clatskanie, RD04-0155; Pend Oreille, RD04-0148; Franklin, RD04-0108.)

Several commenters suggested that BPA increase Slice sales to no less than 2,000 aMW. Benton PUD disagreed with BPA's proposal on product switching and BPA's assertion that one outcome of the Slice true-up litigation could result in significant cost shifts to non-Slice customers. Benton PUD further suggested that BPA limit additional amounts of Slice sales to existing Slice customers and those wishing to switch to Slice. (Benton, RD04-0068.) PNGC disagrees with the BPA proposal restricting product changes with respect to the Slice product. It suggests BPA should entertain limited increases in Slice sales on a first-come, first-served basis of at least up to the 2,000 aMW limit already authorized. This could take the form of increased Slice amounts for current Slicers or new Slice customers. Any increases beyond this limit could be addressed in new or follow-on contracts. Additionally, BPA should allow changes in product mix between Slice participants, such that utilities seeking to take more Block product and less Slice product could exchange amounts with utilities seeking to take more Slice product and less Block. (PNGC, RD04-0114.) PNGC supports Grays Harbor PUD's comments on this subject, which would allow up to a 10 percent increase in total Slice purchases for existing Slice customers, and allow for new Slice customers all within the existing 2,000 aMW policy cap. The only change advocated by PNGC was each existing Slice customer would have the ability to increase its Slice amount by up to10 percent. (PNGC, RD04-0159.) The total net increase in Slice amounts to be purchased by the combination of existing and new Slice customers should be allowed but would be limited to 400 MW, restoring BPA's original proposed contract limit on the total Slice amount of 2,000 MW. (Grays Harbor RD04-0162; Pend Oreille, RD04-0148.)

Some customers would have BPA offer more than the Subscription policy limit on the Slice contract of 2000 MW. Both Franklin PUD and Clatskanie PUD felt the total net increase in Slice amounts to be purchased by the combination of existing and new Slice customers should be unlimited. They argue BPA's original limit on the total Slice amount of 2,000 MW was established to allow implementation to be manageable. Also, for the most part implementation procedures are fully established such that increases in Slice amounts should not be limited. (Clatskanie, RD04-0155; Franklin, RD04-0108.)

NRU states BPA should not increase the amount of Slice sales until the end of the current power sales contracts in FY 2011. NRU states allowing migration to or away from the Slice product could result in cost shifts to other customers. NRU concurs with BPA's approach to conduct an overall review of the Slice product to determine if the product achieved its objectives without shifting costs to other customers. NRU states Slice sales should not be increased until such an analysis has been completed. (NRU, RD04-0073.) After BPA published its interpretation of public comments received, BPA received clarification from NRU on October 7, 2004. NRU's position supports BPA's position on whether a utility with a 10-year contract can switch products in FY 2007 and whether a 10-year contract holder can increase or decrease the amount of Slice under its contract. NRU did not offer a position on the issue of contracts that expire at the end of FY 2006. NRU also did not offer comment on the issue of changing the number of Slice customers or the percentage of Slice sold. (NRU email transmittal 10/7/04.) Many customers supported the position that BPA should not increase the amount of Slice sales until the end of the current power sales contracts that expire after FY2011.

Some parties stated that allowing migration to or away from the Slice product could result in shifts of costs to other customers. (CRPUD, RD04-0031.) Other comments stated BPA should not increase the amount of Slice sales until the end of the current power sales contracts. Allowing migration to or away from the Slice product could result in shifts of costs to other customers. (Benton REA, RD04-0046.) Tacoma agrees with BPA's proposal of no product switching for the upcoming rate period. However, if BPA is persuaded and ultimately agrees to offer product switching for the next rate period, then it must assure that those customers remaining with their existing product lines are held harmless from rate impacts due to product switching. (Tacoma, RD04-0103.)

Some commenters agreed with BPA's proposal to conduct an overall review of the Slice product to determine if the product has achieved its objective without shifting costs to other customers. They suggest sales of Slice should not be increased until such an analysis has been completed. (CRPUD, RD04-0031; Benton REA, RD04-0046; Central Lincoln, RD04-0057.)

Springfield Utility Board does not want BPA to offer changes in products to customers with expiring contracts. Springfield supports BPA's proposal to offer the "same power products and services as the customer currently purchases." To do otherwise would be to offer these specific customers a free option to switch products and services, and, if BPA were to offer such options to customers with 5-year purchase commitments, Springfield would want the same options to switch products and services. (SUB, RD04-0106.)

Cowlitz PUD stated its support for BPA's position on this matter is predicated on BPA's commitment to offering of new 20-year contracts on the schedule contained in Section VII of BPA's proposal. Given that, Cowlitz agrees that customers should not be able to switch to or from Slice contracts while all the existing power sales contracts are in force, that is, through

FY 2011. (Cowlitz, RD04-0128.) The City of Sumas strongly believes that there should be no change in the number of Slice customers or the Slice percentage sold in FY 2007. (Sumas, RD04-0132.)

Evaluation and Decision:
In the Federal Register notice for its policy proposal, BPA stated several reasons why it was not proposing to reoffer the Slice product for the FY 2007–2011 period, and not changing the number of customers and amount of the Slice product currently sold. These reasons included:

> the major importance placed by BPA and most customers on moving promptly to develop new long-term contracts and rates. BPA is concerned that changing Slice elections by customers within existing contracts, and dealing with the associated inter-customer equity issues and technical issues, would be a complicated undertaking that would become a major diversion from the goal of new long-term contracts. The schedule proposed in this document creates a customer option to move to new contracts in FY 2009. BPA believes that focusing BPA and customer effort on meeting the schedule for those new contracts should be a higher priority than making adjustments to Slice purchases under existing contracts. Additionally, there is ongoing litigation pertaining to the annual true-up of the Slice product whose outcome will be uncertain for some time. BPA's view is that one outcome of this litigation could result in a significant cost shift from Slice customers to non-Slice customers. Increasing the amount of Slice purchases while such a cost shift risk exists is a significant concern. BPA therefore proposes no changes to the number of Slice customers or Slice percentage sold in FY 2007.

138 Fed. Reg. 43404.

Customers and others, including three congressmen, responded on three different fronts. First, Emerald specifically asked to be allowed to purchase Slice for the FY 2007 to 2011 period as a replacement and provided studies and information that asserted the utility would be harmed if it were not allowed to do so. Support of Emerald's proposal include Oregon Senators Ron Wyden and Gordon Smith and Congressman Peter DeFazio. Second, Canby, which also holds a 5-year contract, stated that if BPA were to make the Slice product available to one customer -- Emerald - -then it too wanted to have the choice to take the Slice product. Canby stated it would be inequitable and illegal to not make the product available to it on the same terms. Third, several other customers recommended BPA offer more of the Slice product, ranging from up to 10 percent additional purchases by those customers holding Slice contracts to unlimited offers of the Slice product to any customer that wanted to take it. Customers also proposed that BPA allow current Slice customers to reduce their purchases of the Slice product if they desired. They want this option for service up to or beyond BPA's Subscription policy 2,000 MW limit.

BPA's view is that each of these proposed alternatives to BPA's proposal carries potentially large contract, rate, financial, and litigation risk with it. Further, the recommendations are contrary to the risk structure of the Slice product, which is a 10-year product developed in Subscription and in BPA's WP-02 rate case on the Slice product.

BPA has been very clear to all its customers that the Slice product is a new product and different product from other requirements products. It is not shaped to meet consumer load and the customer has the obligation to reshape it for its load. As BPA stated in its WP-02 rate case Record of Decision:

> By design, Slice is a requirements power product sale, not a sale or lease of any part of the ownership of or operational rights to the FCRPS [Federal Columbia River Power System]. (Subscription ROD, at 85.) Slice is a power sale based upon a Slice purchaser's annual net firm requirements load that is shaped to BPA's generation output from the FCRPS, rather than to the Slice purchaser's load. (Mesa et al, WP-02-E-BPA-32, at 2.) The Slice purchaser will be entitled to a fixed percentage of the generation output from the FCRPS, based upon the size of the Slice purchaser's net firm requirements load. The upper limit of the Slice percentage is determined by . . . the ratio of the customer's annual average net firm regional requirements load to the annual average FELCC [Firm Energy Load Carrying Capability] of the FCRPS resources identified in the Slice contract. (Wholesale Power Rates Study, WP-02-E-05, at 154.)

2002 Final Power Rate Proposal, Administrator's Record of Decision (May 2002) at 16-1.

After many months of careful discussion, BPA's Subscription proposal was for a Slice product that needed to be purchased for at least a term of 10 years. The 10-year duration would balance many risks for both BPA and the customers that purchased Slice, while shorter durations would increase risks of hydro generation, market stability, and downturns in regional economy. On the issue of the term of the contract, BPA stated:

> BPA's proposed Slice product is narrowly defined to provide a balanced set of risks and benefits to both BPA and the purchaser. * * * The duration of the product, the commitment to the product by BPA and purchasers, and the periodic true-up mechanism that will be defined for Slice will result in a specific risk profile acceptable to BPA, other customers, and the Treasury. Variations to significant features such as term, cost responsibilities and true-up for actual expenses, would significantly alter that risk profile. * * * The purchase of Slice will require a fixed commitment by the purchaser of no less than 10 years. Arrangements for commitments of shorter durations are not included in the Slice product.

Power Subscription Strategy, Administrator's Record of Decision (December 1998) at 97.

Additionally, BPA's rate case proposal for the Slice product was grounded upon the Slice product being a 10-year purchase, and BPA's rate case studies modeled and analyzed the Slice product as a minimum 10-year purchase commitment. "Slice will be offered to the public preference customers on a contract basis of no less than 10 years." (WP-02-A-02, page 16-1.)

Emerald PUD (Emerald, RD04-0071,) requested a Slice contract for the next 5-year rate period. Canby suggests that if BPA offers Slice to one 5-year purchaser, it must do so for all or face a legal challenge. (Canby, RD04-0161.) Springfield requests to buy Slice if BPA offers it to any 5-year purchaser. Springfield also noted that offering a 5-year Slice product would be a free option for customers and that customers with expiring 5-year contracts should be offered the same products they are currently taking. (SUB, RD04-0106.) Other customers are opposed to BPA allowing 5-year contract holders to take Slice. They expressed concerns such as the potential for shifts of costs to other customers (CRPUD, RD04-0031), the need for a hold harmless provision to protect non-Slice purchasers (Tacoma, RD04-0103), and the need for a thorough analysis of the Slice product before any additional sales (Benton REA, RD04-0046.). They also feel that changing to different products should not occur while the current contracts are in force. (Cowlitz, RD04-0128; Sumas, RD04-0132.)

Increasing the percentage amount of Slice could result in potential significant cost shifts to non-Slice customers. Current litigation by Slice customers may result in a shift of costs, perhaps as much as $85 million for FY 2002 alone, to non-Slice customers should Slice customers prevail in their claims. Adding more Slice loads would increase the risk of this cost shift to some customers while potentially decreasing costs to others, at least until this dispute is resolved. Among the costs that Slice customers have challenged is their share of BPA's Debt Optimization Program. BPA has taken advantage of very low interest rates in recent years to refinance Energy Northwest debt and extend the retirement date of bonds for nuclear plant construction. These funds have then been used to pay off Federal debt. Currently, debt optimization is saving BPA customers substantial amounts of money every year in BPA's cost of capital borrowing. If completed as planned, the program is an over $2 billion source of capital for BPA's transmission infrastructure, hydropower improvements, and energy efficiency investments. If Slice customers were to prevail, this highly effective source of rate reduction and capital would be disabled and BPA's capital costs would be higher in the future.

BPA has initiated an evaluation of Slice. The study aims to learn whether Slice is operating consistently with the principles BPA established for Slice when BPA designed the program and began contract negotiations. BPA expects the Slice evaluation to help inform the longer-term issues in the Regional Dialogue, including whether to offer more or a different Slice product in the future. Until the evaluation is complete, BPA cannot make an informed decision to increase the amount of Slice it is currently offering.

It is clear from comments that offering some customers, and not others, the option to switch to Slice or take more Slice would be perceived as unfair to those left without the option. This is an equity issue between customers, which could result in BPA having to consider numerous modification and adjustments to current 10-year contracts as well as the expiring 5-year contracts. As noted by Cowlitz, the intent of this short-term Regional Dialogue policy is to set the stage for an offer of long-term contracts later. Having to balance or rebalance equities, risks, terms, and conditions of service for all customers in the near-term by re-offering Slice now to customers would detract from that long-term effort.

In summary, BPA will not increase the amount of Slice sales before new long-term contracts go into effect in FY 2009, for following reasons:

- BPA hears clearly the strong desire of some customers to buy Slice or change Slice purchase amounts, but these customers will have to wait 2 years, not 5 years, for a new contract if the current schedule for new long-term contracts is met.
- The effort required to negotiate changes in Slice amounts and purchasers would threaten achievement of the schedule for new long-term contracts in 2009, especially given that the opportunity to make changes to Slice purchases would have to be offered to all interested customers.
- The original Slice decision and contract was for a 10-year term. It is premature to conclude that a different term is reasonable, especially in view of the fact that the first 3 years of experience with Slice have not been evaluated by the region.
- The ongoing dispute over Slice true-up creates a significant risk of increased cost-shifts if more Slice is sold.

Issue 3:
Should BPA allow customers with contracts that expire in either FY 2006 or FY 2011 the right to acquire non-Federal resources to reduce net requirements?

Regional Dialogue Policy Proposal:
BPA proposed a case-by-case consideration of requests from load-following customers to add non-Federal resources to their existing Firm Resource contract declarations. Such actions could assist in relieving BPA's load-serving obligation post-2006 without increasing costs or risks for other customers. BPA will make such a determination after a customer makes a request.

Public Comments:
All of the parties who commented agreed BPA should allow load following customers to add firm non-Federal resources on a case-by-case basis to their Exhibit C Net Requirements Tables in their Subscription contracts. (CRPUD, RD04-0031; NWasco, RD-04-0042; Glacier, RD04-0064.) Columbia River PUD further stated that, in order to effectively achieve this flexibility for utilities, BPA and its customers need to resolve the issue of transfers of non-Federal power over General Transfer Agreements (GTAs) as soon as possible. Northwest Requirements Utilities requested BPA to allow flexibility for customers to bring in new resources. (NRU, RD-04-0053.) BPA should allow a customer to acquire conservation and new renewable resources without affecting the utility's contracted-for net requirements. Id. Oregon Department of Energy commented that any resulting BPA surplus power should be sold for the benefit of the utility that acquired the non-Federal resource(s). (ODOE, RD04-0102.) WPAG utilities strongly supported the proposal for case-by-case requests from customers that purchase load following products to add non-Federal resources to their supply mix, and stated it will become very important that customers have the flexibility to begin to acquire and use non-Federal resources to serve their load if the Federal system is allocated. (WPAG, RD04-0105.).

Evaluation and Decision:
None of the comments raised issues or opposed the proposal to allow a case-by-case decision on the addition of firm non-Federal resources by load following customers. Using a case-by-case approach to determine any additions allows BPA flexibility to address individual customer circumstances and to look at BPA's overall financial and power service obligations. Generally, BPA's Subscription power sales contracts for full and partial service customer do not allow additions of non-Federal resources. The addition of large amounts of resources and the timing of additions can present difficult and important considerations of revenue risk and changes in service. The Administrator has authority under Section 5(b)(1) of the Northwest Power Act to consent to a customer adding a non-Federal resource to provide firm power to the customer's load instead of continuing to take BPA power. Case-by-case does not mean that BPA will give its consent to every request. Nevertheless, BPA views this approach as being more flexible and responsive to potential changes in supply conditions in the near term. The public comments received support the finding that considering requests to add non-Federal resources will, in certain circumstances, help relieve BPA of its load-serving goals. Considering customer requests on a case-by-case basis allows BPA to evaluate the benefit to both BPA and the customer.

BPA does not agree with ODOE's suggestion that "surplus power" from the addition of a resource should be credited back to the customer adding the resource for two fundamental reasons. First, a customer only has the right to take net requirements power service to the extent of its firm consumer load in the region less its firm resources under Section 5(b)(1) of the Northwest Power Act. When a customer adds a firm resource to serve its load and reduces its net requirement, the amount of Federal power the customer has a right to buy is reduced. Second, Section 5(f) of the Northwest Power Act defines BPA "surplus power" as power in excess of BPA's total firm power obligations incurred under Sections 5(b), 5(c), and 5(d). Only after all of those obligations have been met does BPA have any power that is surplus. The upshot of these two provisions is that surplus power is not created when one customer adds a resource. Instead, the Federal power not taken by the customer is power used by BPA to meet its other firm load contract obligations ahead of any surplus power sales. Therefore, no crediting of "surplus" power will occur as a result of a customer adding a resource. Any resulting cost savings to BPA will be retained by BPA for regional benefit.

BPA will consider, on a case-by-case basis, requests from customers to add non-Federal resources to their existing Exhibit C contract declarations if those additions will reduce BPA's FY 2007-2011 load-serving obligation and not increase BPA's costs or risks for other customers. BPA will make such a determination after a customer makes its request. BPA will utilize any Federal power made available by the addition of the non-Federal resources to meet its other firm load contract obligations and will not credit a specific customer that added the non-Federal resource.

Issue 4:
Does the reclassification of a customer's service from a full requirements product to a partial requirement product constitute product switching?

Regional Dialogue Policy Proposal:
This issue was not included in the Regional Dialogue Policy Proposal.

Public Comments:
All of the parties commenting agreed BPA should reclassify a customer's power product when required by the conditions stated in BPA's Power Products Catalog, and this reclassification does not constitute product switching. For example, if a customer no longer has the required amount of non-Federal resources, then movement from a simple partial requirements product to full requirements service should not be foreclosed. (CRPUD, RD04-0031.) NRU generally agreed with BPA's proposal on products but offered the following caveat. BPA should allow a customer to reclassify its product when the circumstances for the reclassification do not constitute product switching. For example, movement from simple partial to full requirements service would not in NRU's statement be product switching. A number of NRU members are identified by the agency contractually as simple partial, when the basic features of their service are essentially full requirements. (NRU, RD04-0073.)

Evaluation and Decision:
BPA agrees that there are instances when the additions or change in a full service requirements customer's non-Federal resources, or in the resources of a simple partial requirements customer, would require a change in the customer's contracting basis from full service to simple partial or the reverse. BPA adopted its product classification with the purpose of best matching a customer's load need to the BPA product. BPA's product classification is in part based upon whether the customer has or does not have threshold amounts of non-Federal resource, whether the customer is buying and selling in the wholesale power market, and whether the non-Federal resource can affect BPA's system resources in certain ways. Full requirements service customers generally do not own or operate non-Federal resources or have them only in very small amounts. Simple partial requirements contracts address resources of larger sizes, impacts and applications. Changes in a customer's non-Federal resources affect load, which, if being served under the full or partial product, may require a change in the BPA product, depending upon factors stated in the BPA Product Catalog. Consequently, BPA will consider requests, on a case-by-case basis, to switch from or to Simple Partial and Full Requirements products and may allow such changes so long as BPA's service to net requirements is not substantially affected by a product reclassification or would result in costs shifts. During the near term, BPA will defer these reclassifications until it receives a request for addition of resources per the preceding decision.

I.G. Service to Direct Service Industries (DSIs)

Issue 1:
Should BPA continue to provide benefits to the direct service industries?

Regional Dialogue Policy Proposal:
Although BPA has no statutory obligation to serve the DSIs, it recognizes that the DSIs have been an important part of the Pacific Northwest economy for decades. BPA is interested in public comment on whether BPA should continue to offer benefits to DSIs.

Public Comments:

Numerous comments (Alcoa, RD04-0067; CFAC, RD04-0111; GNA, RD04-0101; Evergreen Aluminum, RD04-0075; Port Townsend Paper, RD04-0045; aluminum workers Wayne Widman, RD04-0041; Dave Toaus, RD04-0119; and others, Congressman Rick Larsen, RD04-0135; and other state and local elected officials, NWEC, RD04-0110; and DSI-dependent businesses such as Beacon Machine, Inc., RD04-0056; KB Alloys, RD04-0026; and others) expressed strong support for continuing BPA power service to the DSIs, or a comparable financial settlement. They cited the dependence of families on high-wage jobs, the central role the DSIs play in local communities, the civic and environmental responsibility of the companies, the national strategic importance of the aluminum industry, and the lack of fairness they saw in "cutting the DSIs off" while others continued to receive low-cost service from BPA. Alcoa (Alcoa, RD04-0067) and Whatcom County PUD 1 (Whatcom, RD04-0146) asked for an interim contract for Alcoa to cover the next rate period while longer-term service issues are discussed and decided.

Golden Northwest Aluminum (GNA, RD04-101) asked for a contract through 2011 while it worked to develop its own power resources. Both Alcoa (Alcoa, RD04-0067) and Port Townsend Paper (Port Townsend, RD04-0045) drew the parallel between extending utility 5-year contracts and the need to extend their own contracts. Alcoa (Alcoa, RD04-0067) also mentioned that a follow-on contract was needed for them to be constructively engaged in the regional discussion on BPA's long-term role. In addition other comments (Flathead, RD04-0048; NWasco, RD04-0042; Whatcom, RD04-0146; EWEB, RD04-0127; NWEC, RD04-0110) expressed support for continued service to DSIs, with Flathead (Flathead, RD04-0048) noting a preference for local utility service as a solution.

Chelan County PUD (Chelan, RD04-0154) commented it is concerned that Alcoa remain viable so it can continue to provide jobs in the community and also in the Bellingham area. Whatcom County PUD 1 (Whatcom, RD04-0146) pointed out that, because the DSIs are located in less populated rural areas, the fate of the DSIs has significant implications for the local economies. United States senators Maria Cantwell and Patty Murray stated in a letter (Cantwell, et al, RD04-0163) that they would prefer not to have to secure Federal Trade Adjustment Assistance benefits for more Washington state aluminum workers. They believe aluminum worker jobs can be saved with a little "forward thinking" and regional consensus building. They encourage BPA to work with the DSIs and stakeholders to fashion a creative resolution to this issue that is equitable to all parties, and cognizant of the substantial impact on Washington's economy and workers. A private citizen (Gunderson, RD04-0139) proposed that the local labor force be used to build renewable resources that, in turn would make large blocks of power available to DSI customers.

A second group offered qualified support. NRU (NRU, RD04-0073) said it was only willing to explore service alternatives that did not increase costs or risks to BPA's preference customers. Mason PUD No. 3 (Mason 3, RD04-0151) asserted that any subsidies to DSIs should be borne by taxpayers not ratepayers and, like WPAG (WPAG, RD04-0105), proposed that DSIs pay for augmentation costs needed to serve them, a cost WPAG noted would be necessary since the FBS would already be fully utilized to serve public utility customers. Western Montana G&T (WMG&T, RD04-0092) proposed a "short" contract and Lincoln Electric (Lincoln Electric, RD04-0100) called for service to end in FY 2011. ICNU (ICNU, RD04-0093) expressed support for rolling over existing contracts for the rate period. Franklin PUD (Franklin, RD04, RD04-0108) also limited its support to the next rate period, but only if BPA did not need to augment the system to provide benefits to the DSIs and if DSIs agreed not to seek BPA benefits beyond the next rate period.

A third category of comments expressed opposition to BPA continuing to provide benefits to the DSIs. The PPC (PPC, RD04-0109) and Mason PUD No. 3 (Mason 3, RD04-0151) emphasized the lack of legal mandate for BPA to offer new contracts to DSIs, were doubtful that BPA's proposal would meet the stated needs of the DSIs, and expressed concern about the costs of service to DSIs driving up their rates and endangering jobs in other electricity intensive industries. Several utilities clearly stated a preference for no DSI service. (Benton REA, RD04-0046; CRPUD, RD04-0031; Clatskanie, RD04-0155; Cowlitz, RD04-0128; Ferry County, RD04-0037; Kootenai, RD04-0141; Sumas, RD04-0132; WPAG, RD04-0105; Tacoma, RD04-0103.) WPAG indicated BPA has no authority to set up a benefit payment program for regional aluminum smelters and will be subject to legal challenge. WPAG opposes any proposal that would allocate Federal power system output to public utilities on the basis of aluminum smelter loads that they may elect to serve. WPAG (WPAG, RD04-0150) and Mason PUD No. 3 (Mason 3, RD04-0151) oppose augmentation of the Federal system for the purpose of serving aluminum smelter loads, if the full costs of such augmentation are not borne directly by the aluminum smelter receiving service.

Kootenai (Kootenai, RD04-141) opposed both long-term firm power sales and financial benefits in-lieu of power sales, and asked that BPA consider the larger Northwest economy and jobs, versus the limited number of jobs provided by aluminum smelters. Mason PUD No. 3 (Mason 3, RD04-0151) indicated that any national strategic importance to the aluminum industry should be recognized through a national subsidy for the industry instead of by a subsidy from other BPA customers and that non-DSI Northwest industries have experienced losses in jobs and market share and have received no reduction in their electric rates to keep them competitive.

Others questioned the merits of continued BPA service, in part because of its cost to other BPA customers, but did not definitively argue that BPA should not serve DSI load. These included: Central Lincoln (Central Lincoln, RD04-0057), Springfield (SUB, RD04-0158), and the PPC (PPC, RD04-0109), although Springfield and PPC clearly stated that benefits should not be provided after FY 2011. For example, the PPC argued that by trying to preserve several hundred jobs at the region's few remaining aluminum smelters, BPA was endangering thousands of other jobs in the forest products and other electricity-intensive industries. The regional investor-owned utilities (IOU Reps, RD04-0167) neither supported nor argued against continued BPA service to DSI loads, but did make clear their opposition to any change in BPA's New Large Single Load policy that will allow DSI load to move to local public utility service and receive BPA preference power.

Snohomish County PUD (Snohomish, RD04-0153) supports providing additional time to enable the region to find mutually agreeable solutions to the DSI issues. It also believes allowing an additional 3 months could lead to a mutually acceptable solution.

Evaluation and Decision:

The majority of comments received on the Regional Dialogue policy proposal were on service to the DSIs. There was little, if any, unanimity on the issues raised.

As noted in the Regional Dialogue proposal, BPA recognizes that the agency's ability to affect the viability of the aluminum industry in the Pacific Northwest continues to be limited by factors beyond BPA's control. Global aluminum markets and the construction of new, efficient, lower-cost smelters in other parts of the world have challenged the economics of Pacific Northwest smelters. In addition, BPA has no statutory obligation to serve DSI load. Notwithstanding the difficult economics of Pacific Northwest aluminum smelting and the discretionary nature of BPA service to DSI load, BPA believes that the issue of sustaining DSI jobs is compelling, as underlined by many comments in this process. BPA is mindful of the important historic role DSIs have played as BPA customers and in the development of the Federal Columbia River Power System and, as underscored by many comments, the importance to local economies of the jobs they provide, which is BPA's primary consideration for any decision to continue to serve DSI load. BPA also recognizes there are rate impacts on other utilities and therefore effects on jobs in other industries associated with continuing to provide service benefits to the DSIs.

BPA has decided to provide some level of service benefits in FY 2007-2011 to DSIs that meet certain eligibility criteria. While a number of parties argue against any DSI service, many other parties expressed varying degrees of support for continued service so long as the cost to other BPA customers is both known and capped. This is a fundamental prerequisite for continuing BPA service to the DSIs through the next rate period. In addition, service benefits (in the form of physical power sales or financial payments in lieu of such sales) will be at, or based on, a rate no lower than the Priority Firm power rate and under contractual terms no better than those offered to other BPA customers. BPA believes there is broad but far from unanimous support for BPA service to some DSI load in the next rate period and that committing to some reasonable level of BPA service benefits will significantly enhance the prospects for (though not guarantee) DSI operations and attendant jobs. In summary, BPA will provide a level of service benefits to qualifying DSI load at a known and capped cost and under rate and contract terms no better than available to BPA's public preference customers.

However, BPA is reserving for later decision the actual level of service benefits it will provide, the eligibility criteria it will apply in deciding which DSIs will qualify for such service benefits, and the mechanism or mechanisms it will use to deliver those service benefits.

While no final decision regarding the actual level of service benefits to be provided is being made at this time, it is anticipated that service will be at a substantially reduced level compared to the level contracted for in the current rate period. BPA wishes to further discuss the level of the DSI service benefit and criteria for eligibility, with Pacific Northwest regional interests before making final policies and decisions on those issues.

Shortly following the issuance of this ROD, BPA will establish a regional process to take further comment from interested parties regarding the level of service benefits to be provided and the eligibility criteria that should be used to determine whether a DSI will qualify for these service benefits. This regional process will provide for written comments and will include one or more noticed meetings. BPA will issue a letter establishing this regional process and describe a BPA proposal with respect to the level of benefits and eligibility criteria.

BPA intends to issue a supplement to this ROD following the conclusion of the comment period in which BPA will issue final policies and decisions regarding the level of DSI service benefits to be offered and eligibility criteria. In addition to comments received in the upcoming regional process, all comments submitted by parties to date on these issues will be evaluated and addressed by BPA when it issues its final decisions in the supplemental ROD.

Subsequently, BPA will work during the summer of 2005 to develop the specifics of the contractual mechanism or mechanisms that will be used to deliver the DSI service benefits. Comments of parties to date on the appropriate mechanism or mechanisms will be evaluated and addressed as part of that effort. These mechanisms, and BPA's specific offer to the DSIs that meet the eligibility criteria and should be offered service, will be shared with the region for review and comment. BPA will attempt to make final decisions on the contract mechanisms and qualifying DSIs in the fall of 2005, subject to any decisions BPA must make in a rate process.

BPA plans to address and decide on longer-term DSI (post-2011) service issues in the long-term regional dialog policy process whose schedule is given below.

I. H. Service to New Large Single Loads (NLSL)

Background On Regional Dialogue Policy Proposal:

The Regional Dialogue Proposal states: "BPA proposes to continue its current NLSL policy with regard to a DSI transferring service to a local utility in 9.9 aMW increments. Any DSI load transferred to local utility service would be an NLSL and subject to the NR rate if served with Federal power unless the DSI qualifies for the cogeneration and renewables exception described below."

This issue was initially raised 3 years ago as the first of three NLSL-related issues. In June 2001, BPA conducted a public process on these issues. Two specific issues, transferability of "contracted for/committed to" (CFCT) status and closing of the window for applying for CFCT status were subsequently decided and explained in a ROD signed by the Administrator on March 27, 2002. BPA reserved the third issue for further public input at a later time.

In that ROD, BPA stated:

> At this time BPA has not made a decision on Issue 1. Many comments received in response to Issue 1 raised concerns that went beyond the scope of the notice. In particular, many parties commented that BPA ought to address large load migrations, or the "phasing on" of large load in 9.9 aMW increments, onto public agency utilities, without limiting the issue to one of only DSI load. In fact, under current NLSL Policy, any load of 10 aMW or more at a single facility that becomes a new load of a BPA utility customer, would be subject to an NLSL determination even if such transfers took place at no more than 9.9 aMW in any twelve-month period. Several comments suggested that the issue of future DSI load service should also be addressed as well and that BPA not treat the shifting of incremental DSI load to preference customer service in isolation. As published in 66 Fed. Reg. 212 (November 1, 2001), BPA announced a change in the schedule for NLSL policy review and determined that additional regional discussion would benefit the resolution of Issue 1. The discussion and review of Issue 1 is expected to take place during fiscal years 2002 and 2003; therefore, until Issue 1 and its related issues have been addressed BPA will continue to apply its existing NLSL policy.

New Large Single Load Policy Issue Review, Administrator's Record of Decision (March 2002) at 2.

In the 2004 public process BPA posed two questions:

A. Should BPA continue its NLSL Policy which currently provides that DSI load that phases off BPA IP service and phases on to local preference utility service at 9.9 aMW per year would be a NLSL and subject to the NR rate if served with Federal power?

B. Should BPA expand the Cogeneration and Renewables Option from the 2001 NLSL Policy to include off-site renewable resources?

BPA is now addressing the two issues noted above as A and B, and will also address an additional issue regarding BPA's treatment of new DSI load above a DSI's Contract Demand as established in the 1992 Atochem ROD. We review comments received in 2001 as well as this most recent round of comment on the issue from July to October 2004.

During the initial 2001 comment period, June 25, 2001 through August 10, 2001, BPA received 62 comments on the three NLSL issues raised. Forty-Five commenters specifically addressed the issue of DSIs transferring and taking service from a local utility. During the Regional Dialogue comment period July 7, 2004, through October 12, 2004, BPA received an additional 22 comments specifically addressing the NLSL issue. This ROD reflects comments received during both comment periods. Comments received during the 2001 comment period have reference numbers that begin: "NLSL01" and are listed in Appendix B.

Issue 1:
Should BPA change its NLSL policy to allow current and former DSI customer production load served at BPA's IP rate, or any other rate, to transfer and receive service in 9.9 aMW increments from a public body, cooperative, or Federal agency customer with power purchased at BPA's PF rate?

Public Comments:
Comments opposed to Changes in BPA's Current NLSL Policy.

Many customers stated that BPA should not allow a "phasing-on" of former DSI load onto a public utility, which could then buy power from BPA for the large industrial load at the PF rate. Customers stated that allowing 9.9 aMW incremental transfers of former DSI production load would cause the PF rate to increase for the PF service that these customers without large industrial loads were getting from BPA. Transfers of former DSI Contract Demand load to a local preference customer in 9.9 aMW increments was not consistent with Section 3(13) of the Northwest Power Act and not good policy or practice. Three commenters based their opposition to allowing "phasing-in" on the fact that the Act gave DSIs 20 years to prepare for the transition away from BPA direct service, and the fact that they failed to do so does not make it incumbent on BPA to find a way to continue to serve them with Federal power. (Emerald, NLSL01-0012; WMG&T, NLSL01-0014; Clearwater, NLSL01-0024.) Other commenters also opposed any incremental movement of DSIs off BPA and on to local preference utilities. These commenters felt it would be against BPA's statutory authority to allow DSIs to take PF-based service from a preference customer. They did not feel the economic plight of any locality or business was an adequate reason for such a departure from existing BPA policy. (PPC, NLSL01-0040; Benton REA, NLSL01-0011; SUB, NLSL01-0048.)

Five commenters said that the intent of the Northwest Power Act is clear: large industrial loads including DSIs are not supposed to be transferred onto preference utilities that did not serve them in 1979 and receive PF-based service. BPA's current NLSL Policy reflects that Congressional intent and should not be changed. These commenters also pointed out that Congress intentionally limited DSIs to one 20-year contract with BPA at the IP rate with the idea that the DSIs should use that period to arrange for non-Federal power supplies. (Cowlitz, NLSL01-0056; PNGC, NLSL01-0027; PacifiCorp et al, NLSL01-0047; Central Lincoln, NLSL01-0003; PGP, NLSL01-0042.)

Industrial Customers of Northwest Utilities (ICNU) said BPA should not change policy to allow current and former DSI customers to receive power at 9.9 aMW increments at the PF rate. If the policy is to be changed, all industrial customers, including those of IOUs, should be eligible to receive this New Large Single Load exception. No legal or policy distinction exists that would allow BPA to exclude IOU loads and allow DSI loads into the proposed NLSL exception. (ICNU (public meeting comment), NLSL01-0004; ICNU, NLSL01-0035.) Longview Fibre agreed with ICNU by saying that it is important that BPA remember the importance of serving all of its customers fairly and legally and that BPA should not change its policy just for DSIs. (Longview Fibre (public meeting comment), NLSL01-0004.)

The IOUs commented that BPA's role in providing Federal power to serve DSI plants must be clear, and

> continuing BPA's New Large Single Load (NLSL) Policy in its current form will help provide that clarity. Moving DSI service to the local utilities would raise a number of issues, and could have unintended consequences for BPA. BPA should not change its NLSL policy to allow DSI load to move to preference agency service and receive the PF rate. BPA's existing NLSL Policy is very important because it has promoted stability regarding BPA's load serving obligations for service to large industrial customers in the region. Generally a new load of 10 a MW or greater is an NLSL and the price for BPA power to serve it is the "New Resources"(7(f)) rate. Movement of DSI loads to local utility service at the PF rate would conflict with BPA's NLSL Policy. BPA should retain its current NLSL Policy with respect to movement of DSI load, or any other large load, to a preference utility. To do otherwise would increase the uncertainty about the load serving obligations of both BPA and its utility customers.

(PNW IOUs, RD04-0157.)

The Western Public Agencies Group (WPAG) reiterated its support for BPA continuing to treat any aluminum DSI load that transfers to a public utility as an NLSL. "If any of the aluminum smelters does elect to seek retail power service from their local utility, they must be categorized as New Large Single Loads and be accorded the rate treatment appropriate to such loads, which is service at the New Resources rate." (WPAG, RD04-0150.) Eugene Water and Electric Board (EWEB) recommended a separate public process but also stated that, " EWEB strongly supports BPA's position that BPA power provided to a NLSL whether it is a DSI or other type of customer, should be charged at the New Resources (NR) rate and not at the Priority Firm (PF) rate. To do otherwise would discriminate against NLSL customers who were previously told this option was not available". (EWEB, RD04-0127.)

Five comments took the position that anything that added to BPA's projected obligation to serve firm load in the coming rate period would shift costs onto other preference customers; and by forcing BPA to acquire resources to serve ex-DSI load at PF would dilute the value of PF. Some also commented that adoption of a DSI-only policy could be subject to challenge because it likely constitutes rate making in violation of Section 7(i) of the Northwest Power Act. (EWEB, NLSL01-0052; Inland, NLSL01-0055; NRU, NLSL01-0025; MPC, NLSL01-0004.)

One commenter stated that any loosening of current policy could be seen to encourage load piracy and pointed out that one of the named reasons for creation of the NLSL concept by Congress was to avoid preference customers enticing industrial loads away from other utilities with cheap federal power. (PGE, NLSL01–0051.) IOUs fear their industrial customers will want to move to public agency utility service if the DSIs are allowed to do so and receive PF-based service. (IOU Reps, RD04-0167.)

Several commenters urged BPA to "stay the course" and not allow DSIs to phase on to PF-based local preference utility. They felt any DSI load that transfers onto its local utility should be served at NR. It was also pointed out that allowing DSI load to transition on to preference customers at PF could endanger tiered rates. (CRPUD, RD04-0031; Last Mile, RD04-0050; Central Lincoln, RD04-0057; NRU, RD04-0073; ODOE, RD04-0102; NWEC, RD04-0110; WPAG, -RD04-0150.)

Comments in favor of allowing DSI loads to transfer to preference customers in 9.9 aMW increments.

Some parties' comments stated that Congress intended for DSIs to be able to migrate onto preference customers at the end of their 1981 power sales contracts.

Port Townsend Paper Corporation (Port Townsend) said BPA should allow current and former DSI customer production load to transfer and receive power service in 9.9 aMW increments. Otherwise it would be counter to Section 3(13) of the Northwest Power Act. Port Townsend stated this load transfer would also be consistent with the language in BPA's Summary of NLSL Policy Practices under Phased-In Load. Not allowing DSIs to transfer and receive power service in 9.9 aMW increments would put them at a disadvantage. (Port Townsend, NLSL01-0009.) Another commenter stated the Act clearly excludes from NLSL status, loads that result in an increase in power requirements of a customer of 10 aMW or less in any consecutive 12-month period. (Alcoa, NLSL01-0034.) This should allow any preference utility to purchase power at the PF rate to meet any new loads of less than 10 aMW. Since Subscription contracts and the TAC were implemented prior to deciding this issue, BPA should provide opportunity for preference customers to sign new or amended contracts and amend its rates. Id.

Northern Wasco PUD commented that BPA should allow 9.9 aMW *annual* increases in PF service, not 9.9 aMW in total, saying the PUD wants BPA to do something special for the DSIs. Northern Wasco says BPA has a moral and public duty to continue serving DSI load. (NWasco, RD04-0042.) Some other comments said that allowing DSIs to transition to local utility service held some promise but that the 9.9 aMW stair-step concept would not be enough to provide an amount of power to allow the DSIs to operate. (DSIs & USWA, RD04-0171.)

One comment urged BPA to consider the potential damage caused by de-industrializing the Northwest in order to serve the growing population in the western corridor. By allowing the aluminum industry to purchase affordable power from local utilities, BPA will be contributing to the preservation of jobs and local economies. This commenter also stated that BPA, as it makes NLSL decisions, should consider that actions that affect DSIs also impact small businesses that rely on the aluminum industry. (Garco, NLSL01–0029.) BPA should set policy to make alternative power sources available to Northwest aluminum smelters. Any changes to BPA's NLSL policy should include mechanisms to allow DSIs to purchase power directly from any power provider, including public and private. Please consider potential impacts to jobs and business already hit hard by the power market crisis. Either provide power to the DSIs or set policy that will permit DSIs to buy power from any other power provider, including public and private utilities. Individuals and businesses alike should share Pacific Northwest hydropower benefits. Public utilities should be allowed to serve the DSIs with power purchased at PF if they choose to do so. (Moody, NLSL01-0057; Precision, NLSL01-0022; LeBrun, NLSL01-0004; Hayes; NLSL01-0004; Trans-Systems NLSL01-0015; Wyborney, NLSL01-0044; Coeur d'Alenes, NLSL01-0054; Clallam, NLSL01-0039; Dow, NLSL01-0031; Spokane CC, NLSL01-0062; Handy, NLSL01-0013; Handy, NLSL01-0016.)

Klickitat PUD made the point that it was supplying power to Goldendale Aluminum (Goldendale) long before 1979. Klickitat PUD's contract with Goldendale has provided for station service and now for 9.9 aMW of production load. It doesn't provide more favorable treatment to Goldendale than any other electric customer would get. BPA should not discriminate against Klickitat's effort to phase in service to the company with purchases of PF power. Don't try to treat Klickitat worse than new loads on the west side of the Cascades. Klickitat has a statutory obligation to serve load once Goldendale requests service. This is basically a fairness issue. (Klickitat, NLSL01-0004.) In the recent round of comment, Klickitat reiterated that DSIs should be served through their local utility with the utility being able to access any proposed allocation of power made by BPA for the DSI. (Klickitat, RD04-0144.)

Several commenters expressed the view that charging the NR rate for any service to a former DSI load is inconsistent with the Northwest Power Act. Five commenters stated that they have a right in statutes, in BPA policy, and under contract to serve ex-DSI load migrating on to their systems in increments. Several commenters argued that the plain language of the statute requires that non-CFCT load becomes an NLSL only if it increases the power requirements of a BPA customer by 10 aMW or more in a 12-month period and that the Act does not support a policy that ignores actual increases in a BPA preference customer's power requirements and looks only to the total size of the consumer's facility. These commenters directly or indirectly supported a policy that would allow DSI load to phase off BPA service if that were due to BPA not offering service up to the DSI's full 1981 Contract Demand, and to measure only the load above the direct BPA service that was served by the utility irrespective of whether this load were one facility. This limitation of load served by the local utility to less than 10 aMW could be because the amount of load in excess of any direct BPA service was less than 10 aMW or because the DSI limited its load increase on the utility to less than 10 aMW annually by contract. (Madin, NLSL01-0008; Port Townsend, NLSL01-0009; Whatcom, NLSL01-0017; Alcoa, NLSL01-0034; Alcoa, et al, NLSL01-0037; Klickitat, NLSL01-0043; NWasco, NLSL01-0045.)

Klickitat PUD said BPA's 2001 Federal Register Notice posed an overbroad and incorrect question. Rather only preference customer service to DSI production load, for which BPA chooses not to provide IP service, is at issue. (Klickitat, NLSL-043.) Klickitat disagreed with BPA's statement about a "change" in policy saying it was incorrect, and really would be a reversal of BPA policy for BPA to now decide that such load cannot be served at the PF rate. Id. Klickitat believes this issue was settled in Atochem's request for service and that the Northwest Power Act sets clear criteria for determination of when a load is an NLSL. BPA should also give weight to the impacts of loss of DSI loads in rural areas. A change in

BPA policy to make a DSI an NLSL, even if preference customer service is less than 10 aMW in any consecutive 12-month period, should not be applied retroactively to Klickitat's purchases to serve Goldendale. Id.

Northern Wasco urges the Administrator not to adopt a policy that precludes preference customers from serving at the PF rate DSI load that BPA has declined to serve. The policy articulated by BPA is contrary to the Northwest Power Act's definition of NLSL and would violate both the statute and BPA power sales contracts with Northern Wasco. (NWasco, NLSL-0045.) The Act does not support a policy that ignores actual increases in preference customer's power requirements and looks only to the total size of the consumer's facility. BPA's statement of its NLSL policy in its Federal Register Notice is inaccurate. Id. A policy permitting preference customers to serve former DSI load in 9.9 aMW at the PF rate would result in minimal rate impacts during the FY 2001-2006 rate period. A policy that prevents economic service to the Goldendale and Northwest Aluminum Smelters would result in severe economic impacts in Wasco and Klickitat Counties. BPA should not create special barriers to service of former DSI load, or any other large industrial or commercial loads, by preference customers. Id.

Congress never contemplated that BPA would terminate service to DSIs and then treat customers' service to small increments of former DSI load as an NLSL. BPA's proposal would violate its existing contracts with preference customers. BPA has no policy that service to a former DSI load would be an NLSL. BPA's actions are arbitrary and capricious. BPA does not need to treat DSI loads as NLSLs. To the extent BPA is "targeting" two utilities and GNA, this rulemaking is procedurally inappropriate. (Golden et al, NLSL01-0050.)

There is no statutory or valid policy reason to treat DSI load that BPA is not contractually obligated to serve any differently than any other load that was not "contracted for or committed to" in 1979. Non-CFCT load only becomes a NLSL if it increases power requirements of a BPA customer by 10 aMW or more in a 12-month period. BPA has never determined that a load that does not meet with statutory test was an NLSL nor has BPA stated it would deviate from this test in the case of DSI load it prefers not to serve. BPA's statement of the issue with respect to DSI load is plainly misleading. BPA states inaccurately that BPA has a current articulated policy to discriminate against utility service to DSIs and that BPA is now considering changing such policy. It almost seems that BPA seeks to exclude DSIs from any access to the benefits of low cost Federal hydropower, irrespective of the law, and hopes to disguise its action as the maintenance of the status quo. BPA cannot through policy determinations rewrite Section 3(13)(B) of the Northwest Power Act. (Alcoa, et al, NLSL01-0037.)

Whatcom PUD said it is essential that BPA not bar Whatcom from exercising its statutory right to purchase power at the PF rate to serve the Intalco aluminum plant in Ferndale, Washington. Whatcom is entitled not only to purchase BPA power to serve the Intalco load that BPA declined to serve, but also to purchase power at the PF rate to the extent permitted by the Northwest Power Act. If BPA changes its policy to prohibit access to PF power for Whatcom to serve Intalco with annual increases up to 10 aMW that will be contrary to

Whatcom's statutory right. BPA should not develop a policy that places new barriers on this class of service. (Whatcom, NLSL01–0017.) Whatcom asked if there were some way BPA could assign its service to these DSI loads to the local public utility that would get BPA out of "dealing with local area political issues". (Whatcom, RD04-0136.)

Evaluation and Decision:
Comments received during both the 2001 and 2004 comment periods covered a number of aspects of DSI service, including some comments that go beyond the narrow question of DSIs transferring and taking service from local utilities. The comments also reflect a wide range of views and suggest that BPA's current NLSL policy as it applies to current and former production loads of DSIs is complicated and not well understood by customers or the public.

Many comments by public utility customers in both the 2001 and the 2004 comment periods supported BPA's proposal that current or former production load of DSIs should not be able to transfer and take PF-based service from a local utility in 9.9 aMW annual increments. These customers believe that transferring a DSI production load, disaggregated into 9.9 aMW annual increments, to a utility to receive PF-based service is inconsistent with Section 3(13) of the Northwest Power Act, and contrary to the intent of Congress. The IOUs generally agree with these positions of public customers opposed to having BPA change its policy to allow DSI production load to phase in to local utility service at the PF rate. They believe the intent of Congress was to balance the playing field for large loads such that any new or transferring large load over 10 aMW, served by an IOU or a public, would face the NR rate.

A different view is held by some public utilities, including Klickitat, Northern Wasco, and Whatcom. These PUDs, along with the DSIs, commented that the statute allows service at up to 10 aMW per year without the load becoming an NLSL. Klickitat stated it had been serving the DSI non-production load for a long time and for BPA to change its policy would be a reversal. Comments from the DSIs reflect a similar position. They support an interpretation that load becomes a NLSL only if it increases power requirements of a BPA customer by 10 aMW or more in a 12-month period.

BPA's NLSL policy started in 1980 with the negotiations for initial Section 5(g) power sales contracts to implement the newly enacted Northwest Power Act. Beginning then, BPA has made individual determinations for many applications of the statute, such as CFCT loads, load "associated with a facility," the measurement of 10 aMW, the effect loads that transfer from one utility to another has on BPA's service to the utility for the load, and other interpretations and technical questions. BPA collected its determinations and published them in its 2001 NLSL Policy paper. Several of those determinations are applicable to this issue.

Golden Northwest, Alcoa and Kaiser incorrectly argue that BPA has no policy on the transfer of DSI load to a utility and the effect of such a transfer upon the utility's service from BPA. In 1982, a direct-service industry load that BPA had served terminated its contract for service with BPA and executed a service contract with the then Montana Power Company, an investor-owned utility. The Stauffer Chemical load of approximately 60 megawatts was declared to be an NLSL of the Montana Power Company and Montana Power's utility power sales contract with BPA was amended accordingly. This determination established that a load formerly receiving service from BPA as a DSI became an NLSL, when service was transferred to a local utility.

Regarding the argument that BPA should only consider a load an NLSL if the load results in an increase of 10 aMW or more a year in the utility's load requirement, BPA disagrees for several reasons. First, BPA has always measured load as that load associated with a facility that is the industrial or commercial plant and not the change in the load requirement of the public utility. A utility's power requirement is based on a combination of factors not all of which are directly linked to a single industrial plant load. Second, a standard that uses only the increased, utility power requirement as stated under Section 3(13)(B) would completely ignore the language in the preamble of Section 3(13) which states that it is the load "associated with" a facility or expansion of a facility that is the subject matter of the provision. Third, the NLSL terms included in BPA's utility power sales contracts require metering and measurement of loads at the consumer's facility and not measurement of increases in the utility customer's power requirements, which is an aggregate of the utility's loads.

The DSIs correctly point out that their loads are not CFCT loads under Section 3(13)(A) of the Northwest Power Act. BPA's decisions on CFCT loads that transferred from one utility to another utility for service, is comparable and instructive to this issue. BPA's interpretation of the statute and its policy on CFCT transfers includes measuring the entire load at the consumer's facility as to whether the transfer will result in the consumer placing an additional 10 aMW of power requirements on the BPA customer within 12 consecutive months. If the load at the facility is operating at over 10 aMW when it is transferred, then the load is a NLSL to the new serving utility.[1]

If BPA were to adopt a different standard under 3(13)(B) for purposes of DSI load transfers to a local utility, it would result in two different standards for measuring the size of large industrial loads served by public utilities in the Northwest. It is unreasonable for DSI loads to be measured under the utility power requirement, whereas all other large industrial load, including CFCTs, would be subject to "the load at the facility" standard. BPA declines to introduce such an inconsistency into its determinations. By applying the same measurement standard to all large load, non-CFCT and CFCT, BPA is thereby treating DSI load the same as non-DSI load. BPA is not rewriting Section 3(13)(B) by this consistent policy. BPA will not ignore the language of the preamble of Section 3(13) and change its policy on how and what load is measured.

Regarding Congressional intent, both DSIs and public utilities that may serve them argue that Congress did not intend to make DSI's New Large Single Loads for the portion of those loads that BPA does not serve directly. Golden Northwest stated that Congress never

[1] There are a few potential exceptions that may affect such a NLSL determination, which BPA addressed in its 2002 policy on load transfers affecting two public utility customers. BPA on a case-by-case basis may consider whether a CFCT status for the load could be retained in the event of a merger of two utilities or if one public utility becomes a successor in interest to a former public utility by buyout and takeover of the entirety of a service area. However, these circumstances do not apply to this DSI load issue.

contemplated that BPA would terminate its DSI service after the first 20-year contract. In contrast, many public customers contend Congress intended that BPA only serve these large industrial loads directly for 20 years, after which these loads were to obtain service from non-Federal sources. WPAG and other public customers and the IOUs argue that there was never any intention that DSI loads would be able to transfer or phase-on service at 9.9 aMW annually to a local preference utility. They state that Congress knew these DSI loads were large loads and would be New Large Single Loads of the local utilities if they could obtain service from those utilities. Some public customer who have existing NLSLs argue that if BPA were to allow former DSI loads to transfer or phase-in onto a local utility, then these other NLSLs should also be able to phase-in or transfer load service. The IOUs adamantly oppose such an interpretation as contrary to statute and as exposing their large loads to "load piracy," if such transfers were allowed.

For the reasons stated below, BPA does not find the arguments for allowing transfers in small increments based on Congressional intent compelling and will not change its interpretation that the portion of the large industrial loads that were served by BPA as DSI under either 1975 or 1981 contact demand are divisible into 9.9 aMW segments for transfer to local utility service at the PF rate. First, a review of the entirety of Section 3(13) and not just subSection 3(13)(B) shows that any large load in the region that is "associated with an existing facility, a new facility or the expansion of an existing facility" and which is over 10 aMW in 12 consecutive months is a NLSL. There is only one exception to the above, which is contained in subSection 3(13)(A). The exception is for any large load at a facility that was served by a utility as of September 1, 1979, under contract or that had a commitment to be served by the utility. Such load would not be a NLSL, if the BPA Administrator determined that such a contract or commitment existed. All other large loads over 10 aMW when served by a utility would be NLSLs. Because the DSIs were served by BPA and not by a utility, there was no CFCT for any utility service of DSI production load on September 1, 1979. Consequently, DSI production loads do not have the CFCT exception. DSI production facility load, if over 10 aMW would be a NLSL if served by a local utility.

Second, Congress was well aware of the potential for a DSI to take service from a local utility as an alternative to BPA service. As reported by the House Commerce Committee, "[D] irect service industrial customers now may purchase power firm or near firm directly from BPA. In 1978 BPA made direct sales of power to 15 DSIs located in Oregon, Washington, and Montana." The Committee incorporated a GAO report listing the DSIs receiving power from BPA, and stating each one's contract expiration date and contract demand amounts. All but two of these loads were over 10 average megawatts.
H. Rept. 96-976, 96th Cong., 2d Sess., Part I (1980) at 28-29.

In its section-by-section analysis on the NLSL Section (then Section 3(14)), the Commerce Committee also states that in order to be an NLSL "the load must be new to the system or an existing load not previously served by a preference utility." Id at 51. None of the DSIs were previously served by a preference utility. The Committee then noted, "[t]he definition will serve to induce DSIs to terminate their existing contracts in favor of new long term contracts to be offered under Section 5(d). The DSIs would if they could obtain service, be treated as a new large single load and thus subject to the 7(f) rate." Id.

Similarly, the House Interior Committee report's section-by-section analysis of Section 3(13) states:

> Section 3(13) defines 'new large single loads' a term with rate consequences under Sections 5(c) [residential exchange] and 7(b) of the legislation. Under this definition September 1, 1979, is the 'cut-off' date for all categories of new large single loads, . . . Thus, a large single load of a utility is a 'new large single load' if it was not contracted for or committed to by that utility prior to such date.

H. Rept. 96-976, 96 Cong., 2d Sess., Part II (1980) at 39.

The intent expressed above shows that Congress meant to exclude from the Section 3(13) NLSL definition only those loads that were already served by a public utility or which the utility had committed to serve as of September 1, 1979, or which were single loads at a facility that were under 10 aMW. The House Commerce Committee fully understood the size of the DSI loads. As reflected in their report, if a DSI took service from a public utility, it would be a NLSL since its load was both new to the utility and would not be a CFCT load. Further, the loads over 10 aMW would receive Federal requirements power service from a public utility at the 7(f) rate.

Although BPA was directed to offer a new contract to existing DSI customers no legislative history or other contemporaneous statement indicates a Congressional intent that BPA would always continue to offer contracts to the DSIs. Some parties suggest that such intent should be inferred from the legislation. However, Congress gave the BPA Administrator discretion over whether to offer contracts after the initial 20-year contracts expired.

In 1996 DSIs chose to reduce their power purchases from BPA under new contracts due to then market conditions compared to BPA pricing. Reductions in the amount of DSI contract demand service after the initial contracts was certainly a possibility due to changed circumstances, market economics or the Administrator's exercise of discretion. In either case Klickitat PUD argues that only its service to former DSI loads no longer served by BPA is the issue. BPA agrees, but the issue is not over whether these utilities have the right to serve the load with Federal power. BPA will offer service to the utilities for such service. The issue is what BPA rate is applicable to such service.

Third, DSIs and some public utilities argue that the contract demand load no longer served by BPA and that is placed on the utility by the DSI can avoid NLSL treatment by being served in less than 10 average megawatts portions. They argue that disaggregation of this load service into service contracts of 9.9 aMW per year, such as Klickitat PUD and Goldendale Aluminum executed, avoid the ambit of the statute. BPA has previously rejected this contract "carve-up" of large loads into 9.9 aMW increments based on a power sales contract for a very simple reason. If the load served is no longer associated with the installed electric capability at the plant for a DSI, then any large load in the region could by the same artifice divide up and disaggregate any size facility load into 9.9 aMW. For example, a 200 MW load at a single facility could become 20 individual 9.9 aMW loads under 20 separate contracts executed between the consumer and one or more suppliers. In so doing, a consumer and its utility could avoid any application of Section 3(13). The statute would simply become a nullity under such a BPA policy.

Now we are faced with the issue of how to treat existing production loads of DSIs that were both known to Congress in 1980 and formerly served by BPA and not served by a utility. These are loads recognized to exceed 10 aMW, except for two instances, and are new to the utility when served by the utility because these DSI loads are not CFCT loads of any utility. BPA finds it is consistent with the express language in Section 3(13) that these former DSI production loads or contract demand loads are both over 10 aMW and that they are to be considered NLSLs when served by the utility. If this DSI load or some portion of it takes service from the local utility, such service would be provided by BPA at the 7(f) rate.

The IOUs raised a concern that the transfer of DSI load to a local utility would require BPA to allow transfers of other large industrial or commercial loads in 9.9 aMW increments between an IOU and a public utility. BPA addressed such transfers of non-DSI loads between utility customers in its 2002 NLSL policy ROD. BPA is interested in maintaining consistency in its NLSL Policy as to transfers. BPA's long-standing policy has been to look at the "load associated with a new facility, the existing facility, the expansion of an existing facility" in total to determine whether the resulting service from the utility will exceed 10 aMW.

Under its policy and interpretation of Section 3(13) since 1981, BPA has measured the size of the consumer load "at the facility" in its entirety. When BPA reviewed transfers of large commercial and industrial loads between one utility and another utility, usually transfers from an IOU to a public utility, BPA has looked at the entire consumer load "at the facility" when assessing whether the load becomes a NLSL. In 1982 a former DSI, Stauffer Chemical Company, transferred its service to an IOU, Montana Power Company. BPA measured the entire 80 MW load at the Stauffer facility in declaring it an NLSL of the IOU. As discussed earlier, congressional reports contain the size of loads of the DSIs in the year prior to enactment of the Northwest Power Act. Had Congress intended a portion of these large single loads to be exempt from NLSL treatment, it could easily have included such an exemption in Section 3(13)(A) of the NW Power Act. No such exemption exists and BPA will not infer one. Nor will BPA read only Section 3(13)(B) of the Act as disassociating a portion of these DSI loads from the entire load of the consumer.

Finally, some commenters argue that BPA should not economically harm rural areas of the region by deciding to apply a 7(f) rate to former DSI production load that receives service from a local utility. Several commenters stated that BPA should contribute to the jobs and economy of rural areas by allowing sale of federal power at the PF rate to DSIs. BPA should not contribute to "de-industrialization" of these rural locales. Several public utilities also argued that BPA should do something special for the former DSI loads. They expressed a concern about the potential economic displacement in their communities. State legislators and congressmen stated interests in protecting living wage jobs in the area. On the other hand, several public utilities stated an economic concern regarding the impact on BPA rates of providing service to former DSI production load at the PF rate. They expressed possible loss of jobs and industry in their own communities from higher BPA rates as a possible result of a decision to allow DSIs to phase on to local public utilities.

BPA appreciates the various concerns expressed above. BPA is also concerned about the economic impact of its rates and policies on energy intensive industries and the communities in which they are located. BPA intends to provide support for local economies in a variety of ways, including its commitment to keeping its base rates as low a possible. At the same time BPA knows that it cannot influence major economic trends in the arena of the metals, chemical, pulp and paper or other products markets.

In 1980 BPA was serving 15 companies, six of which were aluminum production plants and 9 were other metals or manufacturing plants including chemical and pulp and paper production. Today, BPA is providing direct service to one pulp and paper company, Port Townsend Paper, and no chemical production plants. The Kaiser aluminum plant at Tacoma has been dismantled, and the Mead plant has been shut down. The Longview Aluminum plant has been shut down, its equipment has been liquidated and the site has been sold. Golden Northwest has both of its smelters shut down and is undergoing reorganization in bankruptcy. Alcoa is still operating portions of its Ferndale (Intalco) and Wenatchee plants with the latter served by Chelan PUD, which has no power sales contract with BPA. Columbia Falls Aluminum is operating one out of its five production pot lines. Oremet is no longer producing titanium but is manufacturing metal sponge with service from PacifiCorp.

A primary BPA objective is to minimize the need for adding additional resources to the Federal system and to maintain or reduce the cost of service to all of our preference customers. BPA's cost reductions in the past year have provided a measure of rate relief and economic stimulation for all customers, which we want to continue. BPA intends to provide some benefit for qualifying DSIs but not through the mechanism that they and their potential serving utilities have proposed under the NLSL policy.

Therefore, any former DSI production facility loads in the megawatt amounts identified by Congress in its reports on the Act as over 10 aMW, and previously served by BPA under 1981 contracts as contract demand at the IP rate will be NLSLs if transferred to local utility service. These loads will be subject to a 7(f) (NR) rate if served with Federal power.

Issue 2:
Should BPA modify or expand its Atochem Policy at this time?

Public comments:
Comments favoring use of the Atochem policy to allow DSIs load not served by BPA to move to local preference utilities in 9.9 aMW increments.

Some comments, including comments opposed to allowing DSIs to transfer to PF-based utility service, argued that if DSI load is allowed to transfer in 9.9 aMW annual increments, non-DSI load should also be allowed to do so. (ICNU, NLSL01-0004; Weyerhaeuser, NLSL01-0005; Emerald, NLSL01-0012; Handy, NLSL01-0013; ICNU, NLSL01-0035; Longview Fibre, NLSL01-0053.) Klickitat PUD said BPA's 2001 Federal Register Notice posed an overbroad and incorrect question. Only preference customer service to DSI production load for which BPA chooses not to provide IP service is at issue. The PUD disagreed with BPA's statement about a "change" in policy saying it was incorrect and really would be a reversal of BPA policy for BPA to now decide that such load cannot be served at the PF rate. Klickitat feels the issue was settled in Atochem's request for service. The NW Power Act sets clear criteria for determination of when a load is an NLSL. BPA should also give weight to the impacts of loss of DSI loads in rural areas. A change in BPA policy to make a DSI an NLSL, even if preference customer service is less than 10 aMW in any consecutive 12-month period, should not be applied retroactively to Klickitat's purchases to serve Golden Northwest. (Klickitat, NLSL01-0043.)

Several commenters made the point that any BPA policy decision that creates a path for DSI load to move onto local utility service at PF must, in equity, be made available to non-DSI industrial loads that would otherwise be NLSLs if they transferred to a new utility; e.g., going from an IOU to a preference customer. It was also claimed that if BPA fails to find a way for DSIs and other industrial loads to transition onto preference customers at PF, the effect will be to unjustly penalize already distressed industries and localities. (McComas, NLSL01-0059; Klickitat, NLSL01-0004; Golden, et al, NLSL01-0001; Pope and Talbot, NLSL01-0041.)

Several individual commenters urged special consideration for Port Townsend. One commenter believes Port Townsend should be served at the PF rate because the load put on Clallam will be less than 10 aMW, and there is really no increase on the BPA system. (Madin, NLSL01-0008.) Other commenters urged BPA to reconsider and remove what they see as a special penalty that would be imposed on Port Townsend by having to purchase part of Port Townsend's power through another agency at the NR rate. (Hartley, NLSL01-0007; Espy, NLSL01-0028.) One commenter expressed the view that the NLSL penalty could make or break the company and asked BPA to consider the possibility of imposing higher/rates penalties on "New Customers" and not long-term customers such as Port Townsend. (Weidert, NLSL01-0018.) Another urged BPA to consider other avenues before just raising the rate of electricity because Port Townsend is using more than an average house or small business. (Tally, NLSL01-0019.)

Evaluation and Decision:
In its 1992 Atochem Record of Decision, BPA addressed the issue of how new load in excess of a DSI's 1981 power sales Contract Demand would be treated if the DSI took service for new facility load from a local utility. Atochem expressly did not address conversions of production load served as part of existing DSI Contract Demand from BPA service to service from a utility. (Atochem ROD at 29.) In Atochem, BPA concluded that under Section 5(d)(3) of the Northwest Power Act BPA did not need additional reserves and it would not offer expanded service to Atochem as Contract Demand under its DSI contract. BPA also considered potential service by a local public utility and determined that for the new expansion load, Congress' intent was to treat such new load as any other new load occurring

in the region.[2] The status of the end-use company or industry as a DSI was not intended to be a detriment or to deter the company from adding new loads. (Atochem ROD at 7.)

Klickatat stated that the 1992 Atochem decision already decided that load of a DSI that BPA is not serving is to be treated as any other load new to the region. Klickatat and others read Atochem to allow a phase-on of large loads in 9.9 aMW increments even if BPA knows the load at the plant is in total over 10 aMW. The Atochem decision concerned the addition of new load to an existing DSI site and whether BPA could serve the new load directly or, if it were to be served by a local utility, what the treatment of the load would be. BPA decided that the additional new load should be treated as any other load new to the region. However, service to DSI production load that was served as part of the DSI's Contract Demand under its initial 1981 contract Exhibit C, is not service to additional load. Atochem did not decide that public utility service to load formerly served as part of Contract Demand is not an NLSL. Atochem did decide that since BPA could not offer more direct service to the Atochem load under Section 5(d)(1) and since the new Atochem load was not service to an existing DSIs Contract Demand load, then the new load should be treated as any other load that was new in the region.

Allowing DSI load to phase off direct BPA service and on to utility service in 9.9 aMW annual increments would give DSI load access to utility service at the PF rate that is not available to non-DSI load. Under BPA's current NLSL policy, a large single load may not incrementally reduce its service from the utility that has historically served the load and transfer to a different serving utility in 9.9 aMW increments and thereby avoid NLSL status. Allowing "phasing off" one supplier and "phasing on" to another in 9.9 aMW annual increments would be a change from current NLSL policy that, over time, could substantially increase the amount of existing large single load served at the PF rate, would undercut BPA's policy on the transferability of CFCT status, and would be counter to the intent of Congress. This is the case regardless of whether the historically served load was DSI load served by BPA or CFCT load served by a utility. BPA will not adopt a change in its NLSL policy to allow existing large single loads, DSI or non-DSI, to transfer from their current supplier to a different utility supplier in 9.9 aMW annual increments and receive PF-based utility service.

Some comments indicate that DSI facility production load should be able to take 9.9 aMWs of PF-based local utility service if the remainder of the facility load were served with power supplied by others, presumably a contract with a third party or by market purchases. Under BPA's current NLSL policy, a large single load cannot limit its load by contract to less than 10 aMW annual increases on the local utility and thereby avoid NLSL status. BPA policy has been and continues to be that the entire load at a facility is compared against the 10-aMW annual threshold for purposes of determining whether the load is an NLSL. Particularly with development of wholesale power markets, the advent of open transmission access, and the evolving restructuring of the utility industry on the state and national levels, allowing large single loads to avoid NLSL status by limiting via contract the incremental load served by the local utility to 9.9 aMW in a 12-month period could greatly expand the ability of large single loads, both DSI and non-DSI, to receive PF-based local utility service. BPA will continue its

[2] Atochem made it clear that they had the business option of locating the additional load as either a separate and expanded new load at its Portland DSI plant site or as a new load at a plant site in Tacoma, Washington.

long-standing policy of considering the total load at a facility when determining whether a load is an NLSL. To do otherwise would undermine the intent of the NLSL provisions of the Northwest Power Act.

BPA finds merit in the comments of several commenters regarding the special position of Port Townsend in one specific respect. BPA knows that in 1996 Port Townsend added a new facility at its site to reprocess old corrugated cardboard (OCC) and that this new facility could have taken service from Clallam PUD because the load associated with the new OCC facility was in excess of Port Townsend's (formerly Crown Zellerbach) then Contract Demand. BPA will continue to apply the Atochem decision to any current or former DSI production load that takes service from a local utility and will not penalize Port Townsend for requesting additional service from BPA in 1996 rather than taking service from Clallam PUD at that time. BPA finds that the OCC facility was completed in 1996 and would have been eligible to be served separately from Port Townsend's Contract Demand load by Clallam PUD. As such it represents the only known instance of a separate facility at a DSI that qualifies for non-NLSL local utility service under the Atochem policy. BPA believes that for current or former DSI production load, only load that meets the test of being (1) a production load added to a DSI site after November 16, 1992, (the date of the Atochem ROD) and therefore load that was not part of the DSIs Contract Demand under its initial 1981 contract Exhibit C; and, (2) new load that is a separate production of a different product, is eligible to be served by the local utility under Atochem. The approximate 3 aMWs of production load at Port Townsend's OCC recycle pulp facility is the only DSI load that BPA is aware of that meets the above tests.

Issue 3:
Should BPA adopt a renewables and on-site cogeneration option under its NLSL policy based on a similar option contained in the 1981 BPA Utility Power Sales Contracts, expanded to include off-site renewable resources?

Regional Dialogue Policy Proposal:
The Regional Dialogue Proposal states: "BPA proposes to adopt an on-site cogeneration and renewables exception to its NLSL policy based on a similar exception contained in the 1981 BPA Utility Power Sales Contracts."

Public Comments:
Comments in favor of the cogeneration and renewable resource option:

One commenter had unreserved approval for the "green exception." The renewable exception is a useful addition to BPA's NLSL Policy because it encourages and enables renewable resource development in the region while helping provide non-Federal service to DSI loads. (Klickitat, RD04-0144.)

While approving the concept, three commenters asked for the proposal to be changed or expanded. To make this option more beneficial to the development of renewable resources, BPA should match 1 aMW PF for each aMW of renewable or on-site cogeneration, up to 9.9 aMW. BPA should also clarify that the "green exception" is also available to non-DSI industrial loads in similar situations. (Emerald, RD04-0062.) EWEB stated that if BPA elects to allow service at the lowest PF rate for up to 9.9 aMWs to NLSLs that meet the remaining portion of their load with on-site cogeneration or with renewable resources, this option should be made available to existing NLSL customers, even though their serving utilities may have elected an option previously to not take NLSL service from BPA. EWEB also stated that if the language on cogeneration or renewable resources was adopted many practical issues must be resolved regarding what renewable resources would qualify for this NLSL exemption. EWEB cited a number of examples of cogeneration and renewable resources, including market purchases that are accompanied by a matching amount of green tag or renewable energy certificates. (EWEB, RD04-0127.)

Limiting the "green exception" to no more than 9.9 aMW of PF on a one-time basis means the cogeneration or renewable resource amount needed for a load to qualify may not be economically feasible. Allow 1 aMW of PF for each aMW of cogeneration or renewable, up to 9.9 aMW per year. (P&T, RD04-0125.)

