

BPA'S INTERPRETATION OF THE PUBLIC GENERATING POOL SLICE PROPOSAL

General

- Right to receive a percentage share of FCRPS capability, including actual energy generation (firm and secondary) and storage
- Right to modify the rate at which such energy is produced within hour, day, week, month, year, within the bounds of operational and non-power requirements
- Obligation to pay a corresponding percentage share of BPA costs, i.e., revenue requirement

Notes:

Term

- 5-20 years.
- 5 year purchase with no termination rights; longer term associated with more certainty on fish and wildlife costs
- ~~No off-ramps for fish costs for term of contract~~
- ~~Possible off-ramps for acts of Congress such as repayment reform or other public purposes that would significantly increase the cost of power?~~

Notes:

Eligibility to Purchase

- Any Subscriber, subject to statutory priorities and preferences
- Use same rules as for other Subscription rights
- In early phases of Subscription, Slice product would be to serve preference load and limited to net load (total retail load minus customer resources)
- Preference eligibility should not necessarily be set by the highest 2-year purchases prior to 2002 (BPA note: this may not be consistent with the current direction of Subscription)
- Preference rights could be mapped to a percent of FELCC, yielding a Slice percentage
- If resources remain after early Subscription phases, then potentially more Slice purchases

Notes

Product Received

- Proportionate share of the capability of the FCRPS, including both primary and secondary energy
- Right to a share of the flexibilities of the FCRPS; BPA would have running computation of constraints that would limit purchaser's take
- Right (within the constraints) to schedule or to send a 4-second signal to BPA for delivery of the energy in real time (allowing use of Slice for automatic generation control, shaping, backup, or reserves) (*BPA note: may need additional explanation of these features*)
- Proportionate share of the storage and shaping rights generally available to BPA, such as the ability to vary energy delivered during a day, or between days, weeks, or months within operating constraints
- Daily deviations of actual take from right to actual generation would be posted to storage account
- Storage account zeroed out when FCRPS reaches physical limits
- Hour-ahead changes in amount taken and within-hour ability to adjust signal
- No purchasing or marketing services
- No protection against required spill; but purchaser does not share in lack-of-market spill

Notes:

Linkages

- Cannot be purchased in combination with Full Service or Declared Resource Products
- Slice possibly could be a declared resource

Notes:

Costs to Purchasers

- Percent share of FCRPS generation costs including:
 1. generation integration
 2. ~~unforeseen fish and wildlife costs~~
 3. ~~unforeseen maintenance costs~~
 4. Treasury and WPPSS bonds
 5. residential/small farm exchange costs if they are a continuing federal system obligation
 6. environmental investments (some conservation and renewable resource costs?)
 7. “cost recovery”?
 8. other public purposes?
- Budget, investment, cost allocations, marketing decisions as normally done by BPA
- Costs excluded
 1. transmission costs (purchase at the bus-bar)
 2. General Transfer Agreement costs
 3. short term and long term marketing, trading floor
 4. certain PBL overheads (ratemaking?, billing?, contract administration?)
 5. new long-term purchases (for load growth, load variations, or resource replacement?)
 6. short-term power purchases
 7. Service and Exchange agreements
 8. financial reserves?
 9. spill caused by lack of market
 10. others?

Notes:

Risks Purchasers Accept (new)

- Unforeseen fish and wildlife costs
- Unforeseen maintenance costs
- No notice and termination rights for fish costs for term of contract (a preferred principle for application to all products; PGP’s intent is to bear same costs others would bear)
- Possible notice and termination rights for acts of Congress such as repayment reform or other public purposes that would significantly increase the cost of power?

Notes:

Basis for Payment

- Based on a percentage share of a contractually determined embedded cost revenue requirement
- Cost of product may over time vary based on factors determined in advance of contract execution
- No credits from BPA's marketing revenues
- Annual true-ups for cost underruns or extraordinary costs of generating units ("acts of God")
- Could include annual "true-ups" based on actual costs incurred by BPA
- Possible cost adjustments to non-requirement purchases, because of statutory rate directives

Notes:

Resources Included/Excluded

- Includes **FCRPS** hydro and thermal committed prior to 1/97 (less Canadian Entitlement obligations)
- Includes long-term **BPA** power purchases committed prior to 1/97
- Excludes resources sold under another agreement
- Excludes short or long-term purchases committed after 12/96

Notes:

Transmission

- Not included; purchaser obtains own

Notes:

Reserves and Backup

- Customer responsible for generation reserves to meet reliability standards

Notes:

Scheduling and Accounting

- Use of flexibility rights accounted for daily in a "storage account"
- Scheduling and accounting provisions established by contract
- BPA may adjust the rate of power deliveries to reflect actual operating constraints on the FCRPS

Notes:

Forecast and Data Needs

- Corps and Bureau system conditions, flood controls, boundaries
- BPA's annual, seasonal, monthly, weekly, daily forecasts of
 1. HLH maximum hourly generation
 2. LLH minimum hourly generation
 3. must-run non-hydro generation
 4. maximum permissible deviations of storage
- BPA's "telescoping" forecasts of the capability of the FCRPS, including both total generation and storage capabilities, and resulting limits to purchasers
- BPA forecasted Energy Content Curve
- BPA plans for operating within constraints
- BPA agreements or plans to operate for some environmental purpose
- Anticipated non-power operations
- Non-hydro outages
- Advance notice of limits on deliveries to and from storage account consistent with BPA's own limitations

Notes:

~~*(This topic will be covered under a separate Agenda item)*~~

Operations/Management Influence

- Federal agencies make decisions on non-power requirements and operations of the FCRPS
- Purchaser would have no authority in river management, investment, or other management decisions

Notes:

Dispute Resolution

- Capabilities, constraints, production quantities subject to after-the-fact dispute resolution and other remedies (a high hurdle for requiring dispute resolution)
- Remedies for
 1. false application of a constraint
 2. chronic manipulation of forecast data
 3. withholding information
 4. bad faith actions causing substantial damage
- Remedies would be power replacement or monetary, not changes in river operations

Notes:

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Revenue and Expense Baseline - Power Business Line

(\$ in millions)	*1997 Actual	1998	1999	2000	2001	2002	2003	2004	2005	2006	02-06 ave.
1. Targeted Operating Revenues	1,996.3	1,995.0	2,042.0	2,088.0	2,114.0	2,054.0	2,050.0	2,055.0	2,060.0	2,065.0	2,056.8
Expenses											
2. CSRS Pension Expense	0.0	0.0	1.6	2.4	3.2	22.1	14.0	12.4	10.6	0.0	11.8
3. Power Marketing	28.6	35.2	32.9	32.8	32.7	32.8	32.7	32.8	32.8	32.9	32.8
4. Wheeling	35.5	42.6	42.9	43.1	43.4	13.6	13.9	13.9	13.9	13.9	13.8
5. Power Scheduling/Storage	9.6	13.1	13.0	11.8	11.8	11.7	11.7	11.7	8.7	11.7	11.1
6. ST Purchased Power/S & Exchange Agree.	60.0	53.6	43.5	49.0	57.6	60.0	60.1	56.1	58.2	58.2	58.5
7. PNCA Interchange	0.0	25.7	25.7	25.7	25.7	25.7	25.7	25.7	25.7	25.7	25.7
8. Generation Oversight	30.4	30.8	23.4	32.8	22.8	2.8	2.8	6.0	6.3	6.5	4.9
9. Conservation & Consumer Services	19.5	25.6	25.5	27.7	26.3	25.5	23.4	26.2	23.0	22.9	24.2
10. Fish & Wildlife	79.6	107.0	107.0	102.0	102.0	97.0	97.0	97.0	97.0	97.0	97.0
11. Corporate Expenses	17.9	16.9	15.8	16.9	16.9	16.9	15.1	15.1	15.1	15.1	15.4
12. Planning Council	7.5	7.6	7.1	6.7	6.2	6.2	6.2	6.2	6.2	6.2	6.2
13. Corps of Engineers O&M per direct funding agrmt	93.3	95.8	100.0	101.0	102.0	108.0	112.0	116.8	121.4	125.1	116.6
14. U.S. Fish & Wildlife O&M	11.7	12.4	12.2	14.1	14.7	15.4	16.2	17.0	17.9	18.8	17.1
15. Bureau of Reclamation O&M	39.8	42.6	43.4	43.8	45.2	47.0	48.9	50.9	52.9	55.0	50.9
16. Colville Settlement	16.3	16.3	15.3	15.3	15.3	16.3	16.1	15.9	15.7	15.6	15.9
17. Renewable Projects	0.0	4.4	1.1	17.9	19.2	18.3	18.7	15.8	15.8	15.8	16.9
18. WNP-1 O&M	0.0	0.0	0.0	0.3	2.1	3.4	0.6	0.6	0.6	0.6	1.2
19. WNP-2 O&M/Capital Requirements	168.7	167.4	158.9	155.4	155.6	158.6	169.2	176.6	177.8	180.1	172.5
20. WNP-3 O&M	0.9	6.9	13.8	10.3	3.4	3.5	3.6	3.6	3.6	3.6	3.6
21. Trojan Decommissioning	15.1	20.8	22.9	21.6	8.2	3.2	3.1	3.1	3.1	3.2	3.1
22. Between Business Line Expense	209.6	218.5	225.1	229.4	228.8	236.9	236.9	236.9	236.9	236.9	236.9
23. LT Power Purchases	62.9	27.8	28.3	28.6	28.7	29.1	29.4	29.7	30.1	30.3	29.7
24. Undistributed Expense Reduction	0.0	(26.1)	(27.3)	(32.4)	(21.8)	(9.0)	(7.2)	(29.8)	(21.3)	(29.8)	(19.4)
25. System Operation & Maintenance Targets	906.8	945.0	932.1	956.1	949.9	945.0	950.0	940.0	952.0	945.4	946.5
26. Targeted Net Operating Margin	1,089.5	1,050.0	1,109.9	1,131.9	1,164.1	1,109.0	1,100.0	1,115.0	1,108.0	1,119.6	1,110.3