BPA's proposal comports with existing contracts and with prior actions on NLSL. The proposal offers a mechanism for an economic power supply at a time when the region needs economic expansion and diversification. This policy could be an effective stimulus for development of cost effective renewable and cogeneration. But BPA should not limit cogeneration to on-site resources only; any cogeneration within the distribution utility's service area should be useable. BPA should allow cogeneration that is in the serving utility's territory, but not on-site of the NLSL under the exception. (Cowlitz, RD04-0128.) One comment urged BPA to exercise flexibility concerning applicability and interpretation of NLSL policy. Current policy lacks clarity regarding cogeneration and renewables. BPA needs to clarify the policy. (Walden, RD04-0137.)

Comments against allowing a cogeneration or renewable consumer option.

Two comments came out against the cogeneration and renewables option. Benton REA does not support any continued service to DSIs or a cogeneration and renewable resources exception (for DSIs). Current (NLSL) Policy was implemented to protect current preference customers of BPA from the financial impacts of serving large loads. It was certainly not the intent of the policy allow transition of DSI service to local utilities. (Benton REA, RD04-0046.) Central Lincoln PUD agrees with Benton REA. (Central Lincoln, RD04-0057.)

Several other issues were raised including requiring a "significant" amount of renewables (Last Mile, RD04-0050), allow 9.9 aMW annual increments of PF service if matched aMW for aMW with cogeneration or renewables (P&T, RD04-0125), and BPA should increase a customer's Slice/block amounts if a end consumer elects to utilize the cogeneration and renewable resources exception (EWEB, RD04-0127.)

Evaluation and Decision:
Most commenters supported BPA's proposal to provide a renewables and on-site cogeneration consumer option under BPA' NLSL policy for serving a load which is an

NLSL. Some commenters want BPA to allow customers to equally match green megawatts applied to equal to 9.9 aMW increments for large single loads.

BPA's renewables and on-site cogeneration consumer option starts from the fact that but for the application of cogeneration or renewable resource, the consumer's load is already an NLSL that if served with Federal power, that power would be provided to the utility at the NR rate. BPA appreciates the point that under some circumstances, the amount of cogeneration or renewable needed in order to qualify for 9.9 aMWs of PF service may not be large. However, in other circumstances where the new large single load is 19 aMW or more the consumer would be supplying the majority of the load through either cogeneration or renewable resources. BPA is interested in a reasonably simple, straightforward option for a consumer, which will directly encourage cogeneration on site or the application of renewable resources to present or future large loads in the region. We conclude that the potential increase in administrative complexity of establishing different thresholds for matching megawatt to megawatt for different sizes of commercial and industrial loads is significant, and tracking compliance with those different thresholds over time is not simple. It means moving away from relative simplicity to a complex administrative review of the consumer's resources and loads, which could ultimately discourage rather than encourage a consumer's use of cogeneration and renewable resources, and would increase BPA's administrative costs. Ease of administration and the benefit of simplicity for a consumer who must make economic development decisions argues against a more complex "significant share" of load basis for the option.

In addition, matching MW for MW might result in a policy that provides more incentive to develop cogeneration or renewables, depending on the size of the load but could also result in BPA serving more than 10 aMW of load at the PF rate. This matching alternative could result in BPA taking on substantial additional load service in future rate periods and increasing thereby increasing BPA costs. On the other hand if BPA retained a cap of 9.9 aMW of PF service and combined it with a requirement that the consumer match megawatt for megawatt, then this alternative approach would generally serve to reduce the economic feasibility (by requiring more cogeneration or renewables) of the option for loads between 10 and 20 aMWs, a concern expressed by Emerald in its comments. For these reasons and because BPA does not wish to increase its cost exposure for PF service that could result from a matching of MWs, BPA will not adopt a matching approach in the renewables and cogeneration option.

The consumer renewable resource and on-site cogeneration option was adopted the 1981 utility power sales contracts as an incentive for the development of on-site cogeneration (distributed generation) and the development of on-site renewable resources in the region. It was intended to support the Northwest Power Act's purpose of encouraging conservation and renewable energy. Because it presented the consumer with the ability to reduce the amount of power the consumer would take from the utility in a permanent manner, BPA viewed it as consistent with the purpose of its New Large Single Load policy as well. It was a one-time option to reduce the load a facility placed on the local utility to less than 10 aMW. As such it did not promote the stair stepping of additional increments of facility load onto the local utility at the PF rate. Just as with a matching of megawatts, allowing 9.9 aMW increments of

PF-based service for additional 9.9 aMW increments of cogeneration or renewable has the cost risks for the PF rate noted above and exceeds the amount of incentive BPA initially provided under its 1981 contracts.

Two commenters argued that BPA should allow off-site cogeneration in addition to off-site renewables under the option. The 1981 Power Sales Contract cogeneration and renewables option required that both cogeneration and renewables be "on-site". The intent and effect was that the load served by the local utility, when the cogeneration and renewable resources were applied on-site and behind the utility meter, would be reduced the load to less than 10 aMWs.

BPA recognizes the fact that renewable resources are more prevalent and available today than in 1981 and Independent Power Producers and marketers are offering renewable resources. Further, some state laws permit a consumer with large load to buy renewable or green resources directly or through a portfolio administered by the local utility. Today, BPA recognizes that the "on-site" requirement would materially reduce the effectiveness of this option in promoting renewable resource development. The nature of renewable resources and likely location of the renewable energy source (wind, geothermal, hydro, biomass, landfill gas, etc.) will not necessarily make the large single load facility site a feasible location for the generation. The practical effect of requiring the renewable resource to be on-site is to potentially defeat the encouragement of those resources.

However, cogeneration resources are part of the facility's production. Requiring that the cogeneration be on-site does not have the same consequences. Cogeneration is tied directly to the production process of a plant and by its nature involves the simultaneous production of electricity and process heat at the facility site. Large single loads that have process heat requirements, also have a reasonable opportunity to install cogeneration into their production process and avail themselves of the cogeneration option.

In order to further promote the development and use of on site cogeneration and renewable resources in the region, BPA will provide an option to a consumer whose load is an NLSL to apply renewable and on-site cogeneration resources to the load. This option will be available to all consumers with large single loads that are otherwise NLSLs, including existing NLSLs, former DSI load, new loads, increases in loads that exceed 10 aMWs in a 12-month period, or loads changing service from one utility supplier to another utility.

For existing NLSLs served with dedicated NLSL resources, this option does not constitute BPA's consent for removal of any resource dedicated to the NLSL. BPA's Section 5(b) and /9(c) Policy of May 2000 requires resources that are dedicated to serving regional load, including NLSLs, to continue to remain dedicated to such service. Consistent with the 5(b) and /9(c) policy, this policy does not require BPA to give consent to remove a resource or agree to amend its power sales contracts for a resource dedicated to serving a NLSL.

If a consumer directly provides a on-site cogeneration or a renewable resource to serve all or a portion of a load associated with a facility which is otherwise a NLSL, and the remaining new load or load increase served by the local utility is reduced to 9.9 aMWs or less, then that 9.9 aMW portion of such load on the utility would be eligible for service at the PF rate. If state law requires that a consumer's purchase of a renewable resource must be through a portfolio from the local serving utility, then the local utility may provide the renewable resource for purposes of this renewables and on site cogeneration option.

The cogeneration or renewable resource must be continuously applied to the load. If the end use consumer or the serving utility on behalf of the end consumer at any time sells, discontinues, displaces or removes a cogeneration resource or the renewable resource or portion thereof from service to the end consumer's load at the facility, then all the load or the increase in load at the facility shall be a NLSL served at the NR rate.

In general, Renewable resources shall be as defined in Section 5.2 of BPA's C&RD Implementation Manual of October 1, 2004. Cogeneration means the sequential production of more than one form of energy such as heat and mechanical energy, or heat and electricity, or mechanical energy and electricity in a process that is directly linked to an industrial production process, such that output of the co-generator varies with the output of the industrial plant concerned. All specific qualifying Renewable and on-site cogeneration determinations shall be at the BPA Administrator's sole discretion.

Issue 4:
Other Comments Regarding NLSLs

Public Comments:
Two commenters took the view that BPA should take a broad, equitable view of the application of its NLSL Policy. The U.S. Navy said no changes to the current policies are warranted. From a broader perspective, a phased in approach to level the rates for old and new industries may be timely so that everyone partially enjoys the benefits of the low cost hydropower available and competition would be enhanced. (U.S. Navy, NLSL01-0058.) A Montana state representative said they were happy about the agreement for reasonable power rates for the additional needs of the NLSL at Plum Creek, fluctuations in power prices have caused hardships for my constituents and others in Montana, and that it is imperative that BPA does everything within reason to ensure that needs of families who work in the Northwest, are met. (Brown, NLSL01-0060.)

The State of Oregon was looking for a different method of relief for DSIs. Oregon could support a limited shifting of DSI loads to public agencies not to exceed 100 aMW in total over the next 5 years. Eligibility should be limited to DSIs that have already shifted load to public agencies within the last 5 years. (OPUC/OOE, NLSL01–0049.) One commenter would allow a single lifetime former DSI plant load of not greater than 9.9 aMW to transition onto its local preference utility. (Tacoma, RD04-0103.)

Weyerhaeuser felt the proposal has the appearance of BPA being influenced by the lobby for the DSIs. If the policy is changed, it should be opened to any large customer that wants to add 10 aMW per year. Special treatment to DSIs should be rejected. (Weyerhaeuser, NLSL01-0005.) INCU agreed with the proposal to deny DSIs 9.9 aMW load creep but any allocation process must reserve 75 aMWs for use by NLSL that has CFCT protections. (INCU, RD04-0093.)

EWEB felt that any changes to NLSL policy should be made in a separate policy process. (EWEB, RD04-0127.) WPAG felt the proposal makes little sense. (WPAG, RD04-0105.)

Evaluation and Decision:
WPAG's comment does not provide sufficient detail to enable BPA to respond. As to EWEB's comment that any NLSL policy change should be in a separate proceeding, BPA has already provided two Federal Register Notices in 2001 and 2004 on these NLSL issues and finds that it is administratively convenient and appropriate to resolve these issues in this public process just concluded. Certainly NLSL issues are complex but it is not clear that having those issues addressed apart from other basic power sales issues is a better method. BPA needs to resolve these three issues in order to proceed with its long-term Regional Dialogue proposal.

Regarding Weyerhaeuser and ICNU's concerns that equal treatment be afforded to CFCT loads to transfer to other utility service from their existing service, BPA has previously addressed that issue starting with its Boise Cascade decision in 1982. The transfer of a large CFCT load from its serving utility to another utility does not disadvantage the CFCT in relation to the DSI Contract Demand load transferring to a public utility since both large loads would result in service at the NR rate from a public utility or an IOU. The only possible exceptions to this treatment is potentially where two public utilities merge with each other, or where one public utility take over fully the service area of another public utility as a successor in interest. BPA's 2001 policy and ROD decision noted those possibilities.

As to the State of Oregon's comment on allowing 100 aMW over 5 years as a limit on transfers of DSI load, and Tacoma's single lifetime right of a DSI to transfer to a public utility, those ideas are not supported by language currently in BPA's statutes. Likewise the U.S. Navy's comment on leveling the rate for old and new load might be a good public policy but it is not the rate treatment for NLSLs set by the Northwest Power Act. State Representative Brown's comment regards a power sale made by Pacificorp to Flathead electric for its consumer Plum Creek and Plum Creek's new large single load. It points out that federal power is not the only answer to providing reasonable priced service to such large loads. BPA agrees with the goal of keeping working wage jobs in the region in support of families and the regional economy.

I.I. Service to Residential and Small-Farm Consumers of Investor-Owned Utilities (IOUs)

Issue 1:
In the event a court sets aside the new contracts and amendments described in the Administrator's Record of Decision signed May 25, 2004, but leaves the investor-owned utilities' underlying Subscription Settlement Agreements in place, should BPA provide the IOUs contingent notice that BPA will provide financial benefits, and not power benefits during FY 2007-2011 under the Subscription Settlement Agreements?

Regional Dialogue Policy Proposal:
The Regional Dialogue Policy Proposal states that, in the event a court sets aside the new contracts and amendments described in the Administrator's Record of Decision signed May 25, 2004, but leaves the underlying Subscription contracts in place, BPA will notify the investor-owned utilities that BPA will exercise its Subscription Settlement Agreement right to provide financial benefits, and not power benefits during FY 2007-2011 under those Agreements.

Public Comments:
Most of the comments supported BPA's proposal to provide financial benefits instead of power benefits to the regional investor-owned utilities' residential and small-farm consumers. (Idaho Falls, RD04-0023; CRPUD, RD04-0031; NWasco, RD04-0042; Central Lincoln, RD04-0057; Benton PUD, RD04-0068; NRU, RD04-0073; PPC, RD04-0109; SUB, RD04-0106; PNGC, RD04-0114; EWEB, RD04-0127.) A number of comments supported BPA's recent amendments of the Subscription Settlement Agreements, which prescribe financial benefits during FY 2007-2011. (CRPUD, RD04-0031; NWasco, RD04-0042; Central Lincoln, RD04-0057; Tacoma, RD04-0103; EWEB, RD04-0127.) Citizens Utility Board of Oregon expressed support for BPA's recent amendments but expressed concern that BPA does not recognize the provision of benefits to residential and small-farm consumers as a fundamental part of its mission. (CUB, RD04-0113) Some commenters noted that it was important that residential and small-farm consumers receive benefits. (ODOE, RD04-0102; CUB, RD04-0113.)

Benton REA stated its opposition to BPA's Subscription Settlement Agreements with the IOUs, as amended, but stated it supported the provision of financial benefits instead of power benefits pending the outcome of the litigation. (Benton REA, RD04-0046.) Glacier Electric stated its opposition to BPA's Subscription Settlement Agreements with the investor-owned utilities as originally negotiated but stated its support for the Subscription Settlement Agreements, as amended. (Glacier, RD04-0076.) A number of commenters expressed their view that benefits for residential and small-farm consumers should be based on implementation of the Residential Exchange Program specified in the Northwest Power Act and not the provisions of BPA's Subscription Settlement Agreements, as amended. (Benton REA, RD04-0046; Snohomish, RD04-0104; Clatskanie, RD04-0112.) Western Public Agencies Group declined to comment due to pending litigation. (WPAG, RD04-0105.)

The utility regulatory commissions for Idaho, Oregon, Montana, and Washington (Commissions) oppose BPA's policy proposal to provide benefits during the FY 2007-2011 time period in the form of financial benefits if the courts set aside the recently signed amendments to the Subscription Settlement Agreements. The Commissions cite a partial quotation from BPA's April 2000 Supplemental Subscription ROD as evidence of BPA's intent that all benefits during FY 2007-2011 would be comprised solely of power deliveries. They urge BPA to adopt a proposal of seeking the desires of each investor-owned utility as to actual power or monetary benefits if the contracts are invalidated and working in good faith to fulfill each utility's request. They believe such a proposal would be as effective in meeting BPA's objective of clarifying its power obligations as the BPA proposal and would do so with a greater chance of political sustainability. (PNW SUC, RD04-0133.)

Evaluation and Decision:
As noted above, some commenters argue that benefits for residential and small-farm consumers should be based on implementation of the Residential Exchange Program specified in the Northwest Power Act and not the provisions of BPA's Subscription Settlement Agreements, as amended. (Benton REA, RD04-0046; Snohomish, RD04-0104; Clatskanie, RD04-0112.) This ROD, however, does not revisit or address that issue. Although certain parties may oppose BPA's settlement contracts with the IOUs, BPA's contracts are binding in accordance with their terms and BPA must comply with its existing contractual obligations. As many parties note, their issues regarding BPA's existing contracts are currently in litigation. The issue presented in this public process, therefore, is limited to whether BPA should provide financial benefits instead of power benefits in the event the courts set aside the recent agreements establishing prospective financial benefits but prior contracts establishing service with either financial benefits, or power benefits, or both, remain in effect.

Most commenters supported BPA's proposal to provide financial benefits under the Subscription Settlement Agreements during FY 2007-2011 in the event a court sets aside the new agreements and amendments but leaves the underlying Subscription contracts in place. BPA's proposal is well-founded for several reasons. The agreements and amendments recently signed with the investor-owned utilities provide for financial benefits during FY 2007-2011. These agreements, therefore, place on the investor-owned utilities the responsibility for acquiring resources to serve their loads. Changing the responsibility for acquiring resources if the agreements and amendments were set aside would create uncertainty in resource planning both for BPA and the investor-owned utilities.

During the initial signing of BPA's Subscription contracts with customers, the amount of load placed on BPA exceeded both BPA's existing resources and the amount of additional loads BPA forecasted it would serve in its 2002 rate case. Last minute load placement on BPA forced BPA to acquire resources in a short period of time and in very high priced markets. Similar costs can be avoided for both BPA and the IOU, if a decision on who will serve these loads is made well in advance of October 1, 2006.

Waiting until the conclusion of existing litigation to determine whether BPA should provide power or financial benefits would create several problems. Decisions in the litigation surrounding the underlying Subscription Settlement Agreements are not expected until spring of 2006. Decisions in litigation over the recent amendments and agreements could occur after the start of FY 2007 in October 2006. Waiting for the outcome of litigation as proposed by the Commissions would leave BPA's decision to the last minute with consequent uncertainty created for both BPA and the IOU. There would be little or no time to negotiate an agreement "in good faith" as proposed by the Commissions.

The Commissions' proposal is based on a quote from the Supplemental Record of Decision for BPA's Subscription Strategy, which states that "BPA intends for this 2,200 aMW to be comprised solely of power deliveries." (Supplemental Record of Decision, April 2000, at 10.) BPA noted, however, that this intent might not be realized. In the same paragraph as the sentence cited by the Commissions, BPA stated that, according to its 1998 Subscription Strategy, it would offer and guarantee 2,200 aMW of power *or* financial benefits for the FY 2007-2011 period. BPA also noted that "[i]n the event of a reduction of Federal system capability and/or the recall of power to serve its public preference customers during the term of the 5-year and 10-year contracts, BPA will either provide [the IOUs] monetary compensation or purchase power to guarantee deliveries." Id.

BPA's 1998 Subscription Strategy also contains the language quoted by the Commissions and the descriptions of when BPA would not provide power to the investor-owned utilities for the FY 2007-2011 period. Power Subscription Strategy, December 21, 1998, at 9. BPA's ROD further explained BPA's intent to provide power during FY 2007-2011, noting that reaching a goal of 2,200 aMW of sales to residential and small farm consumers might be possible due to expiring contracts, after meeting BPA's public agency contract obligations and in the absence of significant reductions in system capability. Power Subscription Strategy, Administrator's Record of Decision (December 21, 1998,) at 52. BPA's ROD thus explicitly noted that such ability was contingent on BPA's preference customer load obligations. Id. at 53, 57-58. BPA currently projects its preference customer load obligations to exceed Federal system resources throughout FY 2007-2011. BPA's contracts with the investor-owned utilities implementing the 1998 Subscription Strategy (as revised by BPA's Supplemental Record of Decision) reflect BPA's ability to determine the amount of power or financial benefits during FY 2007-2011. While the contracts required BPA to consult each investor-owned utility on its desire for firm power or monetary benefits, they placed no obligation on BPA to provide sales of firm power. (Avista Corporation, Contract No. 00PB-12157, Section 4(a)(2); Idaho Power Company, Contract No. 00PB-12158, Section 4(a)(2); PacifiCorp, Contract No. 01PB-12229, Section 4(a)(2); Portland General Electric, Contract No. 00PB-12161, Section 4(a)(2); Puget Sound Energy, Inc., Contract No. 01PB-10885, Section 4(b)(2); and Northwestern Corporation, Contract No. 00PB-12160, Section 4(a)(2).)

In summary, BPA intends to provide the region's six investor-owned utilities -- Avista Corporation, Idaho Power Company, PacifiCorp, Portland General Electric, Puget Sound Energy, Inc., and Northwestern Corporation -- contingent notice that BPA will provide financial benefits and not power benefits during FY 2007-2011 under the Subscription Settlement Agreements in the event a court sets aside the new contracts and amendments described in the Administrator's Record of Decision signed May 25, 2004, but leaves the underlying Subscription contracts in place. If the Subscription contracts are successfully challenged in court, the agency will act consistent with the court's ruling in negotiating new contracts to provide power or financial benefits to the residential and small-farm consumers of IOUs under the Northwest Power Act.

I.J. Conservation Resources

Issue 1:
Should BPA adopt the five principles in the policy proposal to guide development of conservation?

Regional Dialogue Policy Proposal:
BPA proposes five principles to guide development of the specific elements for conservation. These general principles are:

- Use of the Council's plan to identify the agency's share of cost-effective conservation. BPA has been working closely with Council staff to ensure those targets are a reflection of the true cost-effective conservation potential in the region.

- The bulk of the conservation to be achieved is best pursued and achieved at the local level. There are some initiatives that are best served by regional approaches (e.g., market transformation through the Northwest Energy Efficiency Alliance (NEEA)). However, the knowledge local utilities have of their consumers and their needs reinforces many of the successful energy efficiency programs being delivered today.

- To contribute to meeting the financial challenges facing the region, BPA will seek to meet its conservation goals at the lowest possible cost and lowest possible rate impacts. While only cost-effective measures and programs are a given, the region can benefit by working together to jointly drive down the cost of acquiring those resources. For example, Conservation and Renewables Discount (C&RD) reporting to date indicates a cost for installed conservation measures in the range of $2.2 million per aMW while Conservation Augmentation (ConAug) is averaging about $1.3 million per aMW versus NEEA programs, which are costing just under $1 million per aMW. Regarding the C&RD conservation costs, the $2.2 million figure excludes the customers' low-income expenditures claimed under the program and is an average cost reflecting that some utilities are booking conservation measure savings at a rate of $4 million per aMW. The wide variance in cost per aMW offers a significant opportunity for the region to pursue an important cost-saving option.

- BPA funding for local administrative support to plan and implement conservation programs has been essential. In the future, this support should be retained, with the appropriate level of funding open for discussion.

- Financial support for education, outreach, and low-income weatherization are important initiatives that complement a complete and effective conservation portfolio. However, these types of programs often yield no measurable savings or considerably more expensive energy savings (e.g., low-income weatherization). These program efforts have been successful and should continue to be funded.

Public Comments:
Most commenters support the principles. (E.g., Emerald, RD04-0071; PNGC, RD04-0114; NRDC, RD04-0129.) Many public agency utility customer comments stressed the second principle that recognized the importance of getting the conservation savings through local efforts. (E.g., Cowlitz, RD04-0128; NWasco, RD04-0042; WMG&T, RD04-0092; Orcas, RD04-0034; NRU, RD04-0073.)

Evaluation and Decision:

BPA's Strategic Direction states:

> BPA will continue to treat energy efficiency as a resource and define our goals in terms of megawatts of energy efficiency acquired. Even if we adopt tiered rates, we are very likely to continue to need limited amounts of new resources. We expect conservation to continue to be a cost-effective resource to meet this limited need, with first priority by law. Accordingly, our goal is to continue to ensure that the cost-effective conservation in the load we serve gets developed, since this amount is very unlikely to exceed our total need. We will ensure this amount is developed with the smallest possible BPA outlay. We will do this through a combination of acquisition of conservation, adoption of policies and rates that support others' development or acquisition of cost-effective conservation, and support of market transformation that results in more efficient electric energy use.

None of the comments received suggested that BPA should not adopt its five principles to guide development of the specific elements for conservation. As described in the policy proposal, these principles are consistent with recommendations made by the Northwest Power and Conservation Council. These principles will be used by BPA as guidance during the collaborative process to address the approach to conservation in the future. BPA appreciates utility customer comment regarding the second principle and will take that sentiment into consideration during the collaborative process.

To guide the full development of BPA's conservation acquisition programs in the post-2006 period, BPA adopts the five principles outlined in its policy proposal, which have been edited to align them with decisions discussed later in this ROD and for sake of directness and simplicity. Therefore, BPA will adopt the principles as modified as follows:

- BPA will use the Council's plan to identify the regional cost-effective conservation targets upon which the agency's share (approximately 40 percent) of cost-effective conservation is based.
- The bulk of the conservation to be achieved is best pursued and achieved at the local level. There are some initiatives that are best served by regional approaches (for example, market transformation through the Northwest Energy Efficiency Alliance).

However, the knowledge local utilities have of their consumers and their needs reinforce many of the successful energy efficiency programs being delivered today.

- BPA will seek to meet its conservation goals at the lowest possible cost to BPA. While it is a given that only cost-effective measures and programs should be pursued, the region can also benefit by working together to jointly drive down the cost of acquiring those resources.
- BPA will continue to provide an appropriate level of funding for local administrative support to plan and implement conservation programs.
- BPA will continue to provide an appropriate level of funding for education, outreach, and low-income weatherization such that these important initiatives complement a complete and effective conservation portfolio.

Issue 2:
Should BPA define its share of regional conservation targets to be the proportion that covers all the loads of public agency customers and DSIs?

Regional Dialogue Policy Proposal:
The first principle stated that BPA would use the Council's plan to identify its share of cost-effective conservation.

Public Comments:
A few commenters suggested that BPA include in its responsibility conservation on all public utility loads, including partial requirements customers and DSIs. (NWEC, RD04-0110; NWEC, RD04-0019; Rainey, RD04-0090; NRDC, RD04-0085.) To accomplish this they suggest that a contract mechanism be used to require proportional matching funds to a public utility's non-BPA resources in order to receive BPA funds. This approach was also suggested by others. (WA Dept Trade, RD04-0072; ATNI, RD04-0033.)

Evaluation and Decision:
One of BPA's purposes under the Northwest Power Act is to encourage conservation and efficiency in the use of electric power. BPA pursues this purpose through its contractual relationship with regional customers. These customers place power demands on BPA that are met by the sale and disposition of power and through other means, such as the reduction of that demand for power through conservation. The Act mandates that conservation is a resource that, like other resources, is to be acquired by the BPA Administrator to meet his contractual load serving obligations.

Guiding BPA in developing the Regional Dialogue policy proposal is the strategic direction to ensure that all cost-effective conservation is accomplished on the loads its serves. It is not reasonable, therefore, for BPA to assume responsibility for conservation on IOU or other loads that are not served by the Administrator since this would create cost burdens on the customer loads we serve without achieving a benefit. BPA regards its responsibility to be limited to the approximately 40 percent of the region's load that it serves. The first principle will be edited as follows to make this clear: BPA will use the Council's plan to identify the regional cost-effective conservation targets upon which the agency's share (approximately 40 percent) of cost-effective conservation is based.

BPA appreciates the suggestion made by NWEC that a contract mechanism may provide a way to ensure that utility customers, including partial requirements customers, develop conservation and/or energy efficiency based on their total load. The comment, however, is beyond the scope of the proposal. BPA will take NWEC's suggestion into consideration during the collaborative process.

Issue 3:
Should BPA include a rate credit program for conservation after 2006?

Regional Dialogue Policy Proposal:
The policy proposal did not explicitly provide that a rate credit program would be included in the post-2006 program design.

Public Comments:

Many comments expressed support for the continuation of the Conservation and Renewables Discount (C&RD) or some form of a rate credit in the post-2006 period. (ODOE, RD04-102; Central Lincoln, RD04-0057; PPC, RD04-109; Clatskanie, RD04-0112; Cowlitz, RD04-0128; NRU, RD04-0073; NWasco, RD04-0042; Seattle, RD04-0115.) Widespread expressions of support emphasized the "local control" and flexibility of the previous C&RD program. Some expressed satisfaction with the reported costs of the program. (E.g., Emerald, RD04-0020; Emerald, RD04-0071; PPC, RD04-0109.)

Evaluation and Decision:
While the policy proposal did not include within its scope a specific inclusion for continuation of the C&RD or a successor type of rate credit, BPA acknowledges the perceived value of the flexibility and local control in the C&RD. It is understandable that BPA's customers and others desire inclusion of this general type of program, but the exact design of the future programs will be worked out in the regional collaborative conservation planning process. This process is described in the policy proposal. Accordingly, BPA will leave the question of inclusion of a C&RD-type credit to the collaborative process. This provides plenty of time to reach a decision in advance of BPA's FY2007 initial rates proposal.

Issue 4:
Should BPA be specific about the level of intended support for low-income programs in the regional dialogue process?

Regional Dialogue Policy Proposal:
The fifth principle stated that BPA will continue to provide an appropriate level of funding for education, outreach, and low-income weatherization such that these important initiatives complement a complete and effective conservation portfolio. It did not address the scope or scale of that support.

Public Comments:
Some commenters requested that BPA commit to a larger or more specific budget for low-income programs. (NRDC, RD04-0085; NWEC, RD04-0110; CADO, RD04-0123; Ebbeson, RD04-0117; WA Dept Trade, RD04-0072.)

Evaluation and Decision:
This level of detail is not within the scope of the Regional Dialogue policy and is properly a matter for discussion and comment in BPA's upcoming Power Function Review. As part of this policy, BPA will re-affirm its commitment to conservation in general and its continued recognition of the importance of low-income programs in the portfolio.

Issue 5:
How should conservation savings be treated in future discussions of BPA power supply?

Regional Dialogue Policy Proposal:
This issue is not within the scope of this Regional Dialogue proposal.

Public Comments:
Some commenters expressed a concern that a disincentive exists related to customer energy efficiency programs that is created by the present uncertainty over how future allocations of BPA lowest cost power will be calculated. (NWEC, RD04-0110; NRDC, RD04-0129.) They recommend that BPA make it clear that energy efficiency and renewable resource acquisitions by customers made after the approval date of this Policy will not affect the size or value of a future allocation of BPA's lowest rate. (NWEC, RD04-0110.)

Evaluation and Decision:
This issue is not within the scope of this Regional Dialogue policy. The policy proposal clearly states that the scope of this proposal is limited to issues that have to be resolved for FY 2007-2011. See 69 Fed. Reg. 43400 (July 20, 2204) Consequently, issues such as the long-term "allocation" of the system are not addressed. Id. Supply of power at BPA's lowest cost-based rate is an issue that will likely be addressed by BPA over the next few months as part of the development of the long-term Regional Dialogue policy. Conservation issues will be part of that discussion. Therefore, this final policy will not provide any direction on this matter.

Issue 6:
Should BPA compare directly the costs of ConAug and C&RD?

Regional Dialogue Policy Proposal:
The third principle contains, as an example of the varied cost of existing conservation programs, a comparison among the costs of the C&RD, ConAug, and the Alliance's market transformation programs. This principle notes that this wide variance in cost per aMW offers a significant opportunity for the region to pursue an important cost-saving option.

Public Comments:
Several commenters expressed concerns about the comparison of the costs of different programs in the policy proposal. (E.g., Emerald, RD04-0071; EWEB, RD04-0127; SUB, RD04-104.) They point out that the programs are designed for different purposes and that the included costs of administration and shared administrative arrangements were overstating the cost of C&RD.

Evaluation and Decision:
BPA understands the concerns expressed above but, nonetheless, believes that the examples provided in the policy proposal, while not completely comparable, support BPA's direction to re-examine its existing programs. It is prudent to understand the cost variance among existing programs, and it is prudent to explore alternative approaches for future programs that can reduce the cost of acquiring conservation. However, because the message appears to have been generally understood and the comparison involves a level of detail that is not congruent with the general policy principles in the remainder of the policy document, the specific comparisons will be deleted in the final document.

Issue 7:
Should BPA conduct a collaborative planning process to develop a more fully defined approach to conservation programs?

Regional Dialogue Policy Proposal:
BPA envisions some form of collaborative planning process in which experienced individuals can develop a fully defined proposal for conservation that can then be brought to the entire region for consideration. This joint planning process can accomplish the blending of appropriate policy guidance with the flexibility to ensure conservation can meet the huge variance of conditions and needs that exist in the region.

Public Comments:
Many commenters supported the policy proposal to involve many experienced parties in designing collaboratively an approach to future conservation programs. (E.g., PNW SUC, RD04-0133; NRDC, RD04-0129; Franklin, RD04-0108; WMG&T, RD04-0092; WA Dept Trade, RD04-0072; PPC, RD04-0109.) Most expressed a willingness to participate in such a collaborative process.

Evaluation and Decision:
BPA appreciates the support for the collaborative process expressed in comment. BPA also recognizes that the principles provided in the draft policy proposal were not detailed enough to describe a specific approach or set of approaches to carrying out its strategic objective of developing all cost-effective conservation on the load it serves. As envisioned in the draft policy, BPA has convened a regional collaborative of interested utilities, organizations, and individuals to work out recommendations for approaching the program designs needed for the post-2006 conservation programs. This process is open to the public and all persons are welcome.

I. K. Renewable Resources

Issue 1:
Should BPA engage in an active and creative facilitation role with respect to renewable resources development?

Regional Dialogue Policy Proposal:
The Regional Dialogue policy proposal states that BPA proposes to engage in an active and creative facilitation role with respect to renewable resource development. This signals a move away from large-scale renewables acquisition toward a greater focus on finding ways to reduce the barriers and costs interested customers face in developing and acquiring renewables.

Public Comments:
BPA received close to 100 comments on its policy proposal for renewable resources, including many individuals. (Allen, RD04-0078; Schmidt, RD04-0079; Casey, RD04-0038; Ball, RD04-0044; Olson, RD04-0077; Manley-Cozzie, RD04-0118; Ebbeson, RD04-0117; WSD, RD04-0080; Dailey, RD04-0081; Louis, RD04-0087; Bird, RD04-0089; Rainey, RD04-0090; EBARA, RD04-0007.) Many of the comments were in the form of broad support for BPA's efforts to support renewables, (e.g., NCCAC, RD04-0028; Skagit, RD04-0088; Last Mile, RD04-0050; Bluefish, RD04-0029; SRA, RD04-0029; SRA, RD04-0065;ATNI, RD04-0033; Tulalip, RD04-0032) although some comments reflect a concern that BPA is turning its back on its renewables obligations with its new focus on facilitation. (E.g., NWEC, RD04-0110.)

Senator Ron Wyden, Senator Maria Cantwell, and Congressman Earl Blumenauer expressed their appreciation for BPA's past efforts to "support renewables through acquiring good renewables projects, developing helpful products and services for renewable resources, and in seeking changes to transmission system policies that reduce barriers to renewable resources." (Wyden et al, RD04-0002.). In addition, elected officials at the state level offered general support as well (Ericksen, RD04-0076; Beaver, RD04-0028.)

A number of commenters expressed concern over shifting responsibility for renewables development to other utilities. (LCHCS, RD04-0012; LCHCS, RD04-0020; Arthur, RD04-0019; Maloney, RD04-0020.) The Northwest Energy Coalition claimed that shifting responsibility for load growth will result in failure to meet objectives in the Council's Plan. (NWEC, RD04-0110.) NRDC argued that, if BPA limits its acquisition role, renewables may not be developed and resource adequacy could be compromised. (NRDC, RD04-0129.) Renewable Northwest Project, the Bonneville Environmental Foundation, and others claimed that now is not the time for the Agency to scale back its renewables efforts but rather to increase them. (BEF, RD04-0053; RNW, RD04-0053; Ebbage, RD04-0014; Ebbage, RD04-0020.)

Others expressed support and endorsed the comments expressed by NWEC. (CUA, RD04-0028; CUA, RD04-0082; MPIRG, RD04-0076; Advocates, RD04-0091; Whidbey, RD04-0083; SW, RD04-0084; NRDC, RD04-0085; SEA, RD04-0086.)

In a similar vein, some comments expressed that it was too early to take BPA out of the acquisition business (CUB, RD04-0113; LWV, RD04-0019; Umatilla Tribes, RD04-0130; Arthur, RD04-0019.) Mikael Grainey, Lee Byer, John Savage, Ray Baum, Melinda Eden, and Gene Derfler on behalf of the State of Oregon commented that BPA should honor the acquisition standards set out in the Power Act, (ODOE, RD04-0102), while NWEC commented that BPA should diversify its resource base and use its considerable wherewithal to get renewable resources up and running. (NWEC, RD04-0019; NWEC, RD04-0053.) Seattle City Light and others supported meeting future load growth with efficiency and renewables (E.g., Seattle, RD04-0019; CAMP, RD04-0019.)

Several economic development organizations emphasized that the region needs a sustained focus on renewables to make the Pacific Northwest a center of renewables development. (KCLC, RD04-0019; WA Dept Trade, RD04-0072; McKinstry, RD04-0019; McKinstry, RD04-0061; NSEED, RD04-0019; NSEED, RD04-0074; MEIC, RD04-0069; MEIC, RD04-0076.) There was also support from steelworkers who want to see renewables developed to create jobs (NWEC, RD04-0019; NWEC, RD04-0053; USWA, RD04-0019; USWA, RD04-0028; USWA, RD04-0028; Mountaineers, RD04-0019.)

A number of environmental organizations expressed concern about climate change and highlighted the hedge value of renewables against an uncertain environmental future. (Ebbage, RD04-0014; Ebbage, RD04-0020; Powers, RD04-0028.) Climate Solutions commented that BPA should be presiding over the transition from fossil fuels to renewables. (CS, RD04-0019.) Several others urged BPA to set and enforce real renewable targets. (E.g., CADO, RD04-0053; RNW, RD04-0053.)

Emerald PUD emphasized that conservation and renewables are cheaper than other resources. (Emerald, RD04-0020.) NWEC commented that funding levels are not high enough to simultaneously deal with threat of global warming and create economic development in the region. (NWEC, RD04-0110.) Fred Hewitt of the Sierra Club claimed that BPA has the dual responsibility of being an environmental steward and being a utility. (SC, RD04-0053.) The Interfaith Network for Earth Concerns indicated that BPA is more than a low-cost provider and must meet its public responsibilities. (EM, RD04-0053.) These comments were echoed by a number of others encouraging BPA to take a long-term view with respect to its role in renewable resource development.

Finally, many organizations pointed to strong regional support for BPA leadership on renewables (Ebbage, RD04-0014; Ebbage, RD04-0020; CADO RD04-0053; LWV, RD04-0054; RNW, RD04-0053; NWEC, RD04-0110; PSS, RD04-0019.) Other commenters encouraged BPA to make renewables a priority and give the program the budget to get the job done. (RNW, RD04-0053; Zepeda, RD04-0019.)

Whereas many of the above comments encouraged BPA to take the long view and interpret its role as broadly as possible, many of BPA's public agency customers and customer organizations support BPA's proposed facilitation role. They see it as being consistent with BPA's broad objective of limiting sales of firm power to its Pacific Northwest firm requirements loads at the lowest cost based rate to approximately the firm capability of the existing Federal system. (Central Lincoln, RD04-0057; EWEB, RD04-0020; Flathead, RD04-0076; WPAG, RD04-0105; PPC, RD04-0109; UIUC, RD04-0039.) NRU, Columbia River PUD, and Glacier Electric Cooperative endorsed facilitation but commented that costs need to be spread evenly over all customer classes. (NRU, RD04-0053; NRU, RD04-0073; CRPUD, RD04-0031; Glacier, RD04-0064.)

Among BPA's public agency customers, the divergence in opinion with respect to the facilitation role centered on the question of whether BPA should consider acquisition as a viable facilitation option. One group of customers supported facilitation but not acquisition. (Benton PUD, RD04-0068; Franklin, RD04-0108; ICNU, RD04-0093; WMG&T, RD04-0076; WMG&T, RD04-0092; PRM, RD04-0043.) These customers commented that other facilitation activities and market factors beyond BPA's control will preclude the need for BPA to do any additional acquisition. Others, such as Cowlitz PUD, supported a limited acquisition role. (Cowlitz, RD04-0128, BEF, RD04-0053.) These customer comments contrasted with the comments of other constituents who strongly urged BPA to keep the door open to acquisition (NWEC, RD04-0019; NWEC, RD04-0053) or, more emphatically, to aggressively seek anchor tenancy. (ODOE, RD04-0102; REP, RD04-0019.)

Evaluation and Decision:
The breadth and depth of comments emerging from the Regional Dialogue policy proposal is a clear indication of how important the topic of renewable resources is to the Pacific Northwest. While some commenters view BPA's transition to facilitation as a move away from BPA's commitment to encouraging the development of renewable resources (e.g., NWEC, RD04-0110), BPA does not agree with that sentiment because active facilitation will provide customers and non-customers support and encouragement to develop renewable resources in the region. Encouragement by BPA does not mean that BPA must be in an active acquisition role. To the contrary, encouragement can take the form of BPA standing ready to offer new and innovative products and services that will support non-Federal entities in the development of renewable resources. BPA believes that these combined efforts will benefit the region.

With natural gas prices and volatility at all-time highs, wind and other renewables have been receiving increased attention by the region's public and investor-owned utilities. Yet these utilities still face considerable barriers in developing renewables. BPA designed its wind integration services in the spirit of facilitation and believes there are many additional ways in which the agency can help customers and others develop renewables in the region. Given BPA's strategic objective of limiting sales at lowest-cost rates to approximately the firm capability of the existing Federal system and the heightened level of renewables activity in the region, we believe that active and creative facilitation is the most appropriate role for the agency in the FY2007-2011 period.

BPA recognizes the concerns raised by many of its utility customers regarding the role of resource acquisition. Some customers commented that other facilitation activities and market factors beyond BPA's control will preclude the need for BPA to do any additional acquisition. (Benton PUD, RD04-0068; Franklin, RD04-0108; ICNU, RD04-0093;

WMG&T, RD04-0076; WMG&T, RD04-0092; PRM, RD04-0043.) BPA does not agree that the market and other facilitation activities will preclude the need for BPA to acquire resources. While BPA moves toward a facilitation role, BPA remains obligated to meet its regional firm power load obligations and will, if needed, acquire power to satisfy its obligations. As the Northwest Power Act directs, BPA is to consider cost-effective conservation and renewable resources before acquiring other conventional resources while fulfilling this obligation. For the foreseeable future, if BPA experiences increased demand for firm power by its requirements customers, BPA will consider the acquisition of power generated by renewable resources to serve those loads. Going forward, the guiding principle behind BPA's facilitation activities will be to maximize the amount of new renewable generation built in the region.

Should BPA find it necessary to acquire power from renewable resources, BPA will take that action in addition to its facilitation activities. However, if direct acquisition is the most cost-effective among competing facilitation alternatives, BPA may choose to acquire by drawing upon available renewable program funds.

Issue 2:
Should BPA act as an "anchor tenant" to facilitate renewable resource development?

Regional Dialogue Proposal:
The Policy Proposal noted that BPA would consider temporary acquisition as an "anchor tenant" and that direct acquisition places the greatest financial demands on BPA and would be subject to rigorous financial and risk test before approval.

Public Comment:
PNGC made several comments. First, PNGC stated that the term "anchor tenant" is a misnomer and that acting as an "anchor tenant" may create unnecessary risk. (PNGC, RD04-0114; PNGC, RD04-0159.) However, PNGC supports BPA being a participant in projects that are expected to be commercially viable in order to serve its obligations. (PNGC, RD04-0159.) Second, BPA should consult fully with its customers before making decisions to add any resources, including renewable resources to the FBS as it is currently defined in contracts as of October 1, 2004. Id. PNGC states that BPA should refrain from further expanding the FBS with renewables or other resources prior to making a long-term allocation of power to its customers. Id. Going forward, BPA should acquire resources only to meet contracted-for load growth when BPA is deficit with the costs of those resources assigned to the customers whose load growth and deficits BPA is obligated to serve. Id.

Evaluation and Decision:
BPA understands the views expressed by PNGC and appreciates PNGC's support. BPA agrees that the term "anchor tenant" as used in the proposal may be a misnomer; however, BPA must balance its obligation to meet regional firm power load and its decision to limit the need to acquire resources. BPA will consider limited acquisition as one of several facilitation options but will not adopt an "anchor tenant" role. If a need to acquire power to meet BPA's regional firm power requirement obligation arises, BPA will explore opportunities to purchase output from new renewable resource projects in conjunction with

customers interested in receiving such power. Approaching renewable resource acquisition in this manner, even if no major resource is being acquired, is consistent with Section 6(m) of the Northwest Power Act, which provides that regional utilities be offered participation or ownership in a major resource. The agency will consider other acquisition activities as well if they are the most cost effective among competing facilitation options and can be accomplished consistent with the agency's financial objectives and governing statutes.

BPA acknowledges PNGC's concern over any additions of long-term purchases of resource output from either a renewable resource or other type of resource. As noted by the PNGC, other than conservation, BPA does not foresee a need to acquire on a long-term basis resources to meet its expected firm power load obligations through FY 2011. Finally, PNGC commented that the costs of resources acquired to meet load growth and deficits should be assigned to certain customers. BPA will consider recommendations for this type of rate construct as part of an integrated long-term Regional Dialogue policy of limiting BPA sales at the lowest cost-based rates for Pacific Northwest firm requirements loads.

Issue 3:
How will BPA recover the costs of its Renewables Program?

Regional Dialogue Policy Proposal:
BPA will spend up to a net of $21 million per year to support its facilitation activities. The $21 million comprises the existing $15 million renewables fund and $6 million of annual renewables spending that is currently being accomplished through the C&RD program that expires at the end of the current rate period. The costs associated with the $15 million renewables fund will be recovered through BPA's firm power rates. With respect the $6 million per year currently being spent through the C&RD program, BPA proposes to continue this level of support in addition to the $15 million net cost but has not concluded whether a C&RD-like mechanism is the best vehicle for use of this level of financial support.

Public Comments:
Several customers commented that the costs of BPA's Renewables Program should be spread evenly over all customer classes. (NRU, RD04-0053; NRU, RD04-0073; CRPUD, RD04-0031; Glacier, RD04-0064.) There were a number of other comments regarding the pricing and selection of facilitation options. Some recommended that facilitation services should be sold at cost. (Benton PUD, RD04-0068; ICNU, RD04-0093.) Tacoma suggested that facilitation efforts should be carefully screened for cost effectiveness and their selection should involve stakeholder input. (Tacoma, RD04-0103.) NRDC recommended customer and other stakeholder input to ensure that facilitation options are adequately explored. (NRDC, RD04-0129.) Finally, some commenters recommended facilitation strategies should be developed to support distributed renewables (IERP, RD04-0020; SC, RD04-0019; Mithun, RD04-0016), and to support continued solar and wind monitoring. (UO, RD04-0017.)

PNGC commented that integration services should not be offered as a system obligation that reduces system output for Slice customers but, rather, from BPA's share of the FBS. (PNGC, RD04-0114.) At the same time, the Bonneville Environmental Foundation expressed concern over Slicing away system flexibility or taking irreversible actions that would prevent BPA from taking a larger resource role in the future. (BEF, RD04-0053.)

Evaluation and Decision:
Much of the comment expressed views on the cost and benefit of the program funding. Some, such as NRU, are concerned about the spreading of these costs among BPA's customers. Others commented specifically that facilitation efforts should be carefully screened for cost-effectiveness and their selection should involve stakeholder input. BPA appreciates these views and sees the renewables program focus on facilitation as providing long-term benefits to all of its customers and stakeholders. Funding for the renewables program will be set at $21million, which is a target, or "policy benchmark," that consists of three main components:

- Direct programmatic costs such as RD&D and long-term solar and wind data monitoring, which are recovered as expense items in our cost structure.
- The annual net (or above-market) costs of renewable power acquisitions, as compared with the long-run marginal cost (LRMC) of the most likely conventional generation alternative.
- The renewable component of the C&RD.

The costs of the renewables program are recovered in BPA's posted firm power rates and charged to BPA's customers. In addition, for direct renewables acquisitions, the project output currently is, and will continue to be, shared among all of BPA's requirements customers except as might be provided for under some specific contracts.

Although the costs of BPA's renewables program are recovered through BPA's rates, it is important to note that BPA is not simply planning to spend $21 million a year and embed the costs into the agency's rates. Rather, BPA will make incremental commitments over time that will eventually exhaust the $21 million management target/policy benchmark. Prior to each rate period, all committed program and power costs will be embedded into the agency's revenue requirement. Incremental spending commitments between rate periods will be covered through cash reserves and then embedded in rates in the subsequent rate period. We intend to act prudently as we select incremental investments so as not to over commit the agency in the event of a dramatic decrease in the long-run marginal cost of natural gas against which our existing and any future acquisitions will be measured.

While the agency has yet to determine the appropriate LRMC for the next rate period, it is possible that a significant portion of the potential support funds may be subscribed by FY 2007. It is also possible that there will still be considerable room for additional spending, especially if natural gas prices continue their upward trajectory or remain at current, historically high, levels.

BPA expects that costs associated with facilitation services and products can be recovered through charges applied to those services and products. For example, BPA designed its integration services to recover the costs of providing the services, including a risk adjustment. This will be our general approach in the future, although, if unique circumstances arise in which we may be able to facilitate a considerable amount of new renewable generation by offering discounted integration services and drawing against our available support funds, we will consider such an option.

In response to Tacoma's comment concerning customer input, BPA has been holding meetings with interested customers and other stakeholders to consider which facilitation options will best serve BPA's and the region's renewables objectives. Going forward, we intend to actively solicit customer and stakeholder input as new opportunities and challenges present themselves.

In response to comment that BPA should facilitate support for distributed renewables and include support for continued solar and wind monitoring, BPA is open to facilitation options that enable distributed renewables and plans to continue its long-standing commitments to solar and wind monitoring. These existing monitoring programs provide the region with valuable technical information and data that it otherwise would not have and, hence, assist the region in facilitating the development of renewable resources.

With respect to the comments made by PNGC, BPA evaluated and designed its integration services in such a way that there is no impact on the existing Slice product. It is important to understand that BPA did not sell any portion of the federal system to its customers in the form of the Slice product and does not itself "manage" a slice of this system. The right of customers purchasing the Slice product is to receive energy, capacity, and other services from BPA to serve the net requirement load based on a percentage of output of the Federal system. BPA does not see the provision of integration services as being in conflict with the Slice product, nor does PNGC point to any. The broader and important question of preserving system flexibility for public purposes such as wind integration will be reserved for the discussions about long-term contracts that are scheduled to take place in 2005.

Regarding the future of the renewable component of the C&RD, BPA has not concluded whether a C&RD-like program structured as it currently exists, is the best vehicle for use of this level of financial support. BPA has not eliminated the status quo, but is concerned that the existing spending flexibility between conservation and renewables will interfere with the goals set for conservation. We will be conducting discussions with interested stakeholders on this topic.

I. L. Controlling Costs and Consulting with BPA's Stakeholders

Issue 1:
Should BPA continue to focus on non-contractual means that promote transparency as proposed in the Regional Dialogue policy proposal?

Regional Dialogue Policy Proposal:
BPA proposed specific non-contractual actions: collaborative forums, financial reporting with customer and constituent input, business process improvement, power function review, and criteria for public comment on cost issues in addition to the existing Power Net Revenue Improvement Sounding Board and Customer Collaborative to promote transparency under

BPA's financial disclosure policy, allow for public input on agency costs, and demonstrate management of those costs.

Public Comments:
Parties' comments pertaining to cost control were generally supportive of BPA's current efforts and recognized the need to expand on those efforts, but they varied in terms of providing a single solution for long-term cost control.

Many comments expressed support for current efforts and/or efforts outlined in the Regional Dialogue Policy Proposal. (Idaho Falls, RD04-0023; Tulalip, RD04-0032; NRU, RD04-0053; IAMAW, RD04-0053; WA Dept Trade, RD04-0072; Lincoln Electric, RD04-0100; SUB, RD04-0106; NWEC, RD04-0110; CUB, RD04-0113; Seattle, RD04-0115.)

Other commenters supported the continuation and/or expansion of collaborative forums. (Central Lincoln, RD04-0057; Franklin, RD04-0108; NRU, RD04-0073.) PRM expressed the need for additional Customer Collaborative forums to discuss PBL program levels prior to a rate case. (PRM, RD04-0043.) Benton REA and WPAG state that the Customer Collaborative should increase transparency on the issues addressed in that forum, increase staff support on Customer Collaborative issues, as well as put the customers in a position to influence decisions before they are made. (Benton REA, RD04-0046; WPAG, RD04-0105.) Northern Wasco PUD favors a continuation and expansion of scope for the Sounding Board. (NWasco, RD04-00042.) Glacier Electric Cooperative and Bonners Ferry favored increased transparency on fish & wildlife costs. (Glacier, RD04-0064; Glacier, RD04-0076; Bonners Ferry, RD04-0003.)

Several comments expressed a desire for greater enforceability to assure cost control by including contract mechanisms and meaningful dispute resolution provisions. (Wells, RD04-0029; CRPUD, RD04-0031; NRU, RD04-0073; ICNU, RD04-0093; Snohomish, RD04-0104; PPC, RD04-0109; PNGC, RD04-0114; ORECA, RD04-0005; EWEB, RD04-0127; Cowlitz, RD04-0128; Inland, RD04-0028; Whatcom, RD04-0136; Kootenai, RD04-0141.) Both Tacoma and Clatskanie supported a change in governance. (Tacoma, RD04-0103; Clatskanie, RD04-0112.)

Benton REA, WPAG, and the Pacific NW State Utility Commissioners commented that allowing a review of and comment on BPA's revenue requirements during PBL and TBL rate proceedings is a means of increasing transparency. (Benton REA, RD04-0046; WPAG, RD04-0105; PNW SUC, RD04-0133.) Both Benton REA and WPAG viewed BPA's past utilization of Programs in Perspective as an inadequate replacement for including revenue requirement review at rate proceedings and suggested using such regional discussion forums in conjunction with a revenue requirement review. (Benton REA, RD04-0046; WPAG, RD04-0105.)

Finally, the few comments that addressed the non-discretionary cost decision criteria were supportive of its establishment and implementation. (WA Dept Trade, RD04-0072; PNGC, RD04-0114; Tacoma, RD04-0103.)

Evaluation and Decision:
BPA recognizes that most parties -- both customers and non-customers -- have a strong desire to influence BPA cost decisions before they are made. None of the comments, however, disagreed with BPA's proposal to continue reliance on non-contractual mechanisms as a means to improve cost transparency for the short-term. In general, the comments received reflect a sentiment that BPA's recent efforts are, for the most part, meeting the needs of our customers and other stakeholders for short-term transparency and cost control, but more work needs to be done before customers will be willing to sign new long-term contracts with BPA.

Some parties commented that "meaningful cost control" is needed for the long term to ensure that rates are kept as low as possible. Other parties expressed a desire that BPA set program cost levels and spending within a Section 7(i) rate setting proceeding, for power and transmission. BPA understands the concern customers have about the long term and the need to develop a fair and manageable mechanism that addresses this concern. The comments, however, did not center on one particular solution. BPA believes it is imprudent to implement any single solution until the problem is clearly defined and understood. We recognize the importance in continuing a regional discussion around the long-term issues. BPA will also consider the interests and concerns of other Federal agencies (including the Department of Energy, Office of Management and Budget, the U.S. Treasury, FERC), as well as credit rating agencies, that might arise regarding the risks to BPA's recovery of costs and its ability to repay the U.S. Treasury. Based on this information, BPA will address the long-term cost control issues in the July 2005 policy proposal.

Therefore, for the short term, BPA will focus its current efforts on using and enhancing non-contractual mechanisms to promote cost control and transparency. In moving forward with the additional "non-contractual" actions, BPA has made some wording changes to each proposed action to clarify BPA's intentions and actions for the short term as follows. On Financial Reporting, BPA's intent is to "continue" improving its external financial reporting instead of making "further" advancements. For Business Process Improvement, BPA is considering the recommendations of the KEMA consultants to seek efficiencies within BPA as a whole. For Power Function Review, BPA is clarifying that this review is an important opportunity for customers and others to provide input on proposed budget and program levels prior to the next rate case. Finally, on Criteria for Public Comment on Cost Issues, BPA has decided against developing such criteria at this time. Instead, BPA believes it is more important as a long-term matter to better define the concerns related to cost control and to work towards a regional solution. BPA may, thereafter, reconsider its proposal to establish decision criteria.

II. Long-Term Issues

II. A. Long-Term Policy: Limiting BPA's Long-Term Load Service Obligation at Embedded Cost Rates for Pacific Northwest Firm Requirements Loads

Issue 1:
Should BPA adopt its proposed policy direction to limit its sales of firm power to its Pacific Northwest firm requirements loads at its lowest cost-based rates to approximately the firm capability of the existing Federal system?

Regional Dialogue Policy Proposal:
The Regional Dialogue Policy proposal includes a proposed policy direction to establish a long-term policy to limit its sales of firm power to its Pacific Northwest customers' firm requirements loads at its embedded cost rates to approximately the firm capability of the existing Federal system.

Public Comments:
Fifty-four comments were received regarding this issue, 40 of which were from customers or customer associations. Comments made in the public meetings were similar to the comments made in writing. Existing customers broadly support the proposed policy whereas prospective customers, including several prospective tribal utilities, and public interest groups raised several concerns.

All customers (public utilities, IOUs, and DSIs) except the Yakama Nation (Yakama) either specifically supported or did not object to BPA's policy proposal to limit its long-term sales at embedded (lowest) cost-based rates to the amount produced by the existing Federal system. (E.g., PPC, RD04-0109; NRU, RD04-0073; Cowlitz, RD04-0128; ORECA, RD04-0005; IF, RD04-0023; Avista, RD04-0028; Alcoa, RD04-0067; PNW IOUs, RD04-0107; PNGC, RD04-0114; Tacoma, RD04-0103; Seattle, RD04-0115.) Most of those who supported this policy proposal also offered specific qualifications or suggestions for how the policy should be implemented. Those qualifications and suggestions are addressed in the next issue, below.

Some tribes, several public interest groups, and individuals expressed specific concerns or objections to the policy proposal, including some who expressed strong reservations about whether BPA's policy proposal was the right course, raising concerns that the policy proposal will result in inadequate resource development or insufficient development of conservation and renewables. The Northwest Energy Coalition, Natural Resources Defense Council, Montana Environmental Information Center, Ecumenical Ministries, and others suggested that the "one utility" planning model is a more appropriate model. (E.g., NWEC, RD04-0110; NRDC, RD04-0129; MEIC, RD04-0069; EM, RD04-0124.) The Community Action Directors of Oregon, Last Mile Electric Cooperative, and the Natural Resources Defense Council questioned whether adequate amounts of conservation and clean new resources would be developed if BPA limits its role or structures its policy without incorporating these objectives. (CADO, RD04-0123; NRDC, RD04-0129, Last Mile, RD04-

0050.) Several suggested that, if the BPA proposal is adopted, it would be critical to establish a regional resource adequacy standard. (CUB, RD04-0113; NWEC, RD04-0110; NRDC, RD04-0129; EM, RD04-0124; WA Dept Trade, RD04-0072.)

The Tulalip Tribes expressed concerns that BPA should function as the Northwest's power broker when demand exceeds supply. (Tulalip, RD04-0032.) The Yakama Nation expressed concern that the proposed policy will result in exposure to future risks as BPA tries to meet all of its customers needs. It also expressed concern that BPA may not be able to meet the objectives of the policy in light of some of the other policies expressed in the proposal. (Yakama, RD04-0131.)

Evaluation and Decision:
Although most customer comments support the policy proposal, many stakeholders raised valid concerns. BPA recognizes that the policy must not result in inadequate resource development within the region, including development of conservation and renewable resources. BPA believes the region can move forward with the development of non-Federal resources involving BPA's customers and others without placing BPA in the role of acquiring resources for the region and melding those costs with existing system costs. Consequently, BPA intends to develop the policy in tandem with the development of regional resource adequacy metrics/standards. BPA believes this will provide clarity regarding what constitutes generation sufficiency to meet the load-serving obligation defined by the long-term Regional Dialogue contracts. In addition, BPA believes this will provide assurance that needed electrical infrastructure will be developed by Northwest load serving entities in a manner consistent with the Northwest Power Act purpose to assure an adequate, economical, and reliable Northwest power supply.

Accordingly, BPA will pursue its proposed policy direction to limit its sales of firm power to its Pacific Northwest firm requirements loads at its lowest cost-based rates to approximately the firm capability of the existing Federal system. This policy will be refined as an integral part of BPA's proposed long-term Regional Dialogue Policy. There are several key reasons BPA considered in adopting this proposal, which are:

- It should help reduce BPA's firm power rates by sharply limiting the past practice of acquiring power and melding its costs with the lower cost of the existing system, thereby "diluting" the low-cost existing system with higher-cost purchases.

- It should limit BPA's risk of having a power supply deficit with too little time to acquire resources as was the case during the West Coast electricity crisis of 2001.

- It should provide greater assurance that necessary electric infrastructure will be developed. Many BPA utility customers and other market participants are willing and able to invest in needed electric infrastructure, suggesting that the capability exists to supply the infrastructure without a continued buy-and-meld role for BPA. But these utilities need clarity about their load responsibilities versus BPA's if they are to move forward on infrastructure investment. This policy will help provide that clarity.

- A closely related benefit is that this policy will help utilities "see" market price signals as they make decisions about new resources, conservation investments, and load additions. This should lead to more efficient decision making throughout the regional electric utility industry.

- This policy does not prevent utility customers from continuing to rely on BPA to serve all or an increasing amount of their net requirements in the future if that is what they choose.

- This policy should increase the certainty that BPA will continue to meet its obligation to repay the U.S. Treasury by creating a higher likelihood that BPA rates stay well below market and fluctuate less with the costs of power purchases.

- There is strong support from BPA's utility customers for this policy direction. This is important because these utilities will be assuming more of the responsibility for new resource development over time.

- This policy direction is consistent with the recommendations to BPA from the Council in its May 17, 2004, recommendations on "The Future Role of the Bonneville Power Administration in Power Supply." Likewise, it is consistent with the recommendations of the General Accountability Office in their recent report.

As stated above, BPA intends to address the concerns raised by the comments described above during the next phase of the Regional Dialogue that will be available for public review and comment in July 2005. (See Section IV. B, Schedule.) Specifically, BPA intends to incorporate the issue of resource adequacy into the long-term policy discussions. BPA also intends to address the potential impacts on conservation and renewables to ensure there continue to be appropriate incentives to develop adequate amounts of conservation and renewables.

Finally, BPA is deleting the words "embedded-cost rates" and replacing them with the words "lowest cost-based rates." BPA is doing this to avoid confusion over the meaning of embedded-cost rates. The term "embedded-cost rates" is not defined in BPA's governing statutes and policy. In comparison, use of the terms "lowest cost-based rates" is in accord with statutory direction to establish rates as low as possible consistent with sound business principles. See e.g., 16 U.S.C. § 825s; § 838g. In addition, BPA's current Subscription power sales contracts define the term "lowest PF rates" as the lowest applicable cost-based rates provided under the applicable PF schedule.

Issue 2:
Should BPA address and decide at this time issues raised in comments that will likely be addressed during the next phase of the Regional Dialogue?

Regional Dialogue Policy Proposal:
BPA proposed a long-term policy direction regarding its load obligations. By itself, this policy is not enough to accomplish all the benefits described above. It is only one step. The policy proposal anticipated that the implementation details would be identified and addressed during the next phase of the Regional Dialogue discussions.

Public Comments:
Many commenters who support the policy proposal regarding limiting BPA's long-term load serving obligations expressed views regarding matters on how the policy should be implemented. Several customers expressed support for "allocation," ranging from general support of the concept to specific support for the allocation proposal developed under the auspices of the PPC. (E.g., PRM, RD04-0043; Seattle, RD04-0115; Idaho Falls, RD04-0023; NWasco, RD04-0042; Benton PUD, RD04-0068; Snohomish, RD04-0104; WPAG, RD04-0105; Clatskanie, RD04-0112; Cowlitz, RD04-0128.) Sumas raised concerns about the PPC allocation proposal and noted that it is just one of various methods for allocating BPA's resources. (Sumas, RD04-0132.) Alcoa supported allocation provided that it provides a share for Alcoa. (Alcoa, RD04-0067.) Several customers stated that it would be critical to establish new net requirements for utilities in an equitable manner. (WMG&T, RD04-0092; NRU, RD04-0073; Inland, RD04-0028; Orcas, RD04-0034; Benton REA, RD04-0046; Benton PUD, RD04-0068; Central Lincoln, RD04-0057; Whatcom, RD04-0136.) WMG&T urged development of a new transparent method for determining net requirements. (WMG&T, RD04-0092.) Other customers stated that the proposed policy can only be successful if effective cost control, cost segregation, and governance issues are satisfactorily resolved. (E.g., Whatcom, RD04-0136; PPC, RD04-0109; WPAG, RD04-0105; Benton REA, RD04-0046.) WPAG identified several additional concerns that must be resolved in tandem in order for this policy to be supportable. These include availability of appropriate product choices, the role of conservation and renewables programs, and the ability to acquire and use non-Federal resources to serve load. (WPAG, RD04-0105.) NRU stated that the products and rates offered by BPA to Full Requirements customers must reflect the widespread value of the coordinated operation of the Federal system. (NRU, RD04-0073.) NRU, Columbia River PUD, and Benton REA also noted that successful implementation of this policy will require customer access to other sources of power supply, possibly through pooling, economic passage over non-Federal transmission lines for the delivery of non-Federal power to GTA customers, and protection of allocations from decrements typically resulting from utility non-Federal diversification. (NRU, RD04-0073; CRPUD, RD04-0031; Benton REA, RD04-0046.)

Evaluation and Decision:
BPA appreciates the interest expressed in comments to address the multitude of issues associated with carrying out BPA's proposed long-term policy direction to limit its sales of firm power to its Pacific Northwest firm requirements loads at its lowest cost-based rates to approximately the firm capability of the existing Federal system. However, at this point in time all the issues related to BPA's long-term policy will be reserved for future discussions. The long-term policy proposal will be developed in a separate public process that is scheduled begin with the release of a BPA policy proposal in July 2005. Consequently, BPA

will not address and decide issues raised in comments that pertain to implementation of the long-term policy. Such issues will be addressed in the next phase of Regional Dialogue and any ensuing rate case. BPA intends to follow-up with additional discussions regarding these issues before BPA develops that proposal.

Issue 3:
Should BPA adopt its proposal that firm power service beyond what the existing system can supply be provided at a higher tiered rate that reflects the incremental cost of purchasing power to meet those additional loads?

Regional Dialogue Policy Proposal:
The Regional Dialogue policy proposal states that firm power service beyond what the existing system can supply would be provided at a higher tiered rate that would reflect the incremental cost of purchasing power to meet those additional loads. Such tiered rates would not be implemented until after FY 2009.

Public Comments:
BPA received over 15 comments regarding its proposal to tier rates sometime after the next rate period. Most comments were supportive of the concept but also included specific conditions or qualifications. (Inland, RD04-0028; NWasco, RD04-0042; PRM, RD04-0043; NRU, RD04-0073; EWEB, RD04-0127; PNW SUC, RD04-0133.) Yakama expressed particular interest in ensuring that their new tribal utility be served by BPA's PF (lowest tiered) rates. (Yakama, RD04-0131.) The IOUs argued that a tiered rate structure and long-term tiered rate methodology should be established without delay for new loads placed on BPA. They stated further that such a rate structure need not apply to existing preference customers under existing contracts until those contracts expire. (PNW IOUs, RD04-0107.) WPAG, Springfield, Tacoma, and others suggested that BPA not tier rates until existing contracts expire after FY 2011 and that it only be done in conjunction with an acceptable approach to allocation. (WPAG, RD04-0105; SUB, RD04-0106; Tacoma, RD04-0103.) Alcoa stated that its support is contingent on its receipt of BPA's lowest cost based rate (or equivalent financial benefits.. (Alcoa, RD04-0067.)

Two commenters did not support a long-term policy of tiered rates: ICNU stated that BPA should instead create other services (load growth, shaping, etc.) to meet the goal of limiting BPA's long-term load service obligation. (ICNU, RD04-0093.) Seattle stated that any utilities that contract with BPA for more power than their allocation should pay the entire additional cost, but that should not take the form of a two-tiered rate structure. (Seattle, RD04-0115.)

Evaluation and Decision:
Because BPA is not proposing to establish tiered rates until after additional policy discussions (including an additional policy proposal), most of the issues raised by commenters will be further explored and addressed in the next phase of the Regional Dialogue and the ensuing rate case. BPA agrees that any tiered rates policy should be implemented after consideration of, and in conjunction with, other related matters.

Some comments expressed the view that BPA should not consider tiered rates as an option to implement BPA's long-term policy to limit its load serving obligations. BPA does not agree with this view. BPA does concur with commenters that urge the serious consideration of tiered rates. Before any final decision is made to establish tiered rates, BPA will seriously consider tiered rates and any other alternative approaches that might be proposed. In its comments, ICNU suggests that BPA should instead create other services (load growth, shaping, etc.) to meet the goal of limiting BPA's long-term load service obligation. BPA is not convinced that this suggestion would be sufficient to meet the goal of limiting BPA's long-term load service obligations, but ICNU can make its case otherwise in future processes. BPA's existing rate structure already includes the types of charges, such as the Load Variance charge, that ICNU suggests BPA should create.

Regarding the concerns raised by the IOUs that BPA should develop a tiered rate policy for new public loads as soon as possible, BPA's decision is to exclude from its FY 2007 initial rate proposal a tiered PF rate applicable to firm power sold to meet the net firm power load requirements of public agency customers. Further, BPA believes that the policy described in Section I.E, Service to New Publics and Annexed IOU Loads, sends the appropriate price signal through FY 2009 to new publics who form after a date certain. The long-term Regional Dialogue proposal will address the policy that will apply to new public utilities after FY 2009.

Issue 4:
Should the above policies be implemented through new long-term contracts and rates?

Regional Dialogue Policy Proposal:
The Regional Dialogue policy proposal states that it will be necessary to develop new contracts and rates in order to implement the policies regarding limiting BPA's load serving obligations.

Public Comments:
BPA received no comments at either the public meeting or in writing that objected to BPA's proposal to develop new contracts and rates. Most comments regarding whether new contracts and rates should be offered were submitted in the context of the schedule for resolving long-term issues and offering new contracts. Although commenters sometimes differed regarding the schedule for when new contracts and rates should be implemented, no one objected to offering new contracts and rates. See Section I.B, Schedule for Long-Term Issue Resolution, for a description of comments received on this issue.

Evaluation and Decision:
BPA will pursue the development of new contracts and rates to implement the policy to limit its sales of firm power to its Pacific Northwest firm requirements loads at its lowest cost-based rates to approximately the firm capability of the existing Federal system.

II. B. Schedule for Long-term Issue Resolution

Issue 1:
Should BPA adopt its proposed schedule for resolving the long-term issues described in the July policy proposal?

Regional Dialogue Policy Proposal:
The Regional Dialogue Proposal states that BPA intends to operate on the following schedule for achieving long-term contracts and rates, subject to change based on public comment.

Milestone:	Date:
BPA Administrator Issues Long-Term Regional Dialogue Proposal for Public Review and Comment	July 2005
BPA Administrator Signs Long-Term Regional Dialogue Policy and Record of Decision	January 2006
New Contracts Offered	December 2006
Contract Signature Deadline	April 2007
Earliest Contract Effective Date	October 2008

Public Comments:
Written comments regarding the proposed schedule for resolving the long-term issues were made by 22 organizations, all but four of which were customers/customer associations. Most (17) commenters agreed with the proposed schedule for long-term issue resolution. Supporters of the proposed schedule included several public agency customers and customer associations including the PPC, NRU, ICNU, Benton REA, Benton PUD, Columbia River PUD, Cowlitz County PUD, Franklin PUD, and Northern Wasco PUD. (E.g., PPC, RD04-0109; NRU, RD04-0073; ICNU, RD04-0093; Benton REA, RD04-0046; Benton PUD, RD04-0068; CRPUD, RD04-0031; Cowlitz, RD04-0128; Franklin, RD04-0108; NWasco, RD04-0042.) NRU, Benton REA, and Columbia River PUD noted that they would likely retain their current contracts through FY 2011 but expressed support since the policy proposal allows customers the option of retaining their current contract until it expires with FY 2011. (NRU, RD04-0073; Benton REA, RD04-0046; CRPUD, RD04-0031.) Tacoma Power expressed similar support but qualified it further by stating that "Tacoma will not support a parallel service of old and new contracts if those customers that remain under the old contracts are harmed in any way by the implementation of new contracts." (Tacoma, RD04-0103.) ICNU, WA Dept of Commerce Trade and Economic Development, NRDC, and NWEC were the only non-customer groups that commented on the schedule and all supported the proposed schedule. (ICNU, RD04-0093; WA Dept Trade, RD04-0072; NRDC, RD04-0129; NWEC, RD04-0110.)