* 1997 are based on audited actual revenues and expenses

Revenue and Expense Baseline - Power Business Line (Continued)

(\$ in millions)	*1997 Actual	1998	1999	2000	2001	2002	2003	2004	2005	2006	02-06 ave.
27. WNP-1	114.9	176.3	184.9	192.7	191.9	181.8	173.0	176.4	168.9	180.0	176.0
28. WNP-2	194.3	219.8	256.2	263.4	261.3	216.7	291.6	224.3	180.0	210.1	224.5
29. WNP-3	121.3	130.2	156.3	154.7	155.3	156.1	155.3	151.5	151.1	149.2	152.7
30. Trojan	10.0	9.9	9.9	9.9	9.9	9.9	10.0	10.0	10.0	10.0	10.0
31. Conservation Financing	23.4	7.6	9.4	9.5	7.7	7.8	7.8	2.4	2.4	2.5	4.6
32. Renewable Projects		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
33. LT Power Purchases		16.0	16.1	16.0	16.0	15.9	15.9	15.9	15.9	15.9	15.9
34. Total Non-Fed. Projects Debt Service	463.9	559.9	632.8	646.2	642.1	588.2	653.7	580.5	528.4	567.8	583.7
35. Total Federal Projects Depreciation	148.3	163.2	168.3	172.6	178.2	181.9	181.6	183.7	187.4	190.2	185.0
36. Net Residential Exchange	161.0	73.2	59.7	58.2	35.3	0.1	0.1	0.1	0.1	0.1	0.1
37. Total Operating Expenses	1,680.0	1,741.2	1,792.9	1,833.1	1,805.5	1,715.3	1,785.3	1,704.2	1,667.9	1,703.4	1,715.2
38. Net Operating Revenue	316.3	253.8	249.1	254.9	308.5	338.7	264.7	350.8	392.1	361.6	341.6
39. Net Federal Interest Expense	197.2	196.1	193.0	198.4	210.9	211.7	213.3	213.0	216.1	216.0	214.0
40. Reductions to Expenses due to SS Refinancing	0.0	(1.5)	(2.4)	(2.0)	(1.7)	(16.8)	(41.4)	1.3	7.2	4.8	(9.0)
41. Total Operating & Net Interest Expenses	1,877.2	1,935.8	1,983.5	2,029.5	2,014.7	1,910.2	1,957.2	1,918.6	1,891.1	1,924.2	1,920.3
42. Targeted Net Revenues	119.1	59.2	58.5	58.5	99.3	143.8	92.8	136.4	168.9	140.8	136.5