One customer, Sumas, commented that the proposed schedule is too ambitious. (Sumas, RD04-0132.) Sumas added that "attempting to establish a long-term policy by January 2006 does not seem realistic or necessary. A schedule that adds another year to the process…still leaves time for customers to make decisions regarding their alternate power sources prior to 2011."

The Pacific Northwest IOUs, PNGC, PRM, Snohomish, and Clatskanie commented that the schedule is not ambitious enough. (PNW IOUs, RD04-0107; PNGC, RD04-0114; PRM, RD04-0043; Snohomish, RD04-0104; Clatskanie, RD04-0112.) Clatskanie described the proposed schedule as "the single overarching flaw" of BPA's policy proposal and stated that action "needs to be taken beginning in 2006, not in 2011." (Clatskanie, RD04-0112.) The IOU's comments do not specifically object to the proposed schedule leading to long-term contracts in October 2008, but emphasized that BPA's proposed long-term policy regarding tiered rates should be developed immediately through a 7(i) process. The IOUs added that BPA should act without delay to provide long-term clarity by implementing a long-term rate methodology as soon as possible. (PNW IOUs, RD04-0107.) PNGC agreed with BPA's sense of urgency but urged that the agency consider an even more aggressive schedule with the possibility of contracts to be effective by October 2007 (one year earlier than proposed). (PNGC, RD04-0114.) PRM also suggested that the schedule be accelerated a year by issuing a long-term policy proposal by January 2005 (six months early) and by allowing six months rather than a year between the contract signature deadline and the contract effective date. (PRM, RD04-0043.) Snohomish proposed that new contracts take effect by the end of 2005. (Snohomish, RD04-0104.)

Evaluation and Decision:
Although most comments supported the proposed schedule, the concerns raised by the five organizations that disagreed with the schedule are understandable. BPA acknowledges the concerns raised by Sumas that the schedule is too ambitious. BPA believes it is important to clarify BPA's post-2011 load serving obligations as soon as reasonably possible so as to encourage the non-Federal development of electrical energy infrastructure in the region well before 2011. This is also important to many customers who support the proposed schedule.

Regarding the IOU's suggestion that tiered rates be implemented as soon as possible, BPA has decided to exclude tiered rates from its FY 2007 initial rate proposal. (See Section I.B., Tiered Rates.) However, it is important to ensure that a tiered rates methodology be fully considered before the earliest date new contracts go into effect. For that reason, BPA will fully explore a long-term tiered rates methodology as part of an integrated long-term contract and rate solution that will implement the long-term Regional Dialogue policy of limiting BPA sales at the lowest cost based rates for Pacific Northwest firm requirements loads.

The following is the revised long-term schedule. The schedule is ambitious, but BPA agrees with the perspective of the Council and many customers that the region has a core interest in the earliest practical completion of this process.

Schedule for Achieving Long-Term Contracts and Rates

Milestone:	Date:
BPA Administrator Issues Long-Term Regional Dialogue Proposal for Public Review and Comment	July 2005
BPA Administrator Signs Long-Term Regional Dialogue Policy and Record of Decision	January 2006
New Contracts Offered	December 2006
Contract Signature Deadline	April 2007
Complete Establishment of a Long-Term Rate Methodology to Accompany New Contracts	October 2008
Earliest Contract Effective Date	October 2008

Resolving issues and developing new contracts and rates on this schedule will be challenging. Additionally, finding mutually acceptable solutions to very contentious issues will be difficult, especially while other decision processes are running in parallel. Further, the availability of necessary staff and management time will be tight for BPA, Northwest utilities, and others. The other challenges we face are described in the policy accompanying this record of decision.

Issue 2:
Should future Regional Dialogue discussions and contract negotiations be held in public forums?

Regional Dialogue Policy Proposal:
The Regional Dialogue policy proposal states that long-term Regional Dialogue issues will be addressed first in a public process that culminates in the final long-term Regional Dialogue policy in January 2006, to be followed by contract and rates development. The proposal is silent regarding whether the Regional Dialogue contracts will be negotiated in a public forum or will be negotiated only between BPA and its utility customers.

Public Comments:
Three non-customer comments suggested that the process be managed through public forums, not contract discussions. The NWEC commented that, "[t]he resolution of these [long-term] issues will have region-wide impact and cannot be restricted to customers only—they must be resolved in pubic forums. Thus, while the eventual policy will certainly have to be implemented through contract language, contract negotiations should not be the venue for those discussions." (NWEC, RD04-0110.) NRDC commented that BPA should involve both customers and other stakeholders in the discussion together. (NRDC, RD04-0129.) The Washington Department of Commerce, Trade, and Economic Development raised a similar concern. (WA Dept Trade, RD04-0072.) NRDC also commented that conservation and renewables should be explicitly included in the discussions regarding allocation and resource adequacy and should not be left until last. (NRDC, RD04-0129.)

Evaluation and Decision:
BPA agrees that long-term issues will have a region-wide impact and that it is appropriate for customers, constituents, tribes, and other stakeholders to be fully involved in development of that policy. Further, BPA agrees that conservation, renewables, and resource adequacy are integral components of any long-term power supply arrangement. BPA intends to include these issues and others in discussions with customers, constituents, tribes, and stakeholders. Additional details regarding how customers and others can be involved in the development of the long-term Regional Dialogue will be provided early in 2005. Following the adoption of its long-term regional dialogue policy, BPA will turn its attention toward contract negotiations and will be guided by that policy. Contract development is scheduled to occur in calendar year 2006. Draft standard contracts will be available for public review before they are finalized.

III. Environmental Analysis

BPA has reviewed the final policy for environmental considerations under the National Environmental Policy Act (NEPA) in a NEPA ROD prepared separately from the Administrator's ROD. BPA has reviewed each of the individual policy issues, as well as the potential implications of these issues taken together. For some issues, there are no environmental effects resulting from implementation of the policy for that issue, and NEPA thus, is not implicated. For other issues, the proposed policy is merely a continuation of the status quo, and NEPA, thus is not triggered.

For the remaining issues, any environmental effects resulting from the policy have already been addressed in the Business Plan Final Environmental Impact Statement, DOE/EIS-0183, June 1995 (Business Plan EIS), and the policy would not result in significantly different environmental effects from those described in this EIS. Furthermore, the policy is adequately covered within the scope of the Market-Driven Alternative identified and evaluated in the Business Plan EIS and adopted by BPA in the August 15, 1995, Business Plan ROD.

Evaluating all of the individual policy issues together, the final policy still does not represent a significant departure from BPA's selected Market-Driven Alternative, and would not result in significantly different environmental effects from those described in the Business Plan EIS. BPA, therefore, has appropriately decided to tier the NEPA ROD for the final policy to the Business Plan ROD, as provided for in the Business Plan EIS and Business Plan ROD. Copies of the NEPA ROD for the final policy are available on BPA's Web site at www.bpa.gov/power/regionaldialogue or by contacting BPA's Public Information Center at (800) 622-4520.

IV. Conclusion

Based on our public process, the NEPA considerations in the NEPA ROD for the Regional Dialogue Policy, and the evaluations of the issues in this ROD, BPA has decided to adopt and implement this Regional Dialogue Policy Regarding BPA's Power Supply Role For

Fiscal Years 2007-2011. The Regional Dialogue Policy will provide BPA's customers with greater clarity about their Federal power supply so they can plan effectively for the future and make capital investments in long-term electricity infrastructure if they so choose. It is also intended to preview BPA's likely proposals on certain rate matters that BPA expects will be addressed in the next rate period while assuring that the agency's long-term strategic goals and its long-term responsibilities to the region are aligned. This decision is consistent with BPA's Market-Driven approach for participation in the increasingly competitive electric power market. BPA is responding to customers' need while ensuring the financial strength necessary to produce the public benefits that are of concern to the people of the Pacific Northwest.

Issued in Portland Oregon, on February 4, 2005

/s/ Stephen J. Wright

Administrator and
Chief Executive Officer
Bonneville Power Administration

Appendix A
List of Commenters

NOTE: Log numbers in bold are cited in the body of the ROD.

Log No	Commenter	Affiliation Abbreviation	Affiliation
RD04-0001	Edward Piper	Cowlitz Board	Cowlitz County PUD Board of Commissioners
RD04-0002	**Sen. Ron Wyden** **Sen. Maria Cantwell** **Rep. Earl Blumenauer**	**Wyden, et al**	**U.S. Senate** **U.S. Senate** **U.S. Congress**
RD04-0003	**Steve Boorman**	**Bonners Ferry**	**City of Bonners Ferry**
RD04-0004	Nancy Barnes	WPUDA	Washington PUD Association
RD04-0005	**N/A**	**ORECA**	**Oregon Rural Electric Cooperative Association**
RD04-0006	Terry Fischer	Fischer	Fischer
RD04-0007	**Lawrence Molloy**	**EBARA**	**EBARA**
RD04-0008	Pete Kremen	Whatcom Exec	Whatcom County Executive's Office
RD04-0009	Stan Price	NEEC	Northwest Energy Efficiency Council
RD04-0010	N/A	Alaska	Alaska Distributors Co.
RD04-0011	Alan Duncan	Duncan	Duncan
RD04-0012	**Craig Satein**	**LCHCS**	**Lane County Housing and Community Services Agency**
RD04-0013	**Katherine Schacht**	**Emerald**	**Emerald PUD**
RD04-0014	**Roger Ebbage**	**Ebbage**	**Ebbage**
RD04-0015	Joe Savage	Savage	Savage
RD04-0016	**Bert Gregory**	**Mithun**	**Mithun Partners**
RD04-0017	**Frank Vignola**	**UO**	**University of Oregon, Department of Physics**
RD04-0018	Terry Easterwood	Easterwood	Easterwood
RD04-0019	**August 17 Seattle, WA Public Meeting (listed in speaking order)**		
	Jorge Carrasco	**Seattle**	**Seattle City Light**
	Jack Speer	Alcoa	Aluminum Company of America
	Toni Potter	**LWV**	**League of Women Voters**
	Daren Krag	IAMAW	International Association of Machinists and Aerospace Workers
	Joel Hanson	**USWA**	**United Steelworkers of America**
	Ed Henderson	**Mountaineers**	**The Mountaineers**
	Dave Watkins	HI	Holiday Inn
	Pat Flaherty	IAMAW	International Association of Machinists and Aerospace Workers
	Lee Miley	SU	Seattle University
	Bert Gregory	Mithun	Mithun Partners

Log No	Commenter	Affiliation Abbreviation	Affiliation
	Vicki Henley	IAMAW	International Association of Machinists and Aerospace Workers
	Rich Feldman	**KCLC**	**King County Labor Council**
	Joelle Robinson	**CS**	**Climate Solutions**
	Sen. Dale Brandland	Brandland	Washington State Senate
	Rep. Doug Ericksen	Ericksen	Washington State House of Representatives
	Chuck Eberdt	Eberdt	The Energy Project
	Jim Edwards	Graybar	Graybar Electric
	Ash Awad	**McKinstry**	**McKinstry Co.**
	Don Andre	**NSEED**	**NW Sustainable Energy for Economic Development**
	Hugh Diehl	IAMAW	International Association of Machinists and Aerospace Workers
	Bill Arthur	**Arthur**	**Arthur**
	Al Foss	SP&R	Seattle Parks & Recreation
	Loren Baker	**PRM**	**Power Resource Managers**
	Dennis Heller	NEEC	Northwest Energy Efficiency Council
	Matt Younger	Keen	Keen Engineering
	Eric Hausman	UW	University of Washington
	Bob Cowan	FHCRC	Fred Hutchinson Cancer Research Center
	Jim Walker	FHCRC	Fred Hutchinson Cancer Research Center
	Tom DeBoer	PSE	Puget Sound Energy
	David Kerlick	Kerlick	Kerlick
	Larry Dittloff	WC&TC	WA Convention and Trade Center
	Jeremy Smithson	**PSS**	**Puget Sound Solar**
	Sara Patton	**NWEC**	**NW Energy Coalition**
	Hamilton Hazlehurst	Vulcan	Vulcan, Inc.
	Vanessa Brower	OCAP	Olympia Community Action Programs
	Andy Silber	**SC**	**Sierra Club**
	Jake Fey	WSU	Washington State University Extension Energy Program
	Gary Anicich	Alaska	Alaska Distributors Co.
	Jim DiPeso	**REP**	**Republicans for Environmental Protection**
	Tom Brandt	Brandt	Brandt
	Andrew Lofton	SHA	Seattle Housing Authority
	Tony Orange	**CAMP**	**Central Area Motivation Program**
	Barbara Zepeda	**Zepeda**	**Zepeda**
	Mike Ruby	Ruby	Ruby
	Mike Rousseau	Alcoa	Aluminum Company of America
RD04-0020	**August 19 Eugene, OR Public Meeting (listed in speaking order)**		

Log No	Commenter	Affiliation Abbreviation	Affiliation
	Jack Speer	Alcoa	Aluminum Company of America
	Katherine Schacht	**Emerald**	**Emerald PUD**
	Craig Satein	**LCHCS**	**Lane County Housing and Community Services Agency**
	Pat Flaherty	IAMAW	International Association of Machinists and Aerospace Workers
	Roger Ebbage	**Ebbage**	**Ebbage**
	Kit Kirkpatrick	**IERP**	**EWEB - Integrated Electric Resource Plan**
	Daren Krag	IAMAW	International Association of Machinists and Aerospace Workers
	Joshua Skov	**IERP**	**EWEB - Integrated Electric Resource Plan**
	Maeve Sowles	IERP	EWEB - Integrated Electric Resource Plan
	Jim Maloney	**Maloney**	**Maloney**
	Dick Helgeson	**EWEB**	**Eugene Water and Electric Board**
	Vicki Hanley	IAMAW	International Association of Machinists and Aerospace Workers
	Hugh Diehl	IAMAW	International Association of Machinists and Aerospace Workers
	Steve Weiss	NWEC	NW Energy Coalition
	Rick Crawford	Crawford	Crawford

Written comments			
RD04-0021	Edwina Allen	Allen	Allen
RD04-0022	Gerald Pumphrey	BTC	Bellingham Technical College
RD04-0023	**Mark Gendron**	**Idaho Falls**	**Idaho Falls Power**
RD04-0024	Scott Levy	Levy	Levy
RD04-0025	David Wagner	LDC	LD Consulting, Inc.
RD04-0026	**Steve Halpin**	**KB**	**KB Alloys**
RD04-0027	Barry Hullett	Hullett	Hullett
RD04-0028	**August 26 Spokane, WA Public Meeting (listed in speaking order)**		
	Jack Speer	Alcoa	Aluminum Company of America
	Julian Powers	**Powers**	**Powers**
	Ken Sterner	**NCCAC**	**North Columbia Action Council**
	Dave Van Hersett	NWES	NW Energy Services
	Vicki Hanley	IAMAW	International Association of Machinists and Aerospace Workers
	Kris Mikkelsen	**Inland**	**Inland Power & Light**
	John O'Rourke	**CUA**	**Citizens Utility Alliance**
	Rep. Doug Ericksen	Ericksen	Washington State House of Representatives
	Sen. Dale Brandland	Brandland	Washington State Senate
	Daren Krag	IAMAW	International Association of Machinists and Aerospace Workers

Log No	Commenter	Affiliation Abbreviation	Affiliation
	Cathy Gunderson	**USWA**	**United Steelworkers of America**
	Gary McKinney	**USWA**	**United Steelworkers of America**
	Gerald Pumphrey	BTC	Bellingham Technical College
	Sen. Neal Beaver	**Beaver**	**Washington State Senate**
	Hugh Diehl	IAMAW	International Association of Machinists and Aerospace Workers
	Chase Davis	SC	Sierra Club
	Jeff Schlect	**Avista**	**Avista Corporation**
	Ron Johns	SC	Sierra Club
	Mike Rousseau	Alcoa	Aluminum Company of America
RD04-0029	**August 31 Boise, ID Public Meeting (listed in speaking order)**		
	Sen. Dale Brandland	Brandland	Washington State Senate
	Jack Speer	Alcoa	Aluminum Company of America
	Edwina Allen	Allen	Allen
	Dile Monson	Burley	City of Burley
	Daren Krag	IAMAW	International Association of Machinists and Aerospace Workers
	Tommi Reynolds	**Wells**	**Wells Rural Electric Coop**
	Ken Baker	AIC	Association of Idaho Cities
	Pat Flaherty	IAMAW	International Association of Machinists and Aerospace Workers
	Scott Levy	**Bluefish**	**Bluefish**
	Hugh Diehl	IAMAW	International Association of Machinists and Aerospace Workers
	Vicki Hanley	IAMAW	International Association of Machinists and Aerospace Workers
	Jeremy Maxand	**SRA**	**Snake River Alliance**

Written comments:

RD04-0030	V. Sidney Raines	Raines	Raines
RD04-0031	**Kevin Owens**	**CRPUD**	**Columbia River PUD**
RD04-0032	**Stanley Jones, Sr.**	**Tulalip**	**Tulalip Tribes of Washington**
RD04-0033	**J. David Tovey**	**ATNI**	**Affiliated Tribes of Northwest Indians**
RD04-0034	**Randy Cornelius**	**Orcas**	**Orcas Power & Light**
RD04-0035	Jon Bezona	Bezona	Bezona
RD04-0036	Ron (first name)	Ron	Ron
RD04-0037	**Roberta Weller**	**Ferry County**	**Ferry County PUD**
RD04-0038	**Claire Casey**	**Casey**	**Casey**
RD04-0039	**Ron Doan**	**UIUC**	**Umpqua Indian Utility Cooperative**
RD04-0040	Ron Mann	Mann	Mann
RD04-0041	**Wayne Widman**	**Widman**	**Widman**

Log No	Commenter	Affiliation Abbreviation	Affiliation
RD04-0042	**Dwight Langer**	**NWasco**	**Northern Wasco PUD**
RD04-0042A	**Dwight Langer**	**NWasco**	**Northern Wasco PUD**
RD04-0043	**Loren Baker**	**PRM**	**Power Resource Managers**
RD04-0044	**Eldon Ball**	**Ball**	**Ball**
RD04-0045	**Bruce McComas**	**Port Townsend**	**Port Townsend Paper Corporation**
RD04-0046	**Chuck Dawsey**	**Benton REA**	**Benton Rural Electric Association**
RD04-0047	**Dan Seligman**	**Canby**	**Canby Utility Board**
RD04-0048	**Ken Sugden**	**Flathead**	**Flathead Electric Coop.**
RD04-0049	Tom Brady	Brady	Brady
RD04-0050	**Robin Rego**	**Last Mile**	**Last Mile Electric Cooperative**
RD04-0051	Anne Impero	Impero	Impero
RD04-0052	**August 27 Shelton, Washington Meeting**		
	Ron Gold	Mason 1	Mason County PUD No 1
	Jack Janda	Mason 1	Mason County PUD No 1
	Dick Wilson	Mason 1	Mason County PUD No 1
	Linda Gott	Mason 3	Mason County PUD No 3
	Bruce Jorgensen	Mason 3	Mason County PUD No 3
	John Whalen	Mason 3	Mason County PUD No 3
	Wyla Wood	Mason 3	Mason County PUD No 3
RD04-0053	**September 9 Portland, OR Public Meeting (listed in speaking order)**		
	Geoff Carr	**NRU**	**Northwest Requirements Utilities**
	Jim Abrahamson	**CADO**	**Community Action Directors of Oregon**
	Wayne Hill	**EM**	**Oregon Interfaith Global Warming Campaign-Ecumenical Ministries of Oregon**
	Peter Kremen	Whatcom Exec.	Whatcom County Executive's Office
	Gerald Pumphrey	BTC	Bellingham Technical College
	Carol Opatrny	Powerex	Powerex
	Angus Duncan	**BEF**	**Bonneville Environmental Foundation**
	Pat Flaherty	IAMAW	International Association of Machinists and Aerospace Workers
	Jack Speer	Alcoa	Aluminum Company of America
	Daren Krag	IAMAW	International Association of Machinists and Aerospace Workers
	Sen. Dale Brandland	Brandland	Washington State Senate
	Hugh Diehl	**IAMAW**	**International Association of Machinists and Aerospace Workers**
	Rachel Shimshak	**RNW**	**Renewable Northwest Project**
	Sara Patton	**NWEC**	**NW Energy Coalition**
	Fred Hewitt	**SC**	**Sierra Club**

Log No	Commenter	Affiliation Abbreviation	Affiliation
	Brett Wilcox	GNA	Golden Northwest Aluminum
	Don Bain	Aeropower	Aeropower Services
	Mike Keith	Keith	United Steelworkers of America
	Bob Geary	Geary	United Steelworkers of America
	Vicki Henley	IAMAW	International Association of Machinists and Aerospace Workers
	Mike Rousseau	Alcoa	Aluminum Company of America

Written comments:

RD04-0054	**Margaret Noel**	**LWV**	**League of Women Voters**
RD04-0055	Jake Fey	WSU	Washington State University Extension Energy Program
RD04-0056	**Karen Arango**	**Beacon**	**Beacon Machine, Inc.**
RD04-0057	**Bill Fleenor**	**Central Lincoln**	**Central Lincoln PUD**
RD04-0058	Tom Brady	Brady	Brady
RD04-0059	**Mike Kadas**	**MTPPA**	**Montana Public Power Authority**
RD04-0060	**September 3 Helena, MT Meeting**		
	Bob Rowe, et al	MT PSC	Montana Public Service Commission

Written comments:

RD04-0061	**Ash Awad**	**McKinstry**	**McKinstry Co.**
RD04-0062	**Richard Jackson-Gistelli**	**Emerald**	**Emerald PUD**
RD04-0063	Ellen Engstedt	Mt Workforce Board	Montana State Workforce Investment Board
RD04-0064	**Jasen Bronec**	**Glacier**	**Glacier Electric Cooperative**
RD04-0065	**Jeremy Maxand**	**SRA**	**Snake River Alliance**
RD04-0066	**Ed Hansen**	**Snohomish**	**Snohomish County PUD No. 1**
RD04-0067	**Jack Speer**	**Alcoa**	**Aluminum Company of America**
RD04-0068	**James Sanders**	**Benton PUD**	**Benton PUD**
RD04-0069	**Patrick Judge**	**MEIC**	**Montana Environmental Information Center**
RD04-0070	Scott Fishkin	Boeing	The Boeing Company
RD04-0071	**Alan Zelenka**	**Emerald**	**Emerald PUD**
RD04-0072	**Tony Usibelli**	**WA Dept Trade**	**Washington Department. of Commerce, Trade, and Economic Development**
RD04-0073	**John Saven**	**NRU**	**Northwest Requirements Utilities**
RD04-0074	**Don Andre'**	**NSEED**	**NW Sustainable Energy for Economic Development**
RD04-0075	**Charles Reali**	**Evergreen**	**Evergreen Aluminum, LLC**
RD04-0076	**September 15 Kalispell, MT Public Meeting (listed in speaking order)**		
	Karl Skindingsrude	NAPA	NAPA Auto Parts
	Bill Shaw	City of CF	City of Columbia Falls

Log No	Commenter	Affiliation Abbreviation	Affiliation
	Jack Speer	Alcoa	Aluminum Company of America
	Steve Knight	**CFAC**	**Columbia Falls Aluminum Company**
	Terry Smith	CFAC	Columbia Falls Aluminum Company
	Myrt Webb	FCA	Flathead County Administrator
	Brian Doyle	CFAC	Columbia Falls Aluminum Company
	Daren Krag	IAMAW	International Association of Machinists and Aerospace Workers
	Dave Toavs	CFAC	Columbia Falls Aluminum Company
	Carol Pike	CFCC	Columbia Falls Area Chamber of Commerce
	Jason Bronec	**Glacier**	**Glacier Electric Cooperative**
	Keith Haverfield	CFAC	Columbia Falls Aluminum Company
	Matt Leow	**MPIRG**	**MPIRG**
	Patrick Judge	**MEIC**	**Montana Environmental Information Center**
	Pat Flaherty	IAMAW	International Association of Machinists and Aerospace Workers
	Rep. Doug Ericksen	**Ericksen**	**Washington State House of Representatives**
	Ken Sugden	**Flathead**	**Flathead Electric Coop.**
	Hugh Diehl	IAMAW	International Association of Machinists and Aerospace Workers
	William Drummond	**WMG&T**	**Western Montana Electric Generating & Transmission Coop**
	Gene Dziza	FB&I	Flathead Business and Industry
	Vicki Henley	IAMAW	International Association of Machinists and Aerospace Workers
	Sen. Jerry O'Neil	O'Neil	Montana State Senate
	Jim Stromberg	CFAC	Columbia Falls Aluminum Company
	Rep. Dee Brown	Brown	Montana State House of Representatives
	Liz Harris	Jobs	Jobs Now, Inc
	Doug Grob	**Flathead Board**	**Flathead Electric Coop., Board of Trustees**
	Joe Unterrine	Kalispell CC	Kalispell Chamber of Commerce

Written comments:

RD04-0077	**Jeanne & Dan Olson**	**Olson**	**Olson**
RD04-0078	**Paul Allen**	**Allen**	**Allen**
RD04-0079	**Thomas Schmidt**	**Schmidt**	**Schmidt**
RD04-0080	**Chris Herman**	**WSD**	**Winter Sun Design**
RD04-0081	**James Dailey**	**Dailey**	**Dailey**
RD04-0082	**John O'Rourke**	**CUA**	**Citizens Utility Alliance**
RD04-0083	**Marianne Edain**	**Whidbey**	**Whidbey Environmental Action Network**
RD04-0084	**Larry Owens**	**SW**	**Solar Washington**
RD04-0085	**Ralph Cavanagh**	**NRDC**	**Natural Resources Defense Council**

Log No	Commenter	Affiliation Abbreviation	Affiliation
RD04-0086	**David Robison**	**SEA**	**Solar Energy Association of Oregon**
RD04-0087	**Richard Louis**	**Louis**	**Louis**
RD04-0088	**John Smith**	**Skagit**	**Housing Authority of Skagit County**
RD04-0089	**Stonewall Bird**	**Bird**	**Bird**
RD04-0090	**Dorli Rainey**	**Rainey**	**Rainey**
RD04-0091	**Bill Eddie**	**Advocates**	**Advocates for the West**
RD04-0092	**William Drummond**	**WMG&T**	**Western Montana Electric Generating & Transmission Coop**
RD04-0093	**Ken Canon**	**ICNU**	**Industrial Customers of Northwest Utilities**
RD04-0094	Pete Kremen	Whatcom Exec	Whatcom County Executive's Office
RD04-0095	The comment associated with this log # was not on a Regional Dialogue issue.		
RD04-0096	Steven Stahlberg	CFCC	Columbia Falls Area Chamber of Commerce
RD04-0097	Susan Nicosia	City of CF	City of Columbia Falls
RD04-0098	Rep. Dee Brown	Brown	Montana State House of Representatives
RD04-0099	Howard Gipe	FC	Flathead County Board of Commissioners
RD04-0100	**Michael Henry**	**Lincoln Electric**	**Lincoln Electric Cooperative, Inc.**
RD04-0101	**Brett Wilcox**	**GNA**	**Golden Northwest Aluminum**
RD04-0102	**Mikael Grainey, et al**	**ODOE**	**Oregon Department of Energy**
RD04-0103	**Steven Klein**	**Tacoma**	**Tacoma Power**
RD04-0104	**Steven Marshall**	**Snohomish**	**Snohomish County PUD No. 1**
RD04-0105	**Terry Mundorf**	**WPAG**	**Western Public Agencies Group**
RD04-0106	**Robert Schmitt**	**SUB**	**Springfield Utility Board**
RD04-0107	**James Litchfield**	**PNW IOUs**	**Pacific Northwest Investor Owned Utilities**
RD04-0108	**Jean Ryckman**	**Franklin**	**Franklin PUD**
RD04-0109	**C. Clark Leone**	**PPC**	**Public Power Council**
RD04-0110	**Steven Weiss**	**NWEC**	**NW Energy Coalition**
RD04-0111	**Steve Knight**	**CFAC**	**Columbia Falls Aluminum Company**
RD04-0112	**Greg Booth**	**Clatskanie**	**Clatskanie PUD**
RD04-0113	**Jason Eisdorfer**	**CUB**	**Citizen's Utility Board of Oregon**
RD04-0114	**Doug Brawley**	**PNGC**	**Pacific Northwest Generating Cooperative**
RD04-0115	**Jorge Carrasco**	**Seattle**	**Seattle City Light**
RD04-0116	Liz Frenkel	SC	Sierra Club
RD04-0117	**Joe Ebbeson**	**Ebbeson**	**Ebbeson**
RD04-0118	**Terry Manley-Cozzie**	**Manley-Cozzie**	**Manley-Cozzie**
RD04-0119	**Dave Toaus**	**Toaus**	**Toaus**
RD04-0120	Keith Haverfield	Haverfield	Haverfield
RD04-0121	Brian Doyle	Doyle	Doyle

Log No	Commenter	Affiliation Abbreviation	Affiliation
RD04-0122	N/A	RNW	Renewable Northwest Project
RD04-0123	**Jim Abrahamson**	**CADO**	**Community Action Directors of Oregon**
RD04-0124	**Wayne Hill**	**EM**	**Oregon Interfaith Global Warming Campaign-Ecumenical Ministries of Oregon**
RD04-0125	**Wayne Henneck**	**P&T**	**Pope & Talbot, Inc.**
RD04-0126	Cecil Cole, Jr.	AIT	Applied Industrial Technologies
RD04-0127	**Dick Helgeson**	**EWEB**	**Eugene Water and Electric Board**
RD04-0128	**Dennis Robinson**	**Cowlitz**	**Cowlitz County PUD**
RD04-0129	**Sheryl Carter**	**NRDC**	**Natural Resources Defense Council**
RD04-0130	**JD Williams**	**Umatilla**	**Confederated Tribes of the Umatilla Indian Reservation**
RD04-0131	**Jerry Meninick**	**Yakama**	**Confederated Tribes and Bands of the Yakama Nation**
RD04-0132	**David Davidson**	**Sumas**	**City of Sumas**
RD04-0133	**Lee Beyer, et al**	**PNW SUC**	**Pacific Northwest State Public Utility Commissioners**
RD04-0134	Alfred Nomee	Coeur d'Alene	Coeur d'Alene Tribe
RD04-0135	**Rep. Rick Larsen**	**Larsen**	**U.S. Congress**
RD04-0136	**Tom Anderson**	**Whatcom**	**Whatcom County PUD No. 1**
RD04-0137	**Rep. Greg Walden**	**Walden**	**U.S. Congress**
RD04-0138	**Anthony Johnson**	**Nez Perce**	**Nez Perce Tribal Executive Committee**
RD04-0139	**Cathy Gunderson**	**Gunderson**	**Gunderson**
RD04-0140	**Russell Dorran**	**Hermiston**	**Hermiston Energy Services**
RD04-0141	**Robert Crump**	**Kootenai**	**Kootenai Electric Cooperative, Inc.**
RD04-0142	C. Clark Leone	PPC	Public Power Council
RD04-0143	Kevin Bell	CR	Convergence Research
RD04-0144	**Tom Svendsen**	**Klickitat**	**Klickitat County PUD No. 1**
RD04-0145	Tom Svendsen	Klickitat	Klickitat County PUD No. 1
RD04-0146	**Tom Anderson**	**Whatcom**	**Whatcom County PUD No. 1**
RD04-0147	Joe Nadal, et al	PNGC	Pacific Northwest Generating Cooperative
RD04-0148	**Robert Geddes**	**Pend Oreille**	**Pend Oreille County PUD**
RD04-0149	Robin Rego	Last Mile	Last Mile Electric Cooperative
RD04-0150	**Terry Mundorf**	**WPAG**	**Western Public Agencies Group**
RD04-0151	**Jay Himlie**	**Mason 3**	**Mason County PUD No. 3**
RD04-0152	**Steven Klein**	**Tacoma**	**Tacoma Power**
RD04-0153	**Ed Hansen**	**Snohomish**	**Snohomish County PUD No. 1**
RD04-0154	**Janet Jaspers**	**Chelan**	**Chelan PUD**
RD04-0155	**Joe Taffe**	**Clatskanie**	**Clatskanie PUD**
RD04-0156	**Bruce Zimmerman, et al**	**Umatilla**	**Confederated Tribes of the Umatilla Indian Reservation**

Log No	Commenter	Affiliation Abbreviation	Affiliation
RD04-0157	**James Litchfield**	**PNW IOUs**	**Pacific Northwest Investor Owned Utilities**
RD04-0158	**Jeff Nelson**	**SUB**	**Springfield Utility Board**
RD04-0159	**Scott Corwin**	**PNGC**	**Pacific Northwest Generating Cooperative**
RD04-0160	**J. David Tovey**	**ATNI**	**Affiliated Tribes of Northwest Indians**
RD04-0161	**Dan Seligman**	**Canby**	**Canby Utility Board**
RD04-0162	**Richard Lovely**	**Grays Harbor**	**Grays Harbor PUD**
RD04-0163	**Sen. Maria Cantwell** **Sen. Patti Murray**	**Cantwell, et al**	**U.S. Senate** **U.S. Senate**
RD04-0164	Ray Wiseman	Yakama	Confederated Tribes and Bands of the Yakama Nation
RD04-0165	**Alec Hansen, et al**	**MTPPA**	**Montana Public Power Authority**
RD04-0166	**Tom Schneider**	**MPSC**	**Montana Public Service Commission**
RD04-0167	**Don Kari, et al**	**IOU Reps**	**IOU Representatives**
RD04-0168	Jim Dolan	Pacific	Pacific County PUD No. 2
RD04-0169	Jean Ryckman	Franklin	Franklin PUD
RD04-0170	Jack Speer, et al	DSIs & CUB	Direct Service Industries and Citizens Utility Board
RD04-0171	**Brett Wilcox, et al**	**DSIs & USWA**	**Golden Northwest and United Steel Workers of America**
RD04-0172	**Rep. Rick Larsen**	**Larsen**	**U.S. Congress**

Appendix B
List of Commenters: 2001 NLSL Comment Period

NOTE: Log numbers in bold are cited in the body of the ROD.

Log No.	Commenter	Affiliation Abbreviation	Affiliation
NLSL01-0001	**Eric Redman**	**Golden, et al**	**Heller Ehrman White & McAuliffe (on behalf of Golden Northwest, Northwest Aluminum Company, and Goldendale Aluminum Company)**
NLSL01-0002	Dana Peck	Mid Columbia Econ	Mid-Columbia Economic Development District
NLSL01-0003	**Paul Davies**	**Central Lincoln**	**Central Lincoln PUD**
July 10, 2001 Public Meeting Comments			
NLSL01-0004	Sarah Thomas	Thomas	Thomas
	Dana Peck	**Klickitat**	**Klickitat County PUD No 1**
	Ed LeBrun	**LeBrun**	**United Steelworkers of America 8147**
	Gil Hayes	**Hayes**	**United Steelworkers of America 9170**
	Mark Sigfrinius	Sigfrinius	Sigfrinius
	Irion Sanger	**ICNU**	**Industrial Customers of Northwest Utilities**
	Richard Parker	**Longview Fibre**	**Longview Fibre**
	Mark Stauffer	**MPC**	**Montana Power Company**
NLSL01-0005	**Stu Card**	**Weyerhaeuser**	**Weyerhaeuser**
NLSL01-0006	Brian Skeahan & Dwight Langger	Klickitat et al	Kickitat County PUD No 1 & Northern Wasco County PUD
NLSL01-0007	**David Hartley**	**Hartley**	**Hartley**
NLSL01-0008	**Chuck Madin**	**Madin**	**Madin**
NLSL01-0009	**Bruce McComas**	**Port Townsend**	**Port Townsend Paper Corporation**
NLSL01-0010	John Summers	Summers	Summers
NLSL01-0011	**Charles Dawsey**	**Benton REA**	**Benton Rural Electric Association**
NLSL01-0012	**Alan Zelenka**	**Emerald**	**Emerald PUD**
NLSL01-0013	**Thomas Handy**	**Handy**	**Handy**
NLSL01-0014	**William Drummond**	**WMG&T**	**Western Montana Electric Generating & Transmission Coop**
NLSL01-0015	**James Williams**	**Trans-Systems**	**Trans-Systems, Inc**
NLSL01-0016	**Thomas Handy**	**Handy**	**Handy**
NLSL01-0017	**Tom Anderson**	**Whatcom**	**Whatcom County PUD No. 1**
NLSL01-0018	**Jim Weidert**	**Weidert**	**Weidert**

Log No.	Commenter	Affiliation Abbreviation	Affiliation
NLSL01-0019	**Joe Tally**	**Tally**	**Tally**
NLSL01-0020	John Scelfo	Spur	Spur Industries Inc.
NLSL01-0021	Daniel Wenstrom	Precision	Precision Machine and Supply, Inc.
NLSL01-0022	**Wenstrom**	**Precision**	**Precision Machine and Supply, Inc**
NLSL01-0023	Steven Eldrige	Umatilla Electric	Umatilla Electric Cooperative
NLSL01-0024	**K. David Hagen**	**Clearwater**	**Clearwater Power Company**
NLSL01-0025	**John Saven**	**NRU**	**Northwest Requirements Utilities**
NLSL01-0026	Rep. Billy Tauzin	Tauzin	Member of Congress
NLSL01-0027	**Douglas Brawley**	**PNGC**	**Pacific Northwest Generating Cooperative**
NLSL01-0028	**Frank Espy**	**Espy**	**Espy**
NLSL01-0029	**James Welsh**	**Garco**	**Garco Construction**
NLSL01-0030	N/A	ORECA	Oregon Rural Electric Cooperative Association
NLSL01-0031	**Larry Dow**	**Dow**	**Dow**
NLSL01-0032	Mike Jostrom	Plum Creek	Plum Creek Timber Co.
NLSL01-0033	James Ewers	Inland Empire	Inland Empire Distribution Systems, Inc.
NLSL01-0034	**Jack Speer**	**Alcoa**	**Aluminum Company of America**
NLSL01-0035	**Melinda Davidson**	**ICNU**	**Industrial Customers of Northwest Utilities**
NLSL01-0036	N/A	Douglas	Douglas PUD
NLSL01-0037	**Paul Murphy**	**Alcoa et al**	**Aluminum Company of America, Golden Northwest Aluminum Co., and Kaiser Aluminum and Chemical Corp.**
NLSL01-0038	Roger Braden	Chelan	Chelan PUD
NLSL01-0039	**Ken Morgan**	**Clallam**	**Clallam County PUD No. 1**
NLSL01-0040	**C. Clark Leone**	**PPC**	**Public Power Council**
NLSL01-0041	**Wayne Henneck**	**P&T**	**Pope & Talbot, Inc.**
NLSL01-0042	**Ray Kindley**	**PGP**	**Public Generating Pool**
NLSL01-0043	**Tom Svendsen**	**Klickitat**	**Klickitat County PUD No. 1**
NLSL01-0044	**Mark Wyborney**	**WPAG**	**Western Public Agencies Group**
NLSL01-0045	**Nancy Baker**	**NWasco**	**Northern Wasco PUD**
NLSL01-0046	Terry Mundorf	WPAG	Western Public Agencies Group
NLSL01-0047	**Pamela Jacklin, Marjorie Thomas, Phil Obenchain**	**PacifiCorp, et al**	**PacifiCorp, Montana Power, Idaho Power**
NLSL01-0048	**Jeff Nelson**	**SUB**	**Springfield Utility Board**
NLSL01-0049	**Roy Hemmingway, Roger Hamilton, Joan Smith, John Savage**	**OPUC/OOE**	**Oregon Public Utilities Commission & Oregon Office of Energy**
NLSL01-0050	**Eric Todderud & Eric Redman**	**Golden, et al**	**Heller Ehrman White & McAuliffe (on behalf of Golden Northwest, Northwest Aluminum Company, and Goldendale Aluminum Company)**

Log No.	**Commenter**	**Affiliation Abbreviation**	**Affiliation**
NLSL01-0051	**Lyn Williams**	**PGE**	**Portland General Electric**
NLSL01-0052	**James Wiley**	**EWEB**	**Eugene Water and Electric Board**
NLSL01-0053	**Richard Parker**	**Longview Fibre**	**Longview Fibre**
NLSL01-0054	**Jim Coulson**	**Coeur d'Alenes**	**The Coeur d'Alenes Company**
NLSL01-0055	**Kris Mikkelsen**	**Inland**	**Inland Power & Light**
NLSL01-0056	**Dennis Robinson**	**Cowlitz**	**Cowlitz County PUD**
NLSL01-0057	**Roberta Moody**	**Moody**	**Moody**
NLSL01-0058	**Chris Drury**	**US Navy**	**United States Navy**
NLSL01-0059	**Bruce McComas**	**McComas**	**McComas**
NLSL01-0060	**Rep. Dee Brown**	**Brown**	**Montana State House of Representatives**
NLSL01-0061: Duplicate of Log #0033			
NLSL01-0062	**Rich Hadley**	**Spokane CC**	**Spokane Chamber of Commerce**
NLSL01-0063	Rick Charbonneau	Charbonneau	Charbonneau

ATTACHMENT 4

Department of Energy

Bonneville Power Administration
Seattle Customer Service Center
909 First Avenue, Suite 380
Seattle, Washington 98104-3636

POWER SERVICES

June 16, 2009

In reply refer to: PSW/Seattle

Doug Nass, General Manager
Public Utility District No. 1 of Clallam County
2431 East Highway 101
Port Angeles, WA 98362

Dear Doug:

This letter responds to your May 1, 2009 letter (Letter) requesting to serve a portion of the Port Townsend Paper Corporation (Port Townsend) electric load using Bonneville Power Administration (BPA) power purchased at the Priority Firm (PF) Power Rate. Such service would be initiated under Public Utility District No. 1 of Clallam County, Washington's (Clallam) Subscription Full Service Power Sales Agreement No. 00PB-12051 (Subscription Contract). Specifically, Clallam requests that BPA increase the amount of Contracted Power supplied under the Subscription Contract by approximately 3 average megawatts (aMW) to serve production load at Port Townsend's old corrugated containers (OCC) recycle pulp facility. After consideration of Clallam's request, BPA approves Clallam's request to increase the amount of Contracted Power available under its Subscription Contract to serve only the OCC portion of Port Townsend's total load.

As described more fully below, the OCC plant will need to be separately metered. Other issues relevant to Clallam's request are also discussed below and BPA's approval is subject to any indentified contingencies and limitations

1. **OCC load does not include certain identified environmental control equipment for which a technological allowance was also granted in 1996.**

Attached to the Letter was a January 29, 1997 letter from Charles Forman to Mr. Bruce McComas, of Port Townsend. In Mr. Forman's 1997 letter BPA granted a technological allowance of 3.9 megawatts to Port Townsend, pursuant to Section 5(d) of Contract No. DC-MS79-81BP90347. The majority of the allowance (3.275 MW) was for the OCC facility. The remaining 0.544 MW was attributable to certain identified environmental control equipment. Because your request is related to only the OCC load, BPA is concluding that the environmental control equipment is associated with all of Port Townsend's production load and will remain a part of Port Townsend's DSI contract demand. Thus, approval of Clallam's request is limited to serving the load attributable solely to the OCC facility.

JUN 1 9 2009

2. **The additional lapse of time prior to your request does not constitute a waiver of Port Townsend's right to receive service from Clallam for the OCC load.**

Clallam's request cited a portion of the February 2005 Record of Decision (ROD) concerning Bonneville Power Administration's Policy for Power Supply Role for Fiscal Years 2007-2011. Included, from page 56 of that ROD, are statements concluding that the approximately 3 aMWs of production load at Port Townsend's OCC recycle pulp facility could be served by Clallam at the PF rate. That ROD states, in pertinent part:

> BPA knows that in 1996 Port Townsend added a new facility at its site to reprocess old corrugated cardboard (OCC) and that this new facility could have taken service from Clallam PUD because the load associated with the new OCC facility was in excess of Port Townsend's (formerly Crown Zellerbach) then Contract Demand. BPA will continue to apply the Atochem decision to any current or former DSI production load that takes service from a local utility and will not penalize Port Townsend for requesting additional service from BPA in 1996 rather than taking service from Clallam PUD at that time. BPA finds that the OCC facility was completed in 1996 and would have been eligible to be served separately from Port Townsend's Contract Demand load by Clallam PUD. As such it represents the only known instance of a separate facility at a DSI that qualifies for non-NLSL local utility service under the Atochem policy. BPA believes that for current or former DSI production load, only load that meets the test of being (1) a production load added to a DSI site after November 16, 1992, (the date of the Atochem ROD) and therefore load that was not part of the DSIs Contract Demand under its initial 1981 contract Exhibit C; and, (2) new load that is a separate production of a different product, is eligible to be served by the local utility under Atochem. The approximate 3 aMWs of production load at Port Townsend's OCC recycle pulp facility is the only DSI load that BPA is aware of that meets the above tests.

As indicated in the cited passage, the lapse of time between the 1996 technological allowance and the 2005 consideration of the OCC load Atochem policy determination was an issue considered by the Administrator. He resolved that issue by determining that Port Townsend would not be penalized due to the delay. In this instance, several more years have elapsed since the 2005 Atochem policy determination and Clallam's recent request to provide service to the OCC load.

Therefore, BPA is once again confronted with the issue of whether Port Townsend may have waived its right due to the additional passage of time. BPA concludes that Port Townsend has not waived its right to receive service from Clallam for the OCC load. First, the ROD in which this decision was made explicitly governs BPA's power supply role for the years 2007-2011. Since the request is within the confines of that time period, BPA does not believe a waiver has occurred. Moreover, the contractual construct that has been in place since that time was one of the subjects recently reviewed by the Ninth Circuit in *Pacific Northwest Generating Cooperative v. Dept. of Energy*, 550 F.3d 846 (9th Cir. 2008). In its opinion the Court identified legal infirmities in the Surplus Firm Power Sales Agreement No. 06PB-11694 between Clallam and BPA, which was entered into for the purpose of providing power to Port Townsend. *Id.* BPA does not believe that it would be fair or appropriate now to determine that Port Townsend has waived or otherwise forfeited its right to request Clallam to supply the OCC load due to the additional lapse of time. In turn, BPA does not believe that the Court's decision concerning the validity of the applicable rate for the sale of surplus firm power to Clallam for resale to Port Townsend has any import with respect to Clallam's current request to purchase additional power at the PF rate to serve the OCC load as part of its firm power requirements under its Subscription Contract. Thus, the additional lapse of time provides no basis for BPA to deny Clallam's request.

3. The OCC load will not be subject to the Targeted Adjustment Charge (TAC).

BPA's currently applicable wholesale power General Rate Schedule Provisions provide that "[t]he TAC applies to firm power requirements service to regional firm load that results in an unanticipated increase in BPA's projected loads within the rate period." 2007 General Rate Schedule Provisions (FY 2009), Section II, subsection P, page 108. BPA does not believe the OCC facility creates an "unanticipated increase in BPA's projected loads." The OCC load was identified in 1996 and Port Townsend's contract demand was increased to accommodate this plant expansion. In the 2005 ROD cited above, BPA once again specifically identified the OCC load and concluded that it was eligible for service from a BPA preference utility customer. These two facts support the conclusion that BPA has anticipated service to the OCC load as part of its supply obligation through 2011.

Moreover, OCC load is presently served pursuant to the terms of our surplus firm power sales contract (No. 06PB-11694), and as such was included in BPA load forecasts for FY 2008 and FY 2009, and also for FY 2010 and FY 2012 as part of BPA's current WP-10 rate setting process. This fact also supports the conclusion that the OCC load is not unanticipated load. Thus, any PF service to this load will not be charged a TAC under either the current PF-07R or the PF-10 rate schedules that will be effective beginning October 1, 2009.

4. Ultimately, the OCC load will require separate metering.

If separate metering to measure the OCC loads are not already in place, Clallam must install metering in compliance with section 9(c)(3) of your Subscription Contract and comporting with current metering standards, allow BPA Power Services complete electronic access to metering data. If Clallam desires that BPA install such metering, Clallam must request such metering as quickly as possible. Metering installations may require placement into a queue and thus must be set in motion as quickly as possible by written notification to me. Please be aware, as well, that any installed metering also will have to meet standards required for service under your Regional Dialogue Power Sales Agreement, No. 09BP-13019. This requirement does not foreclose the possibility of an interim joint metering/billing arrangement if that becomes necessary for a limited amount of time in order to expedite inclusion of the OCC load for service as part of

Clallam's firm power requirements. Ultimately, separate metering should be installed as expeditiously as possible.

As a final note, this letter responds only to your request for service to the OCC load. Your Letter alluded to potential service to other non-Contract Demand loads of Port Townsend that you believe may also be eligible for service from Clallam. Since you requested no action of BPA in that regard, consideration of such potential loads cannot be addressed at this time and could only be considered by BPA in the context of a separate request.

When the date for commencing PF service to the OCC load is determined, please provide written notice of that date to me by letter, and provide such notice at least 60 days in advance of the expected service at the PF-07R or PF-10 rate. If you have questions or if you feel that any portion of this letter misstates contract requirements, BPA's policies, or other aspects of our business relationship, please contact me at 206-220-6775 at your earliest opportunity. I look forward to working with you on this change to your service under your Subscription Contract.

Sincerely,

Shannon K. Greene
Power Services Account Executive

cc:
Fred Mitchell, Public Utility District No. 1 of Clallam County
Scott Corwin, Public Power Council
John Saven, Northwest Requirement Utilities
John Prescott, PNGC Power

ATTACHMENT 5

IP-10
INDUSTRIAL FIRM POWER RATE

SECTION I. AVAILABILITY

This schedule is available to BPA's direct service industrial customers (DSIs), as defined by the Northwest Power Act, for Firm Power to be used in their industrial operations in the Pacific Northwest. Industrial Firm Power (IP) is available under Northwest Power Act section 5(d) to DSIs contracts for direct consumption.

Effective October 1, 2009, this rate schedule supersedes the IP-07R rate schedule, which went into effect October 1, 2008. Sales to DSI customers under the IP-10 rate schedule shall be subject to BPA's 2010 General Rate Schedule Provisions (GRSPs) and billing process. DSIs purchasing power pursuant to the IP-10 rate schedule shall be required to provide the Minimum DSI Operating Reserve – Supplemental.

SECTION II. INDUSTRIAL FIRM RATE TABLES

The rates for the Industrial Firm Power (IP) product are identified below.

A. DEMAND RATE FOR ALL IP PRODUCTS

1. Monthly Demand Rate for FY 2010 through FY 2011

1.1 Applicability

These monthly rates apply to eligible customers purchasing Firm Power.

1.2 Rate Table

Applicable Months	*Monthly Rate*
January	$1.96 /kW
February	$1.99 /kW
March	$1.85 /kW
April	$1.74 /kW
May	$1.44 /kW
June	$1.32 /kW
July	$1.61 /kW
August	$1.89 /kW
September	$1.96 /kW
October	$2.05 /kW
November	$2.19 /kW
December	$2.30 /kW

B. ENERGY RATE

1. Monthly Energy Rates for FY 2010 through FY 2011

1.1 Applicability

These energy rates apply to eligible customers purchasing Firm Power.

1.2 Rate Table

Applicable Months	*HLH Rate*	*LLH Rate*
January	38.46 mills/kWh	32.24 mills/kWh
February	37.72 mills/kWh	31.73 mills/kWh
March	35.94 mills/kWh	30.08 mills/kWh
April	32.23 mills/kWh	26.95 mills/kWh
May	31.69 mills/kWh	22.29 mills/kWh
June	31.18 mills/kWh	23.29 mills/kWh
July	33.33 mills/kWh	28.66 mills/kWh
August	37.31 mills/kWh	31.40 mills/kWh
September	36.49 mills/kWh	32.26 mills/kWh
October	31.92 mills/kWh	27.01 mills/kWh
November	33.33 mills/kWh	29.58 mills/kWh
December	35.24 mills/kWh	31.13 mills/kWh

1.3 7(b)(3) Supplemental Rate Charge

Each energy rate in the Rate Table reflects a 7(b)(3) Supplemental Rate Charge of 7.38 mills/kWh.

1.4 Value of Reserves Credit

Each energy rate in the Rate Table reflects a 0.80 mill/kWh credit for the value of the Minimum DSI Operating Reserve – Supplemental.

C. LOAD VARIANCE RATE

The Load Variance Rate for FY 2010 and FY 2011 applies to customers purchasing this product consistent with Section III below. The rate for Load Variance is 0.49 mill/kWh.

This page intentionally left blank.

SECTION III. BILLING FACTORS AND ADJUSTMENTS FOR EACH IP PRODUCT

This rate schedule contains two subsections, corresponding to the products to which this rate schedule applies. The following two products are available to serve loads at the IP-10 rate.

Section III.A. Block Product

Section III.B. Full Service Product

A. BLOCK PRODUCT

Purchases of the Core Subscription Block Product are subject to the charges specified below.

1. Industrial Firm Power

1.1 Demand Charge

The charge for Demand will be:
the Purchaser's monthly Demand Entitlement as specified in the contract
multiplied by
the monthly Demand Rate from Section II.A.

1.2 Energy Charge

The total monthly charge for energy will be the sum of (1) and (2):

(1) The Purchaser's HLH Energy Entitlement as specified in the contract
multiplied by
the monthly HLH Energy Rate from Section II.B.

(2) The Purchaser's LLH Energy Entitlement as specified in the contract
multiplied by
the monthly LLH Energy Rate from Section II.B.

1.3 Load Variance Charge

Load Variance is not applicable to Block Product purchases.

2. Adjustments, Charges, and Special Rate Provisions

Adjustments, Charges, and Special Rate Provisions are described in the 2010 GRSPs. Relevant sections are identified below:

Adjustments, Charges, and Special Rate Provisions	*2010 GRSPs Section*
Conservation Rate Credit	II.A
Conservation Surcharge	II.B
Cost Contributions	II.C
Cost Recovery Adjustment Clause	II.D
Dividend Distribution Clause	II.F
The NFB Mechanisms	II.G
Green Energy Premium	II.K
Unauthorized Increase Charge	II.Q
DSI Reserves Adjustment	II.S

B. FULL SERVICE PRODUCT

Purchases of the Core Subscription Full Service Product are subject to the charges specified below.

1. Industrial Firm Power

1.1 Demand Charge

The charge for Demand will be:
the Purchaser's monthly Demand on the GSP as specified in the contract
multiplied by
the monthly Demand Rate from Section II.A.

1.2 Energy Charge

The total monthly charge for energy will be the sum of (1) and (2):

(1) The Purchaser's HLH Energy Entitlement as specified in the contract
multiplied by
the monthly HLH Energy Rate from Section II.B.

(2) The Purchaser's LLH Energy Entitlement as specified in the contract
multiplied by
the monthly LLH Energy Rate from Section II.B.

1.3 Load Variance Charge

The charge for Load Variance will be:
The Purchaser's Total Retail Load for the billing period
multiplied by.
The Load Variance Rate from Section II.C.

2. Adjustments, Charges, and Special Rate Provisions

Adjustments, Charges, and Special Rate Provisions are described in the 2010 GRSPs. Relevant sections are identified below:

Adjustments, Charges, and Special Rate Provisions	***2010 GRSPs Section***
Conservation Rate Credit	II.A
Conservation Surcharge	II.B
Cost Contributions	II.C
Cost Recovery Adjustment Clause	II.D
Dividend Distribution Clause	II.F
The NFB Mechanisms	II.G
Green Energy Premium	II.K
Unauthorized Increase Charge	II.Q
DSI Reserves Adjustment	II.S

SECTION IV. TRANSMISSION

All customers will need to obtain transmission for delivery of products listed under this rate schedule unless BPA's Power Services and the customer negotiate otherwise at time of sale.

FPS-10
FIRM POWER PRODUCTS AND SERVICES RATE

SECTION I. AVAILABILITY

This rate schedule is available for the purchase of Firm Power, Capacity Without Energy, Supplemental Control Area Services, Shaping Services, Reservation and Rights to Change Services, and Reassignment or Remarketing of Surplus Transmission Capacity for use inside and outside the Pacific Northwest during the period beginning October 1, 2009, and ending September 30, 2011.

Products and services available under this rate schedule are described in BPA's 2010 GRSPs. Sales under this rate schedule are discretionary: BPA is not obligated to sell any of these products, even if such sales will not displace PF/NR/IP sales. Ancillary Services needed for transmission service over Federal Columbia River Transmission System facilities shall be charged separately under the applicable transmission rate schedule.

Effective October 1, 2009, this rate schedule supersedes the FPS-07R rate schedule. Rates under contracts that contain charges that escalate based on rates listed in this rate schedule shall include applicable transmission charges. Sales under the FPS-10 rate schedule are subject to BPA's 2010 GRSPs and billing process.

SECTION II. RATES, BILLING FACTORS, AND ADJUSTMENTS

For each product, the rate(s) for each product, along with the associated billing factor(s), are identified below. Applicable adjustments, charges, and special rate provisions are listed for each product. This rate schedule contains five subsections, corresponding to the products offered under this rate schedule:

Section II.A. Firm Power and Capacity Without Energy

Section II.B. Supplemental Control Area Services

Section II.C. Shaping Services

Section II.D. Reservation and Rights to Change Services

Section II.E. Reassignment or Remarketing of Surplus Transmission Capacity

A. FIRM POWER AND CAPACITY WITHOUT ENERGY

1. Flexible Rate

Demand and/or energy charges shall be as specified by BPA or as mutually agreed by BPA and the purchaser. Billing factors shall be Contract Demand and Contract Energy unless otherwise agreed by BPA and the Purchaser.

2. 7(b)(3) Supplemental Rate Charge

A 7(b)(3) Supplemental Rate Charge of 7.38 mills/kWh shall be included in each FPS energy rate charge as determined pursuant to paragraph A.1 above. The inclusion of this 7(b)(3) Supplemental Rate Charge shall not inhibit the energy rate charge of the Flexible Rate from being either positive or negative.

3. Adjustments, Charges, and Special Rate Provisions

Adjustments, Charges, and Special Rate Provisions are described in the 2010 GRSPs. Relevant sections are identified below.

Adjustments, Charges, and Special Rate Provisions	***2010 GRSPs Section***
Cost Contributions	II.C
Unauthorized Increase Charge	II.Q
West-Wide Price Cap of FPS Sales	II.R

B. SUPPLEMENTAL CONTROL AREA SERVICES

1. Rates and Billing Factors

The charge for Supplemental Control Area Services shall be the applicable rate(s) times the applicable billing factor(s), pursuant to the agreement between BPA and the Purchaser.

The rate(s) and billing factor(s) for Supplemental Control Area Services shall be as established by BPA or as mutually agreed by BPA and the Purchaser.

2. Adjustments, Charges, and Special Rate Provisions

Adjustments, Charges, and Special Rate Provisions are described in the 2010 GRSPs. Relevant sections are identified below.

Adjustments, Charges, and Special Rate Provisions	*2010 GRSPs Section*
Cost Contributions	II.C
Unauthorized Increase Charge	II.Q

C. SHAPING SERVICES

1. Rates and Billing Factors

The charge for Shaping Services shall be the applicable rate(s) times the applicable billing factor(s), pursuant to the agreement between BPA and the Purchaser.

The rate(s) and billing factor(s) for use of Shaping Services shall be as established by BPA or as mutually agreed by BPA and the Purchaser.

2. Adjustments, Charges, and Special Rate Provisions

Adjustments, Charges, and Special Rate Provisions are described in the 2010 GRSPs. Relevant sections are identified below.

Adjustments, Charges, and Special Rate Provisions	***2010 GRSPs Section***
Cost Contributions	II.C
Unauthorized Increase Charge	II.Q

D. RESERVATION AND RIGHTS TO CHANGE SERVICES

1. Rates and Billing Factors

The charge for Reservation and Rights to Change Services shall be the applicable rate(s) times the applicable billing factor(s), pursuant to the agreement between BPA and the Purchaser.

The rate(s) and billing factor(s) for Reservation and Rights to Change Services shall be as established by BPA or as mutually agreed by BPA and the Purchaser.

2. Adjustments, Charges, and Special Rate Provisions

There are no additional adjustments, charges, or special rate provisions for the Reservation and Rights to Change Services.

E. REASSIGNMENT OR REMARKETING OF SURPLUS TRANSMISSION CAPACITY

Power Services may reassign or remarket surplus transmission capacity that it has reserved for its own use consistent with the terms of the transmission provider's Open Access Transmission Tariff (OATT).

1. Rates and Billing Factors

The charges for Reassignment or Remarketing of Surplus Transmission Capacity shall be the applicable rate(s) times the applicable billing factor(s), pursuant to the agreement between BPA and the Purchaser.

The rate(s) and billing factor(s) for Reassignment or Remarketing of Surplus Transmission Capacity shall be as established by BPA or as mutually agreed to by BPA and the Purchaser.

2. Adjustments, Charges, and Special Rate Provisions.

There are no additional adjustments, charges, or special rate provisions for the Reassignment or Remarketing of Surplus Transmission Capacity.

Computation of October 2009 IP-10 Rate for Confirmation Agreement with Port Townsend

	Hours			MW	MWh			
	HLH	LLH	All		20	HLH	LLH	
10/1/2009	4	16	8	24	20	320	160	480
10/2/2009	5	16	8	24	20	320	160	480
10/3/2009	6	16	8	24	20	320	160	480
10/4/2009	7	0	24	24	20	-	480	480
10/5/2009	1	16	8	24	20	320	160	480
10/6/2009	2	16	8	24	20	320	160	480
10/7/2009	3	16	8	24	20	320	160	480
10/8/2009	4	16	8	24	20	320	160	480
10/9/2009	5	16	8	24	20	320	160	480
10/10/2009	6	16	8	24	20	320	160	480
10/11/2009	7	0	24	24	20	-	480	480
10/12/2009	1	16	8	24	20	320	160	480
10/13/2009	2	16	8	24	20	320	160	480
10/14/2009	3	16	8	24	20	320	160	480
10/15/2009	4	16	8	24	20	320	160	480
10/16/2009	5	16	8	24	20	320	160	480
10/17/2009	6	16	8	24	20	320	160	480
10/18/2009	7	0	24	24	20	-	480	480
10/19/2009	1	16	8	24	20	320	160	480
10/20/2009	2	16	8	24	20	320	160	480
10/21/2009	3	16	8	24	20	320	160	480
10/22/2009	4	16	8	24	20	320	160	480
10/23/2009	5	16	8	24	20	320	160	480
10/24/2009	6	16	8	24	20	320	160	480
10/25/2009	7	0	24	24	20	-	480	480
10/26/2009	1	16	8	24	20	320	160	480
10/27/2009	2	16	8	24	20	320	160	480
10/28/2009	3	16	8	24	20	320	160	480
10/29/2009	4	16	8	24	20	320	160	480
10/30/2009	5	16	8	24	20	320	160	480
10/31/2009	6	16	8	24	20	320	160	480
						16,640	12,640	29,280

	Hours			Usage MWh		
	HLH	LLH	Total	HLH	LLH	Total
Oct	432	312	744	8,640	6,240	14,880

	Rates (IP-10)			
	Demand ($ per kW per month)		Energy (mills per kWh)	
	Demand	Days in month	HLH	LLH
Oct	$ 2.05	31	$ 31.92	$ 27.01

	Dollars (IP-10)				
	Demand	Energy			
	per month	HLH	LLH	Total ($)	Total ($ per unit)
Oct	$ 41,000.00	$ 275,788.80	$ 168,542.40	$ 485,331.20	$ 32.62

ATTACHMENT 6

Aurora Market Price Forecast Result for October 2009

Proportions -->	0.55890411	0.44109589	
Run_ID	**HLH**	**LLH**	**Flat**
1	28.70	24.96	27.05
2	27.54	24.69	26.28
3	27.12	24.92	26.15
4	25.31	23.74	24.62
5	27.77	24.96	26.53
6	21.98	21.05	21.57
7	25.92	23.54	24.87
8	27.38	25.13	26.39
9	24.34	22.54	23.55
10	29.92	26.81	28.54
11	28.80	25.69	27.43
12	24.20	22.31	23.37
13	23.16	22.17	22.72
14	28.16	24.92	26.73
15	21.83	20.61	21.29
16	28.99	26.10	27.71
17	25.56	24.03	24.89
18	21.02	19.73	20.45
19	24.90	23.28	24.19
20	27.41	24.80	26.26
21	22.01	20.15	21.19
22	29.15	26.05	27.78
23	33.29	27.85	30.89
24	22.46	21.49	22.03
25	29.91	26.23	28.29
26	20.13	18.84	19.56
27	27.37	25.10	26.37
28	40.64	33.87	37.65
29	26.27	24.18	25.35
30	29.27	25.43	27.58
31	25.92	24.21	25.17
32	25.03	23.37	24.30
33	26.79	24.66	25.85
34	26.57	24.53	25.67
35	26.93	24.73	25.96
36	23.05	20.49	21.92
37	29.40	25.78	27.80
38	19.47	18.42	19.01
39	21.87	21.07	21.52
40	24.18	22.69	23.52
41	29.19	25.55	27.58
42	27.72	24.59	26.34
43	22.28	20.09	21.31
44	54.57	43.36	49.63
45	40.17	34.15	37.51
46	31.59	27.13	29.62
47	23.37	22.09	22.80
48	32.51	27.22	30.17
49	34.72	28.94	32.17
50	23.73	21.51	22.75
51	26.30	24.29	25.42
52	33.41	28.28	31.15
53	29.23	25.84	27.73
54	27.43	24.29	26.04

55	30.14	26.29	28.44
56	26.95	24.37	25.81
57	22.35	19.76	21.21
58	25.46	24.06	24.84
59	25.23	23.57	24.50
60	26.00	23.87	25.06
61	24.53	23.09	23.89
62	31.04	26.97	29.25
63	26.40	23.70	25.21
64	22.62	21.25	22.01
65	25.00	23.38	24.29
66	19.92	18.64	19.36
67	35.54	29.80	33.01
68	22.05	21.40	21.76
69	26.77	24.69	25.85
70	31.07	27.46	29.48
71	24.80	22.97	23.99
72	29.52	26.10	28.01
73	26.48	24.18	25.47
74	27.15	24.35	25.91
75	31.24	26.92	29.33
76	31.14	26.85	29.25
77	24.76	23.25	24.09
78	23.21	21.57	22.48
79	20.65	19.91	20.33
80	25.17	23.59	24.47
81	26.45	23.72	25.25
82	19.98	18.31	19.24
83	33.20	28.07	30.94
84	19.99	18.73	19.43
85	30.00	26.08	28.27
86	25.40	24.22	24.88
87	23.19	20.84	22.15
88	31.57	27.34	29.70
89	23.42	22.14	22.85
90	29.03	25.91	27.65
91	29.84	26.66	28.44
92	22.60	21.12	21.95
93	21.64	19.67	20.77
94	27.96	25.10	26.70
95	26.53	24.53	25.65
96	24.34	22.43	23.50
97	32.17	27.29	30.02
98	34.58	28.72	31.99
99	26.49	24.08	25.43
100	27.35	25.17	26.39
101	24.44	22.55	23.61
102	30.02	25.92	28.21
103	26.40	24.11	25.39
104	29.48	26.07	27.98
105	33.79	28.54	31.47
106	24.97	23.53	24.33
107	29.93	26.13	28.26
108	28.46	25.56	27.18
109	24.70	22.64	23.79
110	25.76	24.01	24.99

111	28.55	24.58	26.80
112	24.82	22.55	23.82
113	24.87	22.56	23.85
114	24.56	23.34	24.02
115	23.99	22.43	23.30
116	22.14	19.54	20.99
117	27.07	24.57	25.96
118	26.43	24.63	25.64
119	30.54	26.52	28.77
120	23.98	22.32	23.25
121	22.25	20.65	21.54
122	29.10	25.40	27.47
123	25.98	23.65	24.95
124	25.03	23.29	24.26
125	36.90	31.04	34.32
126	23.21	22.27	22.79
127	25.95	23.55	24.89
128	22.33	19.94	21.28
129	33.20	28.06	30.93
130	43.34	35.65	39.95
131	24.42	23.09	23.84
132	39.10	31.96	35.95
133	25.24	23.63	24.53
134	26.28	24.18	25.36
135	34.46	28.78	31.95
136	23.56	21.85	22.81
137	20.31	19.44	19.92
138	32.78	27.80	30.58
139	27.21	24.61	26.06
140	30.08	26.71	28.60
141	38.66	31.67	35.58
142	26.57	24.41	25.62
143	25.29	23.20	24.37
144	29.48	26.23	28.05
145	22.92	20.92	22.04
146	29.34	25.86	27.81
147	36.59	30.05	33.70
148	23.29	21.08	22.31
149	22.74	20.77	21.87
150	24.93	23.43	24.27
151	23.11	20.57	21.99
152	28.56	25.41	27.17
153	25.79	24.08	25.04
154	36.94	30.63	34.16
155	34.62	28.85	32.08
156	36.05	31.05	33.84
157	24.52	22.97	23.84
158	21.42	20.72	21.11
159	31.68	27.10	29.66
160	23.10	21.41	22.35
161	26.65	24.58	25.74
162	29.61	25.61	27.84
163	26.78	24.18	25.64
164	23.52	21.24	22.52
165	24.15	22.96	23.62
166	42.47	35.15	39.24

167	29.30	25.52	27.63
168	24.52	22.66	23.70
169	24.58	23.07	23.92
170	23.88	22.40	23.23
171	28.99	25.61	27.50
172	32.96	28.14	30.83
173	31.54	27.50	29.76
174	26.49	24.14	25.46
175	22.87	21.48	22.26
176	24.49	23.15	23.90
177	28.83	25.84	27.51
178	22.38	21.06	21.80
179	23.69	22.36	23.10
180	21.80	20.73	21.33
181	32.56	28.40	30.73
182	24.97	22.68	23.96
183	23.67	22.10	22.98
184	24.12	22.80	23.53
185	33.44	28.37	31.20
186	30.46	26.58	28.75
187	29.79	25.68	27.98
188	31.81	27.63	29.97
189	22.05	19.60	20.97
190	31.28	27.45	29.59
191	29.24	25.56	27.62
192	24.31	22.24	23.40
193	29.40	25.54	27.70
194	22.45	20.60	21.63
195	25.00	23.26	24.23
196	34.93	29.40	32.49
197	25.29	23.60	24.55
198	28.64	25.29	27.16
199	27.32	24.82	26.22
200	23.51	22.37	23.01
201	24.64	22.44	23.67
202	21.99	20.87	21.49
203	38.19	31.25	35.13
204	24.57	22.74	23.76
205	27.36	24.63	26.15
206	20.18	19.49	19.88
207	27.16	24.26	25.88
208	26.46	24.31	25.52
209	22.33	20.65	21.59
210	26.14	24.50	25.42
211	30.49	26.38	28.68
212	34.78	29.38	32.40
213	27.91	25.17	26.70
214	23.43	20.85	22.29
215	30.45	26.44	28.68
216	22.27	20.36	21.43
217	27.11	24.29	25.87
218	26.41	24.47	25.56
219	32.23	27.11	29.97
220	25.01	23.50	24.35
221	24.27	22.43	23.46
222	21.80	20.35	21.16

223	22.56	20.66	21.72
224	22.63	21.06	21.94
225	28.70	25.44	27.26
226	21.29	20.21	20.81
227	27.49	24.84	26.32
228	24.63	22.33	23.61
229	24.91	23.45	24.26
230	22.93	21.06	22.10
231	28.81	24.02	26.70
232	37.54	29.71	34.09
233	25.92	23.89	25.02
234	27.84	25.49	26.80
235	27.02	24.66	25.98
236	21.33	20.51	20.97
237	28.28	25.73	27.15
238	21.67	19.46	20.70
239	25.67	24.01	24.94
240	24.20	22.79	23.58
241	39.54	31.58	36.03
242	21.69	20.80	21.30
243	25.89	24.31	25.20
244	24.93	23.21	24.17
245	23.93	22.64	23.36
246	23.82	21.93	22.99
247	30.28	25.92	28.36
248	34.81	29.87	32.64
249	22.58	21.07	21.91
250	30.68	26.38	28.78
251	31.60	27.14	29.63
252	23.18	20.81	22.13
253	22.84	21.60	22.29
254	34.43	28.43	31.78
255	33.05	28.23	30.92
256	24.48	23.14	23.89
257	19.55	18.49	19.08
258	29.11	25.46	27.50
259	23.22	21.92	22.64
260	20.68	19.59	20.20
261	23.34	21.16	22.38
262	29.01	25.50	27.46
263	25.75	23.91	24.94
264	19.35	18.51	18.98
265	20.04	19.38	19.75
266	24.67	22.59	23.75
267	25.97	24.26	25.22
268	24.84	23.47	24.23
269	38.44	32.23	35.70
270	21.83	20.06	21.05
271	25.65	23.25	24.59
272	24.72	23.43	24.15
273	25.85	23.50	24.81
274	23.88	22.43	23.24
275	23.52	22.34	23.00
276	27.48	24.70	26.25
277	21.62	19.38	20.63
278	22.51	21.65	22.13

279	22.24	19.80	21.16
280	23.82	22.23	23.12
281	29.12	25.49	27.52
282	26.51	24.06	25.43
283	33.88	28.21	31.38
284	22.69	20.99	21.94
285	26.80	24.07	25.60
286	23.37	20.86	22.26
287	31.44	27.22	29.58
288	23.87	22.15	23.11
289	26.07	24.42	25.34
290	34.82	29.25	32.36
291	33.45	28.52	31.28
292	21.15	18.70	20.07
293	19.38	18.50	18.99
294	20.79	19.04	20.02
295	31.65	27.58	29.85
296	19.32	18.11	18.78
297	21.10	20.06	20.64
298	27.77	25.05	26.57
299	27.33	24.40	26.04
300	23.61	22.30	23.03
301	26.18	24.52	25.45
302	21.17	19.66	20.50
303	21.55	19.88	20.81
304	26.27	24.35	25.43
305	21.73	20.73	21.29
306	26.27	24.14	25.33
307	37.74	30.99	34.77
308	26.24	24.79	25.60
309	32.87	27.14	30.34
310	21.40	19.95	20.76
311	24.86	23.66	24.33
312	24.53	23.17	23.93
313	24.67	23.18	24.01
314	38.23	30.35	34.75
315	38.07	30.97	34.94
316	25.92	24.23	25.17
317	25.58	23.84	24.81
318	26.40	23.81	25.25
319	21.07	19.86	20.54
320	27.28	24.62	26.11
321	24.20	22.39	23.40
322	19.70	18.18	19.03
323	34.10	28.80	31.76
324	26.44	24.29	25.49
325	27.65	25.21	26.57
326	24.25	22.89	23.65
327	45.03	36.46	41.25
328	30.68	26.72	28.94
329	24.98	23.71	24.42
330	27.45	24.50	26.15
331	28.05	24.80	26.62
332	24.54	23.29	23.99
333	23.89	22.71	23.37
334	36.41	29.45	33.34

335	17.00	16.20	16.65
336	21.28	20.44	20.91
337	22.20	21.20	21.76
338	24.70	22.45	23.71
339	28.36	25.04	26.90
340	27.73	24.76	26.42
341	20.55	20.26	20.42
342	20.72	19.91	20.36
343	24.37	23.07	23.80
344	33.57	28.66	31.41
345	23.15	21.72	22.52
346	27.80	25.14	26.62
347	35.54	29.37	32.82
348	20.71	18.86	19.90
349	33.18	28.32	31.03
350	23.84	22.69	23.33
351	23.65	21.29	22.61
352	33.59	28.32	31.27
353	25.40	23.10	24.39
354	28.91	25.68	27.48
355	23.60	21.86	22.83
356	28.33	25.19	26.95
357	25.69	23.70	24.81
358	25.20	23.60	24.49
359	26.13	24.03	25.21
360	23.00	20.69	21.98
361	26.48	24.62	25.66
362	26.36	24.25	25.43
363	29.15	25.57	27.57
364	25.75	24.04	25.00
365	43.63	35.09	39.86
366	27.30	24.74	26.17
367	50.57	38.65	45.31
368	29.85	26.06	28.17
369	23.61	22.30	23.03
370	31.89	27.36	29.89
371	29.97	25.97	28.21
372	27.60	25.00	26.46
373	25.23	23.87	24.63
374	25.64	23.90	24.87
375	23.76	22.16	23.05
376	22.11	20.82	21.54
377	34.78	29.37	32.39
378	29.85	25.86	28.09
379	19.98	18.72	19.42
380	25.08	23.66	24.45
381	37.79	30.08	34.39
382	23.38	21.69	22.64
383	27.94	24.83	26.57
384	25.49	23.58	24.65
385	24.50	23.43	24.03
386	31.77	27.26	29.78
387	26.78	24.39	25.72
388	27.93	25.30	26.77
389	30.34	26.22	28.52
390	24.63	22.85	23.85

391	23.73	22.18	23.05
392	34.49	29.07	32.10
393	26.00	24.42	25.30
394	29.74	25.78	27.99
395	25.82	23.76	24.91
396	25.70	24.15	25.02
397	29.73	25.48	27.85
398	19.64	18.02	18.92
399	25.37	23.48	24.54
400	34.67	29.52	32.40
401	29.07	26.10	27.76
402	33.70	28.42	31.37
403	21.78	19.09	20.59
404	32.81	28.05	30.71
405	22.15	20.18	21.28
406	24.18	22.86	23.60
407	26.55	24.04	25.44
408	37.65	31.41	34.89
409	30.59	26.68	28.87
410	23.85	21.50	22.81
411	27.95	25.31	26.79
412	17.69	17.10	17.43
413	25.22	23.75	24.57
414	24.61	23.10	23.95
415	25.85	24.32	25.18
416	40.23	31.92	36.56
417	21.03	20.13	20.63
418	42.76	34.70	39.20
419	28.72	25.38	27.25
420	23.81	21.51	22.80
421	32.16	27.08	29.92
422	34.76	29.32	32.36
423	21.28	18.96	20.26
424	31.49	27.05	29.53
425	29.94	26.12	28.26
426	29.24	25.62	27.64
427	23.80	22.17	23.08
428	28.52	25.42	27.16
429	22.77	21.06	22.02
430	25.92	24.05	25.09
431	29.83	25.94	28.12
432	20.84	18.98	20.02
433	25.39	23.54	24.58
434	25.61	24.15	24.97
435	28.15	25.43	26.95
436	29.15	25.86	27.70
437	22.73	21.16	22.04
438	29.14	25.80	27.67
439	27.31	24.72	26.17
440	33.33	28.12	31.03
441	22.06	19.54	20.95
442	23.41	22.31	22.93
443	26.80	24.39	25.74
444	28.93	25.74	27.52
445	26.73	24.49	25.74
446	25.29	23.73	24.60

447	40.54	33.57	37.46
448	26.55	24.57	25.67
449	24.83	23.55	24.27
450	24.17	22.66	23.50
451	29.21	25.39	27.53
452	25.45	23.65	24.66
453	36.31	30.05	33.55
454	31.25	27.13	29.43
455	27.83	24.86	26.52
456	21.98	20.71	21.42
457	27.51	24.60	26.23
458	32.49	27.82	30.43
459	23.56	21.21	22.52
460	31.08	26.84	29.21
461	24.40	22.49	23.56
462	36.29	29.29	33.20
463	25.22	23.36	24.40
464	20.00	19.35	19.71
465	24.43	23.21	23.89
466	26.67	24.71	25.80
467	30.78	26.64	28.95
468	28.68	25.20	27.15
469	20.44	19.81	20.16
470	25.64	23.53	24.71
471	25.50	23.40	24.57
472	23.63	22.04	22.93
473	29.98	25.98	28.21
474	26.64	24.69	25.78
475	35.75	30.07	33.24
476	21.03	20.07	20.61
477	25.99	23.85	25.04
478	25.80	24.21	25.10
479	25.75	23.77	24.87
480	27.86	25.40	26.78
481	26.41	23.84	25.28
482	25.50	23.95	24.81
483	29.59	25.50	27.78
484	23.37	21.85	22.70
485	16.74	15.84	16.34
486	25.45	23.97	24.80
487	25.31	23.66	24.58
488	25.34	23.31	24.44
489	29.26	25.67	27.67
490	19.88	18.36	19.21
491	26.53	24.68	25.71
492	22.11	19.93	21.15
493	20.79	19.43	20.19
494	22.47	21.58	22.08
495	40.88	31.63	36.80
496	22.82	20.40	21.75
497	24.98	23.52	24.34
498	36.80	30.91	34.20
499	26.95	24.63	25.93
500	30.38	26.75	28.78
501	25.72	24.18	25.04
502	21.49	19.81	20.75

503	24.76	23.19	24.07
504	29.48	25.91	27.90
505	25.05	23.56	24.39
506	31.15	27.03	29.33
507	43.85	31.99	38.62
508	22.77	20.50	21.77
509	26.18	24.47	25.43
510	23.82	22.28	23.14
511	32.97	27.59	30.59
512	31.21	27.15	29.42
513	37.33	31.21	34.63
514	16.01	15.42	15.75
515	23.78	22.25	23.11
516	37.14	30.51	34.21
517	29.74	25.63	27.93
518	37.18	31.12	34.51
519	24.48	22.82	23.75
520	30.40	26.62	28.73
521	26.43	24.27	25.48
522	23.76	22.01	22.98
523	30.52	26.67	28.82
524	22.22	19.39	20.97
525	36.70	29.38	33.47
526	28.59	25.74	27.33
527	37.21	31.09	34.51
528	28.51	25.45	27.16
529	21.11	20.13	20.68
530	23.85	22.31	23.17
531	24.16	22.80	23.56
532	24.78	23.07	24.03
533	27.02	24.77	26.03
534	19.77	18.74	19.32
535	27.81	25.09	26.61
536	24.81	22.84	23.94
537	23.08	20.46	21.93
538	31.53	26.82	29.46
539	24.10	22.89	23.57
540	25.06	22.43	23.90
541	25.20	23.28	24.35
542	26.28	23.94	25.25
543	22.91	22.16	22.58
544	21.40	20.36	20.94
545	25.08	23.30	24.29
546	26.83	24.31	25.72
547	37.47	31.11	34.66
548	26.73	24.56	25.77
549	24.83	22.66	23.87
550	26.02	23.93	25.10
551	35.66	28.89	32.67
552	24.31	22.84	23.66
553	22.58	21.26	22.00
554	34.47	29.14	32.12
555	18.67	17.50	18.16
556	28.42	25.38	27.08
557	20.77	19.90	20.39
558	16.26	15.18	15.79

559	25.51	24.14	24.90
560	18.14	17.58	17.90
561	31.17	26.85	29.26
562	23.83	22.34	23.17
563	29.30	26.10	27.89
564	26.84	24.72	25.91
565	49.64	41.25	45.94
566	30.17	26.22	28.43
567	37.77	30.39	34.51
568	24.27	23.16	23.78
569	42.22	31.33	37.42
570	26.89	24.67	25.91
571	24.94	22.86	24.02
572	29.00	25.67	27.53
573	25.34	23.72	24.63
574	26.60	24.35	25.61
575	25.44	23.87	24.75
576	29.39	26.08	27.93
577	21.07	20.09	20.63
578	22.01	21.13	21.62
579	35.37	29.45	32.76
580	36.39	30.12	33.62
581	25.11	23.42	24.36
582	19.33	18.20	18.83
583	22.11	19.96	21.16
584	19.99	19.38	19.72
585	24.56	23.59	24.13
586	23.17	22.08	22.69
587	34.68	29.58	32.43
588	28.02	25.55	26.93
589	29.39	25.70	27.76
590	23.76	22.38	23.15
591	25.95	24.41	25.27
592	24.72	23.24	24.07
593	24.03	22.59	23.40
594	31.15	27.52	29.55
595	29.35	26.31	28.01
596	26.56	24.30	25.56
597	20.45	18.97	19.80
598	31.82	27.39	29.87
599	30.98	26.88	29.17
600	22.71	20.81	21.87
601	26.82	24.60	25.84
602	24.58	22.93	23.85
603	23.82	21.74	22.91
604	21.90	20.82	21.42
605	25.01	23.43	24.31
606	29.47	26.06	27.96
607	27.94	25.14	26.70
608	17.96	17.31	17.68
609	34.71	29.27	32.31
610	37.39	30.25	34.24
611	23.29	21.74	22.60
612	35.05	29.61	32.65
613	36.91	30.75	34.19
614	22.30	21.24	21.83

615	38.29	30.65	34.92
616	22.26	21.31	21.84
617	32.09	27.72	30.16
618	25.65	23.81	24.84
619	25.97	24.19	25.18
620	24.03	22.33	23.28
621	28.73	25.36	27.25
622	20.56	19.78	20.21
623	29.12	25.78	27.65
624	23.58	22.00	22.88
625	25.31	23.59	24.55
626	38.93	31.33	35.58
627	21.33	19.95	20.72
628	31.03	26.82	29.18
629	21.90	20.22	21.16
630	24.30	22.78	23.63
631	34.54	29.69	32.40
632	27.62	24.94	26.44
633	20.46	19.74	20.14
634	24.39	22.49	23.55
635	23.76	22.08	23.02
636	21.79	19.54	20.80
637	30.07	25.79	28.19
638	20.01	18.86	19.50
639	28.90	25.40	27.36
640	37.83	30.91	34.78
641	19.48	18.48	19.04
642	31.36	26.91	29.40
643	25.21	23.11	24.28
644	23.23	21.08	22.28
645	43.87	35.87	40.34
646	41.49	34.45	38.39
647	25.22	23.66	24.53
648	45.42	36.08	41.30
649	26.58	24.50	25.66
650	24.09	22.21	23.26
651	32.16	27.61	30.16
652	22.64	21.07	21.95
653	29.21	25.72	27.67
654	40.12	31.60	36.36
655	25.51	23.93	24.81
656	22.05	21.18	21.66
657	20.36	18.53	19.55
658	39.23	29.17	34.80
659	27.41	24.77	26.25
660	31.36	27.61	29.71
661	22.17	19.63	21.05
662	26.85	24.54	25.83
663	24.09	22.55	23.41
664	24.81	22.68	23.88
665	27.06	24.73	26.03
666	26.58	24.39	25.61
667	24.43	23.07	23.83
668	17.41	17.06	17.26
669	28.20	25.21	26.88
670	32.82	28.26	30.81

671	35.21	29.58	32.73
672	32.94	28.26	30.88
673	20.98	19.88	20.49
674	22.45	19.60	21.20
675	21.70	19.17	20.58
676	39.49	32.13	36.24
677	27.60	24.69	26.32
678	23.05	21.70	22.45
679	30.32	26.24	28.52
680	25.73	23.62	24.80
681	25.57	24.03	24.89
682	21.78	20.03	21.01
683	23.80	22.53	23.24
684	31.08	26.64	29.12
685	39.68	31.87	36.24
686	26.08	23.92	25.13
687	22.75	20.95	21.96
688	32.52	28.38	30.70
689	34.11	28.58	31.67
690	22.88	20.49	21.83
691	27.43	24.72	26.24
692	28.98	25.49	27.44
693	34.58	28.50	31.89
694	24.96	23.63	24.38
695	33.12	27.77	30.76
696	30.14	26.16	28.38
697	28.27	25.61	27.10
698	28.76	25.87	27.48
699	22.80	21.68	22.31
700	22.89	21.58	22.31
701	39.05	30.92	35.46
702	42.51	35.07	39.23
703	25.79	23.94	24.98
704	28.11	25.34	26.89
705	24.19	23.01	23.67
706	24.21	22.72	23.55
707	23.75	22.16	23.05
708	42.20	34.97	39.01
709	35.37	29.41	32.74
710	32.66	28.04	30.62
711	28.87	25.40	27.34
712	21.98	20.78	21.45
713	31.20	25.99	28.90
714	24.92	22.86	24.01
715	25.43	24.16	24.87
716	32.49	27.52	30.29
717	25.96	23.74	24.98
718	22.10	19.46	20.94
719	21.37	19.28	20.45
720	27.66	25.00	26.48
721	19.31	18.49	18.95
722	19.62	18.21	19.00
723	25.78	23.65	24.84
724	37.11	30.13	34.03
725	25.73	24.20	25.05
726	40.27	32.64	36.91

727	21.60	20.21	20.98
728	25.68	24.12	24.99
729	38.88	33.33	36.43
730	26.39	24.47	25.55
731	28.60	25.08	27.04
732	41.97	34.82	38.82
733	20.80	19.72	20.32
734	33.66	28.73	31.48
735	26.77	24.31	25.69
736	49.65	40.13	45.45
737	22.14	20.71	21.51
738	22.65	20.34	21.63
739	21.48	20.75	21.16
740	47.89	39.35	44.12
741	38.73	30.93	35.29
742	22.39	21.08	21.81
743	22.36	21.40	21.94
744	25.45	23.85	24.74
745	41.80	34.21	38.45
746	22.95	20.56	21.90
747	22.91	21.99	22.51
748	36.57	29.89	33.62
749	28.54	25.53	27.22
750	20.62	19.55	20.15
751	19.94	19.12	19.58
752	27.60	24.62	26.29
753	34.40	28.46	31.78
754	24.70	23.41	24.13
755	22.00	19.74	21.00
756	25.45	23.52	24.60
757	22.02	21.02	21.58
758	30.06	26.53	28.50
759	26.23	24.22	25.34
760	26.21	24.22	25.33
761	33.02	28.37	30.97
762	24.51	22.85	23.78
763	19.61	18.97	19.33
764	27.44	25.05	26.38
765	24.84	23.61	24.30
766	23.16	21.13	22.27
767	25.73	23.87	24.91
768	25.50	23.79	24.75
769	23.96	21.66	22.94
770	29.28	25.55	27.64
771	25.52	23.84	24.78
772	25.89	24.17	25.13
773	23.44	21.82	22.73
774	40.10	32.66	36.82
775	22.61	20.66	21.75
776	22.50	21.30	21.97
777	30.27	26.05	28.41
778	24.55	22.78	23.77
779	23.02	20.69	21.99
780	26.93	24.79	25.99
781	26.74	24.28	25.66
782	29.07	25.46	27.48

783	29.58	25.60	27.83
784	30.21	26.27	28.47
785	23.15	21.90	22.60
786	22.08	21.00	21.61
787	26.10	24.27	25.29
788	28.28	25.22	26.93
789	28.92	25.52	27.42
790	36.94	30.80	34.24
791	33.20	28.20	31.00
792	25.68	24.31	25.08
793	38.08	31.67	35.25
794	26.74	24.41	25.71
795	33.83	29.10	31.74
796	29.96	26.28	28.34
797	25.07	22.83	24.08
798	24.97	22.65	23.95
799	39.55	31.58	36.03
800	26.48	24.41	25.57
801	29.57	25.86	27.93
802	24.54	23.43	24.05
803	32.29	27.85	30.33
804	34.86	28.92	32.24
805	24.93	22.94	24.05
806	23.52	21.93	22.82
807	17.97	17.20	17.63
808	26.81	24.23	25.67
809	27.29	25.02	26.29
810	21.27	20.28	20.83
811	38.99	32.32	36.05
812	31.85	27.30	29.84
813	17.74	16.80	17.32
814	18.95	17.87	18.47
815	19.96	18.46	19.30
816	31.77	26.98	29.66
817	25.98	24.18	25.18
818	21.72	20.03	20.98
819	20.79	18.74	19.89
820	20.03	18.12	19.19
821	30.64	26.71	28.90
822	25.73	23.80	24.88
823	21.88	20.73	21.38
824	22.67	20.45	21.69
825	23.88	21.55	22.85
826	23.02	20.22	21.78
827	60.21	48.24	54.93
828	21.06	20.26	20.71
829	26.14	24.21	25.29
830	33.13	28.21	30.96
831	26.26	23.78	25.17
832	29.81	26.10	28.17
833	22.67	20.66	21.78
834	36.04	29.93	33.34
835	34.49	28.75	31.96
836	24.83	23.56	24.27
837	24.21	22.45	23.43
838	22.98	21.85	22.48

839	23.68	22.44	23.13
840	36.04	30.59	33.63
841	23.37	21.43	22.51
842	18.21	17.16	17.75
843	24.66	22.89	23.88
844	23.53	22.07	22.89
845	36.78	30.30	33.92
846	25.70	24.00	24.95
847	23.85	22.04	23.05
848	23.22	22.25	22.79
849	32.69	27.97	30.61
850	26.18	24.47	25.43
851	42.26	35.66	39.35
852	21.26	19.73	20.59
853	40.70	32.76	37.20
854	20.44	19.87	20.19
855	22.94	21.48	22.30
856	23.27	22.26	22.82
857	26.44	24.64	25.65
858	37.63	29.83	34.19
859	21.37	20.30	20.89
860	24.27	22.95	23.69
861	22.07	19.64	21.00
862	26.61	24.26	25.57
863	33.19	28.08	30.93
864	40.06	32.94	36.92
865	32.19	27.48	30.11
866	33.82	28.69	31.56
867	24.41	23.05	23.81
868	23.27	21.97	22.70
869	34.12	28.53	31.66
870	29.63	25.67	27.89
871	21.50	20.51	21.07
872	21.32	19.32	20.44
873	48.19	37.96	43.68
874	23.52	22.31	22.99
875	24.90	23.12	24.12
876	31.99	27.68	30.09
877	20.02	18.98	19.56
878	25.61	24.21	24.99
879	28.12	25.39	26.91
880	23.12	21.13	22.24
881	27.82	24.89	26.53
882	22.23	21.06	21.72
883	35.47	29.68	32.92
884	24.44	22.37	23.52
885	23.81	22.06	23.04
886	31.23	27.07	29.40
887	20.01	18.66	19.41
888	25.02	23.47	24.33
889	22.47	20.77	21.72
890	21.94	20.18	21.17
891	29.11	25.43	27.49
892	33.17	28.73	31.21
893	39.69	32.35	36.45
894	35.03	29.36	32.53

895	20.38	18.75	19.66
896	32.32	27.37	30.14
897	23.28	21.57	22.53
898	20.68	19.97	20.37
899	23.18	21.95	22.64
900	28.16	25.17	26.84
901	33.05	27.87	30.77
902	29.84	26.16	28.21
903	22.23	20.72	21.57
904	28.16	25.32	26.91
905	22.98	21.75	22.44
906	25.88	24.40	25.23
907	21.93	20.89	21.47
908	27.68	24.84	26.43
909	23.82	22.93	23.43
910	35.07	29.48	32.60
911	22.42	21.27	21.91
912	24.38	23.22	23.87
913	22.68	20.73	21.82
914	26.66	24.70	25.80
915	19.09	18.08	18.64
916	30.23	26.40	28.54
917	22.53	20.60	21.68
918	27.71	24.97	26.50
919	29.72	25.89	28.03
920	30.72	27.03	29.09
921	21.16	18.98	20.20
922	29.59	25.84	27.94
923	20.40	18.84	19.71
924	20.47	18.37	19.54
925	22.26	20.42	21.45
926	22.16	20.40	21.38
927	17.66	16.83	17.30
928	25.08	23.34	24.32
929	36.24	29.52	33.28
930	21.52	20.32	20.99
931	28.25	25.35	26.97
932	28.27	25.19	26.91
933	28.88	25.89	27.56
934	23.22	21.61	22.51
935	33.67	28.11	31.22
936	23.21	21.73	22.56
937	29.29	26.10	27.88
938	22.47	21.40	21.99
939	25.31	23.95	24.71
940	21.58	20.45	21.08
941	26.22	24.38	25.41
942	37.77	30.61	34.61
943	23.28	21.50	22.49
944	23.77	22.50	23.21
945	28.25	25.44	27.01
946	25.97	24.45	25.30
947	28.01	24.90	26.64
948	25.22	23.81	24.60
949	23.82	22.64	23.30
950	24.57	23.45	24.08

951	30.03	24.72	27.69
952	38.03	30.62	34.76
953	21.79	20.88	21.39
954	27.98	24.83	26.59
955	24.54	23.26	23.97
956	24.43	23.40	23.98
957	22.02	21.00	21.57
958	26.77	25.06	26.02
959	22.74	21.70	22.28
960	27.63	24.56	26.28
961	32.03	26.12	29.42
962	26.64	24.47	25.68
963	23.22	21.29	22.37
964	26.32	24.72	25.61
965	24.57	22.99	23.87
966	39.44	31.55	35.96
967	25.33	23.92	24.71
968	32.01	27.00	29.80
969	23.60	22.66	23.19
970	23.75	22.60	23.24
971	35.25	29.80	32.84
972	28.71	25.95	27.49
973	35.23	28.29	32.17
974	24.97	23.00	24.10
975	26.62	24.73	25.79
976	22.91	21.75	22.40
977	19.39	18.21	18.87
978	16.35	15.73	16.08
979	34.50	29.20	32.16
980	25.65	23.96	24.90
981	23.97	22.74	23.43
982	21.58	20.48	21.09
983	19.16	18.07	18.68
984	29.47	26.00	27.94
985	29.74	26.40	28.27
986	30.96	26.64	29.05
987	30.69	26.60	28.89
988	20.21	18.76	19.57
989	20.50	18.85	19.77
990	20.13	19.14	19.70
991	26.22	24.51	25.46
992	24.66	23.35	24.08
993	31.75	25.91	29.18
994	36.38	29.34	33.27
995	24.42	22.85	23.72
996	22.52	20.89	21.80
997	28.49	25.79	27.30
998	32.98	28.01	30.78
999	27.64	24.71	26.35
1000	22.76	20.98	21.97
1001	35.08	29.80	32.75
1002	24.56	23.47	24.08
1003	26.91	24.67	25.93
1004	22.96	21.44	22.29
1005	33.63	28.02	31.15
1006	23.90	22.84	23.43

1007	27.06	24.28	25.83
1008	24.33	22.88	23.69
1009	26.39	24.44	25.53
1010	31.40	24.96	28.56
1011	21.72	19.28	20.64
1012	19.78	18.63	19.27
1013	22.87	20.29	21.73
1014	21.58	20.67	21.18
1015	28.79	25.66	27.41
1016	24.22	21.86	23.18
1017	20.49	19.52	20.06
1018	26.90	24.21	25.71
1019	24.31	22.29	23.41
1020	18.72	18.05	18.42
1021	23.34	22.00	22.75
1022	24.41	23.09	23.82
1023	30.21	26.20	28.44
1024	25.65	22.69	24.35
1025	27.52	24.95	26.39
1026	20.79	20.10	20.48
1027	24.33	22.91	23.70
1028	20.84	18.85	19.96
1029	27.01	24.30	25.82
1030	24.11	22.94	23.59
1031	22.50	21.37	22.00
1032	25.29	23.64	24.57
1033	24.33	22.83	23.67
1034	29.95	26.37	28.37
1035	29.69	26.04	28.08
1036	22.95	21.23	22.19
1037	27.89	25.13	26.67
1038	21.13	19.57	20.44
1039	27.41	24.56	26.15
1040	19.96	18.46	19.30
1041	25.75	24.18	25.06
1042	19.21	18.92	19.08
1043	26.54	24.11	25.47
1044	23.12	21.18	22.27
1045	25.99	23.70	24.98
1046	18.26	17.05	17.73
1047	44.00	34.78	39.93
1048	31.58	26.93	29.53
1049	23.32	22.18	22.82
1050	29.62	25.59	27.85
1051	32.39	28.08	30.49
1052	30.28	26.93	28.80
1053	24.41	22.43	23.54
1054	28.64	25.36	27.20
1055	31.98	27.33	29.93
1056	23.52	22.44	23.05
1057	24.94	23.69	24.39
1058	21.63	20.45	21.11
1059	46.00	34.79	41.05
1060	28.16	25.20	26.85
1061	24.06	21.75	23.04
1062	25.07	23.55	24.40

1063	21.13	19.65	20.48
1064	24.75	23.71	24.29
1065	23.15	21.96	22.62
1066	29.57	25.55	27.80
1067	23.68	21.82	22.86
1068	23.49	21.16	22.46
1069	23.39	22.29	22.90
1070	22.58	20.86	21.82
1071	34.20	28.29	31.59
1072	36.98	31.53	34.58
1073	29.30	25.25	27.51
1074	19.15	18.07	18.67
1075	24.77	23.37	24.15
1076	31.68	27.25	29.73
1077	25.22	23.19	24.32
1078	28.51	25.71	27.27
1079	31.90	27.74	30.06
1080	30.33	26.52	28.65
1081	41.76	34.16	38.40
1082	23.13	21.10	22.24
1083	21.64	19.97	20.90
1084	23.90	21.68	22.92
1085	29.26	25.84	27.75
1086	26.41	24.45	25.55
1087	21.20	20.26	20.79
1088	22.12	20.53	21.42
1089	20.37	19.45	19.96
1090	24.83	23.57	24.28
1091	38.99	31.84	35.83
1092	24.43	23.02	23.81
1093	32.99	28.38	30.95
1094	21.80	19.28	20.69
1095	23.28	22.23	22.82
1096	29.98	26.25	28.34
1097	25.42	23.52	24.58
1098	24.20	22.83	23.60
1099	25.60	22.52	24.24
1100	27.69	23.50	25.84
1101	36.57	30.62	33.94
1102	26.57	24.66	25.73
1103	27.06	24.62	25.98
1104	22.73	20.97	21.95
1105	23.18	21.37	22.38
1106	30.72	26.64	28.92
1107	24.81	23.35	24.16
1108	23.26	22.01	22.71
1109	23.82	22.55	23.26
1110	30.93	26.39	28.92
1111	20.24	19.03	19.71
1112	22.06	20.12	21.20
1113	27.55	24.95	26.40
1114	42.09	34.74	38.85
1115	22.66	20.00	21.49
1116	22.42	21.49	22.01
1117	23.06	21.57	22.40
1118	29.91	26.11	28.23

1119	17.96	17.99	17.98
1120	19.34	18.45	18.95
1121	25.24	23.46	24.45
1122	22.43	21.18	21.88
1123	30.00	26.07	28.27
1124	23.45	22.25	22.92
1125	25.25	23.67	24.55
1126	21.67	19.70	20.80
1127	26.48	24.50	25.61
1128	27.59	24.71	26.32
1129	24.04	22.38	23.31
1130	21.22	20.45	20.88
1131	23.61	22.35	23.05
1132	25.63	23.53	24.70
1133	27.38	25.08	26.37
1134	24.24	22.05	23.27
1135	27.44	25.17	26.44
1136	25.52	24.01	24.85
1137	27.53	24.62	26.24
1138	25.64	23.87	24.86
1139	21.39	19.93	20.75
1140	42.99	34.39	39.20
1141	24.95	23.10	24.13
1142	23.97	21.71	22.97
1143	24.49	22.32	23.53
1144	28.37	25.33	27.03
1145	30.02	26.14	28.31
1146	22.96	22.29	22.67
1147	25.77	23.83	24.91
1148	21.05	20.39	20.76
1149	29.14	25.78	27.66
1150	30.54	26.73	28.86
1151	23.28	21.72	22.59
1152	28.85	25.00	27.15
1153	19.10	18.50	18.83
1154	27.72	25.65	26.81
1155	21.52	20.25	20.96
1156	29.44	26.35	28.08
1157	28.59	25.05	27.03
1158	35.88	29.20	32.93
1159	26.39	24.11	25.38
1160	29.31	26.02	27.86
1161	32.37	28.08	30.48
1162	22.54	20.25	21.53
1163	39.92	32.17	36.50
1164	18.46	17.82	18.18
1165	24.39	22.82	23.70
1166	31.88	27.45	29.93
1167	34.94	29.69	32.62
1168	25.29	23.97	24.71
1169	23.43	22.30	22.93
1170	28.12	25.11	26.79
1171	23.28	22.29	22.84
1172	31.57	27.13	29.61
1173	25.51	23.92	24.81
1174	24.57	23.41	24.06

1175	28.09	25.20	26.81
1176	17.90	16.78	17.40
1177	24.80	22.34	23.71
1178	25.13	23.51	24.41
1179	33.79	27.58	31.05
1180	23.87	22.60	23.31
1181	26.21	24.30	25.37
1182	24.57	22.46	23.64
1183	28.60	25.25	27.12
1184	25.40	23.69	24.65
1185	23.23	20.67	22.10
1186	25.80	23.93	24.98
1187	20.36	19.54	20.00
1188	26.88	24.89	26.01
1189	31.67	27.14	29.67
1190	19.41	18.53	19.02
1191	31.01	26.62	29.07
1192	35.48	29.74	32.95
1193	40.47	33.23	37.28
1194	20.86	19.69	20.35
1195	25.45	23.53	24.60
1196	22.88	20.29	21.74
1197	35.15	29.26	32.55
1198	45.18	37.52	41.80
1199	27.21	24.36	25.96
1200	38.96	33.29	36.46
1201	28.69	25.30	27.20
1202	25.85	23.64	24.87
1203	31.99	27.53	30.02
1204	22.48	21.61	22.10
1205	28.31	25.20	26.94
1206	21.36	19.65	20.60
1207	23.40	21.38	22.51
1208	22.27	20.46	21.47
1209	31.08	26.99	29.27
1210	28.26	24.74	26.71
1211	25.64	23.86	24.85
1212	25.14	23.84	24.57
1213	27.16	24.57	26.02
1214	21.73	20.18	21.05
1215	29.48	25.73	27.83
1216	24.46	22.94	23.79
1217	29.41	25.77	27.80
1218	22.23	20.84	21.62
1219	29.20	25.37	27.51
1220	21.39	19.17	20.41
1221	32.38	27.56	30.26
1222	23.61	21.26	22.57
1223	32.99	27.42	30.53
1224	20.12	19.12	19.68
1225	22.36	20.41	21.50
1226	26.09	24.15	25.23
1227	46.22	36.97	42.14
1228	22.88	21.55	22.29
1229	24.66	22.24	23.59
1230	40.57	33.10	37.27

1231	26.30	24.69	25.59
1232	23.87	22.49	23.26
1233	22.90	21.40	22.24
1234	29.33	25.90	27.81
1235	26.47	24.12	25.43
1236	16.77	15.39	16.16
1237	26.49	24.81	25.75
1238	24.16	22.38	23.38
1239	25.38	23.57	24.58
1240	25.26	23.48	24.47
1241	39.19	32.34	36.17
1242	25.50	23.81	24.75
1243	29.81	26.45	28.33
1244	21.77	20.03	21.00
1245	25.06	22.80	24.06
1246	23.85	22.60	23.30
1247	19.64	19.15	19.42
1248	25.16	23.03	24.22
1249	26.45	24.52	25.60
1250	25.02	23.77	24.46
1251	25.65	24.16	24.99
1252	25.76	24.28	25.11
1253	32.49	28.03	30.52
1254	20.19	18.65	19.51
1255	28.51	25.23	27.07
1256	27.02	25.05	26.15
1257	27.90	25.15	26.69
1258	28.70	25.53	27.30
1259	26.24	24.34	25.40
1260	22.19	20.94	21.64
1261	34.13	28.96	31.85
1262	25.31	23.56	24.54
1263	32.64	27.10	30.20
1264	30.18	26.42	28.52
1265	28.24	25.12	26.86
1266	24.20	23.00	23.67
1267	26.46	24.55	25.62
1268	25.10	23.73	24.50
1269	24.72	23.34	24.11
1270	15.43	15.00	15.24
1271	31.38	27.34	29.60
1272	31.63	27.33	29.73
1273	25.26	23.23	24.37
1274	25.30	22.73	24.17
1275	26.24	24.09	25.29
1276	22.78	20.08	21.59
1277	25.95	23.90	25.05
1278	22.76	21.89	22.38
1279	33.37	28.64	31.28
1280	18.70	17.79	18.30
1281	19.98	18.62	19.38
1282	25.25	23.51	24.48
1283	22.12	20.09	21.22
1284	32.95	27.88	30.71
1285	28.60	25.47	27.22
1286	34.93	28.60	32.14

1287	25.33	23.82	24.66
1288	23.26	21.12	22.32
1289	26.22	24.15	25.31
1290	30.87	27.14	29.23
1291	26.59	24.57	25.70
1292	23.04	20.92	22.10
1293	20.98	19.72	20.42
1294	35.18	29.61	32.72
1295	32.24	28.08	30.41
1296	22.69	20.63	21.78
1297	23.67	21.71	22.81
1298	35.32	29.21	32.63
1299	34.17	28.65	31.74
1300	23.50	22.33	22.99
1301	20.80	20.23	20.55
1302	30.31	26.14	28.47
1303	28.96	25.40	27.39
1304	25.73	23.64	24.81
1305	39.47	32.93	36.58
1306	32.22	27.62	30.19
1307	30.66	26.71	28.92
1308	22.90	20.58	21.87
1309	23.98	22.09	23.14
1310	34.46	29.04	32.07
1311	42.98	34.93	39.43
1312	27.40	24.63	26.18
1313	38.48	30.66	35.03
1314	29.38	25.51	27.67
1315	25.26	23.53	24.50
1316	23.33	21.86	22.68
1317	29.85	26.20	28.24
1318	24.63	23.07	23.94
1319	21.60	19.85	20.83
1320	20.62	19.31	20.05
1321	21.46	20.56	21.06
1322	38.33	32.04	35.56
1323	18.97	17.63	18.38
1324	20.58	18.93	19.85
1325	24.99	23.26	24.23
1326	23.18	21.10	22.26
1327	28.50	25.23	27.06
1328	21.34	20.06	20.78
1329	24.10	22.73	23.50
1330	30.71	26.97	29.06
1331	29.28	25.79	27.75
1332	31.00	26.95	29.21
1333	25.10	23.54	24.41
1334	24.36	23.30	23.89
1335	26.06	24.25	25.27
1336	27.29	24.84	26.21
1337	21.12	19.64	20.47
1338	18.86	17.89	18.43
1339	27.70	24.77	26.41
1340	37.67	30.92	34.69
1341	40.42	32.78	37.05
1342	24.83	23.51	24.25

1343	24.11	22.73	23.50
1344	24.02	22.78	23.48
1345	21.66	19.79	20.83
1346	20.60	19.61	20.16
1347	24.84	23.59	24.29
1348	24.30	22.98	23.72
1349	35.11	29.64	32.70
1350	23.67	22.37	23.09
1351	22.56	21.67	22.17
1352	25.72	23.79	24.87
1353	28.93	25.35	27.36
1354	23.36	21.30	22.45
1355	24.58	23.20	23.97
1356	23.70	22.02	22.96
1357	33.82	28.34	31.40
1358	31.82	27.42	29.88
1359	25.17	23.77	24.56
1360	23.74	22.31	23.11
1361	42.65	34.81	39.20
1362	25.00	23.18	24.20
1363	23.61	21.14	22.52
1364	32.25	27.15	30.00
1365	25.35	24.00	24.75
1366	28.06	25.29	26.84
1367	29.74	25.72	27.97
1368	25.90	23.46	24.82
1369	33.71	28.36	31.35
1370	23.81	22.67	23.31
1371	23.55	22.51	23.09
1372	26.18	24.44	25.41
1373	33.43	28.25	31.14
1374	28.85	25.28	27.28
1375	28.82	25.57	27.39
1376	32.67	28.23	30.71
1377	21.51	20.40	21.02
1378	26.91	24.40	25.80
1379	49.62	40.97	45.80
1380	33.06	28.44	31.03
1381	20.50	18.57	19.65
1382	23.81	21.32	22.71
1383	23.00	21.05	22.14
1384	29.39	25.62	27.73
1385	32.36	27.90	30.40
1386	34.96	29.54	32.57
1387	23.18	20.96	22.20
1388	23.07	21.04	22.18
1389	34.16	28.83	31.81
1390	22.79	21.60	22.26
1391	26.19	24.31	25.36
1392	24.62	23.18	23.98
1393	17.90	17.04	17.52
1394	29.04	25.95	27.68
1395	23.25	22.09	22.74
1396	29.08	25.77	27.62
1397	26.61	24.45	25.66
1398	32.43	27.54	30.27

1399	21.92	20.29	21.20
1400	28.82	25.69	27.44
1401	24.56	23.38	24.04
1402	22.84	20.55	21.83
1403	29.95	25.98	28.20
1404	22.65	21.03	21.94
1405	32.70	28.12	30.68
1406	32.89	27.29	30.42
1407	28.69	25.80	27.41
1408	25.98	24.16	25.18
1409	29.07	25.66	27.56
1410	26.24	24.44	25.44
1411	28.90	25.29	27.31
1412	25.81	23.74	24.90
1413	26.90	24.13	25.67
1414	21.76	19.89	20.93
1415	24.46	23.26	23.93
1416	25.45	23.68	24.67
1417	36.95	30.84	34.25
1418	38.77	31.04	35.36
1419	25.05	23.65	24.43
1420	29.90	26.04	28.20
1421	25.14	23.54	24.43
1422	20.11	18.57	19.43
1423	19.15	18.27	18.76
1424	25.29	22.93	24.25
1425	24.96	23.35	24.25
1426	24.36	23.17	23.83
1427	28.23	25.60	27.07
1428	22.90	21.74	22.39
1429	21.45	20.57	21.06
1430	25.57	24.00	24.88
1431	28.22	25.40	26.98
1432	22.08	20.70	21.47
1433	20.52	18.61	19.68
1434	22.85	21.37	22.20
1435	21.37	18.86	20.26
1436	22.56	20.71	21.74
1437	28.15	24.98	26.75
1438	25.71	23.64	24.80
1439	25.58	23.90	24.84
1440	28.53	25.24	27.08
1441	25.55	23.75	24.76
1442	21.01	19.43	20.31
1443	25.05	23.62	24.42
1444	31.72	27.35	29.79
1445	26.75	24.73	25.86
1446	39.48	31.46	35.94
1447	25.32	24.10	24.78
1448	35.31	29.81	32.88
1449	22.84	21.69	22.33
1450	38.82	31.46	35.57
1451	22.17	21.29	21.78
1452	20.83	20.11	20.51
1453	26.41	24.38	25.51
1454	22.53	19.82	21.33

1455	18.66	18.14	18.43
1456	23.06	21.92	22.56
1457	23.57	21.06	22.46
1458	32.00	27.28	29.92
1459	38.64	32.31	35.84
1460	24.78	22.98	23.99
1461	28.30	25.11	26.89
1462	23.29	21.95	22.70
1463	29.91	26.16	28.26
1464	23.75	22.17	23.05
1465	34.17	29.16	31.96
1466	37.80	31.56	35.05
1467	27.25	24.85	26.19
1468	19.86	18.68	19.34
1469	24.27	22.71	23.58
1470	22.55	20.79	21.77
1471	23.20	21.26	22.34
1472	21.32	20.31	20.88
1473	23.54	22.34	23.01
1474	26.17	24.45	25.41
1475	45.85	34.98	41.06
1476	27.71	25.07	26.55
1477	20.18	19.43	19.85
1478	48.39	38.22	43.90
1479	19.08	18.00	18.60
1480	24.50	23.38	24.00
1481	39.39	32.04	36.15
1482	21.40	20.45	20.98
1483	23.09	22.01	22.61
1484	24.98	22.93	24.08
1485	29.14	25.52	27.54
1486	27.54	24.14	26.04
1487	28.23	24.64	26.64
1488	24.54	22.24	23.52
1489	23.16	21.67	22.50
1490	24.78	23.14	24.06
1491	25.21	23.55	24.48
1492	25.53	23.65	24.70
1493	22.68	21.12	21.99
1494	26.18	23.37	24.94
1495	28.70	25.43	27.26
1496	27.65	25.08	26.51
1497	31.95	27.46	29.97
1498	29.87	25.88	28.11
1499	26.58	24.25	25.55
1500	33.52	28.07	31.12
1501	30.06	26.26	28.38
1502	38.45	31.12	35.22
1503	24.09	22.80	23.52
1504	27.56	24.76	26.33
1505	23.52	22.12	22.90
1506	35.74	30.61	33.48
1507	31.71	27.41	29.81
1508	33.27	28.17	31.02
1509	21.15	19.53	20.44
1510	36.46	30.57	33.86

1511	22.01	19.88	21.07
1512	21.07	19.94	20.57
1513	23.50	22.39	23.01
1514	25.54	23.90	24.82
1515	23.69	22.20	23.03
1516	21.45	19.26	20.48
1517	29.71	26.15	28.14
1518	20.56	19.30	20.00
1519	31.63	27.34	29.74
1520	27.65	24.53	26.27
1521	24.64	22.03	23.49
1522	22.46	20.56	21.62
1523	21.20	20.45	20.87
1524	26.37	24.55	25.57
1525	25.15	23.69	24.50
1526	33.81	29.63	31.97
1527	25.74	23.88	24.92
1528	28.40	25.57	27.15
1529	39.10	32.85	36.34
1530	30.62	25.92	28.55
1531	22.10	20.77	21.52
1532	25.56	23.84	24.80
1533	27.21	24.64	26.08
1534	26.95	24.75	25.98
1535	32.04	27.27	29.94
1536	26.38	23.68	25.19
1537	24.20	22.77	23.57
1538	25.98	24.06	25.13
1539	26.48	24.10	25.43
1540	25.72	23.99	24.96
1541	26.66	24.35	25.64
1542	23.06	21.22	22.25
1543	20.72	19.58	20.22
1544	22.23	21.14	21.75
1545	26.72	24.79	25.87
1546	25.18	23.14	24.28
1547	30.68	26.67	28.91
1548	24.71	22.11	23.56
1549	26.89	24.61	25.88
1550	21.26	19.28	20.39
1551	29.11	25.43	27.49
1552	23.06	22.05	22.61
1553	27.68	24.88	26.44
1554	20.97	18.99	20.10
1555	22.45	21.51	22.04
1556	25.05	23.40	24.32
1557	18.90	18.14	18.57
1558	21.42	20.25	20.90
1559	33.80	28.57	31.49
1560	29.50	25.96	27.94
1561	38.88	32.16	35.91
1562	28.04	25.11	26.75
1563	31.23	27.17	29.44
1564	22.86	20.26	21.71
1565	48.58	39.62	44.63
1566	26.61	24.59	25.72

1567	27.21	24.62	26.06
1568	39.16	32.40	36.17
1569	28.19	25.11	26.83
1570	25.99	24.45	25.31
1571	36.57	29.59	33.49
1572	39.83	31.35	36.09
1573	29.70	25.81	27.98
1574	25.85	23.92	25.00
1575	22.23	21.08	21.72
1576	28.96	25.77	27.55
1577	21.71	19.47	20.72
1578	20.59	19.06	19.92
1579	25.33	23.68	24.61
1580	28.59	25.34	27.16
1581	26.77	24.44	25.75
1582	25.75	23.81	24.90
1583	23.46	21.94	22.79
1584	20.36	19.33	19.91
1585	26.35	24.36	25.47
1586	35.09	28.96	32.38
1587	20.22	18.67	19.54
1588	29.09	25.79	27.63
1589	29.16	26.06	27.79
1590	28.30	25.07	26.88
1591	27.26	24.96	26.25
1592	25.02	23.62	24.40
1593	21.99	19.61	20.94
1594	23.13	20.99	22.18
1595	19.67	18.80	19.28
1596	24.79	22.98	23.99
1597	45.41	34.98	40.81
1598	22.20	20.83	21.59
1599	25.88	23.94	25.02
1600	26.64	24.44	25.67
1601	38.70	31.74	35.63
1602	37.32	31.60	34.80
1603	23.59	22.29	23.01
1604	31.49	27.41	29.69
1605	26.29	23.96	25.26
1606	39.58	32.77	36.57
1607	23.01	20.91	22.08
1608	27.73	25.14	26.59
1609	31.95	27.86	30.14
1610	24.05	22.62	23.42
1611	18.70	17.89	18.34
1612	29.63	25.82	27.95
1613	24.22	22.82	23.60
1614	27.94	24.85	26.57
1615	32.41	27.46	30.22
1616	32.77	28.02	30.68
1617	22.24	20.66	21.55
1618	30.58	26.38	28.72
1619	25.16	23.61	24.48
1620	30.76	26.87	29.05
1621	31.96	27.78	30.12
1622	25.20	23.66	24.52

1623	24.16	22.92	23.62
1624	24.95	23.13	24.15
1625	38.53	32.30	35.78
1626	30.60	26.77	28.91
1627	23.55	22.31	23.00
1628	24.82	22.65	23.86
1629	23.89	21.74	22.94
1630	30.42	26.25	28.58
1631	20.30	18.66	19.57
1632	28.89	25.46	27.38
1633	19.42	18.05	18.81
1634	19.90	18.18	19.14
1635	39.17	29.62	34.96
1636	40.53	31.34	36.48
1637	26.40	24.45	25.54
1638	21.41	20.36	20.95
1639	25.74	23.94	24.95
1640	18.92	18.24	18.62
1641	24.97	23.78	24.45
1642	18.94	17.92	18.49
1643	22.41	21.23	21.89
1644	30.53	26.32	28.67
1645	23.34	21.45	22.50
1646	37.92	32.00	35.31
1647	28.94	25.54	27.44
1648	23.72	22.49	23.18
1649	40.98	34.06	37.93
1650	32.80	28.08	30.72
1651	24.15	22.35	23.36
1652	20.60	19.49	20.11
1653	24.71	22.71	23.83
1654	27.49	25.16	26.46
1655	34.82	29.82	32.61
1656	23.96	21.68	22.95
1657	36.16	29.67	33.30
1658	24.59	22.66	23.74
1659	25.21	23.50	24.45
1660	31.76	27.20	29.75
1661	31.21	27.20	29.45
1662	26.45	24.66	25.66
1663	26.93	24.25	25.75
1664	29.22	25.58	27.61
1665	26.70	24.54	25.74
1666	24.31	22.42	23.48
1667	27.76	25.05	26.56
1668	29.14	25.68	27.61
1669	34.07	28.61	31.66
1670	32.54	27.87	30.48
1671	31.63	27.32	29.73
1672	22.52	21.46	22.05
1673	22.81	21.62	22.29
1674	21.46	19.42	20.56
1675	33.43	28.02	31.04
1676	29.16	25.94	27.74
1677	33.56	28.24	31.21
1678	28.40	25.33	27.05

1679	28.07	24.88	26.66
1680	25.31	23.16	24.36
1681	20.32	18.47	19.50
1682	33.28	28.66	31.24
1683	33.90	28.40	31.47
1684	25.95	23.28	24.77
1685	24.15	22.92	23.61
1686	22.63	20.99	21.91
1687	25.48	24.03	24.84
1688	25.98	23.68	24.97
1689	31.20	26.66	29.20
1690	28.41	25.05	26.93
1691	26.14	24.02	25.20
1692	30.16	26.38	28.49
1693	23.28	21.11	22.32
1694	27.55	24.86	26.36
1695	45.19	37.21	41.67
1696	26.23	23.80	25.16
1697	26.67	24.62	25.76
1698	24.01	22.13	23.18
1699	23.15	21.79	22.55
1700	40.08	32.22	36.61
1701	29.86	25.94	28.13
1702	26.43	24.57	25.61
1703	22.12	19.41	20.92
1704	38.51	31.16	35.26
1705	15.94	14.91	15.48
1706	22.84	21.65	22.32
1707	24.86	23.51	24.27
1708	23.63	21.86	22.85
1709	21.41	20.71	21.10
1710	28.25	25.02	26.83
1711	22.94	21.80	22.44
1712	46.86	39.45	43.59
1713	24.79	23.02	24.01
1714	26.56	24.09	25.47
1715	24.15	22.90	23.60
1716	34.64	28.99	32.15
1717	22.18	20.67	21.52
1718	26.70	24.58	25.77
1719	33.07	28.30	30.97
1720	28.46	25.68	27.23
1721	20.93	19.33	20.23
1722	21.48	19.23	20.49
1723	44.85	37.57	41.64
1724	23.81	21.31	22.70
1725	32.00	27.83	30.16
1726	24.74	23.33	24.12
1727	25.96	23.91	25.06
1728	42.60	34.51	39.03
1729	32.67	26.97	30.15
1730	20.28	19.07	19.75
1731	24.32	22.86	23.68
1732	32.19	27.74	30.23
1733	29.78	26.10	28.16
1734	18.94	18.22	18.63

1735	29.82	26.48	28.34
1736	33.01	28.13	30.85
1737	18.96	18.07	18.57
1738	33.52	28.55	31.33
1739	30.85	26.91	29.11
1740	31.71	27.59	29.89
1741	24.15	22.41	23.38
1742	21.86	20.28	21.16
1743	17.46	17.04	17.28
1744	23.14	21.83	22.56
1745	23.76	22.09	23.02
1746	26.54	24.56	25.66
1747	31.09	27.20	29.37
1748	38.53	32.02	35.66
1749	24.39	22.12	23.39
1750	19.89	18.54	19.29
1751	26.17	24.19	25.30
1752	23.40	22.29	22.91
1753	23.11	21.57	22.43
1754	26.69	24.28	25.63
1755	22.99	20.54	21.91
1756	31.24	27.16	29.44
1757	25.89	23.89	25.01
1758	43.06	35.74	39.83
1759	30.19	26.54	28.58
1760	23.42	22.42	22.98
1761	24.48	23.21	23.92
1762	30.78	26.68	28.97
1763	23.39	22.00	22.77
1764	17.73	17.50	17.63
1765	30.55	26.69	28.84
1766	31.36	27.16	29.51
1767	33.93	28.66	31.61
1768	23.47	22.38	22.99
1769	22.93	21.27	22.20
1770	25.05	22.97	24.13
1771	21.38	19.11	20.37
1772	32.05	27.36	29.98
1773	18.42	17.65	18.08
1774	34.13	28.66	31.71
1775	20.25	18.46	19.46
1776	34.79	28.95	32.21
1777	30.68	26.75	28.95
1778	24.99	23.58	24.37
1779	20.66	18.21	19.58
1780	23.99	21.71	22.98
1781	24.43	22.66	23.65
1782	35.19	29.17	32.54
1783	21.47	20.55	21.06
1784	23.08	21.51	22.38
1785	32.69	28.32	30.76
1786	19.45	18.75	19.14
1787	44.29	33.52	39.54
1788	28.78	25.69	27.42
1789	30.21	25.89	28.31
1790	18.24	17.74	18.02

1791	24.63	23.02	23.92
1792	24.61	23.42	24.08
1793	25.58	23.60	24.71
1794	18.40	17.67	18.08
1795	20.16	18.76	19.55
1796	26.20	24.57	25.48
1797	22.66	21.33	22.07
1798	29.75	26.47	28.30
1799	30.88	27.45	29.37
1800	22.40	21.33	21.93
1801	28.81	25.74	27.46
1802	26.21	24.32	25.38
1803	24.98	22.80	24.02
1804	25.12	23.88	24.57
1805	23.86	22.52	23.27
1806	30.24	26.45	28.57
1807	24.73	22.63	23.80
1808	23.48	21.69	22.69
1809	30.28	26.66	28.68
1810	21.99	21.03	21.57
1811	26.87	24.84	25.97
1812	30.79	26.86	29.06
1813	26.35	24.58	25.57
1814	23.03	22.00	22.57
1815	24.74	23.32	24.12
1816	21.67	19.43	20.68
1817	22.40	20.53	21.58
1818	25.58	23.90	24.84
1819	20.26	19.12	19.76
1820	31.25	27.02	29.38
1821	32.16	27.65	30.17
1822	30.66	26.37	28.77
1823	25.73	23.89	24.92
1824	29.99	25.79	28.13
1825	20.51	19.22	19.94
1826	29.24	26.02	27.82
1827	29.00	25.68	27.54
1828	25.16	23.74	24.53
1829	25.68	24.10	24.98
1830	24.31	22.68	23.59
1831	45.78	37.32	42.05
1832	23.86	22.06	23.07
1833	21.61	19.45	20.66
1834	25.07	23.68	24.46
1835	21.38	20.42	20.95
1836	23.29	22.36	22.88
1837	38.94	30.98	35.43
1838	22.03	19.96	21.11
1839	26.00	24.09	25.15
1840	20.48	19.34	19.98
1841	24.30	22.75	23.61
1842	20.99	19.30	20.24
1843	26.91	24.49	25.84
1844	30.18	25.99	28.33
1845	28.09	25.12	26.78
1846	29.32	26.03	27.87

1847	19.62	19.08	19.38
1848	26.91	24.56	25.88
1849	35.44	29.24	32.70
1850	25.18	23.78	24.56
1851	24.29	23.15	23.79
1852	27.84	24.84	26.51
1853	25.38	23.98	24.76
1854	23.26	22.07	22.73
1855	27.30	24.80	26.20
1856	20.29	19.12	19.77
1857	28.87	25.61	27.43
1858	29.06	25.90	27.67
1859	27.67	25.20	26.58
1860	33.53	28.98	31.52
1861	29.99	26.07	28.26
1862	28.74	25.25	27.20
1863	23.12	21.27	22.30
1864	28.77	25.58	27.36
1865	38.18	30.99	35.01
1866	23.67	21.81	22.85
1867	19.38	18.92	19.17
1868	28.26	25.51	27.04
1869	33.45	28.09	31.08
1870	38.06	31.96	35.37
1871	23.59	22.18	22.97
1872	25.55	24.01	24.87
1873	22.97	21.38	22.27
1874	31.69	27.49	29.84
1875	26.30	23.58	25.10
1876	20.18	19.02	19.67
1877	25.87	24.11	25.10
1878	25.89	23.86	24.99
1879	20.98	20.02	20.56
1880	24.46	23.12	23.87
1881	30.77	26.70	28.97
1882	29.08	25.63	27.56
1883	27.91	24.84	26.56
1884	53.32	41.21	47.98
1885	27.32	24.54	26.10
1886	28.36	25.36	27.04
1887	24.58	23.22	23.98
1888	31.38	27.26	29.56
1889	23.90	22.50	23.28
1890	31.13	27.05	29.33
1891	27.16	24.98	26.20
1892	24.80	23.51	24.23
1893	24.50	23.33	23.99
1894	25.33	24.12	24.80
1895	30.23	26.81	28.73
1896	36.22	30.04	33.50
1897	30.79	26.90	29.08
1898	36.00	29.05	32.94
1899	24.43	22.67	23.65
1900	21.50	20.01	20.84
1901	29.70	26.25	28.18
1902	22.33	21.44	21.94

1903	28.52	25.43	27.16
1904	27.16	24.87	26.15
1905	25.53	24.09	24.90
1906	24.28	22.46	23.48
1907	24.82	23.66	24.31
1908	31.21	26.75	29.25
1909	26.86	24.41	25.78
1910	35.88	29.90	33.24
1911	22.73	21.17	22.04
1912	26.09	24.42	25.35
1913	23.94	22.86	23.47
1914	27.74	24.97	26.51
1915	30.85	26.22	28.81
1916	25.93	23.64	24.92
1917	19.84	19.36	19.63
1918	20.94	18.91	20.05
1919	25.91	23.78	24.97
1920	19.80	18.52	19.24
1921	41.12	34.69	38.29
1922	27.99	25.23	26.77
1923	32.89	27.96	30.71
1924	31.75	27.46	29.86
1925	24.62	23.08	23.94
1926	33.89	28.45	31.49
1927	22.70	21.82	22.31
1928	33.80	28.39	31.42
1929	24.21	22.68	23.54
1930	23.88	22.55	23.29
1931	29.13	25.37	27.47
1932	24.85	23.06	24.06
1933	24.99	23.53	24.35
1934	24.92	23.08	24.11
1935	26.35	24.28	25.44
1936	29.21	25.51	27.58
1937	27.51	24.70	26.27
1938	25.06	23.57	24.40
1939	22.91	20.61	21.90
1940	20.55	19.90	20.26
1941	23.77	21.35	22.70
1942	21.45	19.20	20.46
1943	29.16	25.65	27.61
1944	34.65	28.68	32.02
1945	31.04	27.03	29.27
1946	27.65	25.25	26.59
1947	23.55	22.46	23.07
1948	24.59	22.75	23.78
1949	20.74	19.22	20.07
1950	25.97	23.59	24.92
1951	31.50	27.19	29.60
1952	27.04	24.64	25.98
1953	25.08	24.01	24.61
1954	26.25	23.59	25.08
1955	23.50	22.24	22.94
1956	25.26	23.55	24.51
1957	21.51	20.50	21.06
1958	28.53	25.55	27.21

1959	24.19	22.12	23.28
1960	20.61	19.74	20.23
1961	47.62	38.29	43.50
1962	19.10	18.11	18.66
1963	33.55	28.33	31.25
1964	32.69	27.50	30.40
1965	24.44	23.34	23.95
1966	22.94	21.95	22.50
1967	24.60	23.46	24.10
1968	26.64	24.50	25.69
1969	27.26	24.81	26.18
1970	23.41	22.37	22.95
1971	35.80	28.67	32.66
1972	30.94	26.68	29.06
1973	38.78	32.01	35.79
1974	25.21	23.58	24.49
1975	28.62	25.93	27.44
1976	18.63	17.46	18.11
1977	22.59	20.61	21.72
1978	21.46	20.64	21.10
1979	34.21	28.42	31.65
1980	24.21	22.83	23.60
1981	29.71	26.09	28.11
1982	22.88	21.45	22.25
1983	26.09	24.41	25.35
1984	26.29	24.65	25.56
1985	27.73	25.52	26.76
1986	25.19	23.32	24.36
1987	22.64	21.29	22.04
1988	38.38	30.66	34.97
1989	25.01	23.33	24.27
1990	26.61	24.71	25.77
1991	21.81	19.76	20.91
1992	21.17	20.30	20.79
1993	24.67	22.93	23.90
1994	26.83	24.21	25.68
1995	21.99	20.70	21.42
1996	27.33	25.16	26.37
1997	31.76	26.91	29.62
1998	35.78	29.81	33.15
1999	26.96	24.31	25.79
2000	20.59	19.84	20.26
2001	23.99	22.37	23.27
2002	26.30	24.30	25.42
2003	27.30	24.62	26.12
2004	22.32	20.82	21.66
2005	21.34	20.47	20.95
2006	23.22	22.20	22.77
2007	24.24	23.27	23.81
2008	28.99	25.86	27.61
2009	27.01	24.35	25.83
2010	19.33	18.16	18.81
2011	24.22	22.11	23.29
2012	35.94	29.35	33.04
2013	39.86	32.84	36.76
2014	25.35	23.93	24.73

2015	37.73	31.47	34.97
2016	20.76	18.85	19.92
2017	20.91	20.19	20.59
2018	32.35	27.85	30.36
2019	24.62	22.89	23.86
2020	28.96	25.40	27.39
2021	20.46	18.75	19.70
2022	18.36	18.04	18.22
2023	32.10	27.92	30.25
2024	22.50	20.29	21.53
2025	24.30	23.20	23.81
2026	23.57	22.63	23.16
2027	29.91	26.49	28.40
2028	25.69	23.23	24.60
2029	40.26	33.43	37.25
2030	26.10	24.36	25.33
2031	27.40	25.06	26.37
2032	26.54	24.04	25.44
2033	23.14	21.44	22.39
2034	28.60	25.29	27.14
2035	24.32	23.25	23.84
2036	28.37	25.24	26.99
2037	31.36	26.95	29.41
2038	27.03	24.45	25.89
2039	25.40	23.34	24.49
2040	30.50	26.32	28.66
2041	25.95	23.88	25.03
2042	26.14	23.92	25.16
2043	18.56	18.04	18.33
2044	20.51	19.23	19.95
2045	18.26	17.61	17.97
2046	29.91	25.84	28.11
2047	24.77	23.41	24.17
2048	20.06	18.29	19.28
2049	23.23	22.24	22.79
2050	22.71	20.29	21.64
2051	29.27	25.89	27.78
2052	25.68	24.07	24.97
2053	23.61	22.07	22.93
2054	23.96	22.45	23.30
2055	23.49	22.37	23.00
2056	34.77	27.58	31.60
2057	21.24	19.72	20.57
2058	25.02	23.47	24.34
2059	25.29	23.88	24.67
2060	31.69	26.96	29.60
2061	25.53	24.13	24.91
2062	22.93	21.93	22.49
2063	26.03	22.80	24.60
2064	27.32	24.63	26.13
2065	29.06	25.71	27.58
2066	24.05	22.81	23.50
2067	25.61	24.21	24.99
2068	24.42	22.93	23.76
2069	32.90	27.64	30.58
2070	36.90	30.07	33.89

2071	34.56	29.09	32.15
2072	24.56	22.34	23.58
2073	21.51	19.04	20.42
2074	24.81	22.15	23.64
2075	37.53	29.89	34.16
2076	25.72	23.88	24.90
2077	22.29	20.07	21.31
2078	41.84	34.38	38.55
2079	23.47	21.76	22.72
2080	21.48	20.40	21.00
2081	25.94	23.59	24.90
2082	29.51	26.34	28.11
2083	24.78	23.16	24.07
2084	29.78	26.30	28.25
2085	29.08	25.73	27.60
2086	31.55	27.02	29.55
2087	27.01	24.33	25.83
2088	26.67	24.56	25.74
2089	25.95	23.79	25.00
2090	24.78	22.74	23.88
2091	23.88	22.02	23.06
2092	29.83	26.41	28.32
2093	22.81	21.72	22.33
2094	38.62	32.24	35.81
2095	33.27	28.44	31.14
2096	33.13	28.11	30.91
2097	24.43	23.42	23.98
2098	20.27	18.69	19.57
2099	22.80	20.91	21.96
2100	28.24	25.53	27.05
2101	27.56	24.83	26.35
2102	33.22	27.78	30.82
2103	21.29	20.45	20.92
2104	27.45	24.73	26.25
2105	29.85	26.23	28.25
2106	24.80	23.64	24.29
2107	36.35	30.71	33.86
2108	28.53	25.45	27.17
2109	31.82	27.10	29.74
2110	21.40	20.64	21.07
2111	24.52	22.43	23.60
2112	26.94	24.57	25.90
2113	25.82	23.70	24.89
2114	27.55	23.69	25.85
2115	27.08	24.70	26.03
2116	29.70	26.35	28.22
2117	29.95	26.29	28.33
2118	30.85	27.07	29.19
2119	29.47	25.23	27.60
2120	26.55	24.42	25.61
2121	28.76	26.22	27.64
2122	27.52	24.87	26.35
2123	19.92	18.34	19.22
2124	40.52	31.63	36.60
2125	25.25	23.37	24.42
2126	30.07	25.93	28.24

2127	23.56	22.17	22.95
2128	26.56	24.38	25.60
2129	27.61	24.84	26.39
2130	32.16	27.24	29.99
2131	25.69	23.77	24.84
2132	28.80	25.36	27.28
2133	27.61	24.60	26.29
2134	32.13	27.84	30.24
2135	26.23	24.33	25.39
2136	22.04	20.90	21.54
2137	23.23	21.60	22.51
2138	30.52	26.61	28.79
2139	27.58	24.64	26.28
2140	23.12	21.93	22.60
2141	24.51	23.07	23.88
2142	31.76	27.30	29.79
2143	30.60	26.33	28.71
2144	33.80	28.69	31.54
2145	21.85	19.59	20.85
2146	29.02	25.64	27.53
2147	44.39	36.56	40.94
2148	25.39	23.78	24.68
2149	20.63	19.79	20.26
2150	22.62	21.35	22.06
2151	21.08	20.33	20.75
2152	27.49	24.94	26.37
2153	35.39	29.24	32.68
2154	47.27	38.67	43.47
2155	26.25	24.38	25.43
2156	27.62	25.42	26.65
2157	25.46	23.62	24.65
2158	25.67	23.78	24.84
2159	20.59	19.94	20.30
2160	27.84	24.49	26.36
2161	20.49	18.61	19.66
2162	24.26	23.05	23.73
2163	24.29	22.77	23.62
2164	27.26	24.82	26.18
2165	24.99	23.40	24.29
2166	23.90	22.60	23.33
2167	27.45	25.40	26.55
2168	26.90	24.70	25.93
2169	26.68	24.36	25.65
2170	21.77	19.30	20.68
2171	27.35	24.65	26.16
2172	26.33	24.86	25.68
2173	20.40	19.84	20.15
2174	24.88	23.69	24.36
2175	32.28	27.46	30.15
2176	27.65	24.78	26.38
2177	22.20	21.11	21.72
2178	24.25	22.76	23.59
2179	21.50	20.53	21.07
2180	23.17	21.49	22.43
2181	25.42	23.61	24.62
2182	28.54	24.87	26.92

2183	29.37	25.67	27.74
2184	23.84	22.27	23.15
2185	23.50	22.31	22.98
2186	36.13	30.42	33.61
2187	22.93	20.49	21.85
2188	23.85	22.21	23.12
2189	20.60	19.98	20.33
2190	25.96	24.37	25.26
2191	28.64	25.30	27.17
2192	24.09	22.95	23.58
2193	18.42	17.27	17.91
2194	23.04	20.61	21.97
2195	23.18	22.09	22.70
2196	33.88	28.99	31.72
2197	26.35	24.89	25.70
2198	24.95	23.73	24.41
2199	24.54	23.12	23.91
2200	24.92	23.59	24.33
2201	19.42	18.23	18.89
2202	22.03	20.83	21.50
2203	23.74	21.60	22.80
2204	35.10	27.92	31.93
2205	26.18	24.25	25.33
2206	23.56	21.70	22.74
2207	27.91	24.97	26.61
2208	25.85	24.06	25.06
2209	32.64	27.44	30.35
2210	28.92	25.76	27.53
2211	23.60	22.33	23.04
2212	23.33	22.02	22.75
2213	21.20	19.27	20.35
2214	32.04	27.45	30.02
2215	37.48	30.34	34.33
2216	24.33	22.78	23.64
2217	25.73	23.94	24.94
2218	20.04	18.16	19.21
2219	26.65	24.66	25.78
2220	26.81	24.78	25.92
2221	36.47	29.93	33.59
2222	23.30	22.59	22.99
2223	32.35	27.32	30.13
2224	33.54	27.78	31.00
2225	24.89	23.66	24.35
2226	20.00	18.88	19.51
2227	27.82	24.65	26.42
2228	21.26	19.03	20.28
2229	28.44	25.28	27.04
2230	24.28	22.70	23.58
2231	24.94	23.45	24.28
2232	30.37	26.87	28.82
2233	24.97	23.83	24.47
2234	24.35	22.88	23.70
2235	28.91	25.63	27.46
2236	28.41	25.25	27.01
2237	26.94	24.49	25.86
2238	20.74	20.05	20.43

2239	23.20	21.00	22.23
2240	20.91	18.86	20.01
2241	22.94	21.61	22.35
2242	24.71	22.85	23.89
2243	24.89	23.32	24.20
2244	21.58	19.48	20.66
2245	22.72	20.93	21.93
2246	23.69	21.52	22.73
2247	34.83	29.31	32.39
2248	28.57	25.52	27.22
2249	26.20	23.93	25.20
2250	33.25	28.10	30.98
2251	20.34	18.49	19.52
2252	30.35	26.63	28.71
2253	35.32	29.54	32.77
2254	17.43	16.83	17.17
2255	32.08	27.72	30.16
2256	26.41	24.33	25.50
2257	23.16	22.21	22.74
2258	27.52	24.68	26.27
2259	20.59	19.51	20.11
2260	23.30	21.22	22.39
2261	22.28	20.91	21.67
2262	24.53	22.75	23.75
2263	28.66	25.47	27.25
2264	26.73	24.38	25.69
2265	46.45	38.42	42.91
2266	25.51	23.12	24.45
2267	21.95	19.74	20.97
2268	25.83	23.71	24.89
2269	23.99	22.56	23.36
2270	19.75	18.01	18.98
2271	26.14	24.23	25.30
2272	32.99	28.23	30.89
2273	34.21	28.83	31.84
2274	23.66	22.38	23.10
2275	32.89	27.60	30.56
2276	25.05	23.50	24.37
2277	21.18	19.23	20.32
2278	24.19	22.87	23.61
2279	30.99	26.81	29.15
2280	29.83	25.83	28.07
2281	20.48	19.02	19.84
2282	36.23	29.72	33.36
2283	22.82	21.14	22.08
2284	36.07	29.96	33.37
2285	30.66	26.28	28.73
2286	22.55	21.35	22.02
2287	26.69	24.34	25.65
2288	30.27	26.71	28.70
2289	40.34	33.02	37.11
2290	43.63	33.63	39.22
2291	28.17	25.71	27.09
2292	24.15	22.59	23.46
2293	23.68	21.71	22.81
2294	26.76	23.89	25.50