* 1997 are based on audited actual revenues and expenses

Expenses	Description
1 Targeted Operating Revenues	Planned total revenues.
2 CSRS Pension Expense	BPA has agreed to pay additional funds into the Civil Service Retirement System (CSRS) pension fund. These funds are to help cover the expected deficit in the fund due to the rising number of employees that will be retiring in future years. These funds help lower the Federal deficit.
3 Power Marketing	Primarily personnel costs, both Federal and contractor FTE, for marketing and selling power
4 Wheeling	Primarily General Transfer Agreements (GTA's) costs for wheeling electricity over BPA's customer-owned transmission facilities.
5 Power Scheduling/Storage	Primarily personnel costs, both Federal and contractor FTE, for operation of the Federal Columbia River Power System
6 ST Purchased Power	Costs associated with the purchase of power from other entities/institutions
7 PNCA Interchange	Pacific Northwest Coordination Agreement costs associated with the interim cash payments BPA makes to other generating utilities for power received as interchange energy.
8 Generation Oversight	Personnel costs for management of other entity generation projects such as WPPSS; settlement costs for terminated generation projects.
9 Conservation & Consumer Services	Primarily existing contract costs for conservation projects/programs.
10 Fish & Wildlife	Costs associated with the direct funding of Fish & Wildlife program activities, including personnel
11 Corporate Expenses	Corporate overhead costs associated with building rents & maintenance, financial services, general services, computer support, security, human resources, etc.
12 Planning Council	Operational costs of the Pacific Northwest Planning Council
13 Corps of Engineers O&M	Annual power generating operation and maintenance costs of the Corps of Engineers
14 U.S. Fish & Wildlife O&M	Annual operation and maintenance costs of the US F&W Lower Snake River Compensation Plan hatcheries program
15 Bureau of Reclamation O&M	Annual power generating operation and maintenance costs of the Bureau of Reclamation
16 Colville Settlement	Annual payment to the Confederated Tribes of the Colville Reservation for their claims concerning their contribution to the production of hydropower by the Grand Coulee Dam (Settlement Agreement 4/94).
17 Renewable Projects	Wind and geothermal generation project costs
18 WNP-1	Site restoration costs for the terminated Washington Public Power Supply System nuclear plant
19 WNP-2	O&M costs for WPPSS nuclear generating plant
20 WNP-3	Site restoration costs for the terminated Washington Public Power Supply System nuclear plant
21 Trojan Decommissioning	Decommissioning costs for Trojan nuclear plant.
22 Between Business Line Expenses	Primarily transmission costs purchased from the Transmission Business Line (BPA)
23 LT Power Purchases	Contract costs for the purchase of power from other entity generation projects (e.g., Idaho Falls, Cowlitz Falls, Wauna)
24 Undistributed Expense Reduction	Cost reductions identified as necessary but not yet specified
25 Total System Operation & Maint.	Total of lines 2 through 24.
26 Net Operating Margin	Line 1 minus Line 25.
27 WNP-1	Debt service
28 WNP-2	" "
29 WNP-3	" "
30 Trojan	" "
31 Conservation Financing	" "
32 Renewable Projects	" "
33 LT Power Purchases	Debt Service for Idaho Falls, Cowlitz Falls generating projects.
36 Net Residential Exchange	Costs associated with providing residential and small farm customers of investor-owned and publicly-owned utilities with the benefits of low-cost Federal power.

Line 3. Power Marketing

1998	1999	2000	2001	2002	2003	2004	2005	2006
35,102,979	32,870,738	32,764,971	32,691,007	32,839,585	32,730,826	32,775,826	32,822,826	32,871,826

Current Projection
1998-2001 2002-2006
(\$ in Thousands)

Current Projections:

Personnel costs comprise 58% of all costs in the Power Business Line:

Corporate and Environment provide field office support and environmental analysis

General Counsel provides legal services

Power is broken down into the following groups:

	1998-2001	2002-2006
Bulk Power Marketing (PSB)	2,302	2,258
Eastern Power Business Area (PSE)	1,804	1,770
Western Power Business Area (PSW)	2,115	2,075
Market Analysis and Power Pricing & Rates (PSM/PSP)	2,795	2,742
Information Technology (PGG)	1,822	1,787
Executive management and staff support (P/PB/PB/PS)	1,431	1,404
Power billing (PSR)	1,200	1,177
Transmission purchases/scheduling (PST)	1,030	1,010
Federal Hydro Projects (PGF)	799	784
Business Strategy & Assessment (PM)	773	758
Risk Management (PR)	674	661
Communications & Liaison and Development Pool (PL)	450	441
Total Personnel	19,351	19,251
Media services, supplies, support services contracts, and travel.	5,124	4,542
Contracts:	8,881	9,016
Northern Wasco (McNary project)	10	10
Non-Routine Maintenance at COE/BOR projects	1,000	1,000
Federal Hydro Projects contract support	631	615
Cultural Resources Mitigation	3,500	3,500
Clearwater Hatchery Generation Project	1,371	1,567
Other PBL Contracts	2,369	2,324
Total	33,356	32,809

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Line 4. Wheeling

1998	1999	2000	2001	2002	2003	2004	2005	2006
42,551,000	42,884,000	43,133,000	43,359,000	13,610,792	13,864,256	13,864,256	13,864,256	13,864,256

Current Projection
1998-2001 2002-2006
(\$ in Thousands)

Current Projections:

42,931	13,814
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Wheeling Service-General Transfer Agreement (GTA's) costs for wheeling electricity over BPA's customer-owned transmission facilities. Forecast includes these type of costs:

36,997	7,814
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Wheeling Program Manager
BPA Use Customer-Owned Facilities:
Transmission or Transfer Services Provided to BP.
Wheeling - Non-Intertie
Wheeling - SW Intertie
Wheeling - SW Idaho
Wheeling - SE Idaho & Western Wyoming

Point-to-Point Wheeling Services from transmission providers other than the BPA's Transmission Business Line:

6,000	6,000
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	1998	1999	2000	2001	2002	2003	2004	2005	2006
Line 5. Power Scheduling	13,083,944	13,040,247	11,749,510	11,776,384	11,659,753	11,698,286	11,664,913	8,709,770	11,688,738

Current Projection
1998-2001 2002-2006
(\$ in Thousands)

Current Projections:	12,412	11,084
Personnel costs comprise 64% of all costs.		
Personnel	7,940	7,377
Support Services Contracts	2,741	2,039
Supplies and materials	939	939
Contracts	613	542
Travel	152	160
Media Services	27	27
Total	12,412	11,084

	1998	1999	2000	2001	2002	2003	2004	2005	2006
Line 6. Power Purchases/Upstream Benefits	53,643,000	43,518,000	48,982,000	57,604,000	59,990,000	60,050,000	56,111,000	58,174,000	58,240,000

Current Projection
1998-2001 2002-2006
(\$ in Thousands)

Current Projections: 50,937 58,513

Line 7. PNCA Interchange	25,700,000	25,700,000	25,700,000	25,700,000	25,700,000	25,700,000	25,700,000	25,700,000	25,700,000
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Current Projection
1998-2001 2002-2006
(\$ in Thousands)

Current Projections: 25,700 25,700

Equal and offsetting revenues. Net cost zero.

	1998	1999	2000	2001	2002	2003	2004	2005	2006
Line 8. Generation Oversight	30,800,000	23,400,000	32,800,000	22,800,000	2,800,000	2,800,000	6,000,000	6,300,000	6,500,000

Current Projection

1998-2001 2002-2006

(\$ in Thousands)

Current Projections:	28,799	5,556
General Counsel personnel costs	866	780
Personnel costs	1,061	1,061
Support Services contracts	1,065	250
Travel	205	188
Supplies	10	10
Media services	11	8
Contract Costs:		
Tenaska	20,000	0
CalEnergy (geothermal)	3,750	0
Renewable research/projects to be determined	1,831	3,259
Total	28,799	5,556