2295	28.10	25.49	26.95
2296	31.79	27.07	29.71
2297	19.28	18.19	18.80
2298	27.97	24.69	26.52
2299	23.79	22.07	23.03
2300	21.17	20.39	20.82
2301	20.44	18.71	19.67
2302	24.42	23.14	23.86
2303	32.40	27.68	30.31
2304	25.53	24.08	24.89
2305	27.17	24.67	26.07
2306	19.35	18.18	18.84
2307	23.54	21.38	22.59
2308	43.42	33.99	39.26
2309	31.39	25.70	28.88
2310	22.99	21.48	22.32
2311	25.00	23.69	24.42
2312	22.28	20.01	21.28
2313	24.09	22.10	23.21
2314	25.16	23.73	24.53
2315	47.98	38.38	43.74
2316	26.08	24.05	25.19
2317	24.72	23.07	23.99
2318	27.51	24.63	26.24
2319	22.56	21.53	22.11
2320	22.02	20.26	21.24
2321	23.43	21.20	22.44
2322	29.61	24.75	27.47
2323	25.74	24.22	25.07
2324	24.49	22.92	23.80
2325	36.76	31.33	34.36
2326	33.30	28.11	31.01
2327	25.14	23.49	24.42
2328	17.97	17.54	17.78
2329	25.45	24.15	24.88
2330	26.66	24.38	25.65
2331	19.79	18.64	19.28
2332	21.00	18.93	20.09
2333	33.74	28.51	31.44
2334	30.77	26.35	28.82
2335	24.38	22.43	23.52
2336	34.22	28.88	31.86
2337	28.19	23.93	26.31
2338	40.48	33.32	37.32
2339	22.67	21.51	22.16
2340	39.51	32.03	36.21
2341	33.52	28.36	31.24
2342	22.35	19.95	21.29
2343	24.66	22.67	23.79
2344	19.82	19.26	19.57
2345	22.10	21.08	21.65
2346	31.23	26.90	29.32
2347	24.50	22.57	23.65
2348	20.27	18.78	19.61
2349	24.53	23.16	23.93
2350	22.15	21.22	21.74

2351	24.75	22.82	23.90
2352	21.12	18.38	19.92
2353	28.40	26.19	27.42
2354	32.68	27.52	30.41
2355	40.54	32.43	36.96
2356	22.77	21.89	22.38
2357	21.40	20.22	20.88
2358	23.38	21.31	22.46
2359	28.61	25.45	27.22
2360	23.04	21.97	22.57
2361	19.10	18.11	18.66
2362	31.49	27.18	29.59
2363	55.71	43.81	50.46
2364	23.36	21.06	22.35
2365	28.56	25.14	27.05
2366	21.61	20.35	21.05
2367	24.28	22.92	23.68
2368	35.91	30.92	33.71
2369	25.05	23.31	24.29
2370	25.85	23.92	25.00
2371	22.54	21.06	21.89
2372	38.53	31.19	35.29
2373	21.75	20.72	21.30
2374	38.26	32.30	35.63
2375	22.74	20.23	21.63
2376	28.43	25.03	26.93
2377	21.32	19.12	20.35
2378	27.77	25.21	26.64
2379	26.07	23.87	25.10
2380	25.92	24.16	25.14
2381	24.15	22.75	23.53
2382	25.20	23.27	24.35
2383	28.45	25.15	26.99
2384	26.38	24.28	25.46
2385	24.29	23.08	23.75
2386	26.41	24.35	25.50
2387	26.46	24.68	25.68
2388	18.67	17.96	18.36
2389	40.92	32.01	36.99
2390	25.71	24.23	25.06
2391	24.53	22.52	23.64
2392	29.99	26.09	28.27
2393	26.00	23.90	25.07
2394	24.48	22.54	23.63
2395	34.77	29.19	32.31
2396	24.95	23.04	24.11
2397	25.81	24.27	25.13
2398	29.65	26.17	28.11
2399	25.34	23.72	24.63
2400	29.86	25.97	28.14
2401	25.91	23.88	25.01
2402	23.48	22.25	22.94
2403	25.22	23.42	24.43
2404	27.07	24.75	26.04
2405	19.75	18.70	19.29
2406	48.71	39.45	44.62

2407	26.23	24.22	25.34
2408	40.17	32.35	36.72
2409	29.58	26.10	28.05
2410	23.97	21.58	22.91
2411	22.08	20.15	21.23
2412	27.45	24.69	26.23
2413	20.64	18.83	19.84
2414	45.44	35.40	41.01
2415	35.72	28.93	32.73
2416	21.14	20.24	20.74
2417	27.49	23.79	25.86
2418	25.90	24.18	25.15
2419	29.30	25.68	27.70
2420	20.61	19.13	19.96
2421	24.83	23.07	24.06
2422	25.06	23.69	24.45
2423	24.17	22.03	23.23
2424	22.34	20.12	21.36
2425	30.85	26.69	29.02
2426	25.05	23.36	24.31
2427	35.90	29.69	33.16
2428	24.92	23.34	24.23
2429	33.51	27.81	30.99
2430	22.72	21.27	22.08
2431	23.02	22.30	22.70
2432	26.45	24.07	25.40
2433	20.77	19.86	20.36
2434	24.69	23.05	23.96
2435	27.78	24.97	26.54
2436	21.25	19.86	20.63
2437	21.86	20.38	21.21
2438	27.08	24.85	26.10
2439	23.35	22.16	22.83
2440	30.12	26.13	28.36
2441	22.88	21.93	22.46
2442	21.15	20.59	20.90
2443	24.58	23.29	24.01
2444	18.14	17.26	17.75
2445	27.38	25.00	26.33
2446	21.81	19.87	20.95
2447	25.01	22.82	24.04
2448	34.58	29.10	32.16
2449	23.93	21.28	22.76
2450	22.95	20.46	21.85
2451	29.79	26.00	28.12
2452	25.27	23.65	24.56
2453	19.15	18.33	18.79
2454	21.83	19.56	20.83
2455	25.28	23.19	24.36
2456	25.27	23.74	24.59
2457	25.54	23.86	24.80
2458	34.79	28.79	32.14
2459	27.16	24.93	26.18
2460	32.99	27.64	30.63
2461	33.79	28.71	31.55
2462	21.63	19.95	20.89

2463	35.14	28.89	32.38
2464	29.93	26.22	28.29
2465	31.33	26.85	29.35
2466	26.84	24.87	25.97
2467	34.02	28.44	31.56
2468	24.13	21.86	23.13
2469	30.17	26.30	28.46
2470	30.51	26.50	28.74
2471	24.32	22.88	23.69
2472	28.84	25.89	27.54
2473	29.59	26.29	28.14
2474	21.89	20.22	21.15
2475	40.02	32.40	36.66
2476	25.99	23.66	24.96
2477	30.25	26.43	28.57
2478	25.39	23.80	24.69
2479	23.48	21.41	22.56
2480	21.01	19.84	20.49
2481	20.94	19.97	20.51
2482	24.72	23.18	24.04
2483	18.33	17.66	18.03
2484	24.05	22.21	23.24
2485	35.30	29.32	32.66
2486	24.03	22.67	23.43
2487	22.09	21.44	21.80
2488	23.40	22.11	22.83
2489	27.32	24.98	26.29
2490	40.80	32.84	37.29
2491	20.78	19.01	20.00
2492	24.54	23.44	24.06
2493	28.81	26.02	27.58
2494	21.98	20.82	21.47
2495	41.28	33.82	37.99
2496	26.04	24.23	25.24
2497	23.26	21.06	22.29
2498	31.23	27.94	29.78
2499	19.53	18.18	18.94
2500	19.62	18.38	19.07
2501	26.60	24.05	25.47
2502	27.08	24.54	25.96
2503	25.56	24.37	25.04
2504	24.05	21.57	22.96
2505	34.92	29.37	32.48
2506	28.04	25.19	26.79
2507	22.78	20.77	21.89
2508	25.22	23.77	24.58
2509	21.18	20.32	20.80
2510	26.45	24.34	25.52
2511	36.40	30.14	33.64
2512	29.98	26.26	28.34
2513	20.07	19.31	19.73
2514	33.84	29.00	31.71
2515	30.62	26.71	28.89
2516	20.81	19.49	20.23
2517	24.86	23.54	24.28
2518	21.07	20.26	20.71

2519	27.61	25.00	26.46
2520	26.67	24.41	25.67
2521	24.03	22.49	23.35
2522	24.11	22.77	23.52
2523	19.92	18.45	19.27
2524	21.77	20.67	21.29
2525	25.96	23.96	25.08
2526	25.78	23.60	24.82
2527	24.59	22.39	23.62
2528	22.54	21.30	22.00
2529	22.18	21.37	21.83
2530	20.69	19.22	20.04
2531	24.61	23.50	24.12
2532	25.59	23.88	24.84
2533	26.46	24.48	25.59
2534	28.13	25.15	26.82
2535	24.69	23.24	24.05
2536	32.76	27.81	30.58
2537	29.75	25.94	28.07
2538	28.88	25.47	27.38
2539	28.09	24.08	26.32
2540	21.25	20.35	20.85
2541	22.75	20.60	21.80
2542	21.69	19.20	20.59
2543	43.52	35.37	39.92
2544	20.85	19.19	20.12
2545	22.07	20.83	21.52
2546	33.45	28.55	31.29
2547	25.61	23.56	24.71
2548	29.28	25.76	27.73
2549	36.75	29.05	33.35
2550	24.69	22.88	23.89
2551	35.10	29.60	32.67
2552	20.91	19.65	20.35
2553	39.16	32.61	36.27
2554	28.49	25.27	27.07
2555	28.58	25.56	27.25
2556	26.97	24.25	25.77
2557	30.78	27.01	29.12
2558	17.91	17.45	17.71
2559	26.48	24.28	25.51
2560	22.48	21.35	21.99
2561	32.11	27.21	29.95
2562	32.24	27.68	30.23
2563	22.60	20.89	21.84
2564	23.94	21.65	22.93
2565	18.63	17.82	18.27
2566	19.87	18.13	19.11
2567	27.23	24.38	25.97
2568	27.79	25.38	26.73
2569	33.17	27.47	30.65
2570	22.03	19.46	20.90
2571	26.12	24.23	25.29
2572	23.67	21.90	22.89
2573	24.62	22.89	23.86
2574	23.94	22.48	23.30

2575	23.51	22.09	22.88
2576	25.20	23.73	24.55
2577	35.11	28.61	32.25
2578	22.51	21.06	21.87
2579	35.38	29.82	32.92
2580	23.47	22.16	22.89
2581	18.57	17.63	18.16
2582	22.77	20.23	21.65
2583	19.77	18.95	19.41
2584	23.97	21.94	23.08
2585	34.37	28.93	31.97
2586	25.37	23.83	24.69
2587	36.10	29.95	33.39
2588	28.64	25.21	27.13
2589	25.31	23.28	24.42
2590	27.03	24.47	25.90
2591	19.11	18.32	18.76
2592	24.24	23.03	23.71
2593	25.97	24.41	25.29
2594	41.50	33.61	38.02
2595	22.80	21.77	22.35
2596	34.36	28.56	31.80
2597	25.14	23.61	24.46
2598	25.54	23.90	24.82
2599	25.01	23.50	24.35
2600	21.89	20.03	21.07
2601	28.73	26.11	27.58
2602	22.13	20.95	21.61
2603	21.15	19.64	20.48
2604	25.64	24.14	24.98
2605	25.27	23.62	24.54
2606	29.63	26.00	28.03
2607	27.83	24.76	26.48
2608	32.58	28.02	30.57
2609	29.14	25.67	27.61
2610	27.56	24.86	26.37
2611	26.04	23.64	24.98
2612	24.22	22.56	23.49
2613	19.70	18.48	19.16
2614	27.26	24.47	26.03
2615	26.00	24.36	25.28
2616	23.34	21.16	22.38
2617	18.71	17.72	18.27
2618	37.78	31.54	35.03
2619	23.20	21.90	22.63
2620	27.53	25.31	26.55
2621	23.12	20.82	22.11
2622	32.02	27.83	30.18
2623	43.65	34.74	39.72
2624	31.82	27.15	29.76
2625	24.22	22.64	23.52
2626	26.05	24.00	25.15
2627	29.82	26.00	28.13
2628	24.88	23.32	24.19
2629	31.22	26.95	29.33
2630	27.52	24.75	26.29

2631	24.62	22.97	23.89
2632	24.05	22.14	23.21
2633	29.32	25.61	27.68
2634	24.03	21.65	22.98
2635	25.09	23.62	24.44
2636	34.43	26.21	30.81
2637	28.64	25.16	27.11
2638	26.15	22.38	24.48
2639	22.74	21.22	22.07
2640	17.22	15.81	16.60
2641	24.59	23.22	23.98
2642	29.30	25.44	27.60
2643	21.10	18.84	20.10
2644	25.78	24.08	25.03
2645	34.37	29.36	32.16
2646	26.92	24.81	25.99
2647	30.19	25.97	28.33
2648	21.75	20.93	21.39
2649	16.31	15.66	16.03
2650	32.31	27.76	30.31
2651	26.83	24.13	25.64
2652	26.88	24.62	25.88
2653	27.30	24.45	26.05
2654	24.16	22.76	23.55
2655	26.86	24.70	25.91
2656	21.65	20.84	21.30
2657	35.09	29.51	32.63
2658	37.21	29.96	34.01
2659	27.60	25.28	26.57
2660	26.14	24.46	25.40
2661	18.21	17.57	17.93
2662	41.58	34.06	38.26
2663	27.08	24.98	26.15
2664	25.76	23.96	24.96
2665	23.87	21.41	22.78
2666	22.96	22.13	22.60
2667	24.67	23.53	24.17
2668	28.06	25.01	26.72
2669	25.94	24.01	25.09
2670	27.85	25.23	26.69
2671	24.57	22.77	23.77
2672	25.03	23.65	24.42
2673	26.07	24.59	25.42
2674	37.05	30.13	34.00
2675	33.43	28.14	31.10
2676	32.14	26.39	29.60
2677	26.09	24.13	25.23
2678	20.94	20.04	20.55
2679	32.67	27.85	30.55
2680	32.35	27.91	30.39
2681	37.08	31.75	34.73
2682	23.66	22.41	23.11
2683	29.93	26.06	28.22
2684	23.59	21.25	22.56
2685	25.43	23.62	24.63
2686	23.38	20.82	22.25

2687	30.65	26.32	28.74
2688	38.21	30.96	35.01
2689	31.09	27.07	29.32
2690	23.60	21.81	22.81
2691	15.61	14.88	15.29
2692	35.81	29.74	33.13
2693	29.27	26.17	27.90
2694	23.69	21.15	22.57
2695	24.24	22.45	23.45
2696	20.50	19.93	20.25
2697	22.48	21.10	21.87
2698	63.47	45.20	55.41
2699	24.94	23.29	24.21
2700	23.96	22.21	23.19
2701	27.39	24.65	26.18
2702	25.38	23.60	24.60
2703	35.19	29.68	32.76
2704	25.86	23.44	24.79
2705	29.21	25.87	27.74
2706	26.08	23.85	25.10
2707	25.17	23.41	24.39
2708	27.99	25.17	26.75
2709	26.75	24.82	25.90
2710	22.80	21.65	22.29
2711	34.82	28.86	32.19
2712	20.41	19.00	19.79
2713	25.21	23.85	24.61
2714	23.05	21.62	22.42
2715	24.50	23.45	24.04
2716	37.00	30.67	34.21
2717	27.19	24.40	25.96
2718	28.43	25.05	26.94
2719	28.66	25.47	27.25
2720	30.82	26.89	29.09
2721	26.60	24.59	25.71
2722	18.41	17.38	17.95
2723	32.93	27.92	30.72
2724	30.60	26.48	28.79
2725	29.64	26.09	28.08
2726	32.30	27.91	30.36
2727	19.54	17.90	18.82
2728	18.88	17.66	18.34
2729	26.95	24.48	25.86
2730	32.65	28.00	30.60
2731	34.37	28.65	31.85
2732	26.63	24.25	25.58
2733	28.79	25.13	27.17
2734	27.55	24.70	26.29
2735	25.47	23.76	24.72
2736	25.62	24.18	24.98
2737	25.96	23.94	25.07
2738	30.34	26.39	28.60
2739	29.29	26.43	28.03
2740	23.20	21.97	22.66
2741	33.21	28.71	31.23
2742	26.45	24.39	25.54

2743	26.63	24.22	25.57
2744	21.04	18.97	20.13
2745	28.13	25.42	26.94
2746	37.88	30.59	34.66
2747	39.75	31.34	36.04
2748	22.79	21.32	22.14
2749	29.35	25.65	27.72
2750	23.88	21.70	22.92
2751	26.18	24.06	25.25
2752	30.66	26.33	28.75
2753	30.92	26.67	29.04
2754	23.23	21.06	22.27
2755	23.66	22.28	23.05
2756	24.90	22.89	24.01
2757	22.46	20.71	21.69
2758	24.71	23.51	24.18
2759	23.56	21.35	22.59
2760	23.91	22.83	23.44
2761	35.60	29.73	33.01
2762	28.22	25.41	26.98
2763	26.84	24.24	25.69
2764	27.96	24.84	26.58
2765	21.97	20.36	21.26
2766	39.81	31.29	36.05
2767	34.44	28.67	31.89
2768	33.42	28.47	31.24
2769	19.13	18.81	18.99
2770	23.71	21.72	22.83
2771	25.40	24.04	24.80
2772	23.04	21.83	22.50
2773	34.96	29.14	32.39
2774	27.70	25.13	26.57
2775	26.68	24.85	25.87
2776	31.94	27.50	29.98
2777	24.24	22.62	23.53
2778	26.72	24.58	25.78
2779	24.95	23.69	24.39
2780	33.79	28.25	31.34
2781	29.55	25.81	27.90
2782	19.71	18.89	19.35
2783	21.27	20.08	20.74
2784	32.50	28.29	30.64
2785	30.08	26.02	28.29
2786	23.42	22.09	22.83
2787	25.86	24.03	25.06
2788	23.65	20.69	22.35
2789	24.90	23.42	24.25
2790	25.94	24.17	25.16
2791	24.45	22.46	23.57
2792	28.30	25.37	27.01
2793	22.81	21.66	22.30
2794	26.09	24.28	25.29
2795	31.88	27.33	29.88
2796	20.94	19.83	20.45
2797	19.92	18.67	19.37
2798	32.82	27.33	30.40

2799	23.89	22.51	23.28
2800	34.45	29.34	32.20
2801	21.42	19.69	20.66
2802	22.96	20.23	21.75
2803	27.39	24.84	26.27
2804	37.47	30.08	34.21
2805	23.98	22.84	23.48
2806	29.88	26.31	28.31
2807	29.59	26.34	28.15
2808	23.81	21.57	22.82
2809	26.20	24.27	25.35
2810	48.19	39.51	44.36
2811	25.48	23.96	24.81
2812	29.44	25.82	27.84
2813	30.58	25.98	28.55
2814	47.00	38.20	43.12
2815	30.12	26.31	28.44
2816	30.10	26.21	28.38
2817	25.19	22.70	24.09
2818	29.81	26.03	28.14
2819	22.17	21.10	21.70
2820	24.80	22.87	23.95
2821	23.24	22.18	22.77
2822	23.36	22.09	22.80
2823	25.66	24.14	24.99
2824	24.49	23.18	23.91
2825	30.32	27.17	28.93
2826	24.78	22.76	23.89
2827	19.96	18.88	19.48
2828	25.82	24.13	25.07
2829	29.09	25.45	27.48
2830	24.99	23.44	24.31
2831	25.79	24.27	25.12
2832	35.79	29.59	33.06
2833	29.05	25.46	27.46
2834	23.48	21.76	22.72
2835	30.73	26.63	28.92
2836	21.21	19.22	20.33
2837	27.07	24.50	25.93
2838	26.10	24.04	25.19
2839	31.25	27.50	29.60
2840	28.98	25.51	27.45
2841	34.31	29.03	31.98
2842	29.96	25.98	28.20
2843	25.43	23.88	24.75
2844	27.86	25.07	26.63
2845	30.73	26.87	29.03
2846	21.30	19.22	20.38
2847	19.37	18.35	18.92
2848	26.65	24.77	25.82
2849	28.75	25.46	27.30
2850	27.95	24.78	26.55
2851	52.70	41.10	47.58
2852	35.47	29.49	32.83
2853	34.49	28.84	32.00
2854	25.72	24.44	25.16

2855	31.11	26.91	29.25
2856	23.86	22.21	23.13
2857	26.61	24.25	25.57
2858	37.08	31.24	34.50
2859	21.98	20.61	21.37
2860	27.74	24.89	26.48
2861	30.14	26.14	28.37
2862	25.03	23.34	24.29
2863	28.25	25.23	26.92
2864	32.02	27.62	30.08
2865	20.01	19.04	19.58
2866	28.72	25.32	27.22
2867	22.68	20.88	21.89
2868	20.74	19.84	20.34
2869	24.34	23.16	23.82
2870	25.71	24.14	25.02
2871	40.11	33.58	37.23
2872	23.89	22.05	23.08
2873	22.01	20.23	21.22
2874	29.10	25.82	27.65
2875	31.63	27.27	29.71
2876	19.69	18.93	19.36
2877	23.71	22.47	23.16
2878	30.37	26.40	28.62
2879	28.74	25.13	27.15
2880	49.25	36.93	43.82
2881	23.26	22.11	22.75
2882	22.53	21.32	22.00
2883	39.72	32.12	36.37
2884	28.50	25.66	27.25
2885	25.01	23.62	24.40
2886	34.20	28.68	31.77
2887	30.28	26.21	28.49
2888	35.94	30.34	33.47
2889	38.39	30.86	35.07
2890	25.35	22.94	24.29
2891	28.64	25.09	27.07
2892	44.97	36.21	41.11
2893	20.41	18.91	19.75
2894	29.75	25.73	27.98
2895	26.53	24.88	25.80
2896	22.21	21.02	21.68
2897	25.36	23.75	24.65
2898	34.47	29.57	32.31
2899	23.80	22.06	23.03
2900	30.43	26.18	28.56
2901	40.91	35.14	38.36
2902	26.28	24.57	25.53
2903	26.20	23.98	25.22
2904	31.78	27.05	29.69
2905	18.82	18.58	18.72
2906	29.79	26.29	28.24
2907	22.25	21.39	21.87
2908	21.69	20.12	21.00
2909	26.05	24.00	25.15
2910	32.52	27.92	30.49

2911	37.80	32.35	35.40
2912	26.67	24.30	25.62
2913	28.32	25.29	26.98
2914	31.07	26.83	29.20
2915	24.47	22.60	23.64
2916	19.72	18.32	19.11
2917	26.74	24.45	25.73
2918	27.18	25.05	26.24
2919	20.85	19.75	20.37
2920	31.72	27.07	29.67
2921	21.44	19.76	20.70
2922	28.48	25.11	26.99
2923	23.03	21.18	22.22
2924	25.22	23.44	24.44
2925	28.53	25.16	27.04
2926	32.81	27.17	30.32
2927	26.49	24.20	25.48
2928	30.20	25.97	28.33
2929	29.38	25.77	27.79
2930	38.66	30.89	35.23
2931	17.79	17.40	17.62
2932	26.43	24.33	25.50
2933	21.81	20.86	21.39
2934	18.76	17.73	18.31
2935	27.91	25.07	26.66
2936	28.89	25.44	27.37
2937	34.44	29.63	32.32
2938	22.85	20.74	21.92
2939	23.09	20.58	21.98
2940	26.75	25.07	26.01
2941	25.87	24.15	25.11
2942	17.45	17.13	17.31
2943	24.77	23.27	24.11
2944	20.98	19.99	20.54
2945	17.23	16.33	16.83
2946	21.41	20.21	20.88
2947	24.59	23.36	24.05
2948	34.08	28.72	31.71
2949	23.05	21.70	22.45
2950	25.53	23.99	24.85
2951	32.79	27.97	30.66
2952	24.70	23.33	24.09
2953	20.89	19.14	20.11
2954	26.01	24.37	25.29
2955	24.23	22.05	23.26
2956	21.31	20.40	20.91
2957	26.61	24.59	25.72
2958	26.58	24.87	25.83
2959	26.70	24.56	25.76
2960	26.61	24.33	25.60
2961	25.86	24.32	25.18
2962	19.83	18.60	19.29
2963	33.25	28.04	30.95
2964	27.89	24.95	26.59
2965	34.95	29.72	32.64
2966	28.79	24.90	27.07

2967	28.33	25.57	27.11
2968	24.26	22.40	23.44
2969	28.97	25.45	27.42
2970	23.95	22.54	23.33
2971	27.74	24.98	26.52
2972	38.60	32.10	35.73
2973	21.69	20.83	21.31
2974	21.53	19.77	20.75
2975	20.18	18.70	19.52
2976	33.01	27.93	30.77
2977	22.81	20.45	21.77
2978	18.87	17.85	18.42
2979	25.61	23.46	24.66
2980	37.29	30.94	34.49
2981	18.22	17.22	17.78
2982	23.20	22.05	22.69
2983	39.22	33.36	36.64
2984	25.99	24.39	25.28
2985	18.69	17.39	18.12
2986	34.52	29.05	32.11
2987	25.60	24.16	24.97
2988	28.14	25.39	26.93
2989	25.34	23.87	24.69
2990	31.06	26.70	29.14
2991	25.05	23.30	24.28
2992	24.22	21.77	23.14
2993	32.41	27.10	30.07
2994	18.11	17.52	17.85
2995	25.90	24.21	25.15
2996	23.66	21.64	22.77
2997	22.46	21.33	21.96
2998	24.21	22.28	23.36
2999	26.13	24.32	25.33
3000	30.03	26.41	28.43
3001	26.54	24.52	25.65
3002	23.21	21.50	22.45
3003	30.34	26.30	28.56
3004	22.83	20.47	21.79
3005	38.31	31.12	35.14
3006	28.42	25.52	27.14
3007	27.47	25.01	26.39
3008	27.95	25.19	26.73
3009	25.07	23.64	24.44
3010	37.34	30.50	34.32
3011	25.77	24.15	25.05
3012	29.40	25.94	27.87
3013	19.79	19.10	19.49
3014	24.82	23.59	24.28
3015	26.23	24.46	25.45
3016	33.46	28.57	31.31
3017	22.16	21.25	21.76
3018	24.98	23.45	24.31
3019	33.53	28.63	31.37
3020	27.58	24.99	26.44
3021	34.49	28.21	31.72
3022	26.27	24.15	25.33

3023	25.79	24.15	25.07
3024	35.01	29.24	32.47
3025	20.57	19.82	20.24
3026	22.28	19.94	21.25
3027	24.20	23.01	23.67
3028	32.56	27.70	30.42
3029	30.89	26.38	28.90
3030	25.69	23.45	24.70
3031	24.30	22.38	23.45
3032	20.36	18.77	19.66
3033	25.50	23.75	24.73
3034	37.67	30.84	34.66
3035	21.06	20.20	20.68
3036	24.61	22.58	23.72
3037	24.95	23.80	24.44
3038	25.13	23.20	24.28
3039	21.97	19.53	20.89
3040	28.55	25.34	27.14
3041	24.80	23.51	24.23
3042	34.97	29.12	32.39
3043	22.59	20.83	21.81
3044	25.06	22.74	24.04
3045	33.06	27.94	30.81
3046	43.14	34.54	39.35
3047	29.89	26.80	28.53
3048	32.67	28.24	30.71
3049	24.75	22.28	23.66
3050	27.77	24.16	26.18
3051	21.56	20.29	21.00
3052	18.80	18.44	18.64
3053	27.41	24.89	26.30
3054	23.55	20.89	22.38
3055	21.99	20.90	21.51
3056	20.85	18.73	19.91
3057	19.92	18.47	19.28
3058	29.60	26.15	28.08
3059	19.42	18.12	18.85
3060	27.89	24.91	26.57
3061	28.28	24.92	26.80
3062	23.93	22.02	23.09
3063	28.35	25.18	26.95
3064	22.00	21.29	21.69
3065	34.30	29.01	31.97
3066	26.73	24.64	25.81
3067	23.40	21.57	22.59
3068	25.40	23.90	24.74
3069	26.46	24.03	25.39
3070	27.17	24.39	25.94
3071	29.61	26.08	28.06
3072	26.33	24.52	25.53
3073	25.18	23.67	24.51
3074	31.24	27.57	29.62
3075	27.69	24.69	26.36
3076	40.05	32.15	36.57
3077	21.25	20.48	20.91
3078	28.71	25.49	27.29

3079	23.12	21.82	22.55
3080	25.71	24.17	25.03
3081	24.60	22.23	23.56
3082	25.97	22.92	24.63
3083	32.90	27.95	30.71
3084	23.80	22.02	23.02
3085	23.39	21.54	22.58
3086	23.00	21.45	22.32
3087	22.84	21.09	22.07
3088	31.02	26.54	29.04
3089	25.32	23.36	24.46
3090	25.23	23.97	24.67
3091	23.30	21.73	22.60
3092	24.76	23.01	23.99
3093	41.93	33.60	38.25
3094	26.53	24.69	25.72
3095	19.70	18.68	19.25
3096	18.06	17.19	17.67
3097	32.48	28.48	30.71
3098	25.14	23.35	24.36
3099	23.75	21.53	22.77
3100	34.50	28.71	31.94
3101	16.21	15.38	15.84
3102	33.28	28.49	31.17
3103	23.14	20.87	22.14
3104	26.53	24.14	25.48
3105	27.67	25.09	26.53
3106	24.83	22.92	23.99
3107	22.78	20.89	21.95
3108	24.40	22.65	23.63
3109	28.83	25.38	27.31
3110	25.81	23.91	24.97
3111	35.15	29.73	32.76
3112	21.44	19.18	20.44
3113	23.17	21.90	22.61
3114	29.17	25.86	27.71
3115	24.56	22.71	23.75
3116	27.98	25.16	26.74
3117	23.50	21.73	22.72
3118	22.95	21.26	22.20
3119	20.22	18.58	19.50
3120	28.33	25.13	26.92
3121	29.33	25.53	27.65
3122	23.22	21.13	22.29
3123	24.44	22.99	23.80
3124	24.58	21.85	23.38
3125	25.53	23.89	24.81
3126	29.21	25.54	27.59
3127	25.99	23.92	25.08
3128	20.16	18.90	19.60
3129	24.93	23.37	24.24
3130	32.03	27.45	30.01
3131	27.84	25.33	26.73
3132	31.77	27.21	29.76
3133	28.93	25.40	27.37
3134	25.65	23.71	24.80

3135	31.94	26.89	29.71
3136	22.88	21.75	22.38
3137	42.99	34.87	39.41
3138	22.17	19.82	21.14
3139	24.66	23.56	24.17
3140	25.62	23.56	24.71
3141	20.98	19.63	20.39
3142	31.49	26.82	29.43
3143	21.63	19.57	20.72
3144	29.07	25.54	27.51
3145	29.22	25.85	27.73
3146	25.70	23.78	24.85
3147	20.21	18.78	19.58
3148	27.49	24.80	26.30
3149	22.73	21.94	22.38
3150	27.56	24.82	26.35
3151	23.38	21.37	22.50
3152	26.18	23.67	25.07
3153	16.55	15.76	16.20
3154	20.37	19.72	20.08
3155	23.70	21.60	22.78
3156	18.52	17.19	17.93
3157	28.39	25.64	27.18
3158	40.81	34.05	37.83
3159	25.26	23.19	24.35
3160	26.04	23.99	25.13
3161	24.71	23.24	24.06
3162	28.12	25.27	26.86
3163	23.55	22.26	22.98
3164	33.45	27.80	30.96
3165	25.96	24.35	25.25
3166	27.43	25.16	26.43
3167	30.71	26.36	28.79
3168	21.93	19.56	20.89
3169	27.19	25.32	26.37
3170	24.78	23.14	24.06
3171	38.01	31.52	35.14
3172	23.34	21.90	22.71
3173	27.02	24.62	25.96
3174	26.04	24.15	25.21
3175	22.38	21.19	21.85
3176	30.11	26.03	28.31
3177	18.71	17.85	18.33
3178	20.11	18.57	19.43
3179	38.51	31.29	35.32
3180	38.70	31.34	35.45
3181	30.03	26.10	28.29
3182	25.92	24.05	25.09
3183	37.76	30.21	34.43
3184	24.43	22.73	23.68
3185	25.04	23.70	24.45
3186	21.76	21.01	21.43
3187	24.65	23.24	24.03
3188	23.47	21.84	22.75
3189	27.48	25.09	26.43
3190	22.37	21.58	22.02

3191	25.53	23.47	24.62
3192	30.51	26.49	28.74
3193	28.26	25.48	27.03
3194	19.30	18.44	18.92
3195	36.42	30.27	33.71
3196	29.98	26.22	28.32
3197	26.14	24.11	25.25
3198	27.19	24.74	26.11
3199	23.86	22.32	23.18
3200	23.23	21.33	22.39
3201	23.78	21.21	22.64
3202	30.37	26.56	28.69
3203	38.88	33.31	36.42
3204	30.02	25.94	28.22
3205	28.56	25.78	27.33
3206	26.21	23.81	25.16
3207	24.95	22.54	23.89
3208	30.46	26.77	28.83
3209	35.88	28.93	32.81
3210	28.50	25.39	27.13
3211	20.97	20.08	20.58
3212	31.09	26.83	29.21
3213	21.86	20.23	21.14
3214	38.36	31.90	35.51
3215	24.23	22.53	23.48
3216	23.28	21.61	22.54
3217	30.24	27.01	28.82
3218	27.54	25.01	26.43
3219	31.35	26.58	29.24
3220	28.55	25.13	27.04
3221	28.78	24.85	27.04
3222	25.81	24.34	25.16
3223	25.13	22.78	24.09
3224	24.69	23.13	24.00
3225	37.04	29.64	33.77
3226	25.64	23.73	24.80
3227	40.23	30.93	36.13
3228	23.98	22.89	23.50
3229	33.43	27.79	30.94
3230	25.45	23.82	24.73
3231	38.26	30.84	34.99
3232	18.95	17.69	18.39
3233	32.46	27.87	30.44
3234	24.92	23.16	24.14
3235	35.41	28.96	32.56
3236	24.46	23.18	23.90
3237	25.09	23.34	24.32
3238	25.16	23.61	24.48
3239	25.46	24.11	24.86
3240	25.04	23.76	24.47
3241	25.96	23.94	25.07
3242	23.40	21.98	22.77
3243	46.16	36.92	42.09
3244	37.55	31.19	34.74
3245	23.93	22.95	23.50
3246	22.50	21.31	21.98

3247	24.21	21.65	23.08
3248	29.76	26.13	28.16
3249	25.85	24.15	25.10
3250	24.28	23.06	23.74
3251	21.95	21.20	21.62
3252	35.80	27.95	32.34
3253	28.58	25.17	27.08
3254	26.74	24.53	25.77
3255	25.72	23.88	24.91
3256	31.77	26.85	29.60
3257	29.42	25.84	27.84
3258	21.44	19.33	20.51
3259	23.26	21.69	22.56
3260	22.17	20.68	21.52
3261	23.01	21.01	22.13
3262	32.30	27.75	30.30
3263	22.72	21.45	22.16
3264	37.73	30.80	34.68
3265	22.76	20.20	21.63
3266	20.51	19.73	20.17
3267	22.82	21.33	22.16
3268	31.78	27.44	29.87
3269	41.31	34.09	38.12
3270	26.79	24.35	25.72
3271	21.03	18.72	20.01
3272	23.79	22.21	23.09
3273	29.52	25.88	27.91
3274	22.27	19.71	21.14
3275	22.86	21.84	22.41
3276	27.14	23.47	25.52
3277	23.78	21.46	22.76
3278	24.80	23.45	24.20
3279	21.19	20.05	20.69
3280	29.66	25.45	27.81
3281	21.91	21.03	21.52
3282	31.71	27.24	29.74
3283	24.26	22.51	23.49
3284	22.71	21.33	22.10
3285	24.32	21.88	23.25
3286	22.89	21.83	22.42
3287	36.69	30.80	34.09
3288	29.67	25.84	27.98
3289	24.98	23.21	24.20
3290	33.69	28.41	31.36
3291	35.53	30.23	33.19
3292	27.48	24.49	26.16
3293	21.33	20.05	20.76
3294	43.20	35.28	39.70
3295	25.86	24.30	25.17
3296	21.48	20.61	21.09
3297	24.34	23.27	23.87
3298	22.20	20.05	21.25
3299	18.21	17.64	17.96
3300	29.80	26.00	28.12
3301	29.64	26.04	28.05
3302	25.38	23.81	24.68

3303	45.71	36.23	41.53
3304	25.49	23.75	24.72
3305	26.82	24.04	25.59
3306	26.11	24.01	25.18
3307	28.57	24.97	26.98
3308	51.12	42.28	47.22
3309	24.71	23.30	24.09
3310	35.59	29.45	32.88
3311	30.12	26.03	28.32
3312	36.36	30.16	33.63
3313	24.21	23.02	23.69
3314	24.13	22.05	23.21
3315	18.45	17.80	18.16
3316	24.14	22.73	23.52
3317	27.51	24.49	26.18
3318	18.64	17.69	18.22
3319	20.99	20.26	20.67
3320	25.52	24.39	25.02
3321	31.43	25.83	28.96
3322	33.25	27.98	30.93
3323	21.06	19.81	20.51
3324	32.12	27.46	30.06
3325	24.58	22.75	23.77
3326	30.55	26.91	28.94
3327	24.69	22.95	23.92
3328	28.00	25.37	26.84
3329	42.53	33.21	38.42
3330	24.51	22.34	23.55
3331	38.50	31.87	35.58
3332	27.55	25.14	26.49
3333	22.95	21.35	22.25
3334	24.26	22.02	23.28
3335	27.16	24.62	26.04
3336	23.59	21.66	22.74
3337	25.54	23.97	24.85
3338	26.94	24.75	25.97
3339	32.01	27.72	30.12
3340	26.55	24.42	25.61
3341	26.93	24.27	25.76
3342	21.70	19.62	20.78
3343	28.98	25.84	27.60
3344	26.70	24.16	25.58
3345	26.26	24.45	25.46
3346	19.30	18.17	18.80
3347	20.32	18.75	19.63
3348	25.26	23.82	24.62
3349	25.12	23.52	24.42
3350	26.03	24.21	25.23
3351	28.72	25.86	27.46
3352	29.01	25.61	27.51
3353	29.12	25.49	27.52
3354	26.00	24.26	25.23
3355	22.26	20.66	21.56
3356	22.93	21.19	22.16
3357	31.43	27.10	29.52
3358	23.12	20.91	22.15

3359	42.38	34.94	39.10
3360	25.79	24.19	25.08
3361	38.22	31.85	35.41
3362	27.07	24.51	25.94
3363	25.58	24.09	24.92
3364	26.84	24.40	25.76
3365	29.46	25.77	27.83
3366	19.76	18.16	19.05
3367	25.17	23.58	24.47
3368	31.04	26.71	29.13
3369	26.15	24.12	25.25
3370	32.86	27.94	30.69
3371	20.08	19.06	19.63
3372	32.46	28.11	30.54
3373	26.92	24.93	26.04
3374	30.11	26.44	28.49
3375	28.32	24.96	26.83
3376	28.41	25.82	27.27
3377	27.17	24.66	26.06
3378	28.59	25.28	27.13
3379	31.06	26.95	29.25
3380	39.61	33.52	36.92
3381	22.19	21.32	21.80
3382	21.97	21.04	21.56
3383	21.76	20.69	21.29
3384	36.11	30.12	33.46
3385	26.34	24.48	25.52
3386	36.37	30.05	33.58
3387	25.54	23.82	24.78
3388	23.78	22.69	23.29
3389	28.47	24.68	26.80
3390	39.74	32.64	36.61
3391	20.15	19.14	19.71
3392	29.21	25.99	27.79
3393	28.42	25.50	27.13
3394	24.16	21.58	23.02
3395	24.47	23.28	23.95
3396	33.36	28.22	31.09
3397	27.00	24.75	26.01
3398	43.83	35.50	40.16
3399	22.73	20.84	21.89
3400	24.29	22.94	23.69
3401	21.92	19.60	20.90
3402	28.77	25.35	27.26
3403	32.84	27.72	30.58
3404	26.99	24.47	25.88
3405	37.39	29.14	33.75
3406	27.55	24.70	26.29
3407	32.16	27.46	30.09
3408	29.17	25.60	27.60
3409	20.04	19.28	19.71
3410	23.98	21.95	23.08
3411	31.35	27.22	29.53
3412	23.07	22.12	22.65
3413	27.42	25.23	26.45
3414	25.16	23.76	24.54

3415	28.44	25.67	27.22
3416	22.03	20.46	21.33
3417	19.96	19.57	19.78
3418	43.10	32.87	38.59
3419	36.23	30.29	33.61
3420	34.24	28.50	31.71
3421	26.57	24.31	25.57
3422	42.80	34.19	39.00
3423	32.54	28.55	30.78
3424	17.48	16.67	17.12
3425	31.79	27.39	29.85
3426	28.88	25.97	27.60
3427	24.67	23.71	24.25
3428	27.69	25.16	26.58
3429	27.56	24.88	26.38
3430	22.21	19.95	21.21
3431	20.63	19.29	20.04
3432	22.75	21.40	22.15
3433	25.05	23.27	24.27
3434	20.82	19.06	20.04
3435	30.60	26.54	28.81
3436	25.82	24.17	25.10
3437	29.66	26.68	28.35
3438	22.08	21.25	21.71
3439	21.73	20.60	21.23
3440	24.32	22.71	23.61
3441	30.79	26.97	29.10
3442	37.54	30.27	34.33
3443	25.60	24.13	24.95
3444	29.87	26.26	28.28
3445	24.11	22.70	23.49
3446	21.73	20.49	21.18
3447	27.92	24.68	26.49
3448	23.91	22.70	23.38
3449	40.46	33.61	37.44
3450	30.30	26.86	28.78
3451	25.36	23.44	24.51
3452	26.30	24.46	25.49
3453	36.91	28.66	33.27
3454	24.67	23.26	24.05
3455	26.92	24.54	25.87
3456	26.79	24.28	25.68
3457	26.09	24.50	25.39
3458	24.18	22.77	23.56
3459	22.33	21.09	21.78
3460	36.59	30.30	33.82
3461	26.14	24.58	25.45
3462	24.17	22.57	23.46
3463	24.68	22.07	23.53
3464	25.00	23.26	24.23
3465	22.53	21.40	22.03
3466	23.61	21.96	22.88
3467	27.87	24.91	26.57
3468	30.95	26.98	29.20
3469	27.06	24.73	26.03
3470	29.07	26.33	27.86

3471	24.88	22.80	23.96
3472	28.59	25.58	27.26
3473	22.05	20.84	21.52
3474	33.96	28.83	31.70
3475	32.47	27.97	30.48
3476	23.56	22.14	22.94
3477	34.47	28.89	32.01
3478	25.06	23.47	24.36
3479	22.12	20.11	21.23
3480	26.94	24.38	25.81
3481	20.40	18.38	19.51
3482	26.49	24.28	25.51
3483	23.04	22.04	22.60
3484	28.37	25.37	27.05
3485	32.84	28.15	30.77
3486	23.35	21.96	22.74
3487	36.97	30.31	34.03
3488	28.90	25.27	27.30
3489	28.33	25.19	26.94
3490	32.40	27.70	30.33
3491	18.81	17.91	18.41
3492	25.52	23.69	24.71
3493	24.80	23.14	24.07
3494	21.79	19.39	20.73
3495	25.36	23.41	24.50
3496	23.99	22.43	23.30
3497	29.46	26.11	27.98
3498	23.04	21.54	22.38
3499	45.30	35.36	40.91
3500	24.63	23.48	24.12

Median	**25.86**	**24.01**	**25.04**
Mean	**27.12**	**24.28**	**25.87**
Min	**15.43**	**14.88**	**15.24**
Max	**63.47**	**48.24**	**55.41**
Std Dev	**5.58**	**3.80**	**4.78**

ATTACHMENT 7

BPA's Average of Broker Quotes for Mid-C Delivery by Day

CLOSINGDATE	Location	HoursType	200910
02-Sep-09	Mid-C	ALL	26.42
03-Sep-09	Mid-C	ALL	25.35
04-Sep-09	Mid-C	ALL	26.94
08-Sep-09	Mid-C	ALL	28.12
09-Sep-09	Mid-C	ALL	29.44
10-Sep-09	Mid-C	ALL	31.87
11-Sep-09	Mid-C	ALL	30.58
14-Sep-09	Mid-C	ALL	33.24
15-Sep-09	Mid-C	ALL	36.39
16-Sep-09	Mid-C	ALL	38.05
17-Sep-09	Mid-C	ALL	35.43
18-Sep-09	Mid-C	ALL	35.74
21-Sep-09	Mid-C	ALL	33.23
22-Sep-09	Mid-C	ALL	34.12
23-Sep-09	Mid-C	ALL	34.79
24-Sep-09	Mid-C	ALL	34.96

min		25.35
average 9/2 thru 9/24	$	32.17
max	$	38.05

<u>Note:</u>
These broker quotes assume a standard trading block of 25 MW and as a result these broker quotes are higher than what BPA could actually expect to receive from the market if it made a 20 MW sale.

ATTACHMENT 8

Energy Information Administration
Official Energy Statistics from the U.S. Government

search Glossary

Home · Forecast & Analysis · Short-Term Energy Outlook

Short-Term Energy Outlook

September 9, 2009 Release
(Next Update: October 6, 2009)

Printer-friendly versions: Full Report Text Only Tables Only Charts Only

Highlights | **Global Crude Oil and Liquid Fuels** | **U.S. Crude Oil and Liquid Fuels** | **Natural Gas** | **Electricity** | **Coal** | **Carbon Dioxide Emissions**

Highlights

- Volatility persists for crude oil spot prices, although over narrower ranges than seen earlier this year and last year. EIA expects the price of West Texas Intermediate (WTI) crude oil to average about $70 per barrel in the fourth quarter of 2009, a $27-increase over the first quarter of the year.
- EIA expects the monthly average regular-grade gasoline retail price to fall from $2.62 per gallon in August and September to an average of $2.56 per gallon over the fourth quarter of 2009. Higher crude oil prices next year contribute to an increase in the annual average gasoline retail price from $2.34 per gallon in 2009 to $2.70 in 2010. Projected annual average diesel fuel retail prices are $2.47 and $2.88 per gallon in 2009 and 2010, respectively.
- **EIA projects the monthly Henry Hub natural gas spot price to average $2.32 per thousand cubic feet (Mcf) in October, the lowest monthly average spot price since September 2001.** Natural gas inventories likely will set a new record high at the end of this year's injection season (October 31) reaching more than 3.8 trillion cubic feet (Tcf). The projected Henry Hub annual average spot price increases from $3.65 per Mcf in 2009 to $4.78 in 2010. However, upward price pressure next year is limited by the sensitivity of natural gas use in the electric power sector to higher natural gas prices and continued expansion of U.S. natural gas production from shale formations.
- EIA expects electricity retail prices to show year-over-year declines next year for the first time since early 2003 because of lower fossil fuel costs for generation. The projected annual average 2010 residential electricity price of 11.4 cents per kilowatthour is about 2 percent lower than the 2009 average.

Global Crude Oil and Liquid Fuels

Global Petroleum Overview. WTI oil prices hovered in the $67-to-$74-per-barrel range in August as expectations of an economic recovery and higher oil consumption in the future were weighed against weak current demand and high inventories. As long as oil prices remain in their current range, EIA expects the Organization of the Petroleum Exporting Countries (OPEC) to maintain its existing production targets.

Global Petroleum Consumption. Preliminary data indicate that global oil consumption declined by 3 million barrels per day (bbl/d) in the second quarter of 2009 compared with year-earlier levels. Members of the Organization for Economic Cooperation and Development (OECD) accounted for most of the decline; total non-OECD consumption was virtually unchanged. The current macroeconomic outlook assumes that the world economy begins to recover at the end of this year, led by non-OECD Asia. As a result, EIA expects world oil consumption to grow in the fourth quarter of 2009 compared with year-earlier levels, the first such growth in 5 quarters. Projected world oil consumption grows by 0.9 million bbl/d in 2010, with relatively strong growth in non-OECD countries being partially offset by a slight decline in OECD consumption (World Liquid Fuels Consumption Chart).

Non-OPEC Supply. Total non-OPEC supply averaged 50.1 million bbl/d in the second quarter of 2009, about 0.3 million bbl/d higher than in the second quarter of 2008. The largest amount of growth came from Central and South America (0.3 million bbl/d) and the Former Soviet Union (0.3 million bbl/d), which was offset by a 0.3 million bbl/d decline in Europe. Over the forecast period, higher output from Brazil, the United States, Azerbaijan, Kazakhstan, and Canada offsets falling production in Mexico and the North Sea (Non-OPEC Crude Oil and Liquid Fuels Production Growth Chart).

OPEC Supply. OPEC crude oil production was 28.7 million bbl/d in the second quarter of 2009, similar to first quarter levels, but down 3 million bbl/d from peak production in the third quarter of 2008. The combination of higher prices and OPEC's historical tendency for weaker compliance with production targets over time (see *This Week in Petroleum*, August 12, 2009) suggests that OPEC crude oil production could rise over the remainder of the year, unless prices fall sharply from current levels. Projected OPEC crude oil production climbs to 29.3 million bbl/d in the second half of 2009, then averages 28.9 million bbl/d in 2010.

Global Petroleum Inventories. Based on preliminary data, OECD commercial oil inventories stood at 2.74 billion barrels at the end of the second quarter of 2009. At 61 days of forward cover, OECD commercial inventories were well above average levels for that time of year (Days of Supply of OECD Commercial Stocks Chart). EIA expects OECD oil inventories to remain at above-average levels throughout the forecast period because of weakness in global oil consumption and continuing contango in the futures market, i.e., relatively high future prices compared with current prices.

Crude Oil Prices. Equity-market and exchange-rate expectations continue to be cited by market analysts as proximate causes of oil-price behavior, in addition to changing expectations of global oil consumption growth. EIA projects that WTI crude oil prices will average $69 per barrel in the second half of 2009, $19 per barrel lower than in the second half of 2008 (Crude Oil Prices Chart). This projection is largely unchanged from last month's *Outlook* and reflects the view that an expected economic upturn will restore oil demand growth and gradually work off the surplus oil inventories. Although a consensus seems to be forming that the global economic downturn may have bottomed out, there still remains considerable uncertainty regarding the timing and pattern of any economic recovery.

U.S. Crude Oil and Liquid Fuels

U.S. Petroleum Consumption. EIA forecasts total consumption of liquid fuels and other petroleum products to decrease by about 800,000 bbl/d (4 percent) in 2009 (U.S. Petroleum Products Consumption Growth Chart) compared with 2008. During the first half of the year, consumption declined by almost 1.25 million barrels per day (6.3 percent) from the same period last year, one of the steepest declines on record. The year-over-year projected decline in petroleum consumption slows to 300,000 barrels per day (1.6 percent) in the second half of 2009 as economic recovery begins to take hold. Monthly average motor gasoline consumption in June showed an increase over the same month from the prior year for the first time since September 2007 and continues to grow over year-ago levels through the forecast. The modest economic recovery projected for 2010 contributes to a

Price Summary

	Year				Percent Change		
	2007	2008	2009	2010	07-08	08-09	09-10
WTI Crude[a] ($/barrel)	72.32	99.57	60.12	72.42	37.7	-39.6	20.5
Gasoline[b] ($/gal)	2.81	3.26	2.34	2.70	16.1	-28.1	15.5
Diesel[c] ($/gal)	2.88	3.80	2.47	2.88	31.9	-35.0	16.8
Heating Oil[d] ($/gal)	2.72	3.38	2.51	2.78	24.2	-25.7	10.6
Natural Gas[d] ($/mcf)	13.03	13.67	11.92	11.56	4.9	-12.8	-3.0
Electricity[d] (cents/kwh)	10.65	11.36	11.64	11.40	6.6	2.5	-2.1

[a] West Texas Intermediate. [b] Average regular pump price.
[c] On-highway retail. [d] U.S. Residential average.

Detailed STEO Information:
- Custom Table Builder historical data, projections
- Real Petroleum Prices charts, data, projections

Related STEO Information:
- STEO Release Schedule
- Previous STEO Outlooks
- Special Analyses and Model Documentation
- Contact STEO Experts

Other EIA Forecasts:
- US Annual Energy Outlook
- International Energy Outlook

Standard Tables
- "Dynamic" table (HTML)
- printer-friendly table (PDF)

All Tables in a single Excel file

	HTML	PDF
SF01. U.S. Summer Fuels Outlook		
1. U.S. Energy Market Summary		
2. U. S. Energy Prices		
3a. International Crude Oil and Liquid Fuels Supply, Consumption, and Inventories		
3b. Non-OPEC Crude Oil and Liquid Fuels Supply		
3c. OPEC Crude Oil and Liquid Fuels Supply		
3d. World Liquid Fuels Consumption		
4a. U.S. Crude Oil and Liquid Fuels Supply, Consumption, and Inventories		
4b. U.S. Petroleum Refinery Balance		
4c. U.S. Regional Motor Gasoline Prices and Inventories		
4d. U.S. Regional Heating Oil Prices and Inventories		
4e. U.S. Regional Propane Prices and Inventories		
5a. U.S. Natural Gas Supply, Consumption, and Inventories		
5b. U.S. Regional Natural Gas Consumption		
5c. U.S. Regional Natural Gas Prices		
6. U.S. Coal Supply, Consumption, and Inventories		
7a. U.S. Electricity Overview		
7b. U.S. Regional Electricity Retail Sales		
7c. U.S. Regional Electricity Prices		
7d. U.S. Electricity Generation by Fuel and Sector		
7e. U.S. Fuel Consumption for Electricity Generation by Sector		
8. U.S. Renewable Energy Supply and Consumption		
9a. U.S. Macroeconomic Indicators and CO_2 Emissions		
9b. U.S. Regional Macroeconomic Data		
9c. U.S. Regional Weather Data		

Figures
- chart only (GIF)
- chart and data in an Excel spreadsheet

All figures and data in a single Excel file

	GIF	Excel
1. Crude Oil Price		
2. Gasoline and Crude Oil Prices		
3. U.S. Distillate Fuel Prices		
4. Natural Gas Prices		
5. World Liquid Fuels Consumption		
6. World Liquid Fuels Consumption Growth		

260,000-bbl/d (1.4 percent) increase in total liquid fuels consumption, led by increases of 110,000 bbl/d (2.9 percent) in distillate consumption, 60,000 bbl/d (0.6 percent) in motor gasoline consumption, and 10,000 bbl/d (0.7 percent) in jet fuel consumption.

U.S. Petroleum Supply. EIA projects total U.S. crude oil production to average 5.24 million barrels per day in 2009 and increase to an average of 5.30 million bbl/d in 2010 (U.S. Crude Oil Production Chart). Crude oil production from the new Thunder Horse, Tahiti, Shenzi, and Atlantis Federal offshore fields accounts for about 14 percent of Lower-48 crude oil production in the fourth quarter of 2010.

U.S. Petroleum Product Prices. EIA expects the monthly average regular-grade gasoline retail price to fall from $2.62 per gallon in August and September to an average $2.56 per gallon over the last 3 months of the year. Higher projected crude oil prices in 2010 (about $12 per barrel, or 29 cents per gallon, higher than the 2009 average) increase regular-grade gasoline prices to an average of $2.70 per gallon next year. Projected diesel fuel retail prices, which averaged $2.63 per gallon in August, increase over the next few months to average $2.74 during the fourth quarter of 2009 as the winter heating fuel season begins.

Natural Gas

U.S. Consumption. EIA projects that total natural gas consumption will likely decline by 2.4 percent in 2009 and remain flat in 2010 (Total U.S. Natural Gas Consumption Growth Chart). Despite low relative prices for much of the year, industrial natural gas consumption declined by 12 percent in the first 6 months of 2009 compared with the same period last year. EIA expects this year-over-year consumption decline will continue through the second half of the year for industrial users, although the trend will be less pronounced. Conversely, EIA expects natural gas use in the electric power sector will increase by 4.3 percent on a year-over-year basis during the second half of 2009 as natural gas continues to compete with coal for a share of the baseload power supply at current prices.

EIA expects natural gas consumption will increase slightly in the commercial and industrial sectors in 2010 as a result of improved economic conditions and low prices. Consumption remains relatively flat in the residential and electric power sectors next year. The anticipated addition of new coal-fired generating capacity and rising natural gas prices limits the potential for significant increases beyond the forecast 2009 level in natural gas consumption by electric generators.

U.S. Production and Imports. EIA expects total U.S. marketed natural gas production to increase by 0.9 percent in 2009 and fall by 3.5 percent in 2010. Despite a 20-percent drop in prices and a 45-percent drop in working natural gas drilling rigs since the start of the year, total natural gas production increased slightly from January to June 2009. This current production trend reflects significant improvements in horizontal drilling technology and robust productivity from shale gas discoveries in Louisiana, Oklahoma, Arkansas, and Pennsylvania. While lower prices have caused a reduction in drilling activity by all rig types, according to data compiled by Smith International, working horizontal rigs have fallen by only 27 percent since the start of the year compared with a 65-percent decrease among vertically-directed rigs. Working horizontal drilling rigs now represent more than half of the active natural gas drilling fleet.

As U.S. natural gas inventories swell to record-high levels, some curtailment of production is expected. The sustained reduction in drilling activity and production curtailments are projected to result in a 5.7-percent decline in marketed production from the Lower-48 non-Gulf of Mexico (GOM) between the first and second half of the year. The projected 1.3-percent increase in Federal GOM production during the second half of 2009 over the first half results from the addition of new producing wells and continued recovery from damage sustained during last year's hurricane season.

Projected U.S. liquefied natural gas (LNG) imports increase to about 460 billion cubic feet (Bcf) in 2009 from 350 Bcf in 2008 and rise to about 660 Bcf in 2010. Maintenance to existing LNG supply facilities and delays to new liquefaction projects, in addition to higher world oil prices during the second half of 2009, contribute to the 43-Bcf downward revision in the 2009 LNG import forecast from last month's *Outlook*.

U.S. Inventories. On August 28, 2009, working natural gas in storage was 3,323 Bcf (U.S. Working Natural Gas in Storage Chart). Current inventories are now 501 Bcf above the 5-year average (2004-2008) and 489 Bcf above the level during the corresponding week last year. While weekly stocks could exceed reported end-of-month levels, EIA now expects working natural gas inventories to reach 3,840 Bcf at the end of the 2009 injection season (October 31). This would be 275 Bcf above the previous record of 3,565 Bcf reported for the end of October 2007. The working gas inventory forecast assumes weekly storage injections will average about 57 Bcf over the next 9 weeks, compared with average storage injections of about 60 Bcf per week over this period during the previous 5 years.

U.S. Prices. The Henry Hub spot price averaged $3.23 per Mcf in August, $0.25 per Mcf below the average spot price in July. Prices continue to be pushed lower as robust production adds to already high inventories. As electric power demand for air conditioning wanes, a continuation of recent natural gas supply trends could cause spot natural gas prices to fall below current projections before cooler temperatures induce higher demand for space heating. In the projections, prices rise modestly in 2010, reflecting increased economic activity and lower production levels as a result of the current drilling pullback. However, it will take some time to work off current inventory levels and enhanced production capabilities should limit significant increasesin prices throughout the forecast period. On an annual basis, the projected Henry Hub spot price averages $3.65 Mcf in 2009 and $4.78 Mcf in 2010.

Electricity

U.S. Electricity Consumption. Total U.S. electricity consumption fell by 4.4 percent during the first half of the year compared with the same period in 2008, primarily because of the effect of the economic downturn on industrial electricity sales. The expected year-over-year decline in total consumption during the second half of 2009 is smaller, a 2.3-percent decline, as residential sales begin to recover (U.S. Total Electricity Consumption Chart).

U.S. Electricity Generation. While generation from coal fell by 12 percent in the first half of the year compared with the same period in 2008, natural gas generation has risen by 3 percent. Lower coal prices relative to natural gas prices next year and the planned addition of up to 10 gigawatts of coal capacity during 2009 and 2010 could mitigate or reverse the fuel-switching trend.

U.S. Retail Electricity Prices. EIA significantly lowered its electricity retail price projections through 2010 from last month's *Outlook* due to the dramatic decline in natural gas fuel costs for power generation (U.S. Residential Electricity Prices Chart). Although retail residential prices during the first half of this year are up by 5 percent from the same period last year, EIA expects prices during the second half will show little change from the second half of last year. The projected annual average 2010 residential electricity price of 11.4 cents per kilowatthour is about 2 percent lower than the 2009 price.

Coal

U.S. Coal Consumption. Electric-power-sector coal consumption fell by 11 percent in the first half of this year. The decline resulted from lower total electricity generation combined with increases in generation from natural gas, nuclear, hydropower, and wind. Coal is expected to regain a larger share of the baseload generation mix beginning in 2010, as natural gas prices begin to rise. Projected coal consumption in the electric power sector increases by almost 2 percent in 2010 but remains below the 1-billion short-ton level for the second consecutive year. Coal consumed for steam (retail and general industry) and coke production declined by 15 percent in the first quarter of 2009 compared with the first quarter of last year. In the forecast, lower consumption of coal in both sectors continues for the remainder of the year, followed by a combined increase in coal consumed by these sectors of more than 5 percent in 2010 (U.S. Coal Consumption Growth Chart).

U.S. Coal Supply. Coal production for the first 6 months of 2009 fell by more than 5 percent in response to lower U.S. coal consumption, fewer exports, and higher coal inventories; these conditions persist in the forecast for the remainder of 2009. Projected production declines by 1.4 percent in 2010, despite increases in domestic consumption and exports. Reductions in coal inventories and increased imports offset the increase in U.S. coal consumption (U.S. Annual Coal Production Chart).

U.S. Coal Prices. The monthly average delivered electric-power-sector coal price reached a record high of $2.29 per million Btu in March 2009. The delivered cost of coal to the electric power sector had continued to rise, despite decreases in spot coal prices, lower prices for other fossil fuels, and declines in demand for coal for electricity generation, because a significant portion of power-sector coal contracts was entered into during a period of high prices for all fuels. The projected average power-sector coal price of $2.18 per million Btu for September 2009 represents the first decline in price from the same month of the prior year since 2002. Projected power-sector coal prices fall over the forecast to about $1.95 per million Btu in December 2010.

Carbon Dioxide Emissions

Projected carbon dioxide (CO2) emissions from fossil fuels fall by 6.0 percent in 2009 because of the weak economic conditions and declines in the consumption of most fossil fuels (U.S. Carbon Dioxide Emissions Growth Chart). Coal leads the drop in 2009 CO2 emissions, falling by nearly 10 percent because of fuel switching from coal to natural gas in the electric power sector. The projected recovery in the economy contributes to an expected 0.9-percent increase in CO2 emissions in 2010.

Sign up for email notices to be automatically notified when a new Short-Term Energy Outlook becomes available for on-line viewing.

www.eia.doe.gov
Energy Information Administration

September 2009

Short-Term Energy Outlook

September 9, 2009 Release

Highlights

- Volatility persists for crude oil spot prices, although over narrower ranges than seen earlier this year and last year. EIA expects the price of West Texas Intermediate (WTI) crude oil to average about $70 per barrel in the fourth quarter of 2009, a $27-increase over the first quarter of the year. The forecast for average WTI prices rises gradually to about $75 per barrel by December 2010 as world economic conditions improve.

- EIA expects the monthly average regular-grade gasoline retail price to fall from $2.62 per gallon in August and September to an average of $2.56 per gallon over the fourth quarter of 2009. Higher crude oil prices next year contribute to an increase in the annual average gasoline retail price from $2.34 per gallon in 2009 to $2.70 in 2010. Projected annual average diesel fuel retail prices are $2.47 and $2.88 per gallon in 2009 and 2010, respectively.

- **EIA projects the monthly Henry Hub natural gas spot price to average $2.32 per thousand cubic feet (Mcf) in October, the lowest monthly average spot price since September 2001.** Natural gas inventories likely will set a new record high at the end of this year's injection season (October 31) reaching more than 3.8 trillion cubic feet (Tcf). The projected Henry Hub annual average spot price increases from $3.65 per Mcf in 2009 to $4.78 in 2010. However, upward price pressure next year is limited by the sensitivity of natural gas use in the electric power sector to higher natural gas prices and continued expansion of U.S. natural gas production from shale formations.

- EIA expects electricity retail prices to show year-over-year declines next year for the first time since early 2003 because of lower fossil fuel costs for generation. The projected annual average 2010 residential electricity price of 11.4 cents per kilowatthour is about 2 percent lower than the 2009 average.

Global Petroleum

Global Petroleum Overview. WTI oil prices hovered in the $67-to-$74-per-barrel range in August as expectations of an economic recovery and higher oil consumption in the future were weighed against weak current demand and high inventories. As long as oil prices remain in their current range, EIA expects the Organization of the Petroleum Exporting Countries (OPEC) to maintain its existing production targets.

Global Petroleum Consumption. Preliminary data indicate that global oil consumption declined by 3 million barrels per day (bbl/d) in the second quarter of 2009 compared with year-earlier levels. Members of the Organization for Economic Cooperation and Development (OECD) accounted for most of the decline; total non-OECD consumption was virtually unchanged. The current macroeconomic outlook assumes that the world economy begins to recover at the end of this year, led by non-OECD Asia. As a result, EIA expects world oil consumption to grow in the fourth quarter of 2009 compared with year-earlier levels, the first such growth in 5 quarters. Projected world oil consumption grows by 0.9 million bbl/d in 2010, with relatively strong growth in non-OECD countries being partially offset by a slight decline in OECD consumption (World Liquid Fuels Consumption Chart).

Non-OPEC Supply. Total non-OPEC supply averaged 50.1 million bbl/d in the second quarter of 2009, about 0.3 million bbl/d higher than in the second quarter of 2008. The largest amount of growth came from Central and South America (0.3 million bbl/d) and the Former Soviet Union (0.3 million bbl/d), which was offset by a 0.3 million bbl/d decline in Europe. Over the forecast period, higher output from Brazil, the United States, Azerbaijan, Kazakhstan, and Canada offsets falling production in Mexico and the North Sea (Non-OPEC Crude Oil and Liquid Fuels Production Growth Chart).

OPEC Supply. OPEC crude oil production was 28.7 million bbl/d in the second quarter of 2009, similar to first quarter levels, but down 3 million bbl/d from peak production in the third quarter of 2008. The combination of higher prices and OPEC's historical tendency for weaker compliance with production targets over time (see *This Week in Petroleum*, August 12, 2009) suggests that OPEC crude oil production could rise over the remainder of the year, unless prices fall sharply from current levels. Projected OPEC crude oil production climbs to 29.3 million bbl/d in the second half of 2009, then averages 28.9 million bbl/d in 2010.

Global Petroleum Inventories. Based on preliminary data, OECD commercial oil inventories stood at 2.74 billion barrels at the end of the second quarter of 2009. At 61 days of forward cover, OECD commercial inventories were well above average levels for that time of year (Days of Supply of OECD Commercial Stocks Chart). EIA expects OECD oil inventories to remain at above-average levels throughout the forecast period because of weakness in global oil consumption and continuing contango in the futures market, i.e., relatively high future prices compared with current prices.

Crude Oil Prices. Equity-market and exchange-rate expectations continue to be cited by market analysts as proximate causes of oil-price behavior, in addition to changing expectations of global oil consumption growth. EIA projects that WTI crude oil prices will average $69 per barrel in the second half of 2009, $19 per barrel lower than in the second half of 2008 (Crude Oil Prices Chart). This projection is largely unchanged from last month's *Outlook* and reflects the view that an expected economic upturn will restore oil demand growth and gradually work off the surplus oil inventories. Although a consensus seems to be forming that the global economic downturn may have bottomed out, there still remains considerable uncertainty regarding the timing and pattern of any economic recovery.

U.S. Crude Oil and Liquid Fuels

U.S. Petroleum Consumption. EIA forecasts total consumption of liquid fuels and other petroleum products to decrease by about 800,000 bbl/d (4 percent) in 2009 (U.S. Petroleum Products Consumption Growth Chart) compared with 2008. During the first half of the year, consumption declined by almost 1.25 million barrels per day (6.3 percent) from the same period last year, one of the steepest declines on record. The year-over-year projected decline in petroleum consumption slows to 300,000 barrels per day (1.6 percent) in the second half of 2009 as economic recovery begins to take hold. Monthly average motor gasoline consumption in June showed an increase over the same month from the prior year for the first time since September 2007 and continues to grow over year-ago levels through the forecast. The modest economic recovery projected for 2010 contributes to a 260,000-bbl/d (1.4 percent) increase in total liquid fuels consumption, led by increases of 110,000 bbl/d (2.9 percent) in distillate consumption, 60,000 bbl/d (0.6 percent) in motor gasoline consumption, and 10,000 bbl/d (0.7 percent) in jet fuel consumption.

U.S. Petroleum Supply. EIA projects total U.S. crude oil production to average 5.24 million barrels per day in 2009 and increase to an average of 5.30 million bbl/d in 2010 (U.S. Crude Oil Production Chart). Crude oil production from the new Thunder Horse, Tahiti, Shenzi, and Atlantis Federal offshore fields accounts for about 14 percent of Lower-48 crude oil production in the fourth quarter of 2010.

U.S. Petroleum Product Prices. EIA expects the monthly average regular-grade gasoline retail price to fall from $2.62 per gallon in August and September to an average $2.56 per gallon over the last 3 months of the year. Higher projected crude oil prices in 2010 (about $12 per barrel, or 29 cents per gallon, higher than the 2009 average) increase regular-grade gasoline prices to an average of $2.70 per gallon next year. Projected diesel fuel retail prices, which averaged $2.63 per gallon in August, increase over the next few months to average $2.74 during the fourth quarter of 2009 as the winter heating fuel season begins.

Natural Gas

U.S. Consumption. EIA projects that total natural gas consumption will likely decline by 2.4 percent in 2009 and remain flat in 2010 (Total U.S. Natural Gas Consumption Growth Chart). Despite low relative prices for much of the year, industrial natural gas consumption declined by 12 percent in the first 6 months of 2009 compared with the same period last year. EIA expects this year-over-year consumption decline will continue through the second half of the year for industrial users, although the trend will be less pronounced. Conversely, EIA expects natural gas use in the electric power sector will increase by 4.3 percent on a year-over-year basis during the second half of 2009 as natural gas continues to compete with coal for a share of the baseload power supply at current prices.

EIA expects natural gas consumption will increase slightly in the commercial and industrial sectors in 2010 as a result of improved economic conditions and low prices. Consumption remains relatively flat in the residential and electric power sectors next year. The anticipated addition of new coal-fired generating capacity and rising natural gas prices limits the potential for significant increases beyond the forecast 2009 level in natural gas consumption by electric generators.