	1998	1999	2000	2001	2002	2003	2004	2005	2006
Line 9. Conservation & Consumer Services	25,600,000	25,500,000	27,700,000	26,300,000	25,500,000	23,400,000	26,200,000	23,000,000	22,900,000

Current Projection

1998-2001 2002-2006

(\$ in Thousands)

Current Projections:	26,275	24,200
Personnel costs associated w/Market Transformation	307	360
Personnel costs associated w/Legacy Conservation	1,588	450
Market Transformation initiatives (NEEA)	14,693	14,640
Legacy Conservation contracts	9,638	8,735
Supplies	39	11
Travel & Transportation	10	4
Total	26,275	24,200

Line 10. Fish & Wildlife

1998	1999	2000	2001	2002	2003	2004	2005	2006
107,262,500	107,399,860	102,403,925	102,403,925	97,411,706	97,410,000	97,410,000	97,410,000	97,410,000

Current Projection

1998-2001 2002-2006

(\$ in Thousands)

Current Projections:	104,868	97,410
Personnel costs	3,432	3,467
Support Services contracts	810	794
Travel	149	144
Supplies & Material	208	207
Media services	155	153
Contract Costs:	100,113	92,645
Total	104,868	97,410

	1998	1999	2000	2001	2002	2003	2004	2005	2006
Line 11. Corporate Expenses	16,900,000	15,800,000	16,900,000	16,900,000	16,900,000	15,100,000	15,100,000	15,100,000	15,100,000
	<u>Current Projection</u>								
	<u>1998-2001</u>	<u>2002-2006</u>							
	(\$ in Thousands)								
Current Projections:	16,630	15,460							

	1998	1999	2000	2001	2002	2003	2004	2005	2006
Line 12. Planning Council	7,600,000	7,100,000	6,700,000	6,200,000	6,200,000	6,200,000	6,200,000	6,200,000	6,200,000
	<u>Current Projection</u>								
	<u>1998-2001</u>	<u>2002-2006</u>							
	(\$ in Thousands)								
Current Projections:	6,900	6,200							

	1998	1999	2000	2001	2002	2003	2004	2005	2006
Line 18. WNP-1 O&M	0	0	300,000	2,100,000	3,400,000	600,000	600,000	600,000	600,000
	<u>Current Projection</u>								
	<u>1998-2001</u>	<u>2002-2006</u>							
	(\$ in Thousands)								
Current Projections:	600	1,160							
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Line 19. WNP-2 O&M/Capital Requirements	167,400,000	158,900,000	155,400,000	155,600,000	158,600,000	169,200,000	176,600,000	177,800,000	180,100,000
	<u>Current Projection</u>								
	<u>1998-2001</u>	<u>2002-2006</u>							
	(\$ in Thousands)								
Current Projections:	159,325	172,460							
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Line 20. WNP-3 O&M	6,900,000	13,800,000	10,300,000	3,400,000	3,500,000	3,600,000	3,600,000	3,600,000	3,600,000
	<u>Current Projection</u>								
	<u>1998-2001</u>	<u>2002-2006</u>							
	(\$ in Thousands)								
Current Projections:	8,600	3,580							
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Line 21. Trojan Decommissioning	20,800,000	22,900,000	21,600,000	8,200,000	3,200,000	3,100,000	3,100,000	3,100,000	3,200,000
	<u>Current Projection</u>								
	<u>1998-2001</u>	<u>2002-2006</u>							
	(\$ in Thousands)								
Current Projections:	18,375	3,140							

	1998	1999	2000	2001	2002	2003	2004	2005	2006
Line 22. Between Business Line Expense	218,500,000	225,100,000	229,400,000	228,800,000	236,900,000	236,900,000	236,900,000	236,900,000	236,900,000

Current Projection
1998-2001 2002-2006
(\$ in Thousands)

Current Projections	225,450	236,900
Transmission Purchases	193,351	203,700
Ancillary & Reserve Services	30,986	30,984
Other	1,113	2,216
Sub-Total	225,450	236,900

Line 23. Long-Term Power Purchases	27,800,000	28,300,000	28,600,000	28,700,000	29,100,000	29,400,000	29,700,000	30,100,000	30,300,000
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Current Projection
1998-2001 2002-2006
(\$ in Thousands)