U.S. Production and Imports. EIA expects total U.S. marketed natural gas production to increase by 0.9 percent in 2009 and fall by 3.5 percent in 2010. Despite a 20-percent drop in prices and a 45-percent drop in working natural gas drilling rigs since the start of the year, total natural gas production increased slightly from January to June 2009. This current production trend reflects significant improvements in horizontal drilling technology and robust productivity from shale gas discoveries in Louisiana, Oklahoma, Arkansas, and Pennsylvania. While lower prices have caused a reduction in drilling activity by all rig types, according to data compiled by Smith International, working horizontal rigs have fallen by only 27 percent since the start of the year compared with a 65-percent decrease among vertically-directed rigs. Working horizontal drilling rigs now represent more than half of the active natural gas drilling fleet.

As U.S. natural gas inventories swell to record-high levels, some curtailment of production is expected. The sustained reduction in drilling activity and production curtailments are projected to result in a 5.7-percent decline in marketed production from the Lower-48 non-Gulf of Mexico (GOM) between the first and second half of the year. The projected 1.3-percent increase in Federal GOM production during the second half of 2009 over the first half results from the addition of new producing wells and continued recovery from damage sustained during last year's hurricane season.

Projected U.S. liquefied natural gas (LNG) imports increase to about 460 billion cubic feet (Bcf) in 2009 from 350 Bcf in 2008 and rise to about 660 Bcf in 2010. Maintenance to existing LNG supply facilities and delays to new liquefaction projects, in addition to higher world oil prices during the second half of 2009, contribute to the 43-Bcf downward revision in the 2009 LNG import forecast from last month's *Outlook*.

U.S. Inventories. **On August 28, 2009, working natural gas in storage was 3,323 Bcf** (U.S. Working Natural Gas in Storage Chart). **Current inventories are now 501 Bcf above the 5-year average (2004–2008) and 489 Bcf above the level during the corresponding week last year.** While weekly stocks could exceed reported end-of-month levels, **EIA now expects working natural gas inventories to reach 3,840 Bcf at the end of the 2009 injection season (October 31). This would be 275 Bcf above the previous record of 3,565 Bcf reported for the end of October 2007.** The working gas inventory forecast assumes weekly storage injections will average about 57 Bcf over the next 9 weeks, compared with average storage injections of about 60 Bcf per week over this period during the previous 5 years.

U.S. Prices. The Henry Hub spot price averaged $3.23 per Mcf in August, $0.25 per Mcf below the average spot price in July. **Prices continue to be pushed lower as robust production adds to already high inventories.** As electric power demand for air conditioning wanes, a continuation of recent natural gas supply trends could cause spot natural gas prices to fall below current projections before cooler temperatures induce higher demand for space heating. In the projections, prices rise modestly in 2010, reflecting increased economic activity and lower production levels as a result of the current drilling pullback. However, it will take some time to work off current inventory levels and enhanced production capabilities should limit significant increases in prices throughout the forecast period. **On an annual basis, the projected Henry Hub spot price averages $3.65 Mcf in 2009 and $4.78 Mcf in 2010.**

Electricity

U.S. Electricity Consumption. Total U.S. electricity consumption fell by 4.4 percent during the first half of the year compared with the same period in 2008, primarily because of the effect of the economic downturn on industrial electricity sales. The expected year-over-year decline in total consumption during the second half of 2009 is smaller, a 2.3-percent decline, as residential sales begin to recover (U.S. Total Electricity Consumption Chart).

U.S. Electricity Generation. While generation from coal fell by 12 percent in the first half of the year compared with the same period in 2008, natural gas generation has risen by 3 percent. Lower coal prices relative to natural gas prices next year and the planned addition of up to 10 gigawatts of coal capacity during 2009 and 2010 could mitigate or reverse the fuel-switching trend.

U.S. Retail Electricity Prices. EIA significantly lowered its electricity retail price projections through 2010 from last month's *Outlook* due to the dramatic decline in natural gas fuel costs for power generation (U.S. Residential Electricity Prices Chart). Although retail residential prices during the first half of this year are up by 5 percent from the same period last year, EIA expects prices during the second half will show little change from the second half of last year. The projected annual average 2010 residential electricity price of 11.4 cents per kilowatthour is about 2 percent lower than the 2009 price.

Coal

U.S. Coal Consumption. Electric-power-sector coal consumption fell by 11 percent in the first half of this year. The decline resulted from lower total electricity generation combined with increases in generation from natural gas, nuclear, hydropower, and wind. Coal is expected to regain a larger share of the baseload generation mix beginning in 2010, as natural gas prices begin to rise. Projected coal consumption in the electric power sector increases by almost 2 percent in 2010 but remains below the 1-billion short-ton level for the second consecutive year. Coal consumed for steam (retail and general industry) and coke production declined by 15 percent in the first quarter of 2009 compared with the first quarter of last year. In the forecast, lower consumption of coal in both sectors continues for the remainder of the year, followed by a combined increase in coal consumed by these sectors of more than 5 percent in 2010 (U.S. Coal Consumption Growth Chart).

U.S. Coal Supply. Coal production for the first 6 months of 2009 fell by more than 5 percent in response to lower U.S. coal consumption, fewer exports, and higher coal inventories; these conditions persist in the forecast for the remainder of 2009. Projected production declines by 1.4 percent in 2010, despite increases in domestic consumption and exports. Reductions in coal inventories and increased imports offset the increase in U.S. coal consumption (U.S. Annual Coal Production Chart).

U.S. Coal Prices. The monthly average delivered electric-power-sector coal price reached a record high of $2.29 per million Btu in March 2009. The delivered cost of coal to the electric power sector had continued to rise, despite decreases in spot coal prices, lower prices for other fossil fuels, and declines in demand for coal for electricity generation, because a significant portion of power-sector coal contracts was entered into during a period of high prices for all fuels. The projected average power-sector coal price of $2.18 per million Btu for September 2009 represents the first decline in price from the same month of the prior year since 2002. Projected power-sector coal prices fall over the forecast to about $1.95 per million Btu in December 2010.

U.S. Carbon Dioxide Emissions

Projected carbon dioxide (CO_2) emissions from fossil fuels fall by 6.0 percent in 2009 because of the weak economic conditions and declines in the consumption of most fossil fuels (U.S. Carbon Dioxide Emissions Growth Chart). Coal leads the drop in 2009 CO_2 emissions, falling by nearly 10 percent because of fuel switching from coal to natural gas in the electric power sector. The projected recovery in the economy contributes to an expected 0.9-percent increase in CO_2 emissions in 2010.

Table SF01. U.S. Motor Gasoline Summer Outlook

Energy Information Administration/Short-Term Energy Outlook -- September 2009

	2008			2009			Year-over-year Change (percent)		
	Q2	Q3	Season	Q2	Q3	Season	Q2	Q3	Season
Prices (dollars per gallon)									
WTI Crude Oil (Spot) [a]	**2.95**	**2.81**	**2.88**	**1.42**	*1.63*	*1.52*	*-52.0*	*-42.1*	*-47.2*
Imported Crude Oil Price [b]	**2.76**	**2.69**	**2.72**	**1.37**	*1.56*	*1.46*	*-50.4*	*-42.0*	*-46.3*
U.S. Refiner Average Crude Oil Cost	**2.79**	**2.74**	**2.76**	**1.35**	*1.57*	*1.46*	*-51.4*	*-42.8*	*-47.1*
Wholesale Gasoline Price [c]	**3.15**	**3.15**	**3.15**	**1.76**	*1.96*	*1.86*	*-44.2*	*-37.8*	*-41.0*
Wholesale Diesel Fuel Price [c]	**3.65**	**3.47**	**3.56**	**1.60**	*1.86*	*1.73*	*-56.0*	*-46.3*	*-51.3*
Regular Gasoline Retail Price [d]	**3.76**	**3.85**	**3.81**	**2.32**	*2.59*	*2.45*	*-38.4*	*-32.9*	*-35.6*
Diesel Fuel Retail Price [d]	**4.39**	**4.34**	**4.37**	**2.33**	*2.62*	*2.47*	*-47.0*	*-39.7*	*-43.4*
Gasoline Consumption/Supply (million barrels per day)									
Total Consumption	**9.159**	**8.932**	**9.045**	**9.086**	*9.119*	*9.103*	*-0.8*	*2.1*	*0.6*
Total Refinery Output [e]	**7.341**	**7.113**	**7.226**	**7.595**	*7.462*	*7.528*	*3.5*	*4.9*	*4.2*
Fuel Ethanol Blending	**0.637**	**0.685**	**0.661**	**0.702**	*0.721*	*0.712*	*10.3*	*5.4*	*7.8*
Total Stock Withdrawal [f]	**0.124**	**0.227**	**0.176**	**0.029**	*0.083*	*0.056*			
Net Imports [f]	**1.056**	**0.908**	**0.982**	**0.759**	*0.853*	*0.806*	*-28.1*	*-6.1*	*-17.9*
Refinery Utilization (percent)	**88.2**	**83.6**	**85.9**	**84.1**	*83.8*	*84.0*			
Gasoline Stocks, Including Blending Components (million barrels)									
Beginning	**222.2**	**210.9**	**222.2**	**216.7**	*214.0*	*216.7*			
Ending	**210.9**	**190.0**	**190.0**	**214.0**	*206.4*	*206.4*			
Economic Indicators (annualized billion 2000 dollars)									
Real GDP	**11,727**	**11,712**	**11,720**	**11,298**	*11,307*	*11,303*	*-3.7*	*-3.5*	*-3.6*
Real Income	**8,891**	**8,696**	**8,794**	**9,025**	*8,923*	*8,974*	*1.5*	*2.6*	*2.0*

[a] Spot Price of West Texas Intermediate (WTI) crude oil.
[b] Cost of imported crude oil to U.S. refiners.
[c] Price product sold by refiners to resellers.
[d] Average pump price including taxes.
[e] Refinery output plus motor gasoline adjustment for blending components.
[f] Total stock withdrawal and net imports includes both finished gasoline and gasoline blend components.
GDP = gross domestic product.

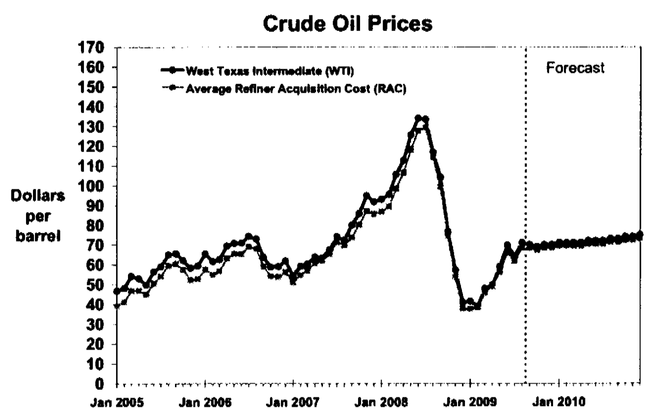
Notes: Minor discrepancies with other Energy Information Administration (EIA) published historical data are due to rounding. Historical data are printed in bold. Forecasts are in italic. The forecasts were generated by simulation of the Short-Term Integrated Forecasting System.

Sources: Historical data: latest data available from: EIAPetroleum Supply Monthly, DOE/EIA-0109; Monthly Energy Review, DOE/EIA-0035; U.S. Department of Commerce, Bureau of Economic Analysis; Federal Reserve System. Macroeconomic projections are based on Global Insight Macroeconomic Forecast Model.

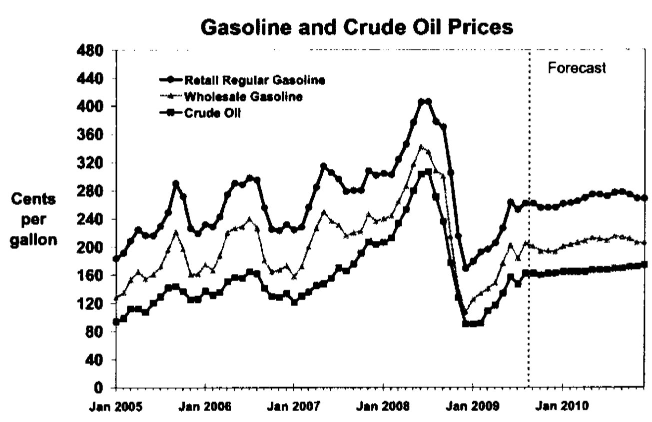
Energy Information Administration
Official Energy Statistics from the U.S. Government

Short-Term Energy Outlook

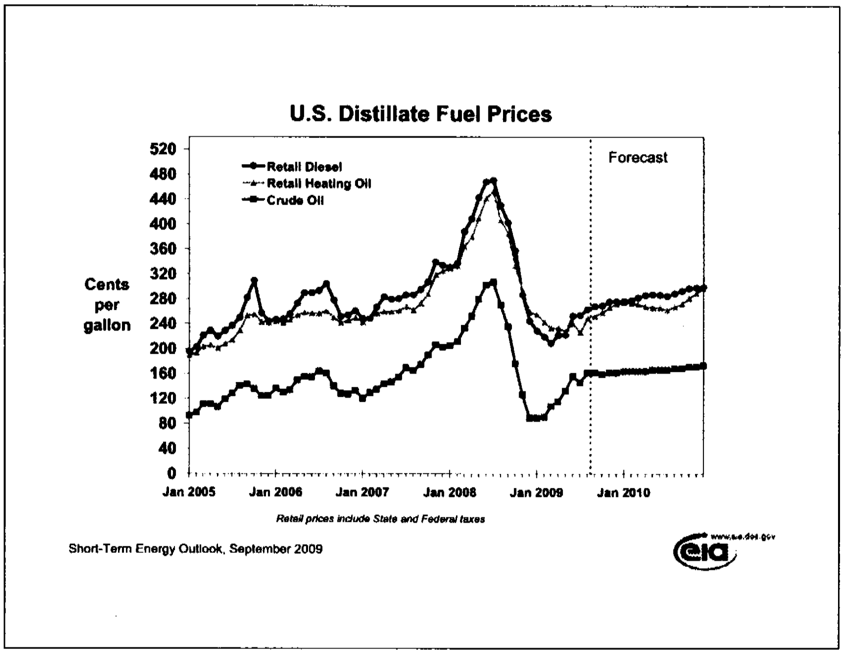
Chart Gallery for September 2009

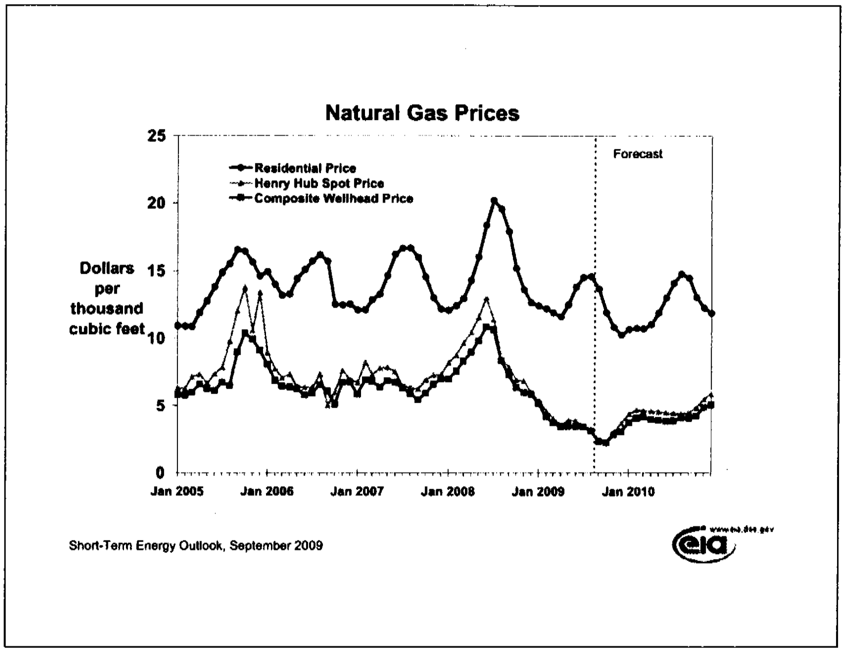


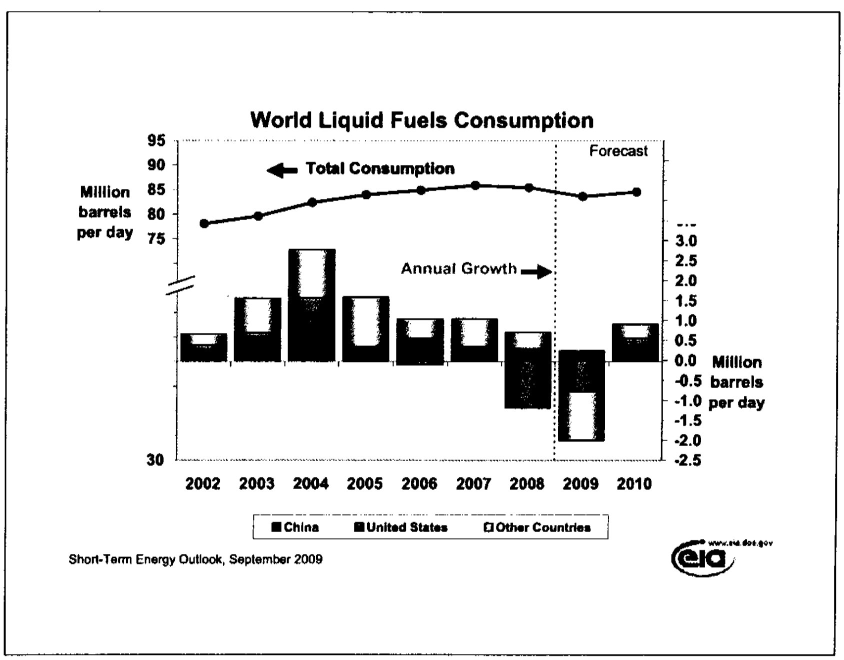
Short-Term Energy Outlook, September 2009



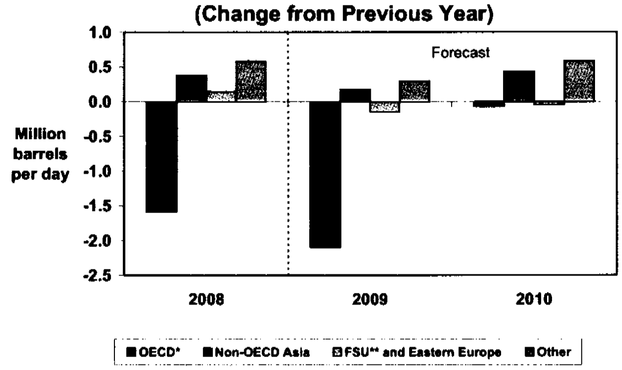
Short-Term Energy Outlook, September 2009


U.S. Distillate Fuel Prices
Forecast
Retail Diesel
Retail Heating Oil
Crude Oil
Cents per gallon
520
480
440
400
360
320
280
240
200
160
120
80
40
0
Jan 2005
Jan 2006
Jan 2007
Jan 2008
Jan 2009
Jan 2010
Retail prices include State and Federal taxes
Short-Term Energy Outlook, September 2009


Natural Gas Prices
Forecast
Residential Price
Henry Hub Spot Price
Composite Wellhead Price
Dollars per thousand cubic feet
25
20
15
10
5
0
Jan 2005
Jan 2006
Jan 2007
Jan 2008
Jan 2009
Jan 2010
Short-Term Energy Outlook, September 2009


World Liquid Fuels Consumption
Forecast
Total Consumption
Million barrels per day
95
90
85
80
75
30
Annual Growth
3.0
2.5
2.0
1.5
1.0
0.5
0.0
-0.5
-1.0
-1.5
-2.0
-2.5
Million barrels per day
2002
2003
2004
2005
2006
2007
2008
2009
2010
China
United States
Other Countries
Short-Term Energy Outlook, September 2009

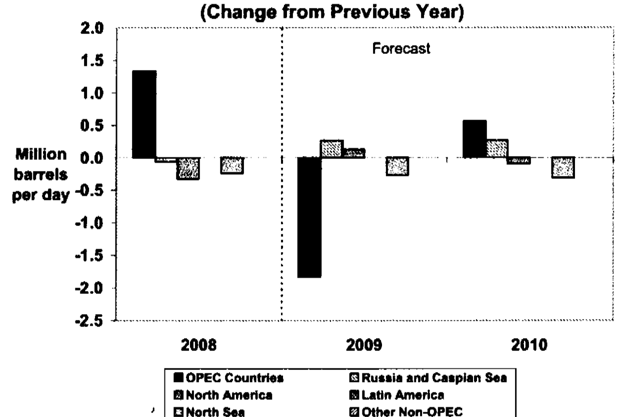
World Liquid Fuels Consumption Growth (Change from Previous Year)



* Countries belonging to Organization for Economic Cooperation and Development
** Former Soviet Union

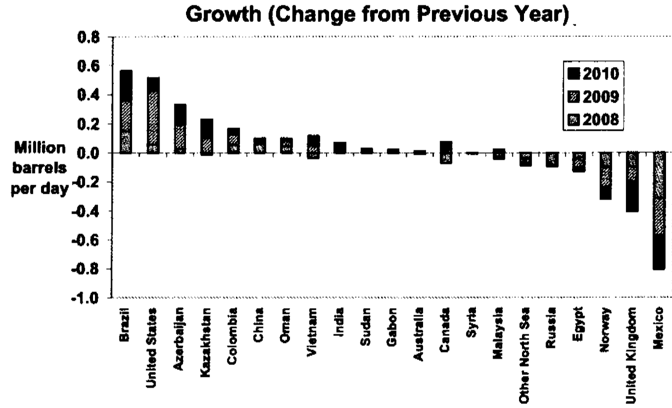
Short-Term Energy Outlook, September 2009

World Crude Oil and Liquid Fuels Production Growth (Change from Previous Year)



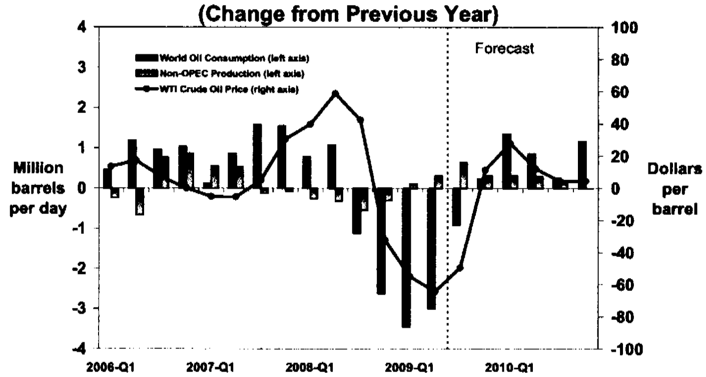
Short-Term Energy Outlook, September 2009

Non-OPEC Crude Oil and Liquid Fuels Production Growth (Change from Previous Year)



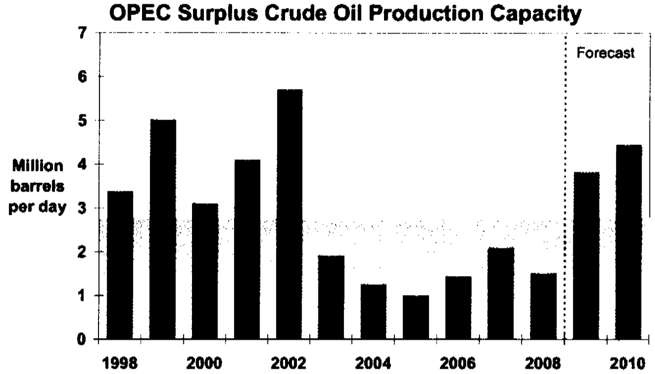
Short-Term Energy Outlook, September 2009

World Consumption and Non-OPEC Production (Change from Previous Year)



Short-Term Energy Outlook, September 2009

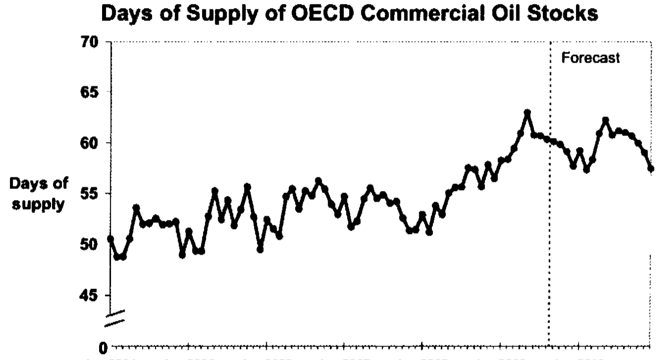
OPEC Surplus Crude Oil Production Capacity



Note: Shaded area represents 1998-2008 average (2.8 million barrels per day)

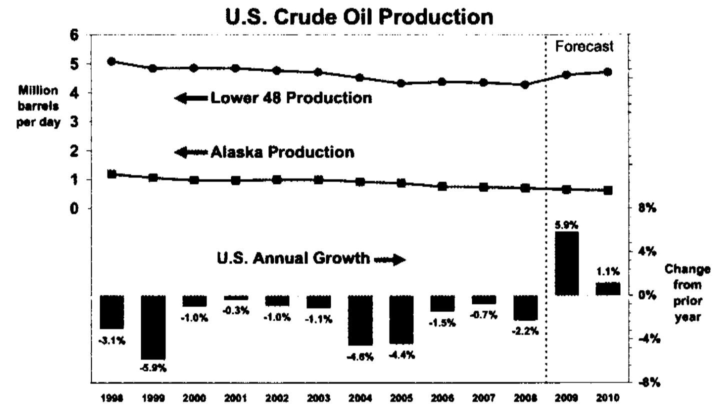
Short-Term Energy Outlook, September 2009

Days of Supply of OECD Commercial Oil Stocks

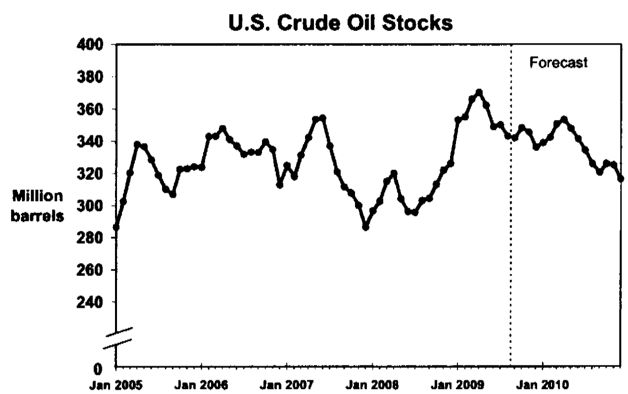


NOTE: Colored band represents the range between the minimum and maximum observed inventories from Jan. 2004 - Dec. 2008.

Short-Term Energy Outlook, September 2009

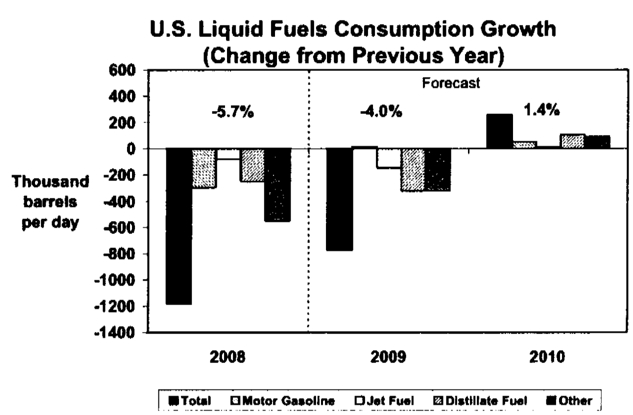


Short-Term Energy Outlook, September 2009



NOTE: Colored band represents "normal" range published in EIA Weekly Petroleum Status Report, Appendix A.

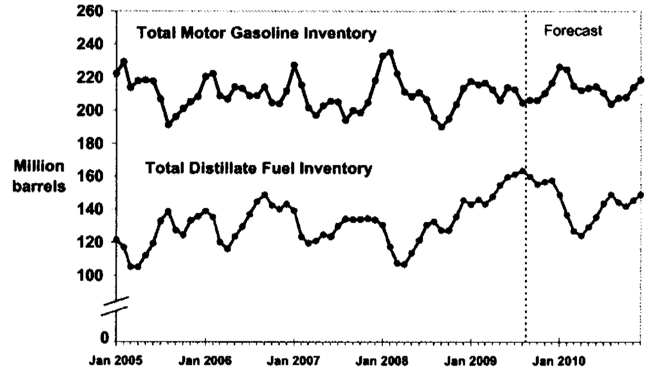
Short-Term Energy Outlook, September 2009



Note: Percent change labels refer to total petroleum products growth

Short-Term Energy Outlook, September 2009

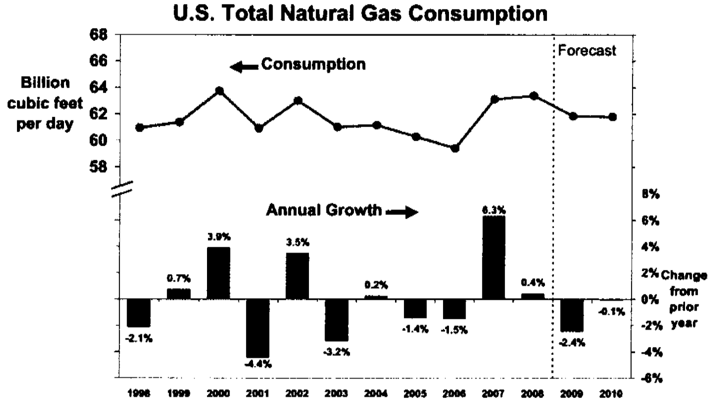
U.S. Gasoline and Distillate Inventories



NOTE: Colored bands represent "normal" range published in EIA Weekly Petroleum Status Report, Appendix A.

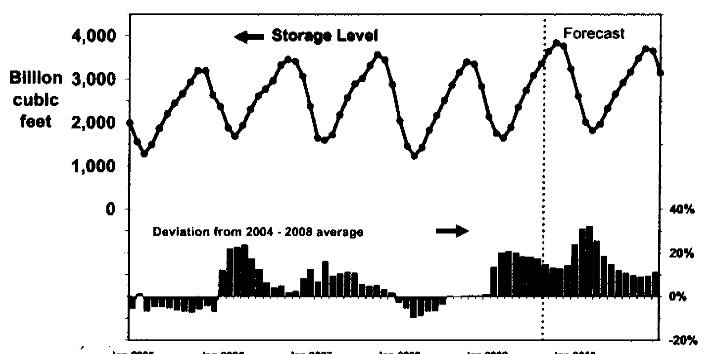
Short-Term Energy Outlook, September 2009

U.S. Total Natural Gas Consumption



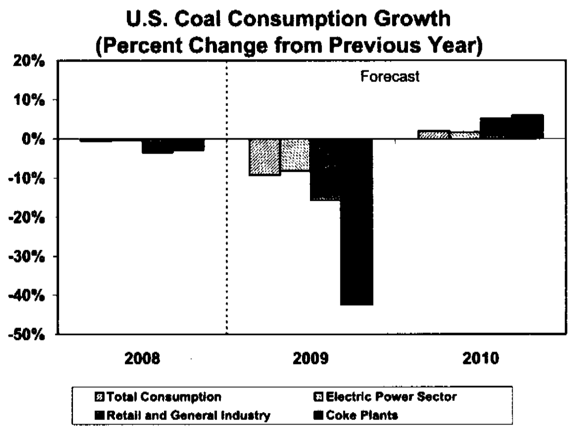
Short-Term Energy Outlook, September 2009

U.S. Working Natural Gas in Storage

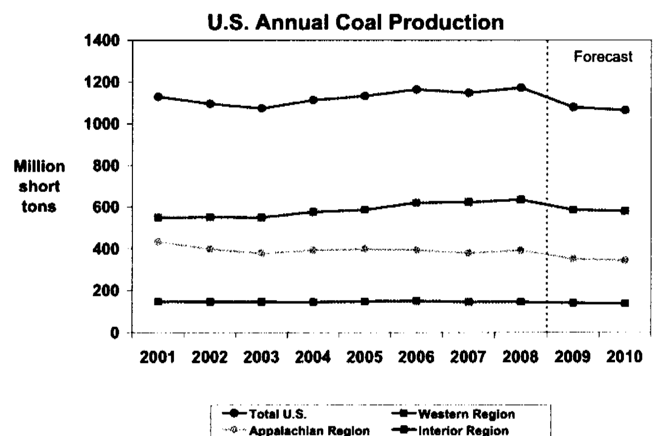


NOTE: Colored band around storage levels represents the range between the minimum and maximum from Jan. 2004 - Dec. 2008

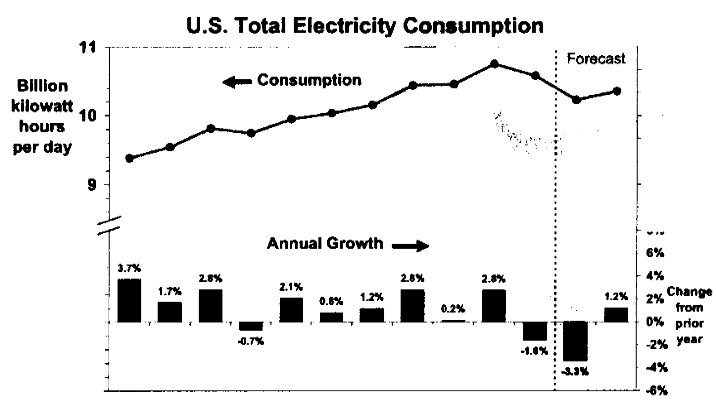
Short-Term Energy Outlook, September 2009



Short-Term Energy Outlook, September 2009

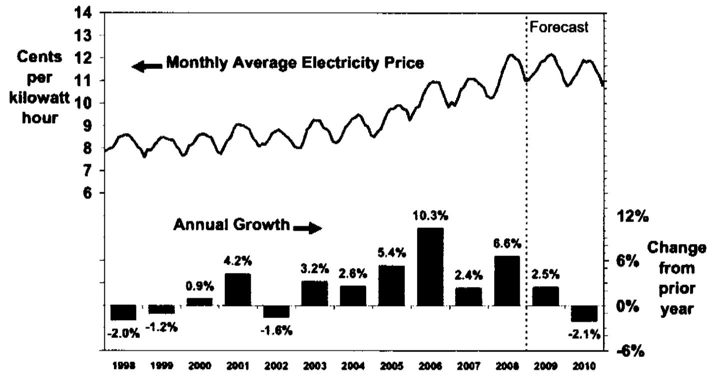


Short-Term Energy Outlook, September 2009



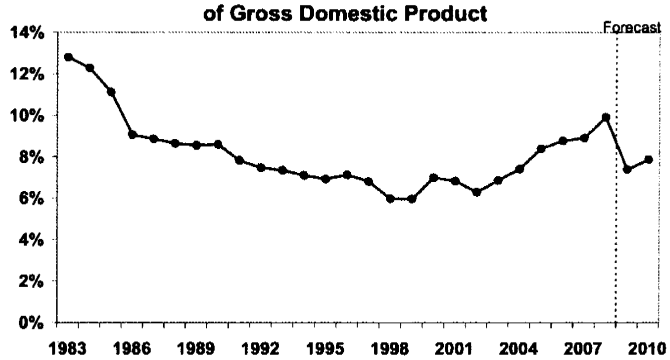
Short-Term Energy Outlook, September 2009

U.S. Residential Electricity Price



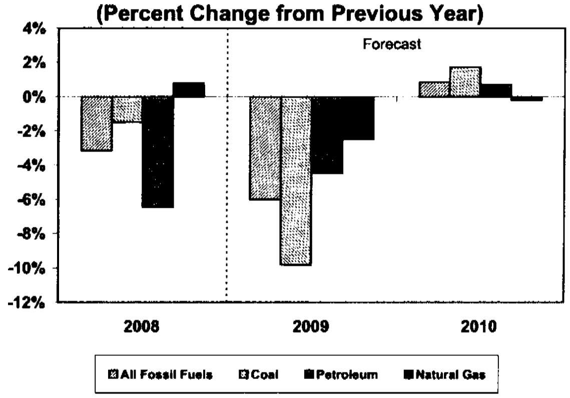
Short-Term Energy Outlook, September 2009

U.S. Annual Energy Expenditures As Percent of Gross Domestic Product



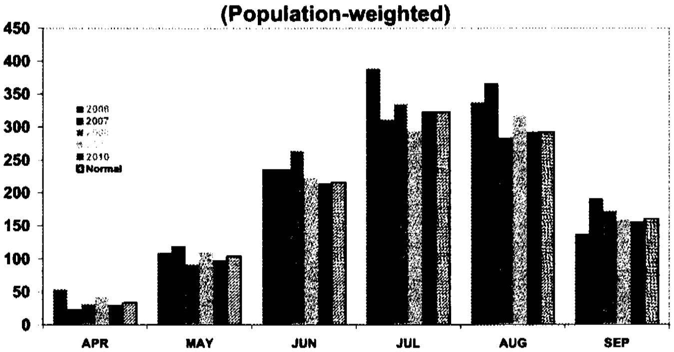
Short-Term Energy Outlook, September 2009

U.S. Carbon Dioxide Emissions Growth (Percent Change from Previous Year)



Short-Term Energy Outlook, September 2009

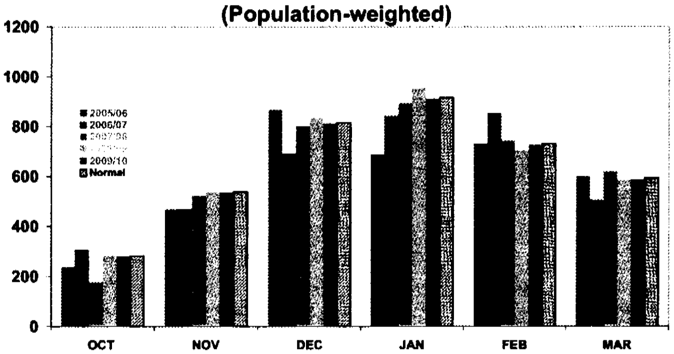
U.S. Summer Cooling Degree-Days (Population-weighted)



Source: National Oceanic and Atmospheric Administration, National Weather Service
http://www.cpc.ncep.noaa.gov/products/analysis_monitoring/cdus/degree_days/

Short-Term Energy Outlook, September 2009

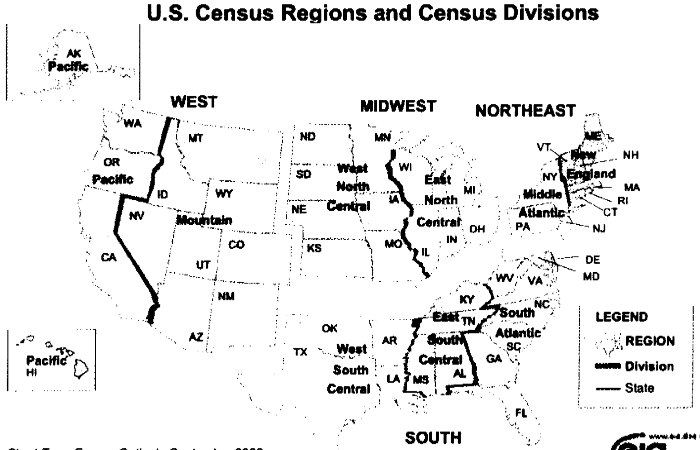
U.S. Winter Heating Degree-Days (Population-weighted)



Source: National Oceanic and Atmospheric Administration, National Weather Service
http://www.cpc.ncep.noaa.gov/products/analysis_monitoring/cdus/degree_days/

Short-Term Energy Outlook, September 2009

U.S. Census Regions and Census Divisions



Short-Term Energy Outlook, September 2009

Table 1. U.S. Energy Markets Summary

Energy Information Administration/Short-Term Energy Outlook - September 2009

	2008				2009				2010				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2008	2009	2010
Energy Supply															
Crude Oil Production (a) (million barrels per day)	5.12	5.11	4.66	4.92	5.24	5.24	5.22	5.26	5.34	5.34	5.29	5.24	4.95	5.24	5.30
Dry Natural Gas Production (billion cubic feet per day)	55.88	56.36	55.52	56.95	58.26	57.93	56.15	54.17	53.92	54.19	54.82	55.51	56.18	56.62	54.61
Coal Production (million short tons)	289	284	299	299	281	261	265	271	265	248	260	290	1,171	1,078	1,063
Energy Consumption															
Liquid Fuels (million barrels per day)	20.04	19.76	18.90	19.30	18.84	18.47	18.74	18.85	18.97	18.93	18.93	19.09	19.50	18.72	18.98
Natural Gas (billion cubic feet per day)	82.09	54.91	52.81	63.96	79.58	52.28	52.82	63.08	78.11	52.17	53.70	63.54	63.42	61.87	61.82
Coal (b) (million short tons)	284	268	299	270	255	232	270	260	262	236	276	264	1,122	1,018	1,038
Electricity (billion kilowatt hours per day)	10.57	10.21	11.64	9.90	10.25	9.61	11.22	9.83	10.32	9.67	11.44	9.97	10.58	10.23	10.35
Renewables (c) (quadrillion Btu)	1.62	1.84	1.67	1.62	1.69	1.93	1.74	1.67	1.86	1.97	1.83	1.76	6.74	7.03	7.41
Total Energy Consumption (d) (quadrillion Btu)	26.80	23.92	24.14	24.56	25.29	22.92	23.56	24.05	25.42	22.78	23.89	24.39	99.43	95.82	96.48
Nominal Energy Prices															
Crude Oil (e) (dollars per barrel)	91.17	117.20	114.89	55.19	40.45	56.91	65.76	67.67	69.00	69.68	70.65	72.34	94.68	57.84	70.43
Natural Gas Wellhead (dollars per thousand cubic feet)	7.62	9.86	8.81	6.06	4.36	3.44	2.98	2.72	3.99	3.92	4.02	4.74	8.08	3.38	4.17
Coal (dollars per million Btu)	1.91	2.04	2.16	2.18	2.27	2.24	2.20	2.11	2.04	2.00	1.97	1.96	2.07	2.20	1.99
Macroeconomic															
Real Gross Domestic Product (billion chained 2000 dollars - SAAR)	11,646	11,727	11,712	11,522	11,361	11,298	11,307	11,324	11,346	11,406	11,463	11,558	11,652	11,322	11,443
Percent change from prior year	2.5	2.1	0.7	-0.8	-2.5	-3.7	-3.5	-1.7	-0.1	1.0	1.4	2.1	1.1	-2.8	1.1
GDP Implicit Price Deflator (Index, 2000=100)	121.6	122.0	123.1	123.3	124.2	124.1	124.3	124.9	125.7	125.8	126.2	127.0	122.5	124.4	126.2
Percent change from prior year	2.3	2.0	2.6	2.0	2.1	1.7	1.0	1.3	1.3	1.4	1.5	1.7	2.2	1.5	1.5
Real Disposable Personal Income (billion chained 2000 dollars - SAAR)	8,668	8,891	8,696	8,758	8,887	9,025	8,923	8,909	8,838	8,907	8,948	8,939	8,753	8,936	8,908
Percent change from prior year	0.6	3.3	0.3	0.9	2.5	1.5	2.6	1.7	-0.5	-1.3	0.3	0.3	1.3	2.1	-0.3
Manufacturing Production Index (Index, 2002=100)	114.1	112.6	109.9	104.5	98.3	95.9	97.2	97.3	97.3	97.3	98.0	99.0	110.3	97.2	97.9
Percent change from prior year	1.3	-0.9	-3.9	-8.7	-13.9	-14.8	-11.5	-6.8	-1.0	1.4	0.8	1.7	-3.1	-11.9	0.7
Weather															
U.S. Heating Degree-Days	2,251	528	70	1,646	2,235	515	99	1,626	2,225	539	99	1,615	4,496	4,475	4,478
U.S. Cooling Degree-Days	35	385	789	68	27	372	769	76	33	343	774	77	1,277	1,244	1,227

\- = no data available

(a) Includes lease condensate.

(b) Total consumption includes Independent Power Producer (IPP) consumption.

(c) Renewable energy includes minor components of non-marketed renewable energy that is neither bought nor sold, either directly or indirectly, as inputs to marketed energy.
EIA does not estimate or project end-use consumption of non-marketed renewable energy.

(d) The conversion from physical units to Btu is calculated using a subset of conversion factors used in the calculations of gross energy consumption in EIA's Monthly Energy Review (MER).
Consequently, the historical data may not precisely match those published in the MER or the Annual Energy Review (AER).

(e) Refers to the refiner average acquisition cost (RAC) of crude oil.

Notes: The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Historical data: Latest data available from Energy Information Administration databases supporting the following reports*Petroleum Supply Monthly*, DOE/EIA-0109;
Petroleum Supply Annual, DOE/EIA-0340/2; *Weekly Petroleum Status Report*, DOE/EIA-0208; *Petroleum Marketing Monthly*, DOE/EIA-0380; *Natural Gas Monthly*, DOE/EIA-0130;
Electric Power Monthly, DOE/EIA-0226; *Quarterly Coal Report*, DOE/EIA-0121; and *International Petroleum Monthly*, DOE/EIA-0520.

Minor discrepancies with published historical data are due to independent rounding.

Projections: Generated by simulation of the EIA Regional Short-Term Energy Model. Macroeconomic projections are based on Global Insight Model of the U.S. Economy.
Weather projections from National Oceanic and Atmospheric Administration.

Table 2. U.S. Energy Nominal Prices

Energy Information Administration/Short-Term Energy Outlook - September 2009

	2008				2009				2010				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2008	2009	2010
Crude Oil (dollars per barrel)															
West Texas Intermediate Spot Average	97.94	123.95	118.05	58.35	42.90	59.48	68.41	69.67	71.00	71.67	72.67	74.33	99.57	60.12	72.42
Imported Average	89.72	115.91	112.85	52.29	40.47	57.50	65.41	66.66	68.00	68.68	69.65	71.33	92.61	57.35	69.43
Refiner Average Acquisition Cost	91.17	117.20	114.89	55.19	40.45	56.91	65.76	67.67	69.00	69.68	70.65	72.34	94.68	57.84	70.43
Liquid Fuels (cents per gallon)															
Refiner Prices for Resale															
Gasoline	249	315	315	154	132	176	196	193	203	211	212	207	258	175	208
Diesel Fuel	283	365	347	199	138	160	186	196	203	210	212	219	300	169	211
Heating Oil	269	347	337	189	145	151	179	193	197	201	203	215	275	163	204
Refiner Prices to End Users															
Jet Fuel	284	364	357	204	137	159	187	197	205	209	211	220	305	170	211
No. 6 Residual Fuel Oil (a)	187	218	262	135	105	124	154	162	162	160	160	164	200	135	162
Propane to Petrochemical Sector	145	166	172	83	68	72	85	93	94	92	93	102	139	79	95
Retail Prices Including Taxes															
Gasoline Regular Grade (b)	311	376	385	230	189	232	259	256	263	273	275	271	326	234	270
Gasoline All Grades (b)	316	381	391	236	194	237	264	261	268	278	280	276	331	239	276
On-highway Diesel Fuel	352	439	434	299	220	233	262	274	279	287	289	298	380	247	288
Heating Oil	340	401	409	286	246	234	245	268	274	268	269	292	338	251	278
Propane	250	265	271	241	235	213	190	205	212	203	192	210	251	216	208
Natural Gas (dollars per thousand cubic feetf)															
Average Wellhead	7.62	9.86	8.81	6.06	4.36	3.44	2.98	2.72	3.99	3.92	4.02	4.74	8.08	3.38	4.17
Henry Hub Spot	8.91	11.72	9.29	6.60	4.71	3.82	3.05	3.03	4.60	4.59	4.49	5.45	9.12	3.65	4.78
End-Use Prices															
Industrial Sector	8.88	11.09	10.77	7.62	6.55	4.63	4.32	4.12	5.59	5.19	5.10	6.13	9.58	4.90	5.52
Commercial Sector	11.35	13.12	14.17	11.46	10.66	9.29	8.66	8.27	9.00	8.76	9.16	9.88	11.99	9.47	9.21
Residential Sector	12.44	15.59	19.25	13.33	12.20	12.27	14.25	10.68	10.70	11.66	14.44	12.18	13.67	11.92	11.56
Electricity															
Power Generation Fuel Costs (dollars per million Btu)															
Coal	1.91	2.04	2.16	2.18	2.27	2.24	2.20	2.11	2.04	2.00	1.97	1.96	2.07	2.20	1.99
Natural Gas	8.57	11.08	9.75	6.67	5.44	4.43	3.76	3.46	4.88	4.82	4.83	5.54	9.13	4.20	5.00
Residual Fuel Oil (c)	12.90	15.44	17.75	10.28	7.26	8.56	10.44	11.21	11.25	11.21	11.16	11.38	14.40	8.90	11.24
Distillate Fuel Oil	18.86	23.38	23.99	14.88	11.40	11.92	12.94	13.79	14.10	14.34	14.63	15.25	20.27	12.52	14.59
End-Use Prices (cents per kilowatthour)															
Industrial Sector	6.4	6.9	7.6	7.1	6.9	7.0	7.4	6.9	6.7	6.8	7.3	6.8	7.0	7.0	6.9
Commercial Sector	9.5	10.3	11.0	10.2	10.1	10.2	10.9	10.2	9.9	10.1	10.7	10.1	10.3	10.4	10.2
Residential Sector	10.4	11.5	12.1	11.4	11.2	11.8	12.1	11.4	10.9	11.7	11.9	11.1	11.4	11.6	11.4

- = no data available

(a) Average for all sulfur contents.

(b) Average self-service cash price.

(c) Includes fuel oils No. 4, No. 5, No. 6, and topped crude.

Notes: The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Prices exclude taxes unless otherwise noted

Historical data: Latest data available from Energy Information Administration databases supporting the following reports: *Petroleum Marketing Monthly* , DOE/EIA-0380; *Weekly Petroleum Status Report* , DOE/EIA-0208; *Natural Gas Monthly* , DOE/EIA-0130; *Electric Power Monthly* , DOE/EIA-0226; and *Monthly Energy Review* , DOE/EIA-0035.

Natural gas Henry Hub spot price from NGI's *Daily Gas Price Index* (http://intelligencepress.com); WTI crude oil price from Reuter's News Service (http://www.reuters.com).

Minor discrepancies with published historical data are due to independent rounding.

Projections: Generated by simulation of the EIA Regional Short-Term Energy Model.

Table 3a. International Crude Oil and Liquid Fuels Supply, Consumption, and Inventories

Energy Information Administration/Short-Term Energy Outlook - September 2009

	2008				2009				2010				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2008	2009	2010
Supply (million barrels per day) (a)															
OECD	21.31	21.06	20.38	20.95	21.16	20.76	20.51	20.68	20.68	20.39	20.17	20.22	20.92	20.78	20.36
U.S. (50 States)	8.67	8.75	8.18	8.46	8.76	8.96	8.90	8.90	8.91	9.02	9.01	8.95	8.51	8.88	8.97
Canada	3.38	3.22	3.40	3.40	3.39	3.25	3.40	3.45	3.50	3.29	3.45	3.47	3.35	3.37	3.43
Mexico	3.29	3.19	3.15	3.12	3.06	2.99	2.87	2.79	2.75	2.76	2.65	2.61	3.19	2.93	2.69
North Sea (b)	4.44	4.32	4.06	4.38	4.41	4.01	3.74	3.98	3.97	3.75	3.50	3.66	4.30	4.03	3.72
Other OECD	1.53	1.57	1.59	1.59	1.54	1.54	1.61	1.57	1.56	1.56	1.55	1.52	1.57	1.57	1.55
Non-OECD	64.45	64.56	64.87	63.96	62.21	62.87	63.59	63.79	63.98	64.38	64.27	64.54	64.46	63.12	64.29
OPEC	35.72	35.84	36.18	35.16	33.23	33.55	34.37	34.42	34.20	34.39	34.54	34.70	35.72	33.90	34.46
Crude Oil Portion	31.31	31.42	31.68	30.67	28.69	28.73	29.36	29.26	28.84	28.84	28.94	28.94	31.27	29.01	28.89
Other Liquids	4.41	4.42	4.50	4.49	4.53	4.82	5.01	5.16	5.36	5.55	5.60	5.76	4.46	4.88	5.57
Former Soviet Union	12.59	12.60	12.42	12.46	12.60	12.87	12.80	12.79	13.02	13.09	12.99	12.98	12.52	12.76	13.02
China	3.94	4.00	3.97	3.98	3.92	3.98	4.00	4.03	4.02	4.05	3.99	4.00	3.97	3.98	4.01
Other Non-OECD	12.21	12.13	12.30	12.35	12.46	12.47	12.43	12.56	12.74	12.85	12.75	12.86	12.25	12.48	12.80
Total World Production	85.76	85.62	85.26	84.91	83.37	83.64	84.09	84.47	84.67	84.77	84.43	84.75	85.38	83.90	84.65
Non-OPEC Production	50.04	49.78	49.08	49.75	50.15	50.08	49.73	50.06	50.46	50.37	49.90	50.05	49.66	50.00	50.19
Consumption (million barrels per day) (c)															
OECD	48.97	47.35	46.68	47.26	46.36	44.36	45.11	46.04	46.06	44.46	44.97	46.09	47.56	45.47	45.39
U.S. (50 States)	20.04	19.76	18.90	19.30	18.84	18.47	18.74	18.85	18.97	18.93	18.93	19.09	19.50	18.72	18.98
U.S. Territories	0.27	0.28	0.29	0.23	0.22	0.26	0.26	0.26	0.26	0.26	0.25	0.26	0.27	0.25	0.26
Canada	2.31	2.19	2.28	2.26	2.19	2.14	2.24	2.25	2.25	2.18	2.28	2.28	2.26	2.20	2.25
Europe	15.33	15.06	15.54	15.43	14.92	14.24	14.80	14.99	14.58	14.20	14.63	14.82	15.34	14.74	14.56
Japan	5.45	4.63	4.34	4.71	4.72	4.00	4.02	4.46	4.61	3.76	3.82	4.23	4.78	4.30	4.10
Other OECD	5.57	5.42	5.33	5.33	5.47	5.25	5.06	5.24	5.40	5.13	5.06	5.41	5.41	5.25	5.25
Non-OECD	37.51	38.54	38.51	36.98	36.67	38.53	39.16	38.44	38.32	39.29	39.57	39.55	37.89	38.21	39.19
Former Soviet Union	4.30	4.31	4.35	4.38	4.11	4.16	4.19	4.27	4.09	4.09	4.12	4.20	4.33	4.18	4.12
Europe	0.79	0.79	0.80	0.80	0.77	0.77	0.83	0.81	0.79	0.78	0.85	0.82	0.80	0.80	0.81
China	7.86	7.89	8.10	7.56	7.55	8.28	8.39	8.09	8.20	8.37	8.46	8.46	7.85	8.08	8.37
Other Asia	9.52	9.61	8.96	8.76	9.09	9.26	9.05	9.22	9.29	9.36	9.08	9.47	9.21	9.16	9.30
Other Non-OECD	15.04	15.95	16.31	15.49	15.15	16.06	16.70	16.05	15.95	16.69	17.06	16.60	15.70	15.99	16.58
Total World Consumption	86.48	85.89	85.20	84.24	83.03	82.89	84.27	84.48	84.39	83.75	84.54	85.64	85.45	83.67	84.58
Inventory Net Withdrawals (million barrels per day)															
U.S. (50 States)	0.12	-0.34	-0.20	-0.35	-0.65	-0.48	-0.01	0.39	0.42	-0.34	0.00	0.28	-0.20	-0.18	0.09
Other OECD	-0.23	-0.01	-0.28	-0.15	0.03	0.26	0.18	-0.16	-0.29	-0.27	0.04	0.25	-0.17	0.08	-0.07
Other Stock Draws and Balance	0.84	0.62	0.42	-0.16	0.28	-0.53	0.01	-0.23	-0.41	-0.41	0.06	0.36	0.43	-0.12	-0.10
Total Stock Draw	0.73	0.27	-0.06	-0.67	-0.34	-0.75	0.18	0.00	-0.28	-1.02	0.11	0.89	0.06	-0.22	-0.07
End-of-period Inventories (million barrels)															
U.S. Commercial Inventory	954	980	1,002	1,035	1,082	1,115	1,114	1,077	1,039	1,070	1,070	1,044	1,035	1,077	1,044
OECD Commercial Inventory	2,569	2,602	2,652	2,694	2,731	2,738	2,721	2,698	2,686	2,742	2,737	2,689	2,694	2,698	2,689

- = no data available

OECD = Organization for Economic Cooperation and Development: Australia, Austria, Belgium, Canada, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, Slovakia, South Korea, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States.

OPEC = Organization of Petroleum Exporting Countries: Algeria, Angola, Ecuador, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates, Venezuela.

Former Soviet Union = Armenia, Azerbaijan, Belarus, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine and Uzbekistan.

(a) Supply includes production of crude oil (including lease condensates), natural gas plant liquids, other liquids, and refinery processing gains, alcohol.

(b) Includes offshore supply from Denmark, Germany, the Netherlands, Norway, and the United Kingdom.

(c) Consumption of petroleum by the OECD countries is synonymous with "petroleum product supplied," defined in the glossary of the EIA *Petroleum Supply Monthly*, DOE/EIA-0109.

Consumption of petroleum by the non-OECD countries is "apparent consumption," which includes internal consumption, refinery fuel and loss, and bunkering.

Notes: The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Historical data: Latest data available from Energy Information Administration databases supporting the *International Petroleum Monthly*; and International Energy Agency, Monthly Oil Data Service, latest monthly release.

Minor discrepancies with published historical data are due to independent rounding.

Projections: Generated by simulation of the EIA Regional Short-Term Energy Model.

Table 3b. Non-OPEC Crude Oil and Liquid Fuels Supply (million barrels per day)

Energy Information Administration/Short-Term Energy Outlook - September 2009

	2008				2009				2010				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2008	2009	2010
North America	**15.34**	**15.17**	**14.73**	**14.97**	**15.22**	**15.21**	*15.16*	*15.14*	*15.16*	*15.07*	*15.11*	*15.03*	**15.05**	*15.18*	*15.09*
Canada	**3.38**	**3.22**	**3.40**	**3.40**	**3.39**	**3.25**	*3.40*	*3.45*	*3.50*	*3.29*	*3.45*	*3.47*	**3.35**	*3.37*	*3.43*
Mexico	**3.29**	**3.19**	**3.15**	**3.12**	**3.06**	**2.99**	*2.87*	*2.79*	*2.75*	*2.76*	*2.65*	*2.61*	**3.19**	*2.93*	*2.69*
United States	**8.67**	**8.75**	**8.18**	**8.46**	**8.76**	**8.96**	*8.90*	*8.90*	*8.91*	*9.02*	*9.01*	*8.95*	**8.51**	*8.88*	*8.97*
Central and South America	**4.14**	**4.17**	**4.32**	**4.35**	**4.49**	**4.49**	*4.48*	*4.59*	*4.68*	*4.73*	*4.74*	*4.81*	**4.24**	*4.51*	*4.74*
Argentina	**0.81**	**0.75**	**0.81**	**0.81**	**0.78**	**0.77**	*0.77*	*0.76*	*0.76*	*0.76*	*0.75*	*0.75*	**0.79**	*0.77*	*0.76*
Brazil	**2.32**	**2.39**	**2.44**	**2.44**	**2.58**	**2.60**	*2.58*	*2.68*	*2.76*	*2.80*	*2.82*	*2.88*	**2.40**	*2.61*	*2.81*
Colombia	**0.57**	**0.59**	**0.61**	**0.63**	**0.65**	**0.67**	*0.68*	*0.69*	*0.70*	*0.70*	*0.71*	*0.73*	**0.60**	*0.67*	*0.71*
Other Central and S. America	**0.44**	**0.44**	**0.46**	**0.48**	**0.48**	**0.46**	*0.46*	*0.46*	*0.46*	*0.46*	*0.46*	*0.46*	**0.46**	*0.46*	*0.46*
Europe	**5.12**	**4.99**	**4.73**	**5.03**	**5.05**	**4.67**	*4.40*	*4.64*	*4.62*	*4.40*	*4.15*	*4.31*	**4.97**	*4.69*	*4.37*
Norway	**2.51**	**2.42**	**2.39**	**2.55**	**2.53**	**2.21**	*2.20*	*2.37*	*2.37*	*2.25*	*2.15*	*2.21*	**2.47**	*2.33*	*2.24*
United Kingdom (offshore)	**1.59**	**1.57**	**1.35**	**1.51**	**1.55**	**1.50**	*1.24*	*1.32*	*1.31*	*1.22*	*1.08*	*1.18*	**1.50**	*1.40*	*1.20*
Other North Sea	**0.35**	**0.33**	**0.33**	**0.32**	**0.32**	**0.30**	*0.29*	*0.29*	*0.29*	*0.29*	*0.27*	*0.27*	**0.33**	*0.30*	*0.28*
FSU and Eastern Europe	**12.82**	**12.82**	**12.65**	**12.70**	**12.82**	**13.09**	*13.01*	*13.00*	*13.23*	*13.30*	*13.20*	*13.18*	**12.75**	*12.98*	*13.23*
Azerbaijan	**0.91**	**0.98**	**0.85**	**0.77**	**0.93**	**1.07**	*1.07*	*1.10*	*1.14*	*1.18*	*1.19*	*1.21*	**0.88**	*1.04*	*1.18*
Kazakhstan	**1.47**	**1.44**	**1.33**	**1.47**	**1.48**	**1.51**	*1.55*	*1.58*	*1.65*	*1.67*	*1.65*	*1.66*	**1.43**	*1.53*	*1.66*
Russia	**9.78**	**9.75**	**9.82**	**9.81**	**9.77**	**9.88**	*9.77*	*9.71*	*9.82*	*9.83*	*9.75*	*9.70*	**9.79**	*9.78*	*9.78*
Turkmenistan	**0.19**	**0.19**	**0.19**	**0.19**	**0.19**	**0.20**	*0.20*	*0.20*	*0.20*	*0.20*	*0.20*	*0.21*	**0.19**	*0.20*	*0.20*
Other FSU/Eastern Europe	**0.66**	**0.65**	**0.65**	**0.65**	**0.64**	**0.63**	*0.62*	*0.62*	*0.62*	*0.62*	*0.61*	*0.60*	**0.65**	*0.63*	*0.61*
Middle East	**1.55**	**1.54**	**1.53**	**1.54**	**1.56**	**1.58**	*1.54*	*1.55*	*1.58*	*1.57*	*1.54*	*1.55*	**1.54**	*1.56*	*1.56*
Oman	**0.75**	**0.75**	**0.77**	**0.78**	**0.79**	**0.80**	*0.80*	*0.80*	*0.82*	*0.82*	*0.81*	*0.81*	**0.76**	*0.80*	*0.82*
Syria	**0.43**	**0.43**	**0.42**	**0.42**	**0.43**	**0.43**	*0.42*	*0.42*	*0.43*	*0.43*	*0.42*	*0.42*	**0.43**	*0.43*	*0.43*
Yemen	**0.32**	**0.30**	**0.29**	**0.29**	**0.29**	**0.29**	*0.27*	*0.27*	*0.27*	*0.26*	*0.26*	*0.26*	**0.30**	*0.28*	*0.26*
Asia and Oceania	**8.50**	**8.55**	**8.55**	**8.63**	**8.50**	**8.49**	*8.62*	*8.62*	*8.64*	*8.67*	*8.56*	*8.57*	**8.56**	*8.56*	*8.61*
Australia	**0.52**	**0.58**	**0.61**	**0.63**	**0.59**	**0.57**	*0.64*	*0.60*	*0.60*	*0.60*	*0.60*	*0.56*	**0.59**	*0.60*	*0.59*
China	**3.94**	**4.00**	**3.97**	**3.98**	**3.92**	**3.98**	*4.00*	*4.03*	*4.02*	*4.05*	*3.99*	*4.00*	**3.97**	*3.98*	*4.01*
India	**0.89**	**0.88**	**0.87**	**0.89**	**0.86**	**0.87**	*0.90*	*0.91*	*0.93*	*0.95*	*0.95*	*0.97*	**0.88**	*0.89*	*0.95*
Indonesia	**1.04**	**1.04**	**1.06**	**1.06**	**1.05**	**1.03**	*1.01*	*1.00*	*0.97*	*0.96*	*0.94*	*0.94*	**1.05**	*1.02*	*0.95*
Malaysia	**0.74**	**0.71**	**0.73**	**0.73**	**0.71**	**0.70**	*0.70*	*0.69*	*0.70*	*0.69*	*0.68*	*0.67*	**0.73**	*0.70*	*0.68*
Vietnam	**0.34**	**0.31**	**0.29**	**0.31**	**0.33**	**0.33**	*0.39*	*0.40*	*0.42*	*0.43*	*0.43*	*0.44*	**0.31**	*0.36*	*0.43*
Africa	**2.57**	**2.55**	**2.57**	**2.53**	**2.51**	**2.54**	*2.52*	*2.52*	*2.56*	*2.63*	*2.60*	*2.59*	**2.55**	*2.53*	*2.60*
Egypt	**0.63**	**0.62**	**0.65**	**0.62**	**0.59**	**0.57**	*0.56*	*0.54*	*0.54*	*0.54*	*0.53*	*0.53*	**0.63**	*0.56*	*0.53*
Equatorial Guinea	**0.36**	**0.36**	**0.36**	**0.35**	**0.35**	**0.36**	*0.35*	*0.35*	*0.36*	*0.36*	*0.35*	*0.35*	**0.36**	*0.35*	*0.36*
Gabon	**0.24**	**0.25**	**0.25**	**0.25**	**0.25**	**0.27**	*0.28*	*0.28*	*0.28*	*0.27*	*0.26*	*0.26*	**0.25**	*0.27*	*0.27*
Sudan	**0.51**	**0.49**	**0.47**	**0.45**	**0.46**	**0.48**	*0.49*	*0.49*	*0.50*	*0.50*	*0.49*	*0.49*	**0.48**	*0.48*	*0.50*
Total non-OPEC liquids	**50.04**	**49.78**	**49.08**	**49.75**	**50.15**	**50.08**	*49.73*	*50.06*	*50.46*	*50.37*	*49.90*	*50.05*	**49.66**	*50.00*	*50.19*
OPEC non-crude liquids	**4.41**	**4.42**	**4.50**	**4.49**	**4.53**	**4.82**	*5.01*	*5.16*	*5.36*	*5.55*	*5.60*	*5.76*	**4.46**	*4.88*	*5.57*
Non-OPEC + OPEC non-crude	**54.45**	**54.20**	**53.58**	**54.24**	**54.68**	**54.91**	*54.74*	*55.22*	*55.83*	*55.92*	*55.49*	*55.81*	**54.12**	*54.89*	*55.76*

- = no data available

FSU = Former Soviet Union

OPEC = Organization of Petroleum Exporting Countries: Algeria, Angola, Ecuador, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates, Venezuela.

Notes: The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Supply includes production of crude oil (including lease condensates), natural gas plant liquids, other liquids, and refinery processing gains, alcohol.

Not all countries are shown in each region and sum of reported country volumes may not equal regional volumes.

Historical data: Latest data available from Energy Information Administration databases supporting the *International Petroleum Monthly*; and International Energy Agency, Monthly Oil Data Service, latest monthly release.

Minor discrepancies with published historical data are due to independent rounding.

Projections: Generated by simulation of the EIA Regional Short-Term Energy Model.

Table 3c. OPEC Crude Oil and Liquid Fuels Supply (million barrels per day)

Energy Information Administration/Short-Term Energy Outlook - September 2009

	2008				2009				2010				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2008	2009	2010
Crude Oil															
Algeria	1.37	1.37	1.37	1.37	1.30	1.30	-	-	-	-	-	-	1.37	-	-
Angola	1.91	1.92	1.85	1.88	1.78	1.75	-	-	-	-	-	-	1.89	-	-
Ecudaor	0.52	0.50	0.50	0.50	0.50	0.49	-	-	-	-	-	-	0.50	-	-
Iran	3.80	3.80	3.90	3.90	3.77	3.80	-	-	-	-	-	-	3.85	-	-
Iraq	2.30	2.42	2.42	2.34	2.28	2.38	-	-	-	-	-	-	2.37	-	-
Kuwait	2.58	2.60	2.60	2.50	2.30	2.30	-	-	-	-	-	-	2.57	-	-
Libya	1.79	1.75	1.70	1.70	1.65	1.67	-	-	-	-	-	-	1.74	-	-
Nigeria	1.99	1.90	1.95	1.92	1.80	1.68	-	-	-	-	-	-	1.94	-	-
Qatar	0.85	0.87	0.87	0.81	0.82	0.83	-	-	-	-	-	-	0.85	-	-
Saudi Arabia	9.20	9.32	9.57	8.95	8.07	8.13	-	-	-	-	-	-	9.26	-	-
United Arab Emirates	2.60	2.60	2.60	2.48	2.30	2.30	-	-	-	-	-	-	2.57	-	-
Venezuela	2.40	2.37	2.34	2.31	2.13	2.10	-	-	-	-	-	-	2.35	-	-
OPEC Total	31.31	31.42	31.68	30.67	28.69	28.73	29.36	29.26	28.84	28.84	28.94	28.94	31.27	29.01	28.89
Other Liquids	4.41	4.42	4.50	4.49	4.53	4.82	5.01	5.16	5.36	5.55	5.60	5.76	4.46	4.88	5.57
Total OPEC Supply	35.72	35.84	36.18	35.16	33.23	33.55	34.37	34.42	34.20	34.39	34.54	34.70	35.72	33.90	34.46
Crude Oil Production Capacity															
Algeria	1.37	1.37	1.37	1.37	1.37	1.37	-	-	-	-	-	-	1.37	-	-
Angola	1.91	1.92	1.85	1.99	2.05	2.07	-	-	-	-	-	-	1.92	-	-
Ecudaor	0.52	0.50	0.50	0.50	0.50	0.49	-	-	-	-	-	-	0.50	-	-
Iran	3.80	3.80	3.90	3.90	3.90	3.90	-	-	-	-	-	-	3.85	-	-
Iraq	2.30	2.42	2.42	2.34	2.28	2.38	-	-	-	-	-	-	2.37	-	-
Kuwait	2.60	2.60	2.60	2.60	2.60	2.60	-	-	-	-	-	-	2.60	-	-
Libya	1.79	1.75	1.70	1.75	1.75	1.75	-	-	-	-	-	-	1.75	-	-
Nigeria	1.99	1.90	1.95	1.92	1.80	1.68	-	-	-	-	-	-	1.94	-	-
Qatar	0.88	0.93	0.98	1.03	1.07	1.07	-	-	-	-	-	-	0.96	-	-
Saudi Arabia	10.57	10.60	10.60	10.60	10.60	10.70	-	-	-	-	-	-	10.59	-	-
United Arab Emirates	2.60	2.60	2.60	2.55	2.60	2.60	-	-	-	-	-	-	2.59	-	-
Venezuela	2.40	2.37	2.34	2.31	2.13	2.10	-	-	-	-	-	-	2.35	-	-
OPEC Total	32.72	32.76	32.82	32.86	32.65	32.71	32.95	33.03	33.26	33.29	33.38	33.41	32.79	32.84	33.33
Surplus Crude Oil Production Capacity															
Algeria	0.00	0.00	0.00	0.00	0.07	0.07	-	-	-	-	-	-	0.00	-	-
Angola	0.00	0.00	0.00	0.11	0.27	0.32	-	-	-	-	-	-	0.03	-	-
Ecudaor	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-	-	0.00	-	-
Iran	0.00	0.00	0.00	0.00	0.13	0.10	-	-	-	-	-	-	0.00	-	-
Iraq	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-	-	0.00	-	-
Kuwait	0.02	0.00	0.00	0.10	0.30	0.30	-	-	-	-	-	-	0.03	-	-
Libya	0.00	0.00	0.00	0.05	0.10	0.08	-	-	-	-	-	-	0.01	-	-
Nigeria	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-	-	0.00	-	-
Qatar	0.03	0.06	0.11	0.22	0.25	0.24	-	-	-	-	-	-	0.11	-	-
Saudi Arabia	1.37	1.28	1.03	1.65	2.53	2.57	-	-	-	-	-	-	1.33	-	-
United Arab Emirates	0.00	0.00	0.00	0.07	0.30	0.30	-	-	-	-	-	-	0.02	-	-
Venezuela	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-	-	0.00	-	-
OPEC Total	1.41	1.35	1.14	2.19	3.96	3.98	3.60	3.78	4.42	4.45	4.44	4.47	1.53	3.83	4.44

\- = no data available

OPEC = Organization of Petroleum Exporting Countries: Algeria, Angola, Ecuador, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates, Venezuela.

Notes: The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Historical data: Latest data available from Energy Information Administration databases supporting the *International Petroleum Monthly*; and International Energy Agency, Monthly Oil Data Service, latest monthly release.

Minor discrepancies with published historical data are due to independent rounding.

Projections: Generated by simulation of the EIA Regional Short-Term Energy Model.

Table 3d. World Liquid Fuels Consumption (million barrels per day)

Energy Information Administration/Short-Term Energy Outlook - September 2009

	2008				2009				2010						
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	2008	2009	2010
North America (a)	**24.74**	**24.43**	**23.62**	**23.87**	**23.31**	**22.90**	*23.27*	*23.41*	*23.49*	*23.42*	*23.47*	*23.66*	**24.16**	*23.22*	*23.51*
Canada	**2.31**	**2.19**	**2.28**	**2.26**	**2.19**	**2.14**	*2.24*	*2.25*	*2.25*	*2.18*	*2.28*	*2.28*	**2.26**	*2.20*	*2.25*
Mexico	**2.12**	**2.19**	**2.14**	**2.07**	**2.05**	**2.02**	*2.02*	*2.04*	*2.00*	*2.03*	*1.99*	*2.01*	**2.13**	*2.04*	*2.01*
United States	**20.04**	**19.76**	**18.90**	**19.30**	**18.84**	**18.47**	*18.74*	*18.85*	*18.97*	*18.93*	*18.93*	*19.09*	**19.50**	*18.72*	*18.98*
Central and South America	**5.79**	**6.07**	**5.87**	**5.90**	**5.73**	**6.04**	*6.08*	*6.07*	*6.00*	*6.24*	*6.29*	*6.27*	**5.90**	*5.98*	*6.20*
Brazil	**2.43**	**2.57**	**2.57**	**2.51**	**2.39**	**2.51**	*2.59*	*2.58*	*2.49*	*2.58*	*2.67*	*2.66*	**2.52**	*2.52*	*2.60*
Europe	**14.79**	**14.48**	**14.91**	**14.85**	**14.45**	**13.68**	*14.17*	*14.36*	*14.10*	*13.62*	*14.00*	*14.19*	**14.76**	*14.17*	*13.98*
FSU and Eastern Europe	**5.64**	**5.69**	**5.77**	**5.76**	**5.35**	**5.49**	*5.65*	*5.70*	*5.36*	*5.44*	*5.60*	*5.65*	**5.71**	*5.55*	*5.51*
Russia	**2.87**	**2.89**	**2.90**	**2.93**	**2.69**	**2.74**	*2.75*	*2.78*	*2.66*	*2.68*	*2.69*	*2.72*	**2.90**	*2.74*	*2.69*
Middle East	**6.00**	**6.67**	**7.21**	**6.39**	**6.16**	**6.77**	*7.41*	*6.71*	*6.58*	*7.12*	*7.50*	*6.97*	**6.57**	*6.76*	*7.04*
Asia and Oceania	**26.29**	**25.36**	**24.60**	**24.28**	**24.78**	**24.78**	*24.49*	*24.96*	*25.50*	*24.59*	*24.42*	*25.55*	**25.13**	*24.75*	*25.01*
China	**7.86**	**7.89**	**8.10**	**7.56**	**7.55**	**8.28**	*8.39*	*8.09*	*8.20*	*8.37*	*8.46*	*8.46*	**7.85**	*8.08*	*8.37*
Japan	**5.45**	**4.63**	**4.34**	**4.71**	**4.72**	**4.00**	*4.02*	*4.46*	*4.61*	*3.76*	*3.82*	*4.23*	**4.78**	*4.30*	*4.10*
India	**3.02**	**3.02**	**2.84**	**2.89**	**3.10**	**3.09**	*2.92*	*3.00*	*3.26*	*3.20*	*2.98*	*3.27*	**2.94**	*3.03*	*3.18*
Africa	**3.25**	**3.20**	**3.22**	**3.20**	**3.25**	**3.24**	*3.20*	*3.27*	*3.37*	*3.32*	*3.27*	*3.34*	**3.22**	*3.24*	*3.32*
Total OECD Liquid Fuels Consumption	**48.97**	**47.35**	**46.68**	**47.26**	**46.36**	**44.36**	*45.11*	*46.04*	*46.06*	*44.46*	*44.97*	*46.09*	**47.56**	*45.47*	*45.39*
Total non-OECD Liquid Fuels Consumption	**37.51**	**38.54**	**38.51**	**36.98**	**36.67**	**38.53**	*39.16*	*38.44*	*38.32*	*39.29*	*39.57*	*39.55*	**37.89**	*38.21*	*39.19*
Total World Liquid Fuels Consumption	**86.48**	**85.89**	**85.20**	**84.24**	**83.03**	**82.89**	*84.27*	*84.48*	*84.39*	*83.75*	*84.54*	*85.64*	**85.45**	*83.67*	*84.58*
World Oil-Consumption-Weighted GDP															
Index, 2006 Q1 = 100	**109.34**	**110.28**	**110.39**	**108.99**	**108.21**	**108.68**	*109.15*	*109.28*	*109.79*	*111.12*	*112.13*	*112.72*	**109.75**	*108.83*	*111.45*
Percent change from prior year	**4.5**	**3.9**	**2.8**	**0.6**	**-1.0**	**-1.4**	*-1.1*	*0.3*	*1.5*	*2.2*	*2.7*	*3.1*	**2.9**	*-0.8*	*2.4*

- = no data available

FSU = Former Soviet Union

OECD = Organization for Economic Cooperation and Development: Australia, Austria, Belgium, Canada, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, Slovakia, South Korea, Spain, Sweden, Switzerland, Turkey, the United Kingdom, and the United States.

(a) North American total includes U.S. territories.

Notes: The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Historical data: Latest data available from Energy Information Administration databases supporting the *International Petroleum Monthly*; and International Energy Agency, Monthly Oil Data Service, latest monthly

Minor discrepancies with published historical data are due to independent rounding.

Projections: Generated by simulation of the EIA Regional Short-Term Energy Model.

Table 4a. U.S. Crude Oil and Liquid Fuels Supply, Consumption, and Inventories

Energy Information Administration/Short-Term Energy Outlook - September 2009

	2008				2009				2010				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2008	2009	2010
Supply (million barrels per day)															
Crude Oil Supply															
Domestic Production (a)	**5.12**	**5.11**	**4.66**	**4.92**	**5.24**	**5.24**	*5.22*	*5.26*	*5.34*	*5.34*	*5.29*	*5.24*	**4.95**	*5.24*	*5.30*
Alaska	**0.71**	**0.68**	**0.62**	**0.72**	**0.70**	**0.63**	*0.56*	*0.65*	*0.64*	*0.61*	*0.59*	*0.57*	**0.68**	*0.64*	*0.60*
Federal Gulf of Mexico (b)	**1.32**	**1.31**	**0.97**	**1.02**	**1.39**	**1.46**	*1.54*	*1.59*	*1.54*	*1.50*	*1.51*	*1.52*	**1.15**	*1.50*	*1.52*
Lower 48 States (excl GOM)	**3.09**	**3.12**	**3.07**	**3.18**	**3.14**	**3.15**	*3.12*	*3.03*	*3.16*	*3.22*	*3.18*	*3.15*	**3.12**	*3.11*	*3.18*
Crude Oil Net Imports (c)	**9.77**	**9.87**	**9.61**	**9.78**	**9.48**	**9.12**	*9.11*	*8.78*	*8.67*	*9.10*	*8.99*	*8.86*	**9.75**	*9.12*	*8.91*
SPR Net Withdrawals	**-0.04**	**-0.06**	**0.04**	**0.01**	**-0.12**	**-0.12**	*-0.01*	*-0.02*	*0.00*	*0.00*	*0.00*	*0.00*	**-0.01**	*-0.07*	*0.00*
Commercial Inventory Net Withdrawals	**-0.31**	**0.21**	**-0.09**	**-0.24**	**-0.44**	**0.19**	*0.07*	*0.06*	*-0.16*	*0.10*	*0.23*	*0.05*	**-0.11**	*-0.03*	*0.05*
Crude Oil Adjustment (d)	**0.06**	**0.04**	**0.12**	**0.04**	**-0.02**	**0.13**	*0.00*	*-0.03*	*0.04*	*0.07*	*0.01*	*-0.03*	**0.07**	*0.02*	*0.02*
Total Crude Oil Input to Refineries	**14.60**	**15.16**	**14.34**	**14.50**	**14.11**	**14.55**	*14.40*	*14.05*	*13.88*	*14.61*	*14.52*	*14.11*	**14.65**	*14.28*	*14.28*
Other Supply															
Refinery Processing Gain	**0.99**	**1.01**	**0.98**	**1.00**	**0.93**	**1.00**	*0.96*	*0.98*	*0.95*	*0.96*	*0.97*	*1.00*	**0.99**	*0.97*	*0.97*
Natural Gas Liquids Production	**1.84**	**1.87**	**1.73**	**1.70**	**1.79**	**1.90**	*1.84*	*1.75*	*1.71*	*1.78*	*1.79*	*1.74*	**1.78**	*1.82*	*1.76*
Renewables and Oxygenate Production (e)	**0.59**	**0.64**	**0.68**	**0.70**	**0.67**	**0.70**	*0.74*	*0.76*	*0.78*	*0.81*	*0.82*	*0.84*	**0.65**	*0.72*	*0.81*
Fuel Ethanol Production	**0.54**	**0.59**	**0.64**	**0.66**	**0.64**	**0.67**	*0.71*	*0.73*	*0.75*	*0.77*	*0.79*	*0.80*	**0.61**	*0.69*	*0.78*
Petroleum Products Adjustment (f)	**0.13**	**0.13**	**0.13**	**0.15**	**0.13**	**0.12**	*0.13*	*0.13*	*0.13*	*0.13*	*0.13*	*0.13*	**0.13**	*0.13*	*0.13*
Product Net Imports (c)	**1.42**	**1.45**	**1.19**	**1.38**	**1.29**	**0.74**	*0.74*	*0.82*	*0.93*	*1.08*	*0.92*	*1.03*	**1.36**	*0.89*	*0.99*
Pentanes Plus	**-0.01**	**-0.01**	**-0.02**	**-0.01**	**-0.03**	**-0.03**	*-0.04*	*-0.04*	*-0.01*	*0.00*	*-0.01*	*0.00*	**-0.01**	*-0.03*	*-0.01*
Liquefied Petroleum Gas	**0.17**	**0.14**	**0.23**	**0.21**	**0.13**	**0.06**	*0.06*	*0.08*	*0.08*	*0.10*	*0.10*	*0.11*	**0.19**	*0.08*	*0.10*
Unfinished Oils	**0.75**	**0.76**	**0.74**	**0.80**	**0.68**	**0.68**	*0.76*	*0.71*	*0.68*	*0.72*	*0.74*	*0.69*	**0.76**	*0.71*	*0.71*
Other HC/Oxygenates	**-0.03**	**0.00**	**0.02**	**-0.03**	**-0.04**	**-0.03**	*-0.03*	*-0.04*	*-0.03*	*-0.02*	*-0.02*	*-0.03*	**-0.01**	*-0.03*	*-0.03*
Motor Gasoline Blend Comp.	**0.58**	**0.84**	**0.81**	**0.85**	**0.85**	**0.71**	*0.73*	*0.67*	*0.69*	*0.84*	*0.76*	*0.71*	**0.77**	*0.74*	*0.75*
Finished Motor Gasoline	**0.20**	**0.21**	**0.10**	**0.01**	**0.09**	**0.05**	*0.12*	*0.13*	*0.08*	*0.13*	*0.15*	*0.12*	**0.13**	*0.10*	*0.12*
Jet Fuel	**0.06**	**0.07**	**0.02**	**0.02**	**0.02**	**0.01**	*-0.01*	*-0.01*	*-0.02*	*-0.01*	*-0.04*	*0.00*	**0.04**	*0.00*	*-0.02*
Distillate Fuel Oil	**-0.10**	**-0.36**	**-0.47**	**-0.33**	**-0.26**	**-0.43**	*-0.47*	*-0.30*	*-0.26*	*-0.34*	*-0.39*	*-0.24*	**-0.32**	*-0.36*	*-0.31*
Residual Fuel Oil	**-0.02**	**-0.01**	**0.00**	**0.01**	**0.06**	**0.00**	*-0.10*	*-0.03*	*-0.01*	*-0.01*	*-0.06*	*0.00*	**-0.01**	*-0.02*	*-0.02*
Other Oils (g)	**-0.19**	**-0.20**	**-0.22**	**-0.14**	**-0.21**	**-0.28**	*-0.30*	*-0.35*	*-0.27*	*-0.32*	*-0.30*	*-0.31*	**-0.19**	*-0.29*	*-0.30*
Product Inventory Net Withdrawals	**0.47**	**-0.49**	**-0.15**	**-0.12**	**-0.08**	**-0.55**	*-0.07*	*0.34*	*0.59*	*-0.44*	*-0.22*	*0.23*	**-0.07**	*-0.09*	*0.04*
Total Supply	**20.04**	**19.76**	**18.90**	**19.30**	**18.84**	**18.47**	*18.74*	*18.85*	*18.97*	*18.93*	*18.93*	*19.09*	**19.50**	*18.72*	*18.98*
Consumption (million barrels per day)															
Natural Gas Liquids and Other Liquids															
Pentanes Plus	**0.12**	**0.08**	**0.07**	**0.09**	**0.03**	**0.06**	*0.08*	*0.09*	*0.09*	*0.08*	*0.08*	*0.10*	**0.09**	*0.07*	*0.09*
Liquefied Petroleum Gas	**2.29**	**1.87**	**1.76**	**1.89**	**2.07**	**1.76**	*1.83*	*1.99*	*2.16*	*1.77*	*1.79*	*1.99*	**1.95**	*1.91*	*1.93*
Unfinished Oils	**-0.02**	**-0.06**	**-0.13**	**0.11**	**0.00**	**-0.19**	*-0.04*	*0.00*	*-0.01*	*-0.02*	*-0.03*	*0.00*	**-0.03**	*-0.06*	*-0.01*
Finished Liquid Fuels															
Motor Gasoline	**8.92**	**9.16**	**8.93**	**8.95**	**8.79**	**9.09**	*9.12*	*9.02*	*8.82*	*9.18*	*9.16*	*9.06*	**8.99**	*9.00*	*9.06*
Jet Fuel	**1.56**	**1.61**	**1.56**	**1.42**	**1.38**	**1.39**	*1.40*	*1.41*	*1.39*	*1.41*	*1.40*	*1.41*	**1.54**	*1.39*	*1.40*
Distillate Fuel Oil	**4.21**	**3.93**	**3.70**	**3.95**	**3.91**	**3.48**	*3.43*	*3.68*	*3.87*	*3.68*	*3.59*	*3.77*	**3.95**	*3.62*	*3.73*
Residual Fuel Oil	**0.60**	**0.69**	**0.57**	**0.62**	**0.61**	**0.59**	*0.53*	*0.55*	*0.58*	*0.56*	*0.55*	*0.61*	**0.62**	*0.57*	*0.57*
Other Oils (f)	**2.35**	**2.49**	**2.43**	**2.27**	**2.05**	**2.30**	*2.41*	*2.12*	*2.06*	*2.27*	*2.38*	*2.15*	**2.38**	*2.22*	*2.22*
Total Consumption	**20.04**	**19.76**	**18.90**	**19.30**	**18.84**	**18.47**	*18.74*	*18.85*	*18.97*	*18.93*	*18.93*	*19.09*	**19.50**	*18.72*	*18.98*
Total Liquid Fuels Net Imports	**11.19**	**11.32**	**10.80**	**11.15**	**10.76**	**9.86**	*9.85*	*9.59*	*9.60*	*10.19*	*9.91*	*9.89*	**11.11**	*10.01*	*9.90*
End-of-period Inventories (million barrels)															
Commercial Inventory															
Crude Oil (excluding SPR)	**314.7**	**295.8**	**304.0**	**325.8**	**365.8**	**348.7**	*341.8*	*335.9*	*350.5*	*341.2*	*320.4*	*316.2*	**325.8**	*335.9*	*316.2*
Pentanes Plus	**9.0**	**12.8**	**15.6**	**13.8**	**15.8**	**17.0**	*17.1*	*14.0*	*13.4*	*14.5*	*15.3*	*12.9*	**13.8**	*14.0*	*12.9*
Liquefied Petroleum Gas	**63.9**	**102.5**	**136.9**	**113.1**	**90.2**	**132.3**	*154.4*	*120.2*	*81.1*	*117.8*	*145.4*	*113.7*	**113.1**	*120.2*	*113.7*
Unfinished Oils	**90.2**	**88.7**	**91.4**	**83.5**	**93.8**	**91.7**	*87.8*	*82.5*	*94.3*	*90.8*	*90.2*	*83.4*	**83.5**	*82.5*	*83.4*
Other HC/Oxygenates	**14.1**	**14.8**	**17.3**	**15.8**	**17.2**	**15.1**	*15.6*	*15.2*	*15.9*	*16.2*	*16.6*	*16.2*	**15.8**	*15.2*	*16.2*
Total Motor Gasoline	**222.2**	**210.9**	**190.0**	**213.6**	**216.7**	**214.0**	*206.4*	*216.8*	*214.9*	*214.6*	*207.6*	*218.6*	**213.6**	*216.8*	*218.6*
Finished Motor Gasoline	**110.6**	**107.3**	**92.6**	**98.3**	**88.2**	**87.9**	*87.3*	*94.6*	*92.2*	*96.3*	*94.0*	*99.6*	**98.3**	*94.6*	*99.6*
Motor Gasoline Blend Comp.	**111.6**	**103.6**	**97.4**	**115.2**	**128.5**	**126.1**	*119.1*	*122.2*	*122.8*	*118.3*	*113.7*	*119.1*	**115.2**	*122.2*	*119.1*
Jet Fuel	**38.7**	**39.8**	**37.8**	**38.0**	**41.6**	**43.9**	*45.5*	*43.4*	*41.2*	*41.8*	*41.8*	*41.3*	**38.0**	*43.4*	*41.3*
Distillate Fuel Oil	**107.8**	**121.7**	**127.7**	**146.0**	**143.6**	**160.0**	*160.2*	*157.9*	*127.4*	*135.6*	*144.6*	*149.5*	**146.0**	*157.9*	*149.5*
Residual Fuel Oil	**39.9**	**41.2**	**38.9**	**36.1**	**39.0**	**37.0**	*34.5*	*37.8*	*38.1*	*38.6*	*37.6*	*40.0*	**36.1**	*37.8*	*40.0*
Other Oils (f)	**53.9**	**51.8**	**42.5**	**49.3**	**58.5**	**55.2**	*51.0*	*53.1*	*62.2*	*58.9*	*50.2*	*52.3*	**49.3**	*53.1*	*52.3*
Total Commercial Inventory	**954**	**980**	**1,002**	**1,035**	**1,082**	**1,115**	*1,114*	*1,077*	*1,039*	*1,070*	*1,070*	*1,044*	**1,035**	*1,077*	*1,044*
Crude Oil in SPR	**700**	**706**	**702**	**702**	**713**	**724**	*725*	*727*	*727*	*727*	*727*	*727*	**702**	*727*	*727*
Heating Oil Reserve	**2.0**	**2.0**	**2.0**	**2.0**	**2.0**	**2.0**	*2.0*	*2.0*	*2.0*	*2.0*	*2.0*	*2.0*	**2.0**	*2.0*	*2.0*

\- = no data available

(a) Includes lease condensate.

(b) Crude oil production from U.S. Federal leases in the Gulf of Mexico (GOM).

(c) Net imports equals gross imports minus gross exports.

(d) Crude oil adjustment balances supply and consumption and was previously referred to as "Unaccounted for Crude Oil."

(e) Renewables and oxygenate production includes pentanes plus, oxygenates (excluding fuel ethanol), and renewable fuels.

(f) Petroleum products adjustment includes hydrogen/oxygenates/renewables/other hydrocarbons, motor gasoline blend components, and finished motor gasoline.

(g) "Other Oils" inludes aviation gasoline blend components, finished aviation gasoline, kerosene, petrochemical feedstocks, special naphthas, lubricants, waxes, petroleum coke, asphalt and road oil, still gas, and miscellaneous products.

Notes: The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

SPR: Strategic Petroleum Reserve

HC: Hydrocarbons

Historical data: Latest data available from Energy Information Administration databases supporting the following reports: *Petroleum Supply Monthly* , DOE/EIA-0109; *Petroleum Supply Annual* , DOE/EIA-0340/2; and *Weekly Petroleum Status Report* , DOE/EIA-0208.

Minor discrepancies with published historical data are due to independent rounding.

Projections: Generated by simulation of the EIA Regional Short-Term Energy Model.

Table 4b. U.S. Petroleum Refinery Balance (Million Barrels per Day, Except Utilization Factor)

Energy Information Administration/Short-Term Energy Outlook - September 2009

	2008				2009				2010				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2008	2009	2010
Refinery and Blender Net Inputs															
Crude Oil	14.60	15.16	14.34	14.50	14.11	14.55	14.40	14.05	13.88	14.61	14.52	14.11	14.65	14.28	14.28
Pentanes Plus	0.14	0.15	0.15	0.16	0.15	0.15	0.15	0.15	0.14	0.15	0.15	0.17	0.15	0.15	0.15
Liquefied Petroleum Gas	0.36	0.29	0.27	0.41	0.35	0.28	0.29	0.39	0.34	0.27	0.27	0.39	0.33	0.33	0.32
Other Hydrocarbons/Oxygenates	0.56	0.63	0.68	0.75	0.73	0.78	0.81	0.85	0.88	0.91	0.93	0.94	0.65	0.80	0.92
Unfinished Oils	0.67	0.84	0.84	0.78	0.57	0.90	0.84	0.77	0.55	0.78	0.77	0.77	0.78	0.77	0.72
Motor Gasoline Blend Components	0.39	0.76	0.63	0.56	0.66	0.60	0.64	0.54	0.64	0.78	0.68	0.55	0.58	0.61	0.66
Aviation Gasoline Blend Components	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Refinery and Blender Net Inputs	16.72	17.83	16.90	17.17	16.56	17.26	17.12	16.76	16.43	17.50	17.32	16.94	17.15	16.93	17.05
Refinery Processing Gain	0.99	1.01	0.98	1.00	0.93	1.00	0.96	0.98	0.95	0.96	0.97	1.00	0.99	0.97	0.97
Refinery and Blender Net Production															
Liquefied Petroleum Gas	0.55	0.85	0.72	0.39	0.50	0.82	0.73	0.43	0.53	0.83	0.75	0.44	0.63	0.62	0.64
Finished Motor Gasoline	8.46	8.61	8.30	8.82	8.52	8.85	8.78	8.85	8.65	8.97	8.83	8.89	8.55	8.75	8.84
Jet Fuel	1.49	1.55	1.52	1.40	1.40	1.40	1.42	1.40	1.38	1.43	1.45	1.41	1.49	1.40	1.42
Distillate Fuel	4.02	4.44	4.23	4.48	4.14	4.09	3.90	3.96	3.80	4.10	4.08	4.06	4.29	4.02	4.01
Residual Fuel	0.63	0.71	0.55	0.59	0.58	0.57	0.60	0.62	0.59	0.57	0.60	0.64	0.62	0.59	0.60
Other Oils (a)	2.55	2.67	2.55	2.48	2.36	2.54	2.66	2.49	2.44	2.56	2.59	2.49	2.56	2.51	2.52
Total Refinery and Blender Net Production	17.71	18.84	17.88	18.16	17.49	18.26	18.09	17.75	17.38	18.46	18.30	17.93	18.15	17.90	18.02
Refinery Distillation Inputs	14.89	15.52	14.72	14.98	14.43	14.86	14.81	14.42	14.23	14.95	14.85	14.46	15.03	14.63	14.62
Refinery Operable Distillation Capacity	17.59	17.60	17.61	17.62	17.67	17.66	17.67	17.67	17.67	17.67	17.67	17.67	17.61	17.67	17.67
Refinery Distillation Utilization Factor	0.85	0.88	0.84	0.85	0.82	0.84	0.84	0.82	0.81	0.85	0.84	0.82	0.85	0.83	0.83

\- = no data available

(a) "Other Oils" includes aviation gasoline blend components, finished aviation gasoline, kerosene, petrochemical feedstocks, special naphthas, lubricants, waxes, petroleum coke, asphalt and road oil, still gas, and miscellaneous products.

Notes: The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Historical data: Latest data available from Energy Information Administration databases supporting the following reports: *Petroleum Supply Monthly*, DOE/EIA-0109; *Petroleum Supply Annual*, DOE/EIA-0340/2; *Weekly Petroleum Status Report*, DOE/EIA-0208.

Minor discrepancies with published historical data are due to independent rounding.

Projections: Generated by simulation of the EIA Regional Short-Term Energy Model.

Table 4c. U.S. Regional Motor Gasoline Prices and Inventories

Energy Information Administration/Short-Term Energy Outlook - September 2009

	2008				2009				2010				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2008	2009	2010
Prices (cents per gallon)															
Refiner Wholesale Price	249	315	315	154	132	176	196	193	203	211	212	207	258	175	208
Gasoline Regular Grade Retail Prices Excluding Taxes															
PADD 1 (East Coast)	263	325	332	180	140	183	210	205	212	220	223	219	275	185	218
PADD 2 (Midwest)	260	325	331	170	142	186	206	203	212	221	224	218	272	185	219
PADD 3 (Gulf Coast)	260	323	330	172	136	180	205	202	211	219	221	217	271	181	217
PADD 4 (Rocky Mountain)	255	321	343	176	128	182	214	208	208	222	231	222	274	184	221
PADD 5 (West Coast)	268	340	343	191	157	197	233	222	227	241	238	235	286	203	235
U.S. Average	262	327	333	177	142	185	212	207	214	224	226	221	275	187	221
Gasoline Regular Grade Retail Prices Including Taxes															
PADD 1	312	374	383	234	187	229	257	254	261	270	273	269	326	232	268
PADD 2	307	373	381	218	187	231	251	249	258	268	272	265	320	230	266
PADD 3	301	364	374	218	178	221	244	244	252	260	264	259	314	222	259
PADD 4	302	367	391	230	173	226	259	255	255	270	280	271	323	229	269
PADD 5	327	398	406	253	210	251	288	280	284	299	296	292	346	258	293
U.S. Average	311	376	385	230	189	232	259	256	263	273	275	271	326	234	270
Gasoline All Grades Including Taxes	316	381	391	236	194	237	264	261	268	278	280	276	331	239	276
End-of-period Inventories (million barrels)															
Total Gasoline Inventories															
PADD 1	59.4	58.9	45.4	62.6	56.5	56.0	54.4	59.6	59.3	60.1	56.4	61.2	62.6	59.6	61.2
PADD 2	52.7	51.5	49.0	48.2	51.9	51.1	49.8	49.5	48.4	47.9	48.4	50.1	48.2	49.5	50.1
PADD 3	72.1	65.8	62.5	68.7	72.5	71.2	69.4	72.3	72.6	72.7	70.0	72.6	68.7	72.3	72.6
PADD 4	6.7	6.6	6.6	6.9	6.3	6.0	6.0	6.7	6.5	6.2	6.2	6.7	6.9	6.7	6.7
PADD 5	31.3	28.0	26.6	27.1	29.4	29.7	26.8	28.8	28.0	27.6	26.6	28.0	27.1	28.8	28.0
U.S. Total	222.2	210.9	190.0	213.6	216.7	214.0	206.4	216.8	214.9	214.6	207.6	218.6	213.6	216.8	218.6
Finished Gasoline Inventories															
PADD 1	27.0	28.3	19.6	25.7	18.6	18.6	20.1	23.0	20.9	23.0	21.9	24.7	25.7	23.0	24.7
PADD 2	34.8	33.6	30.4	29.5	28.4	26.8	26.6	28.9	28.4	28.6	29.2	30.9	29.5	28.9	30.9
PADD 3	36.3	34.5	32.1	33.9	31.5	32.6	30.9	33.5	32.7	34.2	33.0	34.7	33.9	33.5	34.7
PADD 4	4.7	4.5	4.4	4.7	3.9	4.1	4.1	4.5	4.5	4.4	4.4	4.6	4.7	4.5	4.6
PADD 5	7.8	6.4	6.2	4.6	5.8	5.9	5.5	4.8	5.7	6.1	5.4	4.6	4.6	4.8	4.6
U.S. Total	110.6	107.3	92.6	98.3	88.2	87.9	87.3	94.6	92.2	96.3	94.0	99.6	98.3	94.6	99.6
Gasoline Blending Components Inventories															
PADD 1	32.4	30.6	25.8	37.0	38.0	37.4	34.3	36.6	38.5	37.1	34.5	36.5	37.0	36.6	36.5
PADD 2	17.9	17.9	18.6	18.7	23.4	24.3	23.2	20.6	20.0	19.3	19.2	19.2	18.7	20.6	19.2
PADD 3	35.9	31.3	30.4	34.8	41.1	38.7	38.5	38.8	39.9	38.6	36.9	37.9	34.8	38.8	37.9
PADD 4	1.9	2.2	2.2	2.2	2.4	1.9	1.9	2.2	2.0	1.8	1.8	2.1	2.2	2.2	2.1
PADD 5	23.5	21.6	20.4	22.6	23.6	23.8	21.3	24.0	22.3	21.5	21.2	23.4	22.6	24.0	23.4
U.S. Total	111.6	103.6	97.4	115.2	128.5	126.1	119.1	122.2	122.8	118.3	113.7	119.1	115.2	122.2	119.1

\- = no data available

Notes: The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Regions refer to Petroleum Administration for Defense Districts (PADD).

See "Petroleum for Administration Defense District" in EIA's Energy Glossary (http://www.eia.doe.gov/glossary/index.html) for a list of States in each region.

Historical data: Latest data available from Energy Information Administration databases supporting the following reports: *Petroleum Marketing Monthly*, DOE/EIA-0380; *Petroleum Supply Monthly*, DOE/EIA-0109; *Petroleum Supply Annual*, DOE/EIA-0340/2; and *Weekly Petroleum Status Report*, DOE/EIA-0208.

Minor discrepancies with published historical data are due to independent rounding.

Projections: Generated by simulation of the EIA Regional Short-Term Energy Model.

Table 4d. U.S. Regional Heating Oil Prices and Distillate Inventories

Energy Information Administration/Short-Term Energy Outlook - September 2009

	2008				2009				2010				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2008	2009	2010
Prices (cents per gallon)															
Refiner Wholesale Prices															
Heating Oil	**269**	**347**	**337**	**189**	**145**	**151**	*179*	*193*	*197*	*201*	*203*	*215*	**275**	*163*	*204*
Diesel Fuel	**283**	**365**	**347**	**199**	**138**	**160**	*186*	*196*	*203*	*210*	*212*	*219*	**300**	*169*	*211*
Heating Oil Residential Prices Excluding Taxes															
Northeast	**324**	**381**	**390**	**274**	**238**	**225**	*234*	*256*	*262*	*255*	*256*	*279*	**322**	*241*	*265*
South	**327**	**386**	**393**	**272**	**228**	**211**	*228*	*254*	*260*	*250*	*254*	*278*	**322**	*235*	*264*
Midwest	**319**	**389**	**382**	**246**	**190**	**195**	*226*	*240*	*245*	*250*	*254*	*266*	**310**	*213*	*253*
West	**330**	**399**	**399**	**263**	**217**	**233**	*255*	*262*	*264*	*267*	*271*	*281*	**331**	*238*	*271*
U.S. Average	**324**	**382**	**390**	**272**	**235**	**223**	*233*	*255*	*261*	*255*	*256*	*278*	**322**	*239*	*265*
Heating Oil Residential Prices Including State Taxes															
Northeast	**340**	**400**	**410**	**288**	**250**	**237**	*246*	*269*	*275*	*268*	*269*	*293*	**339**	*253*	*279*
South	**342**	**403**	**412**	**284**	**238**	**221**	*238*	*266*	*271*	*261*	*266*	*291*	**336**	*246*	*276*
Midwest	**337**	**411**	**403**	**260**	**201**	**206**	*239*	*254*	*259*	*264*	*268*	*281*	**327**	*225*	*267*
West	**342**	**413**	**412**	**272**	**225**	**241**	*263*	*272*	*274*	*276*	*279*	*292*	**343**	*247*	*281*
U.S. Average	**340**	**401**	**409**	**286**	**246**	**234**	*245*	*268*	*274*	*268*	*269*	*292*	**338**	*251*	*278*
Total Distillate End-of-period Inventories (million barrels)															
PADD 1 (East Coast)	**33.6**	**42.3**	**50.8**	**56.7**	**54.2**	**67.9**	*69.8*	*68.2*	*47.1*	*53.4*	*64.9*	*65.4*	**56.7**	*68.2*	*65.4*
PADD 2 (Midwest)	**28.7**	**30.3**	**28.0**	**32.7**	**34.6**	**32.8**	*32.4*	*32.0*	*28.9*	*30.0*	*30.0*	*30.5*	**32.7**	*32.0*	*30.5*
PADD 3 (Gulf Coast)	**29.9**	**32.5**	**33.2**	**39.7**	**38.8**	**43.6**	*43.7*	*41.4*	*36.5*	*36.7*	*34.8*	*37.2*	**39.7**	*41.4*	*37.2*
PADD 4 (Rocky Mountain)	**3.1**	**3.4**	**3.0**	**3.0**	**3.4**	**3.1**	*2.7*	*3.2*	*3.0*	*3.1*	*2.8*	*3.3*	**3.0**	*3.2*	*3.3*
PADD 5 (West Coast)	**12.5**	**13.2**	**12.8**	**13.9**	**12.6**	**12.6**	*11.6*	*13.2*	*11.9*	*12.4*	*12.2*	*13.2*	**13.9**	*13.2*	*13.2*
U.S. Total	**107.8**	**121.7**	**127.7**	**146.0**	**143.6**	**160.0**	*160.2*	*157.9*	*127.4*	*135.6*	*144.6*	*149.5*	**146.0**	*157.9*	*149.5*

\- = no data available

Notes: The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Regions refer to Petroleum Administration for Defense Districts (PADD) for inventories and to U.S. Census regions for prices.

See "Petroleum for Administration Defense District" and "Census region" in EIA's Energy Glossary (http://www.eia.doe.gov/glossary/index.html) for a list of States in each region.

Historical data: Latest data available from Energy Information Administration databases supporting the following reports: *Petroleum Marketing Monthly*, DOE/EIA-0380; *Petroleum Supply Monthly*, DOE/EIA-0109; *Petroleum Supply Annual*, DOE/EIA-0340/2; and *Weekly Petroleum Status Report*, DOE/EIA-0208.

Minor discrepancies with published historical data are due to independent rounding.

Projections: Generated by simulation of the EIA Regional Short-Term Energy Model.

Table 4e. U.S. Regional Propane Prices and Inventories

Energy Information Administration/Short-Term Energy Outlook - September 2009

	2008				2009				2010				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2008	2009	2010
Prices (cents per gallon)															
Propane Wholesale Price (a)	145	166	172	83	68	72	85	93	94	92	93	102	139	79	95
Propane Residential Prices excluding Taxes															
Northeast	270	289	313	267	255	248	233	234	237	232	228	235	277	245	234
South	257	267	273	246	237	212	193	208	215	202	194	211	257	218	209
Midwest	204	217	227	207	204	176	156	170	176	165	160	175	209	182	172
West	258	255	257	224	218	197	178	201	207	190	181	208	248	203	200
U.S. Average	237	251	257	229	223	202	180	195	202	193	182	199	239	205	197
Propane Residential Prices including State Taxes															
Northeast	282	303	328	280	267	260	244	245	248	243	239	246	290	257	245
South	270	281	288	258	249	223	203	218	226	213	204	222	270	229	220
Midwest	216	229	240	218	215	186	164	179	186	175	168	185	221	192	182
West	272	270	270	237	229	208	188	212	218	200	191	219	262	214	211
U.S. Average	250	265	271	241	235	213	190	205	212	203	192	210	251	216	208
Propane End-of-period Inventories (million barrels)															
PADD 1 (East Coast)	2.5	3.8	4.5	3.5	3.1	3.6	4.0	4.1	2.4	4.1	4.7	4.3	3.5	4.1	4.3
PADD 2 (Midwest)	9.0	17.8	24.5	18.4	13.4	24.2	29.9	24.0	12.1	19.8	25.9	21.6	18.4	24.0	21.6
PADD 3 (Gulf Coast)	13.2	19.5	27.5	31.3	22.5	35.9	35.6	30.6	16.2	25.1	34.0	28.8	31.3	30.6	28.8
PADD 4 (Rocky Mountain)	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.4	0.4	0.4	0.5	0.4	0.4	0.4	0.4
PADD 5 (West Coast)	0.4	0.9	2.1	1.9	0.5	1.2	1.9	1.4	0.2	1.1	2.3	1.6	1.9	1.4	1.6
U.S. Total	25.6	42.5	59.0	55.4	40.0	65.3	71.8	60.5	31.3	50.5	67.4	56.7	55.4	60.5	56.7

- = no data available

(a) Propane price to petrochemical sector.

Notes: The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Regions refer to Petroleum Administration for Defense Districts (PADD) for inventories and to U.S. Census regions for prices.

See "Petroleum for Administration Defense District" and "Census region" in EIA's Energy Glossary (http://www.eia.doe.gov/glossary/index.html) for a list of States in each region.

Historical data: Latest data available from Energy Information Administration databases supporting the following reports: *Petroleum Marketing Monthly*, DOE/EIA-0380; *Petroleum Supply Monthly*, DOE/EIA-0109; *Petroleum Supply Annual*, DOE/EIA-0340/2; and *Weekly Petroleum Status Report*, DOE/EIA-0208.

Minor discrepancies with published historical data are due to independent rounding.

Projections: Generated by simulation of the EIA Regional Short-Term Energy Model.

Table 5a. U.S. Natural Gas Supply, Consumption, and Inventories

Energy Information Administration/Short-Term Energy Outlook - September 2009

	2008				2009				2010				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2008	2009	2010
Supply (billion cubic feet per day)															
Total Marketed Production	58.34	58.88	57.87	59.26	60.70	60.50	58.65	56.58	56.31	56.60	57.26	57.97	58.59	59.10	57.04
Alaska	1.23	1.03	0.97	1.19	1.22	1.06	0.97	1.15	1.23	1.02	1.00	1.18	1.10	1.10	1.11
Federal GOM (a)	7.81	6.97	5.58	5.28	6.51	6.91	6.81	6.78	6.80	6.65	6.32	6.37	6.41	6.75	6.53
Lower 48 States (excl GOM)	49.30	50.87	51.32	52.79	52.97	52.53	50.86	48.66	48.29	48.93	49.93	50.42	51.07	51.24	49.40
Total Dry Gas Production	55.88	56.36	55.52	56.95	58.26	57.93	56.15	54.17	53.92	54.19	54.82	55.51	56.18	56.62	54.61
Gross Imports	12.12	9.92	10.46	11.01	11.19	9.41	9.66	10.23	11.21	10.13	10.62	10.55	10.88	10.12	10.62
Pipeline	11.29	8.86	9.39	10.13	10.23	7.71	8.41	9.11	9.59	8.07	8.61	8.99	9.92	8.86	8.82
LNG	0.83	1.06	1.07	0.88	0.96	1.71	1.26	1.12	1.61	2.06	2.01	1.55	0.96	1.26	1.81
Gross Exports	3.52	2.39	2.10	2.98	3.68	2.50	2.13	2.87	3.53	2.39	2.16	3.00	2.75	2.79	2.77
Net Imports	8.59	7.53	8.36	8.03	7.50	6.91	7.53	7.36	7.67	7.74	8.46	7.55	8.13	7.33	7.86
Supplemental Gaseous Fuels	0.12	0.14	0.16	0.17	0.20	0.14	0.15	0.16	0.16	0.14	0.15	0.17	0.15	0.16	0.16
Net Inventory Withdrawals	18.08	-10.25	-10.79	3.53	12.96	-12.19	-9.66	4.34	15.74	-9.27	-8.81	3.56	0.12	-1.19	0.25
Total Supply	82.67	53.79	53.25	68.68	78.92	52.79	54.17	66.03	77.49	52.81	54.62	66.78	64.58	62.92	62.87
Balancing Item (b)	-0.58	1.12	-0.44	-4.72	0.66	-0.51	-1.35	-2.96	0.62	-0.63	-0.93	-3.25	-1.16	-1.05	-1.06
Total Primary Supply	82.09	54.91	52.81	63.96	79.58	52.28	52.82	63.08	78.11	52.17	53.70	63.54	63.42	61.87	61.82
Consumption (billion cubic feet per day)															
Residential	25.84	8.37	3.75	15.30	25.42	8.10	3.85	15.15	25.24	8.39	3.90	15.00	13.29	13.08	13.08
Commercial	14.30	6.23	4.15	9.48	14.30	5.89	4.25	9.29	14.27	6.24	4.28	9.23	8.53	8.41	8.48
Industrial	20.53	17.57	16.57	17.71	18.09	15.38	15.12	16.68	17.98	15.58	15.29	16.85	18.09	16.31	16.42
Electric Power (c)	15.63	17.65	23.36	16.12	15.90	17.79	24.53	16.77	14.97	17.04	25.28	17.18	18.20	18.77	18.64
Lease and Plant Fuel	3.49	3.53	3.46	3.55	3.63	3.62	3.51	3.39	3.37	3.39	3.43	3.47	3.51	3.54	3.42
Pipeline and Distribution Use	2.22	1.48	1.43	1.73	2.15	1.41	1.47	1.71	2.18	1.44	1.44	1.70	1.71	1.68	1.69
Vehicle Use	0.08	0.08	0.08	0.08	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.08	0.09	0.09
Total Consumption	82.09	54.91	52.81	63.96	79.58	52.28	52.82	63.08	78.11	52.17	53.70	63.54	63.42	61.87	61.82
End-of-period Inventories (billion cubic feet)															
Working Gas Inventory	1,247	2,171	3,163	2,840	1,656	2,752	3,641	3,242	1,826	2,669	3,479	3,152	2,840	3,242	3,152
Producing Region (d)	497	705	845	901	734	1,003	1,140	1,052	759	956	1,065	1,039	901	1,052	1,039
East Consuming Region (d)	574	1,157	1,887	1,552	644	1,322	1,999	1,705	773	1,327	1,948	1,695	1,552	1,705	1,695
West Consuming Region (d)	176	310	431	388	279	427	502	484	294	386	466	418	388	484	418

\- = no data available

(a) Marketed production from U.S. Federal leases in the Gulf of Mexico.

(b) The balancing item represents the difference between the sum of the components of natural gas supply and the sum of components of natural gas demand.

(c) Natural gas used for electricity generation and (a limited amount of) useful thermal output by electric utilities and independent power producers.

(d) For a list of States in each inventory region refer to *Methodology for EIA Weekly Underground Natural Gas Storage Estimates* (http://tonto.eia.doe.gov/oog/info/ngs/methodology.html).

Notes: The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

LNG: liquefied natural gas.

Historical data: Latest data available from Energy Information Administration databases supporting the following reports: *Natural Gas Monthly*, DOE/EIA-0130; and *Electric Power Monthly*, DOE/EIA-0226.

Minor discrepancies with published historical data are due to independent rounding.

Projections: Generated by simulation of the EIA Regional Short-Term Energy Model.

Table 5b. U.S. Regional Natural Gas Consumption (Billion Cubic Feet/ Day)

Energy Information Administration/Short-Term Energy Outlook - September 2009

	2008				2009				2010				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2008	2009	2010
Residential Sector															
New England	**0.98**	**0.39**	**0.16**	**0.50**	**0.98**	**0.33**	*0.15*	*0.51*	*0.96*	*0.38*	*0.15*	*0.49*	**0.51**	*0.49*	*0.49*
Middle Atlantic	**4.43**	**1.43**	**0.62**	**2.74**	**4.78**	**1.44**	*0.64*	*2.71*	*4.62*	*1.56*	*0.65*	*2.70*	**2.30**	*2.38*	*2.37*
E. N. Central	**7.65**	**2.32**	**0.85**	**4.57**	**7.50**	**2.26**	*0.88*	*4.37*	*7.17*	*2.23*	*0.86*	*4.31*	**3.84**	*3.73*	*3.63*
W. N. Central	**2.64**	**0.79**	**0.27**	**1.40**	**2.51**	**0.71**	*0.28*	*1.37*	*2.40*	*0.70*	*0.28*	*1.38*	**1.27**	*1.21*	*1.19*
S. Atlantic	**2.25**	**0.58**	**0.32**	**1.61**	**2.44**	**0.56**	*0.32*	*1.54*	*2.46*	*0.63*	*0.34*	*1.51*	**1.19**	*1.21*	*1.23*
E. S. Central	**1.06**	**0.26**	**0.11**	**0.60**	**1.03**	**0.24**	*0.12*	*0.56*	*1.07*	*0.26*	*0.12*	*0.55*	**0.51**	*0.48*	*0.50*
W. S. Central	**1.88**	**0.51**	**0.28**	**0.95**	**1.70**	**0.53**	*0.31*	*0.97*	*1.91*	*0.54*	*0.31*	*0.91*	**0.91**	*0.87*	*0.91*
Mountain	**1.96**	**0.69**	**0.31**	**1.12**	**1.67**	**0.68**	*0.32*	*1.22*	*1.85*	*0.68*	*0.33*	*1.21*	**1.02**	*0.97*	*1.01*
Pacific	**2.97**	**1.41**	**0.83**	**1.80**	**2.80**	**1.35**	*0.82*	*1.92*	*2.80*	*1.40*	*0.85*	*1.93*	**1.75**	*1.72*	*1.74*
Total	**25.84**	**8.37**	**3.75**	**15.30**	**25.42**	**8.10**	*3.85*	*15.15*	*25.24*	*8.39*	*3.90*	*15.00*	**13.29**	*13.08*	*13.08*
Commercial Sector															
New England	**0.60**	**0.26**	**0.15**	**0.33**	**0.61**	**0.25**	*0.15*	*0.34*	*0.60*	*0.27*	*0.15*	*0.33*	**0.34**	*0.33*	*0.34*
Middle Atlantic	**2.70**	**1.19**	**0.86**	**1.87**	**2.81**	**1.06**	*0.87*	*1.80*	*2.73*	*1.20*	*0.86*	*1.77*	**1.65**	*1.63*	*1.64*
E. N. Central	**3.71**	**1.28**	**0.69**	**2.34**	**3.76**	**1.24**	*0.71*	*2.19*	*3.60*	*1.26*	*0.71*	*2.19*	**2.00**	*1.97*	*1.93*
W. N. Central	**1.56**	**0.55**	**0.29**	**0.95**	**1.53**	**0.52**	*0.31*	*0.91*	*1.51*	*0.52*	*0.31*	*0.91*	**0.84**	*0.81*	*0.81*
S. Atlantic	**1.51**	**0.71**	**0.56**	**1.20**	**1.61**	**0.69**	*0.57*	*1.17*	*1.61*	*0.74*	*0.57*	*1.16*	**0.99**	*1.01*	*1.02*
E. S. Central	**0.65**	**0.25**	**0.17**	**0.42**	**0.63**	**0.24**	*0.18*	*0.40*	*0.65*	*0.26*	*0.18*	*0.40*	**0.37**	*0.36*	*0.37*
W. S. Central	**1.13**	**0.60**	**0.47**	**0.72**	**1.08**	**0.59**	*0.48*	*0.75*	*1.18*	*0.62*	*0.49*	*0.73*	**0.73**	*0.72*	*0.75*
Mountain	**1.08**	**0.50**	**0.28**	**0.67**	**0.95**	**0.48**	*0.30*	*0.71*	*1.04*	*0.49*	*0.30*	*0.71*	**0.63**	*0.61*	*0.63*
Pacific	**1.35**	**0.89**	**0.68**	**0.98**	**1.32**	**0.84**	*0.69*	*1.03*	*1.36*	*0.89*	*0.71*	*1.03*	**0.98**	*0.97*	*1.00*
Total	**14.30**	**6.23**	**4.15**	**9.48**	**14.30**	**5.89**	*4.25*	*9.29*	*14.27*	*6.24*	*4.28*	*9.23*	**8.53**	*8.41*	*8.48*
Industrial Sector															
New England	**0.36**	**0.21**	**0.15**	**0.25**	**0.34**	**0.23**	*0.16*	*0.24*	*0.34*	*0.22*	*0.16*	*0.24*	**0.24**	*0.24*	*0.24*
Middle Atlantic	**1.13**	**0.83**	**0.74**	**0.88**	**0.99**	**0.72**	*0.67*	*0.83*	*0.97*	*0.72*	*0.66*	*0.82*	**0.89**	*0.80*	*0.79*
E. N. Central	**3.84**	**2.81**	**2.42**	**2.90**	**3.32**	**2.21**	*2.04*	*2.66*	*3.19*	*2.21*	*2.04*	*2.67*	**2.99**	*2.55*	*2.52*
W. N. Central	**1.65**	**1.33**	**1.29**	**1.47**	**1.53**	**1.20**	*1.22*	*1.40*	*1.53*	*1.22*	*1.24*	*1.42*	**1.43**	*1.34*	*1.35*
S. Atlantic	**1.59**	**1.43**	**1.34**	**1.29**	**1.36**	**1.27**	*1.23*	*1.27*	*1.36*	*1.29*	*1.22*	*1.27*	**1.41**	*1.28*	*1.28*
E. S. Central	**1.40**	**1.21**	**1.11**	**1.14**	**1.16**	**1.01**	*0.97*	*1.09*	*1.16*	*1.01*	*0.98*	*1.10*	**1.21**	*1.05*	*1.06*
W. S. Central	**7.02**	**6.63**	**6.36**	**6.35**	**6.06**	**5.80**	*5.80*	*5.95*	*6.09*	*5.88*	*5.87*	*6.02*	**6.59**	*5.90*	*5.96*
Mountain	**0.96**	**0.75**	**0.69**	**0.87**	**0.88**	**0.69**	*0.65*	*0.81*	*0.89*	*0.70*	*0.67*	*0.82*	**0.82**	*0.76*	*0.77*
Pacific	**2.59**	**2.37**	**2.48**	**2.56**	**2.45**	**2.25**	*2.39*	*2.43*	*2.46*	*2.34*	*2.45*	*2.49*	**2.50**	*2.38*	*2.43*
Total	**20.53**	**17.57**	**16.57**	**17.71**	**18.09**	**15.38**	*15.12*	*16.68*	*17.98*	*15.58*	*15.29*	*16.85*	**18.09**	*16.31*	*16.42*

- = no data available

Notes: The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Regions refer to U.S. Census divisions.

See "Census division" in EIA's Energy Glossary (http://www.eia.doe.gov/glossary/index.html) for a list of States in each region.

Historical data: Latest data available from Energy Information Administration databases supporting the *Natural Gas Monthly*, DOE/EIA-0130.

Minor discrepancies with published historical data are due to independent rounding.

Projections: Generated by simulation of the EIA Regional Short-Term Energy Model.

Table 5c. U.S. Regional Natural Gas Prices (dollars per thousand cubic feet)

Energy Information Administration/Short-Term Energy Outlook - September 2009

	2008				2009				2010				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2008	2009	2010
Wholesale/Spot															
U.S. Average Wellhead	**7.62**	**9.86**	**8.81**	**6.06**	**4.36**	**3.44**	*2.98*	*2.72*	*3.99*	*3.92*	*4.02*	*4.74*	**8.08**	*3.38*	*4.17*
Henry Hub Spot Price	**8.91**	**11.72**	**9.29**	**6.60**	**4.71**	**3.82**	*3.05*	*3.03*	*4.60*	*4.59*	*4.49*	*5.45*	**9.12**	*3.65*	*4.78*
Residential															
New England	**16.19**	**17.98**	**21.63**	**17.46**	**17.28**	**17.40**	*18.16*	*14.27*	*13.88*	*13.99*	*16.93*	*15.25*	**17.27**	*16.58*	*14.48*
Middle Atlantic	**14.62**	**17.63**	**21.88**	**16.76**	**15.15**	**15.24**	*17.37*	*13.06*	*12.82*	*14.04*	*17.23*	*14.63*	**16.22**	*14.71*	*13.85*
E. N. Central	**11.39**	**14.94**	**19.51**	**12.43**	**10.96**	**10.85**	*13.96*	*9.12*	*9.13*	*10.50*	*14.18*	*10.89*	**12.68**	*10.58*	*10.17*
W. N. Central	**11.20**	**14.37**	**20.22**	**11.07**	**10.21**	**10.86**	*14.40*	*9.58*	*9.59*	*10.63*	*15.04*	*10.99*	**12.14**	*10.37*	*10.48*
S. Atlantic	**15.29**	**20.88**	**26.98**	**16.35**	**14.65**	**18.51**	*23.11*	*15.75*	*14.53*	*17.44*	*22.40*	*16.61*	**17.12**	*16.02*	*16.10*
E. S. Central	**13.41**	**17.51**	**23.07**	**15.09**	**13.43**	**14.76**	*17.94*	*13.34*	*12.28*	*13.88*	*17.53*	*14.17*	**14.98**	*13.85*	*13.34*
W. S. Central	**11.93**	**17.93**	**21.40**	**12.74**	**11.36**	**13.16**	*15.52*	*11.30*	*10.53*	*12.93*	*16.79*	*13.75*	**13.72**	*11.99*	*12.23*
Mountain	**10.43**	**12.36**	**15.61**	**10.84**	**10.58**	**10.52**	*13.47*	*9.09*	*9.28*	*9.73*	*12.30*	*9.27*	**11.26**	*10.33*	*9.60*
Pacific	**12.12**	**14.37**	**15.54**	**11.24**	**10.74**	**10.06**	*9.45*	*8.11*	*9.48*	*9.74*	*10.48*	*10.32*	**12.75**	*9.71*	*9.89*
U.S. Average	**12.44**	**15.59**	**19.25**	**13.33**	**12.20**	**12.27**	*14.25*	*10.68*	*10.70*	*11.66*	*14.44*	*12.18*	**13.67**	*11.92*	*11.56*
Commercial															
New England	**14.22**	**15.31**	**17.34**	**14.77**	**14.23**	**12.80**	*11.34*	*11.06*	*11.78*	*11.20*	*11.40*	*12.57*	**14.87**	*12.86*	*11.82*
Middle Atlantic	**12.97**	**14.40**	**14.71**	**13.07**	**12.23**	**10.23**	*8.50*	*9.21*	*10.22*	*9.40*	*9.18*	*11.16*	**13.42**	*10.45*	*10.16*
E. N. Central	**10.50**	**13.23**	**14.97**	**11.11**	**9.70**	**8.10**	*8.01*	*7.53*	*8.46*	*8.70*	*9.18*	*9.31*	**11.38**	*8.66*	*8.79*
W. N. Central	**10.59**	**12.25**	**13.72**	**9.60**	**9.45**	**8.05**	*7.51*	*6.80*	*7.87*	*8.04*	*8.41*	*8.63*	**10.82**	*8.31*	*8.15*
S. Atlantic	**13.00**	**14.61**	**15.79**	**13.36**	**12.24**	**11.29**	*10.38*	*10.21*	*10.51*	*10.35*	*10.88*	*11.82*	**13.72**	*11.09*	*10.87*
E. S. Central	**12.41**	**14.65**	**16.50**	**13.68**	**12.33**	**11.02**	*10.63*	*10.21*	*10.34*	*10.08*	*10.52*	*11.60*	**13.57**	*11.31*	*10.66*
W. S. Central	**10.61**	**13.11**	**13.50**	**10.58**	**9.64**	**8.63**	*7.91*	*7.46*	*7.69*	*7.77*	*8.63*	*9.54*	**11.53**	*8.59*	*8.30*
Mountain	**9.47**	**10.52**	**11.65**	**9.80**	**9.32**	**8.77**	*8.91*	*7.51*	*7.58*	*7.55*	*8.21*	*8.39*	**9.99**	*8.62*	*7.88*
Pacific	**11.23**	**12.45**	**13.15**	**10.58**	**10.27**	**8.92**	*7.73*	*7.32*	*8.56*	*7.87*	*8.06*	*8.85*	**11.63**	*8.76*	*8.41*
U.S. Average	**11.35**	**13.12**	**14.17**	**11.46**	**10.66**	**9.29**	*8.66*	*8.27*	*9.00*	*8.76*	*9.16*	*9.88*	**11.99**	*9.47*	*9.21*
Industrial															
New England	**13.06**	**14.65**	**15.55**	**12.79**	**13.70**	**11.73**	*8.75*	*9.12*	*10.50*	*9.32*	*8.94*	*10.83*	**13.66**	*11.25*	*10.09*
Middle Atlantic	**12.38**	**13.35**	**14.09**	**13.40**	**11.39**	**8.81**	*7.02*	*7.62*	*9.14*	*7.85*	*7.85*	*9.58*	**13.05**	*9.06*	*8.79*
E. N. Central	**9.85**	**11.74**	**12.41**	**9.90**	**9.44**	**6.59**	*6.08*	*5.81*	*7.00*	*6.84*	*6.95*	*7.60*	**10.57**	*7.51*	*7.13*
W. N. Central	**9.09**	**10.12**	**10.41**	**7.74**	**7.79**	**5.11**	*4.42*	*4.38*	*6.11*	*5.44*	*5.26*	*6.31*	**9.23**	*5.51*	*5.84*
S. Atlantic	**10.65**	**12.63**	**13.08**	**10.54**	**8.68**	**6.30**	*5.95*	*6.21*	*7.37*	*6.64*	*6.86*	*7.99*	**11.63**	*6.74*	*7.25*
E. S. Central	**9.46**	**11.60**	**11.94**	**9.45**	**7.99**	**5.56**	*5.37*	*5.51*	*6.61*	*6.20*	*6.39*	*7.38*	**10.53**	*6.16*	*6.67*
W. S. Central	**8.08**	**10.89**	**10.36**	**6.56**	**4.73**	**3.76**	*3.68*	*3.16*	*4.58*	*4.70*	*4.64*	*5.40*	**9.04**	*3.79*	*4.83*
Mountain	**9.26**	**9.95**	**10.01**	**8.44**	**8.30**	**7.06**	*6.25*	*5.84*	*6.51*	*6.13*	*6.10*	*6.80*	**9.35**	*6.90*	*6.42*
Pacific	**9.74**	**10.81**	**10.95**	**8.95**	**8.47**	**7.43**	*6.32*	*6.14*	*6.32*	*5.20*	*5.41*	*6.98*	**10.07**	*7.03*	*6.00*
U.S. Average	**8.88**	**11.09**	**10.77**	**7.62**	**6.55**	**4.63**	*4.32*	*4.12*	*5.59*	*5.19*	*5.10*	*6.13*	**9.58**	*4.90*	*5.52*

- = no data available

Notes: The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Regions refer to U.S. Census divisions.

See "Census division" in EIA's Energy Glossary (http://www.eia.doe.gov/glossary/index.html) for a list of States in each region.

Historical data: Latest data available from Energy Information Administration databases supporting the *Natural Gas Monthly*, DOE/EIA-0130.

Natural gas Henry Hub spot price from NGI's *Daily Gas Price Index* (http://intelligencepress.com).

Minor discrepancies with published historical data are due to independent rounding.

Projections: Generated by simulation of the EIA Regional Short-Term Energy Model.

Table 6. U.S. Coal Supply, Consumption, and Inventories

Energy Information Administration/Short-Term Energy Outlook - September 2009

	2008				2009				2010				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2008	2009	2010
Supply (million short tons)															
Production	**289.1**	**283.9**	**299.0**	**299.4**	**281.4**	**260.6**	*265.0*	*271.2*	*265.4*	*247.8*	*259.9*	*290.0*	**1171.5**	*1078.1*	*1063.2*
Appalachia	**97.8**	**99.1**	**95.4**	**98.6**	**94.8**	**88.1**	*84.6*	*83.2*	*86.3*	*80.6*	*84.2*	*92.2*	**390.8**	*350.7*	*343.2*
Interior	**35.5**	**35.0**	**37.9**	**38.7**	**37.1**	**34.4**	*35.0*	*35.8*	*35.0*	*32.7*	*34.3*	*38.3*	**147.1**	*142.2*	*140.2*
Western	**155.8**	**149.8**	**165.8**	**162.2**	**149.6**	**138.0**	*145.3*	*152.2*	*144.1*	*134.6*	*141.5*	*159.6*	**633.6**	*585.2*	*579.8*
Primary Inventory Withdrawals	**1.5**	**1.1**	**1.2**	**2.9**	**-1.6**	**-3.0**	*7.6*	*-0.3*	*-4.2*	*-3.0*	*7.6*	*-0.3*	**6.7**	*2.6*	*0.0*
Imports	**7.6**	**9.0**	**8.5**	**9.1**	**6.3**	**5.4**	*5.4*	*6.8*	*6.9*	*8.5*	*9.2*	*8.5*	**34.2**	*23.9*	*33.0*
Exports	**15.8**	**23.1**	**20.3**	**22.3**	**13.3**	**13.0**	*18.7*	*16.4*	*15.0*	*21.4*	*23.2*	*21.0*	**81.5**	*61.3*	*80.5*
Metallurgical Coal	**9.1**	**12.6**	**10.6**	**10.4**	**8.5**	**6.5**	*7.5*	*9.2*	*6.3*	*9.0*	*9.9*	*11.9*	**42.5**	*31.7*	*37.1*
Steam Coal	**6.7**	**10.5**	**9.8**	**12.0**	**4.9**	**6.4**	*11.2*	*7.2*	*8.7*	*12.5*	*13.3*	*9.1*	**39.0**	*29.6*	*43.5*
Total Primary Supply	**282.5**	**270.9**	**288.3**	**289.1**	**272.9**	**250.0**	*259.3*	*261.2*	*253.1*	*231.8*	*253.5*	*277.2*	**1130.8**	*1043.4*	*1015.7*
Secondary Inventory Withdrawals	**5.1**	**-7.4**	**7.6**	**-18.4**	**-12.7**	**-21.8**	*19.3*	*-5.2*	*5.1*	*0.2*	*18.4*	*-16.6*	**-13.1**	*-20.4*	*7.1*
Waste Coal (a)	**3.3**	**3.3**	**3.5**	**3.7**	**3.0**	**3.7**	*3.7*	*3.7*	*3.7*	*3.7*	*3.7*	*3.7*	**13.7**	*14.3*	*15.0*
Total Supply	**290.8**	**266.7**	**299.5**	**274.5**	**263.2**	**231.9**	*282.3*	*259.8*	*262.0*	*235.7*	*275.7*	*264.4*	**1131.5**	*1037.2*	*1037.8*
Consumption (million short tons)															
Coke Plants	**5.5**	**5.6**	**5.8**	**5.2**	**4.4**	**2.9**	*2.6*	*2.8*	*3.3*	*3.5*	*3.2*	*3.4*	**22.1**	*12.7*	*13.5*
Electric Power Sector (b)	**263.3**	**247.9**	**279.2**	**251.2**	**237.5**	**217.3**	*256.2*	*245.1*	*246.1*	*219.9*	*259.4*	*247.4*	**1041.6**	*956.1*	*972.8*
Retail and Other Industry	**15.2**	**14.6**	**14.3**	**14.0**	**13.2**	**12.3**	*11.5*	*11.9*	*12.5*	*12.4*	*13.0*	*13.6*	**58.0**	*48.9*	*51.5*
Residential and Commercial	**1.1**	**0.7**	**0.7**	**0.9**	**1.1**	**0.6**	*0.6*	*1.0*	*1.0*	*0.6*	*0.6*	*1.0*	**3.5**	*3.2*	*3.2*
Other Industrial	**14.1**	**13.9**	**13.6**	**13.0**	**12.1**	**11.7**	*10.9*	*10.9*	*11.6*	*11.8*	*12.4*	*12.6*	**54.5**	*45.7*	*48.3*
Total Consumption	**284.0**	**268.1**	**299.3**	**270.4**	**255.1**	**232.5**	*270.4*	*259.8*	*262.0*	*235.7*	*275.7*	*264.4*	**1121.7**	*1017.8*	*1037.8*
Discrepancy (c)	**6.8**	**-1.4**	**0.2**	**4.1**	**8.1**	**-0.5**	*11.9*	*0.0*	*0.0*	*0.0*	*0.0*	*0.0*	**9.8**	*19.4*	*0.0*
End-of-period Inventories (million short tons)															
Primary Inventories (d)	**32.5**	**31.4**	**30.2**	**27.3**	**28.9**	**31.9**	*24.3*	*24.7*	*28.9*	*31.9*	*24.3*	*24.7*	**27.3**	*24.7*	*24.7*
Secondary Inventories	**153.7**	**161.1**	**153.5**	**171.9**	**184.6**	**206.4**	*187.2*	*192.3*	*187.2*	*187.1*	*168.7*	*185.2*	**171.9**	*192.3*	*185.2*
Electric Power Sector	**147.0**	**153.9**	**145.8**	**163.1**	**176.6**	**198.2**	*178.5*	*183.5*	*178.6*	*178.2*	*159.5*	*175.9*	**163.1**	*183.5*	*175.9*
Retail and General Industry	**4.8**	**5.0**	**5.2**	**6.0**	**5.4**	**5.6**	*5.9*	*6.3*	*6.2*	*6.4*	*6.6*	*6.8*	**6.0**	*6.3*	*6.8*
Coke Plants	**1.5**	**1.8**	**2.0**	**2.3**	**2.1**	**2.1**	*2.1*	*2.0*	*1.9*	*1.9*	*2.0*	*1.9*	**2.3**	*2.0*	*1.9*
Coal Market Indicators															
Coal Miner Productivity															
(Tons per hour)	**5.96**	**5.96**	**5.96**	**5.96**	**6.00**	**6.00**	*6.00*	*6.00*	*6.06*	*6.06*	*6.06*	*6.06*	**5.96**	*6.00*	*6.06*
Total Raw Steel Production															
(Million short tons per day)	**0.302**	**0.303**	**0.298**	**0.200**	**0.146**	**0.153**	*0.181*	*0.170*	*0.158*	*0.168*	*0.167*	*0.170*	**0.276**	*0.162*	*0.166*
Cost of Coal to Electric Utilities															
(Dollars per million Btu)	**1.91**	**2.04**	**2.16**	**2.18**	**2.27**	**2.24**	*2.20*	*2.11*	*2.04*	*2.00*	*1.97*	*1.96*	**2.07**	*2.20*	*1.99*

- = no data available

(a) Waste coal includes waste coal and cloal slurry reprocessed into briquettes.

(b) Coal used for electricity generation and (a limited amount of) useful thermal output by electric utilities and independent power producers.

(c) The discrepancy reflects an unaccounted-for shipper and receiver reporting difference, assumed to be zero in the forecast period.

(d) Primary stocks are held at the mines and distribution points.

Notes: The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Historical data: Latest data available from Energy Information Administration databases supporting the following reports: *Quarterly Coal Report*, DOE/EIA-0121; and *Electric Power Monthly*, DOE/EIA-0226.

Minor discrepancies with published historical data are due to independent rounding.

Projections: Generated by simulation of the EIA Regional Short-Term Energy Model.

Table 7a. U.S. Electricity Industry Overview

Energy Information Administration/Short-Term Energy Outlook - September 2009

	2008				2009				2010				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2008	2009	2010
Electricity Supply (billion kilowatthours per day)															
Electricity Generation	11.10	11.00	12.25	10.56	10.71	10.43	11.85	10.48	10.80	10.43	12.09	10.62	11.23	10.87	10.99
Electric Power Sector (a)	10.70	10.61	11.85	10.19	10.34	10.06	11.46	10.11	10.42	10.08	11.70	10.25	10.84	10.49	10.62
Industrial Sector	0.38	0.37	0.38	0.34	0.36	0.34	0.36	0.35	0.36	0.33	0.36	0.35	0.37	0.35	0.35
Commercial Sector	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Net Imports	0.09	0.09	0.13	0.05	0.06	0.08	0.08	0.04	0.06	0.05	0.08	0.05	0.09	0.07	0.06
Total Supply	11.20	11.09	12.38	10.61	10.78	10.51	11.93	10.52	10.86	10.48	12.17	10.67	11.32	10.94	11.05
Losses and Unaccounted for (b)	0.63	0.88	0.74	0.71	0.53	0.91	0.71	0.69	0.53	0.81	0.73	0.70	0.74	0.71	0.69
Electricity Consumption (billion kilowatthours per day)															
Retail Sales	10.14	9.80	11.22	9.51	9.85	9.23	10.81	9.44	9.92	9.30	11.03	9.58	10.17	9.83	9.96
Residential Sector	3.94	3.35	4.34	3.44	3.97	3.29	4.31	3.51	4.07	3.30	4.42	3.58	3.77	3.77	3.84
Commercial Sector	3.52	3.65	4.09	3.52	3.50	3.55	3.97	3.51	3.53	3.60	4.09	3.59	3.70	3.63	3.70
Industrial Sector	2.66	2.77	2.77	2.53	2.35	2.37	2.51	2.40	2.31	2.38	2.51	2.40	2.68	2.41	2.40
Transportation Sector	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Direct Use (c)	0.43	0.41	0.43	0.38	0.40	0.38	0.41	0.39	0.40	0.37	0.41	0.39	0.41	0.39	0.39
Total Consumption	10.57	10.21	11.64	9.90	10.25	9.61	11.22	9.83	10.32	9.67	11.44	9.97	10.58	10.23	10.35
Prices															
Power Generation Fuel Costs (dollars per million Btu)															
Coal	1.91	2.04	2.16	2.18	2.27	2.24	2.20	2.11	2.04	2.00	1.97	1.96	2.07	2.20	1.99
Natural Gas	8.57	11.08	9.75	6.67	5.44	4.43	3.76	3.46	4.88	4.82	4.83	5.54	9.13	4.20	5.00
Residual Fuel Oil	12.90	15.44	17.75	10.28	7.26	8.56	10.44	11.21	11.25	11.21	11.16	11.38	14.40	8.90	11.24
Distillate Fuel Oil	18.86	23.38	23.99	14.88	11.40	11.92	12.94	13.79	14.10	14.34	14.63	15.25	20.27	12.52	14.59
End-Use Prices (cents per kilowatthour)															
Residential Sector	10.4	11.5	12.1	11.4	11.2	11.8	12.1	11.4	10.9	11.7	11.9	11.1	11.4	11.6	11.4
Commercial Sector	9.5	10.3	11.0	10.2	10.1	10.2	10.9	10.2	9.9	10.1	10.7	10.1	10.3	10.4	10.2
Industrial Sector	6.4	6.9	7.6	7.1	6.9	7.0	7.4	6.9	6.7	6.8	7.3	6.8	7.0	7.0	6.9

- = no data available

(a) Electric utilities and independent power producers.

(b) Includes transmission and distribution losses, data collection time-frame differences, and estimation error.

(c) Direct Use represents commercial and industrial facility use of onsite net electricity generation; and electrical sales or transfers to adjacent or colocated facilities for which revenue information is not available. See Table 7.6 of the EIA *Monthly Energy Review*.

Notes: The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Historical data: Latest data available from Energy Information Administration databases supporting the following reports: *Electric Power Monthly*, DOE/EIA-0226; and *Electric Power Annual*, DOE/EIA-0348.

Minor discrepancies with published historical data are due to independent rounding.

Projections: Generated by simulation of the EIA Regional Short-Term Energy Model.

Table 7b. U.S. Regional Electricity Retail Sales (Million Kilowatthours per Day)

Energy Information Administration/Short-Term Energy Outlook - September 2009

	2008				2009				2010				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2008	2009	2010
Residential Sector															
New England	140	112	138	123	144	110	133	127	144	113	138	129	128	128	131
Middle Atlantic	385	318	407	336	399	306	393	349	403	318	407	349	362	361	369
E. N. Central	575	439	562	497	570	434	532	494	568	445	576	500	519	507	522
W. N. Central	316	237	308	263	315	240	295	261	317	242	329	266	281	278	288
S. Atlantic	954	861	1,110	857	997	840	1,119	872	1,032	822	1,131	897	946	957	970
E. S. Central	355	281	383	293	355	276	386	297	367	271	397	300	328	329	334
W. S. Central	502	500	680	445	495	490	710	477	523	482	692	488	532	544	546
Mountain	250	228	324	225	239	229	311	229	248	233	316	235	257	252	258
Pacific contiguous	446	362	416	385	442	353	421	390	448	363	416	398	402	401	406
AK and HI	16	13	13	14	15	13	14	15	15	13	14	15	14	14	14
Total	3,938	3,352	4,342	3,439	3,972	3,291	4,312	3,511	4,066	3,301	4,415	3,577	3,769	3,772	3,840
Commercial Sector															
New England	154	150	168	146	133	123	142	128	137	127	139	126	155	131	132
Middle Atlantic	447	434	493	431	449	421	479	433	453	435	498	440	451	446	457
E. N. Central	552	547	608	540	553	533	564	520	552	543	599	540	562	542	558
W. N. Central	262	260	290	261	263	259	281	259	259	260	294	264	268	266	269
S. Atlantic	782	840	931	785	786	826	906	788	784	823	935	811	835	827	839
E. S. Central	217	228	263	216	215	223	255	219	217	224	265	223	231	228	233
W. S. Central	407	460	519	417	417	454	547	444	437	467	555	454	451	466	478
Mountain	240	257	290	250	237	251	281	248	235	256	286	251	259	255	257
Pacific contiguous	443	456	508	458	432	445	500	450	436	451	501	460	466	457	462
AK and HI	17	17	17	17	17	17	18	17	17	17	18	18	17	17	18
Total	3,521	3,649	4,087	3,522	3,503	3,552	3,972	3,507	3,527	3,603	4,091	3,586	3,695	3,634	3,703
Industrial Sector															
New England	60	63	64	59	79	77	80	77	75	76	79	76	62	78	77
Middle Atlantic	196	202	202	188	177	175	186	183	177	181	185	175	197	180	180
E. N. Central	532	534	526	486	445	435	445	432	424	424	432	424	519	439	426
W. N. Central	231	235	245	230	203	200	230	222	205	206	232	224	235	214	217
S. Atlantic	409	434	426	383	348	359	377	354	339	357	375	354	413	360	356
E. S. Central	369	362	348	345	313	301	315	337	324	320	328	344	356	316	329
W. S. Central	415	455	441	386	366	378	401	361	352	369	396	359	424	377	369
Mountain	210	232	242	213	196	207	229	211	204	222	242	219	224	211	222
Pacific contiguous	225	242	258	230	211	221	232	212	198	212	223	209	239	219	210
AK and HI	14	14	14	14	13	14	15	14	13	14	14	14	14	14	14
Total	2,661	2,773	2,767	2,533	2,352	2,367	2,508	2,403	2,310	2,380	2,506	2,398	2,683	2,408	2,399
Total All Sectors (a)															
New England	356	327	371	330	357	311	356	334	359	317	358	333	346	339	341
Middle Atlantic	1,039	965	1,113	966	1,038	912	1,068	975	1,045	943	1,101	975	1,021	998	1,016
E. N. Central	1,662	1,521	1,697	1,525	1,569	1,404	1,542	1,448	1,545	1,413	1,609	1,466	1,601	1,491	1,508
W. N. Central	808	733	844	754	782	699	806	742	781	708	855	754	785	757	775
S. Atlantic	2,148	2,139	2,471	2,029	2,135	2,028	2,405	2,018	2,158	2,006	2,445	2,066	2,197	2,147	2,169
E. S. Central	941	871	994	854	883	801	955	853	908	815	990	867	915	873	895
W. S. Central	1,324	1,416	1,640	1,248	1,279	1,323	1,658	1,282	1,312	1,318	1,642	1,302	1,407	1,386	1,394
Mountain	701	717	857	687	673	687	821	688	687	712	845	705	741	718	737
Pacific contiguous	1,117	1,062	1,184	1,076	1,088	1,021	1,155	1,055	1,084	1,028	1,142	1,068	1,110	1,080	1,081
AK and HI	47	45	45	46	45	44	46	46	46	44	46	47	46	45	46
Total	10,142	9,795	11,217	9,515	9,849	9,229	10,812	9,441	9,924	9,303	11,032	9,582	10,168	9,835	9,962

- = no data available

(a) Total retail sales to all sectors includes residential, commercial, industrial, and transportation sector sales.

Notes: The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Retail Sales represents total retail electricity sales by electric utilities and power marketers.

Regions refer to U.S. Census divisions.

See "Census division" in EIA's Energy Glossary (http://www.eia.doe.gov/glossary/index.html) for a list of States in each region.

Historical data: Latest data available from Energy Information Administration databases supporting the following reports: *Electric Power Monthly* , DOE/EIA-0226; and *Electric Power Annual*, DOE/EIA-0348.

Minor discrepancies with published historical data are due to independent rounding.

Projections: Generated by simulation of the EIA Regional Short-Term Energy Model.

Table 7c. U.S. Regional Electricity Prices (Cents per Kilowatthour)

Energy Information Administration/Short-Term Energy Outlook - September 2009

	2008				2009				2010				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2008	2009	2010
Residential Sector															
New England	16.7	17.4	18.0	18.2	17.8	17.9	18.0	17.8	17.3	17.4	17.4	17.5	17.6	17.9	17.4
Middle Atlantic	13.8	15.5	16.7	14.5	14.2	15.3	16.4	14.8	14.3	15.2	16.2	14.5	15.2	15.2	15.0
E. N. Central	9.5	10.8	11.0	10.7	10.4	11.4	11.4	10.7	10.3	11.2	11.3	10.6	10.5	11.0	10.8
W. N. Central	7.7	9.1	9.6	8.6	8.3	9.6	9.9	8.7	8.1	9.4	9.7	8.4	8.7	9.1	8.9
S. Atlantic	9.9	10.7	11.3	10.9	11.0	11.4	11.7	11.0	10.7	11.2	11.3	10.7	10.7	11.3	11.0
E. S. Central	8.2	9.3	9.7	9.9	9.5	9.8	9.8	9.6	9.1	9.5	9.4	9.0	9.3	9.7	9.3
W. S. Central	10.4	11.9	12.7	11.9	11.5	11.5	12.0	11.4	10.7	11.5	11.8	11.2	11.8	11.7	11.4
Mountain	8.9	10.2	10.5	9.6	9.3	10.3	10.6	9.7	9.2	10.1	10.5	9.6	9.8	10.0	9.9
Pacific	11.3	11.8	13.0	11.8	11.5	12.3	13.1	11.7	11.5	12.3	12.8	11.6	11.9	12.2	12.1
U.S. Average	10.3	11.5	12.1	11.4	11.2	11.8	12.1	11.4	10.9	11.7	11.9	11.1	11.4	11.6	11.4
Commercial Sector															
New England	14.6	15.5	16.1	15.6	16.2	15.7	15.9	15.3	15.0	15.0	15.6	15.4	15.5	15.8	15.3
Middle Atlantic	12.8	14.3	15.6	13.1	13.1	13.3	15.0	13.5	13.0	13.3	15.0	13.4	14.0	13.8	13.7
E. N. Central	8.4	8.9	9.1	9.0	8.9	9.0	9.3	9.0	8.6	8.8	9.1	8.8	8.9	9.1	8.8
W. N. Central	6.5	7.3	7.8	6.8	6.9	7.6	8.0	6.9	6.7	7.4	7.8	6.8	7.1	7.4	7.2
S. Atlantic	8.8	9.2	9.8	9.7	9.8	9.7	10.0	9.7	9.5	9.5	9.6	9.4	9.4	9.8	9.5
E. S. Central	8.2	8.8	9.3	9.6	9.4	9.2	9.4	9.3	9.2	9.2	9.0	9.1	9.0	9.3	9.1
W. S. Central	9.3	10.3	10.8	9.9	9.5	9.2	9.9	9.8	9.3	9.2	9.7	9.8	10.1	9.6	9.5
Mountain	7.7	8.6	8.9	8.1	7.9	8.5	9.0	8.4	7.8	8.2	8.7	8.1	8.3	8.5	8.2
Pacific	10.1	11.5	12.8	11.2	10.7	12.0	13.3	11.5	10.9	12.1	13.3	11.4	11.4	11.9	12.0
U.S. Average	9.5	10.3	11.0	10.2	10.1	10.2	10.9	10.2	9.9	10.1	10.7	10.1	10.3	10.4	10.2
Industrial Sector															
New England	12.8	13.2	13.7	13.4	12.1	11.9	12.9	13.0	12.3	11.9	12.6	13.0	13.3	12.5	12.5
Middle Atlantic	8.4	8.8	9.2	8.3	8.5	8.6	9.0	8.5	8.3	8.3	8.9	8.4	8.7	8.6	8.5
E. N. Central	6.0	6.3	6.7	6.6	6.7	6.8	7.0	6.6	6.5	6.6	6.8	6.4	6.4	6.8	6.5
W. N. Central	4.9	5.3	5.9	5.2	5.5	5.8	6.0	5.1	5.3	5.5	5.9	5.1	5.4	5.6	5.5
S. Atlantic	5.8	6.2	6.8	6.6	6.7	6.8	7.2	6.6	6.4	6.5	7.0	6.4	6.3	6.8	6.6
E. S. Central	5.0	5.5	6.2	6.2	5.9	6.0	6.5	5.8	5.6	5.9	6.5	5.6	5.7	6.0	5.9
W. S. Central	7.2	8.3	8.9	7.9	7.2	6.5	7.0	7.1	6.7	6.3	6.8	7.0	8.1	6.9	6.7
Mountain	5.6	6.1	6.7	5.7	5.6	6.0	6.6	5.9	5.6	5.8	6.4	5.8	6.0	6.0	5.9
Pacific	7.5	7.7	8.8	8.1	7.4	8.2	9.1	8.1	7.6	8.2	9.1	8.2	8.0	8.2	8.3
U.S. Average	6.4	6.9	7.6	7.1	6.9	7.0	7.4	6.9	6.7	6.8	7.3	6.8	7.0	7.0	6.9
All Sectors (a)															
New England	15.1	15.7	16.4	16.2	15.9	15.5	16.0	15.7	15.3	15.1	15.6	15.6	15.8	15.8	15.4
Middle Atlantic	12.3	13.5	14.9	12.7	12.7	13.1	14.5	13.0	12.7	12.9	14.4	12.9	13.4	13.4	13.2
E. N. Central	8.0	8.5	9.0	8.8	8.8	9.1	9.3	8.8	8.6	8.9	9.2	8.7	8.6	9.0	8.9
W. N. Central	6.5	7.3	7.9	6.9	7.1	7.8	8.1	7.0	6.9	7.5	8.0	6.9	7.2	7.5	7.3
S. Atlantic	8.7	9.2	10.0	9.6	9.9	9.9	10.3	9.7	9.6	9.7	10.0	9.4	9.4	10.0	9.7
E. S. Central	6.9	7.6	8.4	8.4	8.2	8.2	8.6	8.0	7.9	8.0	8.3	7.7	7.8	8.3	8.0
W. S. Central	9.1	10.2	11.1	10.0	9.6	9.3	10.1	9.6	9.2	9.3	9.9	9.6	10.2	9.7	9.5
Mountain	7.5	8.3	8.9	7.8	7.7	8.3	8.9	8.1	7.7	8.1	8.7	7.9	8.2	8.3	8.1
Pacific	10.0	10.7	12.0	10.7	10.4	11.3	12.4	10.9	10.5	11.4	12.3	10.9	10.9	11.3	11.3
U.S. Average	9.0	9.8	10.6	9.8	9.8	9.9	10.6	9.8	9.6	9.8	10.4	9.7	9.8	10.0	9.9

- = no data available

(a) Volume-weighted average of retail prices to residential, commercial, industrial, and transportation sectors.

Notes: The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Regions refer to U.S. Census divisions.

See "Census division" in EIA's Energy Glossary (http://www.eia.doe.gov/glossary/index.html) for a list of States in each region.

Historical data: Latest data available from Energy Information Administration databases supporting the following reports: *Electric Power Monthly* , DOE/EIA-0226; and *Electric Power Annual*, DOE/EIA-0348.

Minor discrepancies with published historical data are due to independent rounding.

Projections: Generated by simulation of the EIA Regional Short-Term Energy Model.

Table 7d. U.S. Electricity Generation by Fuel and Sector (Billion Kilowatthours per day)
Energy Information Administration/Short-Term Energy Outlook - September 2009

	2008				2009				2010				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2008	2009	2010
Electric Power Sector (a)															
Coal	**5.571**	**5.167**	**5.721**	**5.138**	**4.973**	**4.458**	*5.182*	*4.965*	*5.121*	*4.503*	*5.213*	*4.973*	**5.399**	*4.895*	*4.953*
Natural Gas	**1.902**	**2.079**	**2.791**	**1.951**	**1.958**	**2.146**	*2.952*	*2.031*	*1.830*	*2.052*	*3.058*	*2.098*	**2.182**	*2.274*	*2.262*
Other Gases	**0.010**	**0.010**	**0.009**	**0.007**	**0.007**	**0.008**	*0.009*	*0.009*	*0.010*	*0.010*	*0.010*	*0.010*	**0.009**	*0.009*	*0.010*
Petroleum	**0.113**	**0.120**	**0.122**	**0.107**	**0.130**	**0.095**	*0.097*	*0.092*	*0.108*	*0.103*	*0.113*	*0.103*	**0.116**	*0.104*	*0.107*
Residual Fuel Oil	**0.052**	**0.066**	**0.070**	**0.055**	**0.067**	**0.040**	*0.038*	*0.026*	*0.033*	*0.036*	*0.037*	*0.033*	**0.060**	*0.042*	*0.034*
Distillate Fuel Oil	**0.022**	**0.018**	**0.015**	**0.015**	**0.024**	**0.017**	*0.012*	*0.011*	*0.018*	*0.012*	*0.012*	*0.014*	**0.017**	*0.016*	*0.014*
Petroleum Coke	**0.036**	**0.034**	**0.035**	**0.035**	**0.035**	**0.035**	*0.046*	*0.053*	*0.054*	*0.054*	*0.062*	*0.055*	**0.035**	*0.043*	*0.056*
Other Petroleum	**0.004**	**0.003**	**0.003**	**0.003**	**0.005**	**0.003**	*0.002*	*0.002*	*0.003*	*0.001*	*0.002*	*0.002*	**0.003**	*0.003*	*0.002*
Nuclear	**2.204**	**2.115**	**2.326**	**2.164**	**2.274**	**2.130**	*2.292*	*2.150*	*2.259*	*2.185*	*2.324*	*2.156*	**2.203**	*2.211*	*2.231*
Pumped Storage Hydroelectric	**-0.019**	**-0.012**	**-0.021**	**-0.016**	**-0.012**	**-0.010**	*-0.017*	*-0.016*	*-0.015*	*-0.015*	*-0.017*	*-0.016*	**-0.017**	*-0.014*	*-0.016*
Other Fuels (b)	**0.018**	**0.020**	**0.019**	**0.018**	**0.018**	**0.019**	*0.020*	*0.019*	*0.018*	*0.018*	*0.020*	*0.019*	**0.019**	*0.019*	*0.019*
Renewables:															
Conventional Hydroelectric	**0.649**	**0.832**	**0.657**	**0.552**	**0.690**	**0.916**	*0.666*	*0.591*	*0.744*	*0.859*	*0.668*	*0.598*	**0.672**	*0.715*	*0.717*
Geothermal	**0.039**	**0.041**	**0.042**	**0.041**	**0.041**	**0.039**	*0.041*	*0.042*	*0.042*	*0.042*	*0.044*	*0.043*	**0.041**	*0.041*	*0.043*
Solar	**0.001**	**0.003**	**0.003**	**0.001**	**0.001**	**0.003**	*0.003*	*0.001*	*0.002*	*0.004*	*0.006*	*0.002*	**0.002**	*0.002*	*0.003*
Wind	**0.138**	**0.166**	**0.105**	**0.160**	**0.188**	**0.193**	*0.138*	*0.151*	*0.228*	*0.240*	*0.182*	*0.187*	**0.142**	*0.167*	*0.209*
Wood and Wood Waste	**0.031**	**0.027**	**0.032**	**0.030**	**0.030**	**0.026**	*0.033*	*0.031*	*0.032*	*0.028*	*0.033*	*0.032*	**0.030**	*0.030*	*0.031*
Other Renewables	**0.039**	**0.043**	**0.040**	**0.040**	**0.039**	**0.041**	*0.043*	*0.043*	*0.045*	*0.048*	*0.050*	*0.049*	**0.041**	*0.042*	*0.048*
Subtotal Electric Power Sector	**10.696**	**10.611**	**11.848**	**10.193**	**10.338**	**10.064**	*11.460*	*10.110*	*10.422*	*10.078*	*11.704*	*10.255*	**10.838**	*10.495*	*10.617*
Commercial Sector (c)															
Coal	**0.003**	**0.003**	**0.004**	**0.003**	**0.003**	**0.003**	*0.003*	*0.003*	*0.004*	*0.003*	*0.004*	*0.003*	**0.003**	*0.003*	*0.003*
Natural Gas	**0.012**	**0.010**	**0.012**	**0.011**	**0.011**	**0.011**	*0.012*	*0.011*	*0.011*	*0.011*	*0.012*	*0.012*	**0.011**	*0.011*	*0.011*
Petroleum	**0.000**	**0.000**	**0.000**	**0.000**	**0.001**	**0.000**	*0.001*	*0.001*	*0.001*	*0.000*	*0.001*	*0.000*	**0.000**	*0.001*	*0.001*
Other Fuels (b)	**0.002**	**0.002**	**0.002**	**0.002**	**0.002**	**0.002**	*0.002*	*0.002*	*0.002*	*0.002*	*0.002*	*0.002*	**0.002**	*0.002*	*0.002*
Renewables (d)	**0.004**	**0.005**	**0.005**	**0.004**	**0.004**	**0.005**	*0.005*	*0.004*	*0.004*	*0.005*	*0.005*	*0.004*	**0.004**	*0.004*	*0.004*
Subtotal Commercial Sector	**0.021**	**0.022**	**0.023**	**0.021**	**0.021**	**0.021**	*0.023*	*0.021*	*0.022*	*0.022*	*0.024*	*0.022*	**0.022**	*0.021*	*0.022*
Industrial Sector (c)															
Coal	**0.046**	**0.047**	**0.050**	**0.043**	**0.041**	**0.039**	*0.043*	*0.044*	*0.045*	*0.045*	*0.047*	*0.046*	**0.046**	*0.042*	*0.046*
Natural Gas	**0.213**	**0.201**	**0.207**	**0.191**	**0.201**	**0.192**	*0.200*	*0.189*	*0.197*	*0.177*	*0.195*	*0.188*	**0.203**	*0.196*	*0.189*
Other Gases	**0.025**	**0.024**	**0.025**	**0.017**	**0.018**	**0.019**	*0.024*	*0.018*	*0.018*	*0.018*	*0.024*	*0.018*	**0.023**	*0.020*	*0.019*
Petroleum	**0.009**	**0.007**	**0.008**	**0.008**	**0.010**	**0.008**	*0.009*	*0.009*	*0.010*	*0.008*	*0.009*	*0.009*	**0.008**	*0.009*	*0.009*
Other Fuels (b)	**0.007**	**0.008**	**0.008**	**0.006**	**0.008**	**0.011**	*0.008*	*0.006*	*0.008*	*0.010*	*0.008*	*0.006*	**0.007**	*0.008*	*0.008*
Renewables:															
Conventional Hydroelectric	**0.008**	**0.005**	**0.004**	**0.004**	**0.005**	**0.006**	*0.004*	*0.004*	*0.005*	*0.006*	*0.004*	*0.004*	**0.005**	*0.005*	*0.005*
Wood and Wood Waste	**0.077**	**0.076**	**0.079**	**0.073**	**0.071**	**0.069**	*0.075*	*0.074*	*0.071*	*0.066*	*0.074*	*0.074*	**0.076**	*0.072*	*0.071*
Other Renewables (e)	**0.002**	**0.002**	**0.002**	**0.001**	**0.002**	**0.001**	*0.001*	*0.001*	*0.002*	*0.001*	*0.001*	*0.001*	**0.002**	*0.001*	*0.001*
Subtotal Industrial Sector	**0.385**	**0.372**	**0.383**	**0.343**	**0.356**	**0.345**	*0.364*	*0.345*	*0.357*	*0.331*	*0.361*	*0.345*	**0.371**	*0.353*	*0.349*
Total All Sectors	**11.103**	**11.004**	**12.253**	**10.557**	**10.715**	**10.430**	*11.847*	*10.476*	*10.800*	*10.431*	*12.090*	*10.622*	**11.230**	*10.869*	*10.988*

\- = no data available

(a) Electric utilities and independent power producers.

(b) "Other" includes non-biogenic municipal solid waste, batteries, chemicals, hydrogen, pitch, purchased steam, sulfur, tires and miscellaneous technologies.

(c) Commercial and industrial sectors include electricity output from combined heat and power (CHP) facilities and some electric-only plants.

(d) "Renewables" in commercial sector includes wood, black liquor, other wood waste, biogenic municipal solid waste, landfill gas, sludge waste, agriculture byproducts, other biomass, geothermal, solar thermal, photovoltaic energy and wind.

(e) "Other Renewables" in industrial sector includes black liquor, biogenic municipal solid waste, landfill gas, sludge waste, agriculture byproducts, other biomass, geothermal, solar thermal, photovoltaic energy and wind.

Notes: The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Values of 0.000 may indicate positive levels of generation that are less than 0.0005 billion kilowatthours per day.

Historical data: Latest data available from Energy Information Administration databases supporting the following reports: *Electric Power Monthly* , DOE/EIA-0226; and *Electric Power Annual* , DOE/EIA-0348.

Minor discrepancies with published historical data are due to independent rounding.

Projections: Generated by simulation of the EIA Regional Short-Term Energy Model.

Table 7e. U.S. Fuel Consumption for Electricity Generation by Sector

Energy Information Administration/Short-Term Energy Outlook - September 2009

	2008				2009				2010				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2008	2009	2010
Electric Power Sector (a)															
Coal (mmst/d)	2.88	2.71	3.02	2.72	2.63	2.38	2.77	2.65	2.72	2.41	2.81	2.68	2.84	2.61	2.66
Natural Gas (bcf/d)	14.67	16.67	22.37	15.20	15.00	16.96	23.65	15.80	13.98	16.16	24.24	16.13	17.24	17.87	17.65
Petroleum (mmb/d) (b)	0.20	0.21	0.22	0.19	0.23	0.17	0.18	0.17	0.20	0.19	0.21	0.19	0.21	0.19	0.20
Residual Fuel Oil (mmb/d)	0.09	0.11	0.12	0.09	0.11	0.07	0.06	0.04	0.05	0.06	0.06	0.05	0.10	0.07	0.06
Distillate Fuel Oil (mmb/d)	0.04	0.03	0.03	0.03	0.04	0.03	0.02	0.02	0.03	0.02	0.02	0.03	0.03	0.03	0.03
Petroleum Coke (mmst/d)	0.07	0.07	0.07	0.07	0.07	0.07	0.09	0.11	0.11	0.11	0.12	0.11	0.07	0.08	0.11
Other Petroleum (mmb/d)	0.01	0.01	0.00	0.01	0.01	0.01	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.01	0.00
Commercial Sector (c)															
Coal (mmst/d)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas (bcf/d)	0.09	0.08	0.09	0.08	0.09	0.08	0.09	0.09	0.09	0.08	0.10	0.09	0.09	0.09	0.09
Petroleum (mmb/d) (b)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Industrial Sector (c)															
Coal (mmst/d)	0.01	0.02	0.02	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.02
Natural Gas (bcf/d)	1.41	1.33	1.37	1.27	1.35	1.32	1.42	1.36	1.40	1.28	1.40	1.35	1.35	1.36	1.36
Petroleum (mmb/d) (b)	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Total All Sectors															
Coal (mmst/d)	2.90	2.73	3.04	2.73	2.64	2.39	2.79	2.67	2.74	2.42	2.83	2.70	2.85	2.62	2.67
Natural Gas (bcf/d)	16.18	18.08	23.83	16.55	16.44	18.36	25.16	17.25	15.47	17.52	25.74	17.57	18.67	19.32	19.10
Petroleum (mmb/d) (b)	0.22	0.22	0.23	0.20	0.24	0.18	0.19	0.19	0.22	0.20	0.23	0.21	0.22	0.20	0.21
End-of-period Fuel Inventories Held by Electric Power Sector															
Coal (mmst)	147.0	153.9	145.8	163.1	176.6	198.2	178.5	183.5	178.6	178.2	159.5	175.9	163.1	183.5	175.9
Residual Fuel Oil (mmb)	23.1	24.3	22.3	21.7	22.0	21.7	19.8	19.3	18.5	19.1	16.8	18.0	21.7	19.3	18.0
Distillate Fuel Oil (mmb)	18.4	18.4	18.3	18.9	18.7	19.4	19.3	19.7	18.9	18.8	18.7	19.2	18.9	19.7	19.2
Petroleum Coke (mmb)	3.3	3.7	3.6	4.0	3.8	4.0	4.1	4.2	4.4	4.3	4.5	4.1	4.0	4.2	4.1

- = no data available

(a) Electric utilities and independent power producers.

(b) Petroleum category may include petroleum coke, which is converted from short tons to barrels by multiplying by 5.

(c) Commercial and industrial sectors include electricity output from combined heat and power (CHP) facilities and some electric-only plants.

Notes: The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Physical Units: mmst/d = million short tons per day; mmb/d = million barrels per day; bcf/d = billion cubic feet per day; mmb = million barrels.

Values of 0.00 may indicate positive levels of fuel consumption that are less than 0.005 units per day.

Historical data: Latest data available from Energy Information Administration databases supporting the following reports: *Electric Power Monthly*, DOE/EIA-0226; and *Electric Power Annual*, DOE/EIA-0348.

Minor discrepancies with published historical data are due to independent rounding.

Projections: Generated by simulation of the EIA Regional Short-Term Energy Model.

Table 8. U.S. Renewable Energy Supply and Consumption (Quadrillion Btu)

Energy Information Administration/Short-Term Energy Outlook - September 2009

	2008				2009				2010				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2008	2009	2010
Supply															
Hydroelectric Power (a)	**0.591**	**0.754**	**0.602**	**0.506**	**0.618**	**0.830**	*0.609*	*0.541*	*0.667*	*0.779*	*0.611*	*0.548*	**2.452**	*2.599*	*2.604*
Geothermal	**0.085**	**0.091**	**0.092**	**0.090**	**0.088**	**0.088**	*0.091*	*0.092*	*0.091*	*0.092*	*0.096*	*0.095*	**0.358**	*0.360*	*0.375*
Solar	**0.022**	**0.024**	**0.024**	**0.022**	**0.021**	**0.024**	*0.024*	*0.022*	*0.022*	*0.025*	*0.026*	*0.023*	**0.091**	*0.091*	*0.095*
Wind	**0.124**	**0.149**	**0.096**	**0.145**	**0.167**	**0.174**	*0.125*	*0.137*	*0.203*	*0.216*	*0.165*	*0.170*	**0.514**	*0.603*	*0.754*
Wood	**0.507**	**0.506**	**0.521**	**0.507**	**0.482**	**0.476**	*0.513*	*0.507*	*0.488*	*0.464*	*0.513*	*0.509*	**2.041**	*1.978*	*1.974*
Ethanol (b)	**0.174**	**0.190**	**0.207**	**0.214**	**0.203**	**0.215**	*0.232*	*0.237*	*0.238*	*0.249*	*0.257*	*0.262*	**0.784**	*0.888*	*1.006*
Biodiesel (b)	**0.018**	**0.022**	**0.025**	**0.022**	**0.013**	**0.014**	*0.019*	*0.020*	*0.020*	*0.023*	*0.023*	*0.023*	**0.087**	*0.066*	*0.088*
Other Renewables	**0.110**	**0.108**	**0.107**	**0.106**	**0.108**	**0.108**	*0.117*	*0.111*	*0.123*	*0.113*	*0.128*	*0.121*	**0.431**	*0.443*	*0.485*
Total	**1.631**	**1.842**	**1.673**	**1.612**	**1.701**	**1.928**	*1.731*	*1.668*	*1.853*	*1.959*	*1.818*	*1.751*	**6.758**	*7.028*	*7.381*
Consumption															
Electric Power Sector															
Hydroelectric Power (a)	**0.584**	**0.748**	**0.598**	**0.502**	**0.613**	**0.824**	*0.606*	*0.538*	*0.662*	*0.773*	*0.607*	*0.544*	**2.432**	*2.581*	*2.586*
Geothermal	**0.074**	**0.079**	**0.081**	**0.079**	**0.077**	**0.076**	*0.080*	*0.081*	*0.080*	*0.080*	*0.084*	*0.084*	**0.312**	*0.314*	*0.328*
Solar	**0.001**	**0.003**	**0.003**	**0.001**	**0.001**	**0.003**	*0.003*	*0.001*	*0.002*	*0.004*	*0.005*	*0.002*	**0.008**	*0.008*	*0.013*
Wind	**0.124**	**0.149**	**0.096**	**0.145**	**0.167**	**0.174**	*0.125*	*0.137*	*0.203*	*0.216*	*0.165*	*0.170*	**0.514**	*0.603*	*0.754*
Wood	**0.047**	**0.041**	**0.047**	**0.045**	**0.044**	**0.042**	*0.050*	*0.048*	*0.048*	*0.044*	*0.051*	*0.049*	**0.181**	*0.185*	*0.192*
Other Renewables	**0.061**	**0.061**	**0.060**	**0.059**	**0.060**	**0.060**	*0.065*	*0.066*	*0.067*	*0.071*	*0.076*	*0.075*	**0.242**	*0.251*	*0.289*
Subtotal	**0.892**	**1.082**	**0.885**	**0.831**	**0.962**	**1.178**	*0.929*	*0.870*	*1.061*	*1.188*	*0.989*	*0.924*	**3.690**	*3.940*	*4.162*
Industrial Sector															
Hydroelectric Power (a)	**0.007**	**0.005**	**0.004**	**0.004**	**0.005**	**0.005**	*0.003*	*0.004*	*0.005*	*0.005*	*0.003*	*0.004*	**0.019**	*0.017*	*0.017*
Geothermal	**0.001**	**0.001**	**0.001**	**0.001**	**0.001**	**0.001**	*0.001*	*0.001*	*0.001*	*0.001*	*0.001*	*0.001*	**0.005**	*0.005*	*0.005*
Wood and Wood Waste	**0.320**	**0.325**	**0.332**	**0.321**	**0.299**	**0.292**	*0.324*	*0.318*	*0.299*	*0.283*	*0.321*	*0.317*	**1.298**	*1.233*	*1.220*
Other Renewables	**0.040**	**0.039**	**0.039**	**0.039**	**0.039**	**0.040**	*0.043*	*0.037*	*0.048*	*0.033*	*0.043*	*0.038*	**0.157**	*0.159*	*0.162*
Subtotal	**0.371**	**0.374**	**0.380**	**0.368**	**0.347**	**0.343**	*0.376*	*0.364*	*0.357*	*0.327*	*0.374*	*0.364*	**1.492**	*1.430*	*1.422*
Commercial Sector															
Hydroelectric Power (a)	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	*0.000*	*0.000*	*0.000*	*0.000*	*0.000*	*0.000*	**0.001**	*0.001*	*0.001*
Geothermal	**0.004**	**0.004**	**0.004**	**0.004**	**0.004**	**0.004**	*0.004*	*0.004*	*0.004*	*0.004*	*0.004*	*0.004*	**0.015**	*0.015*	*0.015*
Wood and Wood Waste	**0.018**	**0.018**	**0.018**	**0.018**	**0.018**	**0.020**	*0.016*	*0.019*	*0.019*	*0.014*	*0.017*	*0.020*	**0.072**	*0.073*	*0.070*
Other Renewables	**0.008**	**0.008**	**0.008**	**0.008**	**0.009**	**0.008**	*0.009*	*0.008*	*0.008*	*0.009*	*0.009*	*0.008*	**0.032**	*0.034*	*0.035*
Subtotal	**0.031**	**0.031**	**0.030**	**0.030**	**0.032**	**0.033**	*0.030*	*0.032*	*0.031*	*0.028*	*0.032*	*0.033*	**0.123**	*0.126*	*0.124*
Residential Sector															
Geothermal	**0.007**	**0.007**	**0.007**	**0.007**	**0.007**	**0.007**	*0.007*	*0.007*	*0.007*	*0.007*	*0.007*	*0.007*	**0.026**	*0.026*	*0.026*
Biomass	**0.122**	**0.122**	**0.123**	**0.123**	**0.121**	**0.122**	*0.124*	*0.123*	*0.123*	*0.123*	*0.123*	*0.123*	**0.490**	*0.490*	*0.491*
Solar	**0.021**	**0.021**	**0.021**	**0.021**	**0.020**	**0.021**	*0.021*	*0.021*	*0.021*	*0.021*	*0.021*	*0.021*	**0.083**	*0.083*	*0.083*
Subtotal	**0.149**	**0.149**	**0.151**	**0.151**	**0.148**	**0.149**	*0.152*	*0.150*	*0.150*	*0.150*	*0.150*	*0.150*	**0.599**	*0.599*	*0.601*
Transportation Sector															
Ethanol (b)	**0.172**	**0.200**	**0.218**	**0.226**	**0.200**	**0.226**	*0.238*	*0.242*	*0.243*	*0.256*	*0.264*	*0.270*	**0.816**	*0.906*	*1.032*
Biodiesel (b)	**0.008**	**0.005**	**0.014**	**0.014**	**0.007**	**0.012**	*0.018*	*0.019*	*0.020*	*0.023*	*0.023*	*0.023*	**0.041**	*0.056*	*0.088*
Total Consumption	**1.619**	**1.837**	**1.673**	**1.615**	**1.692**	**1.935**	*1.735*	*1.673*	*1.856*	*1.966*	*1.826*	*1.758*	**6.744**	*7.034*	*7.407*

- = no data available

(a) Conventional hydroelectric power only. Hydroelectricity generated by pumped storage is not included in renewable energy.

(b) Fuel ethanol and biodiesel supply represents domestic production only. Fuel ethanol and biodiesel consumption in the transportation sector includes production, stock change, and imports less exports. Some biodiesel may be consumed in the residential s

Notes: The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Historical data: Latest data available from EIA databases supporting the following reports: *Electric Power Monthly*, DOE/EIA-0226 and *Renewable Energy Annual*, DOE/EIA-0603; *Petroleum Supply Monthly*, DOE/EIA-0109.

Minor discrepancies with published historical data are due to independent rounding.

Projections: Generated by simulation of the EIA Regional Short-Term Energy Model.

Table 9a. U.S. Macroeconomic Indicators and CO_2 Emissions

Energy Information Administration/Short-Term Energy Outlook - September 2009

	2008				2009				2010				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2008	2009	2010
Macroeconomic															
Real Gross Domestic Product															
(billion chained 2000 dollars - SAAR)	11,646	11,727	11,712	11,522	11,361	11,298	11,307	11,324	11,346	11,406	11,463	11,558	11,652	11,322	11,443
Real Disposable Personal Income															
(billion chained 2000 Dollars - SAAR)	8,668	8,891	8,696	8,758	8,887	9,025	8,923	8,909	8,838	8,907	8,948	8,939	8,753	8,936	8,908
Real Fixed Investment															
(billion chained 2000 dollars-SAAR)	1,762	1,755	1,731	1,627	1,446	1,388	1,359	1,343	1,353	1,365	1,394	1,454	1,719	1,384	1,392
Business Inventory Change															
(billion chained 2000 dollars-SAAR)	13.75	-25.98	-25.63	-0.73	-11.62	-25.88	-26.34	-27.66	-22.82	-11.42	-2.47	2.40	-9.65	-22.88	-8.58
Housing Stock															
(millions)	123.1	123.2	123.3	123.4	123.5	123.5	123.5	123.5	123.5	123.6	123.6	123.7	123.4	123.5	123.7
Non-Farm Employment															
(millions)	137.9	137.5	137.0	135.7	133.7	132.2	131.4	130.9	130.8	131.0	131.2	131.6	137.0	132.0	131.2
Commercial Employment															
(millions)	91.8	91.6	91.3	90.6	89.5	88.7	88.6	88.5	88.8	89.1	89.7	90.2	91.3	88.8	89.4
Industrial Production Indices (Index, 2002=100)															
Total Industrial Production	112.0	110.7	108.1	104.4	99.1	96.2	97.2	97.7	97.7	97.7	98.3	99.0	108.8	97.5	98.2
Manufacturing	114.1	112.6	109.9	104.5	98.3	95.9	97.2	97.3	97.3	97.3	98.0	99.0	110.3	97.2	97.9
Food	111.7	111.6	110.5	110.7	108.9	110.0	110.4	110.6	110.9	111.1	111.6	112.2	111.1	110.0	111.5
Paper	94.8	94.9	93.2	85.7	80.6	77.4	77.2	77.1	77.2	77.2	77.3	77.8	92.1	78.1	77.4
Chemicals	113.3	111.8	107.1	102.9	100.8	101.1	101.1	101.3	101.5	101.5	101.9	102.6	108.8	101.1	101.9
Petroleum	111.3	112.0	106.8	109.9	107.7	106.8	106.9	106.7	106.3	106.2	106.5	106.7	110.0	107.0	106.4
Stone, Clay, Glass	104.2	102.3	101.1	95.0	84.4	81.6	79.7	78.9	78.7	79.1	80.0	81.3	100.7	81.1	79.8
Primary Metals	111.9	108.5	106.9	82.2	64.1	60.7	60.4	60.2	59.9	59.8	61.7	63.8	102.4	61.4	61.3
Resins and Synthetic Products	104.5	103.7	92.0	86.8	90.2	95.0	93.3	92.5	92.2	91.8	91.6	92.0	96.8	92.7	91.9
Agricultural Chemicals	109.4	109.3	106.3	89.9	87.8	94.7	95.2	95.2	94.7	94.0	94.2	94.9	103.7	93.2	94.4
Natural Gas-weighted (a)	109.2	108.0	103.2	95.6	90.5	90.8	90.4	90.2	90.0	89.8	90.2	90.9	104.0	90.5	90.2
Price Indexes															
Consumer Price Index															
(index, 1982-1984=1.00)	2.13	2.15	2.19	2.14	2.13	2.13	2.15	2.17	2.19	2.19	2.20	2.22	2.15	2.15	2.20
Producer Price Index: All Commodities															
(index, 1982=1.00)	1.85	1.94	2.00	1.79	1.71	1.69	1.71	1.73	1.76	1.76	1.77	1.79	1.90	1.71	1.77
Producer Price Index: Petroleum															
(index, 1982=1.00)	2.58	3.18	3.28	1.83	1.37	1.66	1.94	1.98	2.04	2.10	2.11	2.12	2.72	1.73	2.09
GDP Implicit Price Deflator															
(index, 2000=100)	121.6	122.0	123.1	123.3	124.2	124.1	124.3	124.9	125.7	125.8	126.2	127.0	122.5	124.4	126.2
Miscellaneous															
Vehicle Miles Traveled (b)															
(million miles/day)	7,725	8,321	8,147	7,866	7,598	8,376	8,235	7,873	7,639	8,400	8,260	7,911	8,014	8,022	8,054
Air Travel Capacity															
(Available ton-miles/day, thousands)	543	558	546	513	493	498	489	494	494	498	494	497	540	494	496
Aircraft Utilization															
(Revenue ton-miles/day, thousands)	323	346	338	298	275	296	292	286	284	297	293	290	326	287	291
Airline Ticket Price Index															
(index, 1982-1984=100)	263.5	288.1	305.6	270.7	252.7	249.8	262.2	263.7	273.9	290.4	293.9	280.2	282.0	257.1	284.6
Raw Steel Production															
(million short tons per day)	0.302	0.303	0.298	0.200	0.146	0.153	0.181	0.170	0.158	0.168	0.167	0.170	0.276	0.162	0.166
Carbon Dioxide (CO_2) Emissions (million metric tons)															
Petroleum	616	608	584	605	576	567	580	582	572	579	581	589	2,413	2,305	2,321
Natural Gas	403	267	260	316	387	255	261	312	378	255	266	314	1,247	1,216	1,213
Coal	540	511	568	512	483	441	508	489	494	444	519	498	2,130	1,921	1,954
Total Fossil Fuels	1,559	1,386	1,412	1,433	1,446	1,263	1,349	1,384	1,444	1,279	1,365	1,401	5,790	5,442	5,488

\- = no data available

(a) Natural gas share weights of individual sector indices based on EIA *Manufacturing Energy Consumption Survey*, 2002.

(b) Total highway travel includes gasoline and diesel fuel vehicles.

Notes: The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Historical data: Latest data available from U.S. Department of Commerce, Bureau of Economic Analysis; Federal Reserve System, Statistical release G17; Federal Highway Administration; and Federal Aviation Administration.

Minor discrepancies with published historical data are due to independent rounding.

Projections: Macroeconomic projections are based on the Global Insight Model of the U.S. Economy and Regional Economic Information and simulation of the EIA Regional Short-Term Energy Model.

Table 9b. U.S. Regional Macroeconomic Data

Energy Information Administration/Short-Term Energy Outlook - September 2009

	2008				2009				2010				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2008	2009	2010
Real Gross State Product (Billion $2000)															
New England	642	647	647	637	629	626	627	628	629	632	634	639	643	628	633
Middle Atlantic	1,800	1,815	1,815	1,788	1,768	1,761	1,762	1,765	1,764	1,769	1,775	1,788	1,805	1,764	1,774
E. N. Central	1,648	1,655	1,648	1,617	1,588	1,574	1,572	1,571	1,572	1,578	1,584	1,594	1,642	1,576	1,582
W. N. Central	739	747	748	738	730	725	724	724	725	725	727	731	743	726	727
S. Atlantic	2,117	2,128	2,121	2,083	2,054	2,043	2,047	2,052	2,058	2,071	2,082	2,101	2,112	2,049	2,078
E. S. Central	548	551	551	541	534	531	532	532	533	535	538	542	548	532	537
W. S. Central	1,252	1,264	1,266	1,248	1,234	1,229	1,231	1,234	1,238	1,247	1,255	1,266	1,258	1,232	1,252
Mountain	759	765	764	752	740	736	737	737	739	744	748	755	760	737	746
Pacific	2,043	2,057	2,055	2,021	1,989	1,978	1,981	1,986	1,993	2,009	2,024	2,045	2,044	1,984	2,018
Industrial Output, Manufacturing (Index, Year 1997=100)															
New England	109.3	108.3	106.1	101.1	96.5	95.4	96.8	96.5	96.3	96.1	96.5	97.1	106.2	96.3	96.5
Middle Atlantic	107.3	106.1	103.9	98.5	92.9	91.3	92.4	92.2	92.0	91.7	92.4	93.2	103.9	92.2	92.3
E. N. Central	111.1	109.2	106.2	100.7	92.3	88.4	89.3	89.1	88.7	88.3	88.9	89.6	106.8	89.8	88.9
W. N. Central	124.1	122.9	120.3	115.3	107.8	105.0	107.1	107.8	108.3	108.7	109.6	110.5	120.6	106.9	109.3
S. Atlantic	109.2	107.2	104.2	98.6	92.8	90.7	91.6	91.3	91.2	91.2	92.0	92.8	104.8	91.6	91.8
E. S. Central	114.5	112.7	109.2	102.9	95.7	93.5	94.4	94.0	93.8	93.6	94.3	95.4	109.8	94.4	94.3
W. S. Central	123.1	122.0	119.5	114.6	109.3	106.9	108.3	108.6	108.5	108.4	109.2	110.2	119.8	108.3	109.0
Mountain	127.4	125.4	122.5	116.7	110.9	109.3	111.6	112.3	112.8	113.0	114.0	115.1	123.0	111.0	113.7
Pacific	117.3	116.0	113.4	107.4	102.3	100.4	102.0	102.5	102.8	103.1	103.9	105.1	113.5	101.8	103.7
Real Personal Income (Billion $2000)															
New England	574	574	569	576	573	577	570	568	567	571	573	573	573	572	571
Middle Atlantic	1,550	1,543	1,535	1,550	1,546	1,556	1,538	1,536	1,537	1,548	1,553	1,554	1,544	1,544	1,548
E. N. Central	1,426	1,434	1,417	1,430	1,422	1,428	1,408	1,402	1,401	1,408	1,410	1,409	1,427	1,415	1,407
W. N. Central	631	635	631	640	633	636	628	625	625	628	630	629	634	631	628
S. Atlantic	1,838	1,851	1,825	1,838	1,838	1,851	1,827	1,823	1,827	1,843	1,852	1,854	1,838	1,835	1,844
E. S. Central	485	492	483	487	488	494	488	486	486	489	491	491	487	489	489
W. S. Central	1,078	1,094	1,080	1,097	1,094	1,102	1,089	1,088	1,090	1,100	1,107	1,110	1,087	1,093	1,102
Mountain	644	646	639	641	638	641	634	634	635	640	643	644	642	637	640
Pacific	1,691	1,701	1,686	1,687	1,678	1,683	1,661	1,657	1,658	1,670	1,679	1,683	1,692	1,670	1,673
Households (Thousands)															
New England	5,466	5,469	5,469	5,476	5,477	5,479	5,482	5,486	5,492	5,501	5,511	5,520	5,476	5,486	5,520
Middle Atlantic	15,155	15,172	15,179	15,203	15,207	15,202	15,207	15,214	15,226	15,252	15,274	15,299	15,203	15,214	15,299
E. N. Central	17,846	17,864	17,869	17,895	17,898	17,896	17,904	17,913	17,925	17,951	17,978	18,003	17,895	17,913	18,003
W. N. Central	7,982	7,996	8,004	8,023	8,033	8,036	8,044	8,052	8,063	8,080	8,096	8,112	8,023	8,052	8,112
S. Atlantic	22,186	22,242	22,286	22,360	22,410	22,454	22,511	22,571	22,639	22,724	22,809	22,893	22,360	22,571	22,893
E. S. Central	6,995	7,011	7,023	7,044	7,055	7,063	7,073	7,085	7,099	7,120	7,141	7,161	7,044	7,085	7,161
W. S. Central	12,449	12,493	12,528	12,578	12,613	12,644	12,682	12,720	12,761	12,811	12,861	12,908	12,578	12,720	12,908
Mountain	7,827	7,851	7,871	7,902	7,923	7,940	7,967	8,001	8,032	8,074	8,116	8,153	7,902	8,001	8,153
Pacific	16,966	17,016	17,053	17,112	17,150	17,177	17,217	17,260	17,309	17,370	17,431	17,490	17,112	17,260	17,490
Total Non-farm Employment (Millions)															
New England	7.1	7.1	7.0	7.0	6.9	6.8	6.8	6.8	6.7	6.7	6.7	6.8	7.0	6.8	6.7
Middle Atlantic	18.7	18.7	18.7	18.5	18.3	18.2	18.1	18.0	18.0	18.0	18.0	18.0	18.6	18.1	18.0
E. N. Central	21.5	21.4	21.3	21.0	20.6	20.3	20.2	20.1	20.0	20.0	20.0	20.0	21.3	20.3	20.0
W. N. Central	10.2	10.2	10.2	10.2	10.0	9.9	9.9	9.9	9.8	9.8	9.8	9.9	10.2	9.9	9.9
S. Atlantic	26.4	26.3	26.1	25.8	25.4	25.2	25.1	25.0	25.0	25.0	25.1	25.2	26.2	25.2	25.1
E. S. Central	7.8	7.8	7.8	7.7	7.5	7.5	7.4	7.4	7.4	7.4	7.4	7.4	7.8	7.5	7.4
W. S. Central	15.3	15.4	15.4	15.4	15.2	15.1	15.0	14.9	14.9	15.0	15.0	15.1	15.4	15.0	15.0
Mountain	9.8	9.8	9.7	9.6	9.4	9.3	9.2	9.2	9.2	9.2	9.3	9.3	9.7	9.3	9.2
Pacific	20.8	20.7	20.6	20.4	20.0	19.8	19.6	19.5	19.5	19.6	19.6	19.7	20.6	19.7	19.6

\- = no data available

Notes: The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Regions refer to U.S. Census divisions.

See "Census division" in EIA's Energy Glossary (http://www.eia.doe.gov/glossary/index.html) for a list of States in each region.

Historical data: Latest data available from U.S. Department of Commerce, Bureau of Economic Analysis; Federal Reserve System, Statistical release G17.

Minor discrepancies with published historical data are due to independent rounding.

Projections: Macroeconomic projections are based on the Global Insight Model of the U.S. Economy.

Table 9c. U.S. Regional Weather Data

Energy Information Administration/Short-Term Energy Outlook - September 2009

	2008				2009				2010				Year		
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th	2008	2009	2010
Heating Degree-days															
New England	3,114	861	139	2,281	3,386	891	194	2,253	3,218	930	181	2,234	6,395	6,724	6,563
Middle Atlantic	2,814	674	78	2,076	3,030	687	118	2,053	2,965	752	123	2,035	5,642	5,888	5,875
E. N. Central	3,365	777	102	2,451	3,287	773	184	2,293	3,167	794	156	2,284	6,696	6,537	6,401
W. N. Central	3,540	852	146	2,574	3,341	809	194	2,463	3,216	724	183	2,481	7,114	6,807	6,604
South Atlantic	1,452	234	13	1,083	1,553	230	24	1,068	1,554	248	25	1,043	2,782	2,875	2,870
E. S. Central	1,914	283	11	1,434	1,806	289	36	1,381	1,903	299	33	1,354	3,641	3,512	3,589
W. S. Central	1,212	101	9	855	1,069	143	9	895	1,269	112	9	876	2,178	2,116	2,266
Mountain	2,409	765	150	1,789	2,159	674	156	1,923	2,275	718	172	1,935	5,112	4,912	5,100
Pacific	1,496	543	77	1,068	1,409	470	78	1,136	1,409	548	105	1,138	3,184	3,093	3,200
U.S. Average	2,251	528	70	1,646	2,235	515	99	1,626	2,225	539	99	1,615	4,496	4,475	4,478
Heating Degree-days, 30-year Normal (a)															
New England	3,219	930	190	2,272	3,219	930	190	2,272	3,219	930	190	2,272	6,611	6,611	6,611
Middle Atlantic	2,968	752	127	2,064	2,968	752	127	2,064	2,968	752	127	2,064	5,911	5,911	5,911
E. N. Central	3,227	798	156	2,316	3,227	798	156	2,316	3,227	798	156	2,316	6,497	6,497	6,497
W. N. Central	3,326	729	183	2,512	3,326	729	183	2,512	3,326	729	183	2,512	6,750	6,750	6,750
South Atlantic	1,523	247	25	1,058	1,523	247	25	1,058	1,523	247	25	1,058	2,853	2,853	2,853
E. S. Central	1,895	299	33	1,377	1,895	299	33	1,377	1,895	299	33	1,377	3,604	3,604	3,604
W. S. Central	1,270	112	9	896	1,270	112	9	896	1,270	112	9	896	2,287	2,287	2,287
Mountain	2,321	741	183	1,964	2,321	741	183	1,964	2,321	741	183	1,964	5,209	5,209	5,209
Pacific	1,419	556	108	1,145	1,419	556	108	1,145	1,419	556	108	1,145	3,228	3,228	3,228
U.S. Average	2,242	543	101	1,638	2,242	543	101	1,638	2,242	543	101	1,638	4,524	4,524	4,524
Cooling Degree-days															
New England	0	105	391	0	0	41	350	0	0	69	357	0	496	391	426
Middle Atlantic	0	204	540	0	0	112	515	5	0	140	519	5	744	632	664
E. N. Central	0	198	497	4	0	177	386	8	1	197	502	8	698	571	708
W. N. Central	0	229	612	6	0	251	509	12	3	263	650	12	847	772	928
South Atlantic	122	626	1,073	165	84	677	1,084	203	102	567	1,086	213	1,986	2,048	1,968
E. S. Central	17	501	1,000	43	6	582	912	62	31	459	1,000	63	1,562	1,562	1,553
W. S. Central	81	890	1,370	154	103	899	1,495	175	80	779	1,420	176	2,495	2,672	2,455
Mountain	17	423	969	93	11	360	895	70	15	388	847	68	1,503	1,336	1,318
Pacific	6	187	606	70	0	144	634	43	7	154	518	41	869	821	720
U.S. Average	35	385	789	68	27	372	769	76	33	343	774	77	1,277	1,244	1,227
Cooling Degree-days, 30-year Normal (a)															
New England	0	81	361	1	0	81	361	1	0	81	361	1	443	443	443
Middle Atlantic	0	151	508	7	0	151	508	7	0	151	508	7	666	666	666
E. N. Central	1	208	511	10	1	208	511	10	1	208	511	10	730	730	730
W. N. Central	3	270	661	14	3	270	661	14	3	270	661	14	948	948	948
South Atlantic	113	576	1,081	213	113	576	1,081	213	113	576	1,081	213	1,983	1,983	1,983
E. S. Central	29	469	1,002	66	29	469	1,002	66	29	469	1,002	66	1,566	1,566	1,566
W. S. Central	80	790	1,424	185	80	790	1,424	185	80	790	1,424	185	2,479	2,479	2,479
Mountain	17	383	839	68	17	383	839	68	17	383	839	68	1,307	1,307	1,307
Pacific	10	171	526	49	10	171	526	49	10	171	526	49	756	756	756
U.S. Average	34	353	775	80	34	353	775	80	34	353	775	80	1,242	1,242	1,242

- = no data available

(a) 30-year normal represents average over 1971 - 2000, reported by National Oceanic and Atmospheric Administration.

Notes: The approximate break between historical and forecast values is shown with historical data printed in bold; estimates and forecasts in italics.

Regions refer to U.S. Census divisions.

See "Census division" in EIA's Energy Glossary (http://www.eia.doe.gov/glossary/index.html) for a list of States in each region.

Historical data: Latest data available from U.S. Department of Commerce, National Oceanic and Atmospheric Association (NOAA).

Minor discrepancies with published historical data are due to independent rounding.

Projections: Based on forecasts by the NOAA Climate Prediction Center.

Weekly Natural Gas Storage Report

Release Schedule
Sign Up for Email Updates

Released: September 24, 2009 at 10:30 A.M. (eastern time) for the Week Ending September 18, 2009.
Next Release: October 1, 2009

Working Gas in Underground Storage, Lower 48

other formats: Summary TXT CSV

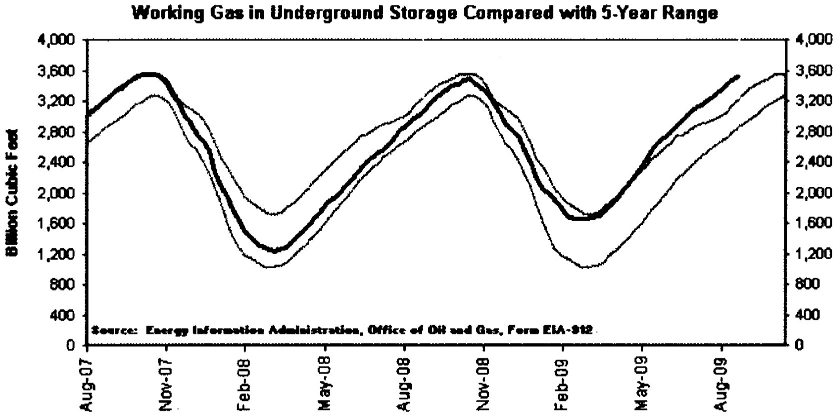
Region	Stocks in billion cubic feet (Bcf)			Historical Comparisons			
	09/18/09	09/11/09	Change	Year Ago (09/18/08)		5-Year (2004-2008) Average	
				Stocks (Bcf)	% Change	Stocks (Bcf)	% Change
East	1,917	1,876	41	1,799	6.6	1,768	8.4
West	482	472	10	409	17.8	409	17.8
Producing	1,126	1,110	16	807	39.5	863	30.5
Total	**3,525**	**3,458**	**67**	**3,016**	**16.9**	**3,040**	**16.0**

Notes and Definitions

Summary

Working gas in storage was 3,525 Bcf as of Friday, September 18, 2009, according to EIA estimates. This represents a net increase of 67 Bcf from the previous week. **Stocks were 509 Bcf higher than last year at this time and 485 Bcf above the 5-year average of 3,040 Bcf.** In the East Region, stocks were 149 Bcf above the 5-year average following net injections of 41 Bcf. Stocks in the Producing Region were 263 Bcf above the 5-year average of 863 Bcf after a net injection of 16 Bcf. Stocks in the West Region were 73 Bcf above the 5-year average after a net addition of 10 Bcf. At 3,525 Bcf, total working gas is above the 5-year historical range.

Working Gas in Underground Storage Compared with 5-Year Range



Note: The shaded area indicates the range between the historical minimum and maximum values for the weekly series from 2004 through 2008.
Source: Form EIA-912, "Weekly Underground Natural Gas Storage Report." The dashed vertical lines indicate current and year-ago weekly periods.

Data
History (XLS)
5-Year Averages, Maximum, Minimum, and Year-Ago Stocks (XLS)

References
Methodology
Differences Between Monthly and Weekly Data
Revision Policy

Related Links
Storage Basics
Natural Gas Weekly Update
Natural Gas Navigator

THE WALL STREET JOURNAL.
WSJ.com
SEPTEMBER 30, 2009, 2:26 P.M. ET

U.S. Lost 254,000 Private-Sector Jobs in September, ADP Says

U.S. GDP Contracted 0.7% in Second Quarter

The pace of layoffs continued to slow in September as the private sector shed fewer jobs than the previous month, setting the stage for more job losses Friday.

Meanwhile, gross domestic product decreased at a 0.7% annual rate in the second quarter, better than the 1.0% decline previously estimated, the Commerce Department said Wednesday. It's a welcome improvement over GDP's 6.4% decline in the first quarter.

Private nonfarm payrolls fell by 254,000 in September, down from a revised 277,000 drop in August, according to a report by Automatic Data Processing Inc. and forecasting firm Macroeconomic Advisers released Wednesday.

"We know that the pace of labor market recovery always lags broader economic activity," said Ian Pollick, a TD Securities analyst. **So "if the actual economic recovery is gradual we have to say the labor market recovery is tepid at best."**

To be sure, September's job losses were the smallest since July 2008. But analysts expect another large drop in payrolls from the official employment report the Labor Department is set to release Friday, though it may be slightly smaller than the drop ADP reported.

The job losses were especially severe among small businesses with fewer than 50 workers. Those companies shed 100,000 jobs compared to the 93,000 jobs lost at medium-sized firms and the 61,000 lost at large employers with 500 or more workers.

The labor market is slowly improving compared to earlier this year but it still remains weak. Economists expect the unemployment rate to hit 9.8% in September, up from 9.7% in August. Even with the high unemployment rate threatening consumer spending in the third quarter, many economists are predicting GDP will grow between 3% and 4%.

The anticipated return to growth is buoyed by Wednesday's report showing that second-quarter GDP wasn't as bad as expected. Both business investment and consumer spending, which is the largest component of GDP, were revised stronger.

Consumer spending fell a revised 0.9% compared to the 1.0% decrease from previous estimates, but still worse than the 0.6% increase in the first quarter.

Business spending dropped by 9.6%, up from earlier reports of a 10.9% decrease. Spending on equipment and software fell 4.9%, compared to the 8.4% drop previously reported. Investment in structures dropped 17.3%.

Inventories didn't fall as much as expected in the second quarter, though, which could negatively impact the third quarter since higher inventories equates to less production.

There were few signs that inflation could soon become a threat to the economy as the government's price index for personal consumption rose 1.4% in the second quarter instead of the previous 1.3% estimate. Excluding

THE WALL STREET JOURNAL.
WSJ.com

food and energy, the price index climbed 2%.

Separately, the Chicago Purchasing Managers' Index provided a jolt of unexpectedly bad news, falling to 46.1 from 50.0. The drop below 50 indicates that manufacturing activity is contracting. A decline in new orders contributed to the fall, which was particularly surprising given improving regional reports elsewhere, such as the Philadelphia and New York Fed manufacturing indices.

Corrections & Amplifications: Consumer spending increased 0.6% in the first quarter. An earlier version of this article incorrectly said consumer spending fell 0.6%.

Write to Sara Murray at sara.murray@wsj.com

ATTACHMENT 9

ADMINISTRATOR'S RECORD OF DECISION

SHORT-TERM MARKETING AND OPERATING ARRANGEMENTS

INTRODUCTION

The Bonneville Power Administration (BPA) has decided to enter into short-term marketing and operational arrangements in order to participate continuously in the open electric power market. These arrangements would enable BPA to achieve the best reliability and expected economic outcome, as well as to best meet its environmental responsibilities, given diverse market conditions. This decision would support power cost control, enhance BPA competitiveness, and provide public benefits. The amount of hydropower available to BPA will be defined by the System Operation Review (SOR), a separate process underway to determine future hydro operations. The decision documented in this Record of Decision (ROD) is a direct application of BPA's earlier decision to use a Market-Driven approach for participation in the increasingly competitive electric power market.

The decision to enter into these short-term contractual arrangements is consistent with BPA's Business Plan, the Business Plan Environmental Impact Statement (BP EIS) (DOE/EIS-0183, June 1995) and the BP ROD (August 15, 1995). In response to a need for a sound policy to guide its business direction under changing market conditions, BPA explored six alternative plans of action in its BP EIS. The six alternatives were: Status Quo (no action), BPA Influence, Market-Driven, Maximize Financial Returns, Minimal BPA, and Short-Term Marketing. In the subsequent BP ROD, the BPA Administrator selected the Market-Driven Alternative. Although the Status Quo and the BPA Influence alternatives were environmentally preferred, the differences in total environmental impacts among alternatives were relatively small. Other business aspects, including loads and rates, showed greater variation among the alternatives. The Market-Driven Alternative strikes a balance between marketing and environmental concerns. It also helps BPA to ensure the financial strength necessary to maintain high level of support for public benefits such as energy conservation and fish and wildlife mitigation activities.

The BP EIS and ROD were also intended to guide BPA in a series of related decisions on specific issues and actions. Decisions on providing short-term marketing and operational arrangements are some of these subsequent actions, and the subject of this tiered ROD. Tiering subsequent RODs to the BP ROD helps delineate BPA decisions clearly and provides a logical framework for connecting broad programmatic decisions to more specific actions.

Before taking specific action on any of these issues, BPA affirmatively stated that it would review the BP EIS to ensure that a particular action was adequately covered within the scope of that EIS and, if appropriate, issue a tiered ROD. This ROD, which summarizes and incorporates information from the BP ROD, is a result of such a review. It describes specific information on the decision to provide short-term marketing and operational arrangements, and summarizes the environmental impacts associated with this decision, as described in the BP EIS.

NEW COMPETITIVENESS IN THE ELECTRIC INDUSTRY

The electric utility industry is becoming increasingly competitive and dynamic. Four factors are substantially affecting BPA's ability to compete: market change, increased non-power obligations, deterioration of BPA's cost/price advantage, and lost hydro output. The emergence of competition has led to significantly lower prices for wholesale electric power. At the same time, BPA's costs for providing major public benefits (including fish and wildlife enhancement and support of energy efficiency) have increased significantly. A series of dry years and changes in hydro system operations have also seriously affected BPA's ability to produce power and generate revenues.

The current West Coast surplus, decline in costs of competing generating resources, low cost of energy, and difficulty in siting and developing new generating facilities continue to lead electric utilities and other parties to emphasize shorter-term commitments to buy and sell. In addition, the recent market deregulation has fostered the emergence of marketers and broker parties. These parties by their nature concentrate on shorter-term commitments than do utilities that have extended obligations to serve load.

However, BPA must be able to balance its costs and revenues. The availability of power at competitive prices from other suppliers prevents BPA from meeting costs simply by raising rates for its customers. That BPA firm power rate level above which a rate increase would no longer increase BPA's revenue and cover BPA's costs would produce BPA's maximum sustainable revenue. Allowing BPA's rates to exceed this level would not be consistent with sound business principles. BPA's total revenue would be reduced, as would BPA's ability to fund public benefits.

SHORT-TERM MARKETING CUSTOMERS

BPA will negotiate short-term marketing and operating arrangements and related transmission services with parties able to participate in the open electric power market. Potential customers include utilities and Direct Service Industries within the region, and other power purchasers inside and outside the Pacific Northwest (PNW).

DESCRIPTION OF THE PROPOSED SHORT-TERM MARKETING AND OPERATIONAL ARRANGEMENTS AND RELATED TRANSMISSION ARRANGEMENTS

Short-Term Marketing

BPA will continuously participate in the bulk electric power market via its short-term marketing arrangements. Short-term marketing and operating arrangements cover a variety of scheduling periods--hours, weeks, days, months, or years. The vast majority of these market-based actions cover periods of less than 1 year, although some actions could have terms of up to 5 years.

BPA's short-term marketing actions will try to maximize the value of hydrosystem conditions that result from decisions made by other agencies. (As noted earlier, the amount of hydropower available to BPA will be defined by the SOR. Decisions made by the Corps of Engineers or Bureau of Reclamation to manage river operations for navigation, flood control, irrigation, recreation and fish and wildlife activities determine how much water is available for generation and when it is available.) Maximizing hydrosystem value can take a number of forms. For example, throughout the late spring and summer months, BPA sells very large amounts of surplus energy generated from flow provided for downstream salmon migration, as prescribed by the National Marine Fisheries Service 1995 Biological Opinion. During the fall, BPA often purchases large quantities of energy to recover depleted reservoirs, in preparation for winter loads. BPA also makes purchases to meet extreme weather conditions and unexpected resource or transmission outages.

The peak load demands of the PNW and California occur at different times. The PNW peaks occur in winter, while California's demand peaks in summer. During the summer, the PNW hydro-based systems tend to have excess capacity that can be used to help meet California's peak demands. Similarly, California's thermal-based system tends to have excess capacity in the winter, which can be used to help the PNW meet its peak demands. BPA has several seasonal and capacity/energy exchange contracts with California utilities.

In general, BPA will be in the market buying or selling to match energy supplies to load and/or to execute operational strategies. To the extent permitted by statute and consistent with sound business principles, BPA will also expand its short-term marketing activity beyond the disposal of surplus generation or the meeting of short-term load. BPA will look continuously for marketing opportunities in power-related trading and financial transactions. BPA's objective will be to improve net revenues, reduce costs, and reduce the risk of periodic revenue shortfalls due to changes in supply or market conditions.

Water Management

The Power Supply Manager may arrange for water storage, rentals or other physical water management operations for fish-related or other non-power purposes; for energy storage as a service to other utilities; and for implementation actions related to the Pacific Northwest Coordination Agreement, the Columbia River Treaty annual operating plan or detailed operating plan, and non-Treaty coordination operations such as the Non-Treaty Storage Agreement.

ENVIRONMENTAL ANALYSIS

Consistent with the BP ROD, the Administrator reviewed the BP EIS to determine whether (1) entering into short-term (5 years or less) marketing and operational arrangements in order to participate continuously in the open electric power market and (2) making generation operation decisions that accommodate that participation were adequately covered within the scope of the BP EIS. The BP EIS was intended to support a number of decisions, including short-term contractual arrangements lasting 5 years or less. The chosen Market-Driven Alternative includes the offering of flexible short-term arrangements with customers. In addition, one of the other alternatives analyzed in the EIS, Short-Term Marketing, limited BPA's marketing activities to short-term marketing of power and transmission products and services.

The BP EIS showed that environmental impacts are determined by the responses to BPA's marketing actions, rather than by the actions themselves. These market responses include resource development, resource operation, transmission development and operation, and consumer behavior.

Environmental Impacts

Short-term marketing and operating arrangements are an integral part of the marketing efforts of a Market-Driven BPA. As such, the potential impacts on resource development, resource operations, transmission system development and operations, and consumer behavior were considered in determining the potential environmental impacts of adopting a Market-Driven approach to participation in the competitive electric utility market.

Regionally, fewer new resources (most likely combustion turbines) would be developed because less load would be shifted away from BPA. However, the operation of existing generation would be greater, as other participants compete within the utility market. The higher emissions levels of these mostly older, less-efficient thermal resources would result in higher levels of air emissions and water use. Transmission system development would be unchanged; transmission system operation would likely be more efficient. BPA rates would be competitive with market rates.

Marketing Impacts

The expected broad marketing impacts of BPA's adopted approach will be (1) to preserve or increase BPA's market share in the PNW and West Coast open markets as much as possible, given the deregulated and competitive nature of the market, (2) to maximize BPA's power operations efficiency, in context with non-power objectives, and (3) mutually to benefit BPA's power economics and power system operations through coordinated short-term trading and risk management arrangements. Many of BPA's customers and other parties participating in the open market are expected to respond to BPA's short-term marketing and operating arrangement efforts. Flexible contracts responding to the pricing and unbundling forces emerging with the opening of the wholesale power market will meet customer needs for competitively priced products and services, improve customer relations, assist BPA in reducing costs, and enhance BPA's ability to use a Market-Driven approach to participate continuously in the open electric market. Systematic efforts to meet customer needs, offer feasible service options, and lower rates will help BPA to continue to serve the bulk of its historic loads. Load will be lost mainly as customers seek ways to diversify their sources of power, and not through dissatisfaction with BPA. To the extent that BPA is successful in applying a Market-Driven approach to its business activities, BPA will be more likely to maintain revenues and be better able to fund public benefits.

Public Benefits

Consistent with the Market-Driven approach, the decision to undertake short-term contractual arrangements lasting 5 years or less strikes a balance between marketing and environmental concerns. BPA will actively participate in the competitive market for power, and will use its success in the market to ensure the financial strength necessary to produce the public benefits that BPA affords to the region.

Mitigation

In deciding to enter into these short-term contractual arrangements under the Market-Driven approach, BPA understands that the conditions that permit the agency to function successfully may change over time. Therefore, the Market-Driven Alternative contains preparatory mitigation measures (response strategies) to respond to change and allow the agency to balance cost and revenues. Such mitigation will enhance BPA's ability to adapt to changing market conditions.

These response strategies--which include means to decrease spending, increase revenues, and transfer costs--could be implemented if BPA's costs and revenues did not balance. BPA has already decided (in the BP ROD) to apply as many mitigation response strategies as necessary whenever BPA's costs and revenues do not balance. These mitigation strategies, or equivalents, will be implemented to enable BPA to best meet its public service and environmental obligations, while remaining competitive in the wholesale electric power market.

PUBLIC AVAILABILITY

Copies of the Business Plan EIS and the Business Plan ROD, as well as additional copies of this ROD, are available to all interested and affected persons and agencies from BPA's Public Involvement Office, P.O. Box 12999, Portland, Oregon 97212. Copies of these documents may also be obtained by using BPA's nationwide toll-free request line, 1-800-622-4520.

CONCLUSION

I have decided that BPA will enter into short-term marketing and operational arrangements (consistent with the SOR) in order to participate continuously in the open electric power market.

This decision is consistent with BPA's Market-Driven approach for participation in the increasingly competitive power market, since it will enable BPA to increase the value of its short-term power products, increase net revenues, and control costs. BPA seeks to be responsive to its customers' needs, while ensuring the financial strength necessary to produce public benefits such as fish and wild life mitigation and energy conservation.

Issued in Portland, Oregon, on January 22, 1996.

/s/ Randall W. Hardy
Administrator and Chief
Executive Officer