Current Projections	28,350	29,720
Cowlitz Falls project		
Idaho Falls project		
Packwood dam project		
Billing Credits		
Wauna co-generation project		
RCP		
Wheeling associated w/Cowlitz Falls		

Line 34. Total Non-Fed. Projects Debt Service	559,900,000	632,800,000	646,200,000	642,100,000	588,200,000	653,700,000	580,500,000	528,400,000	567,800,000
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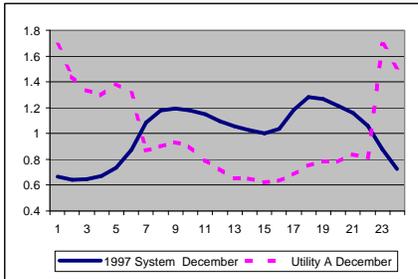
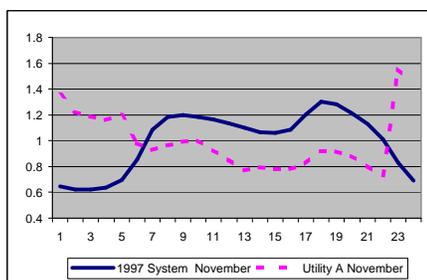
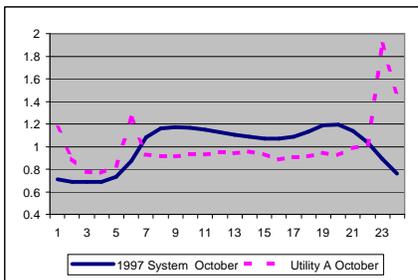
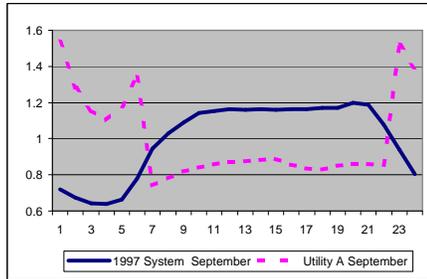
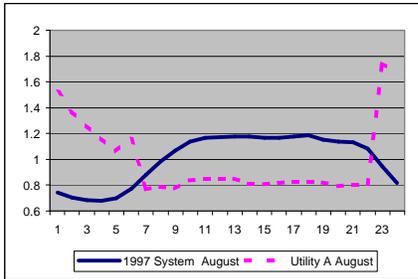
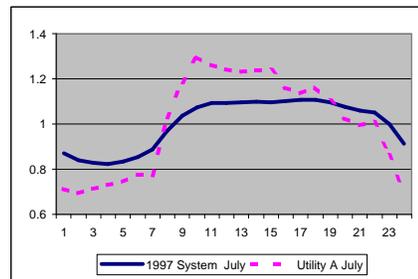
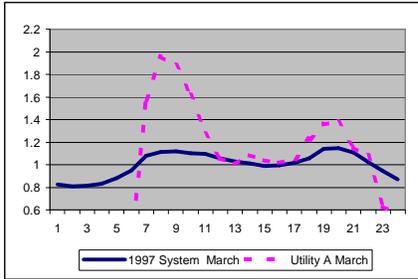
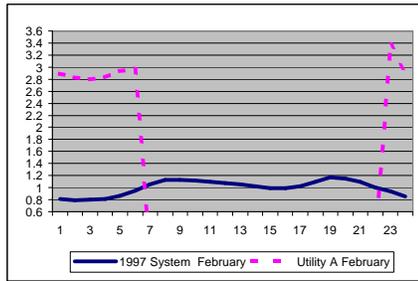
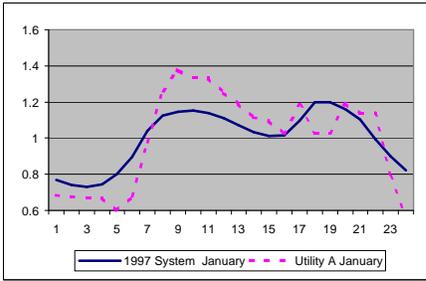
Current Projection
1998-2001 2002-2006
(\$ in Thousands)

Current Projections	620,250	583,720
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Transmission-Related Issues for Slice

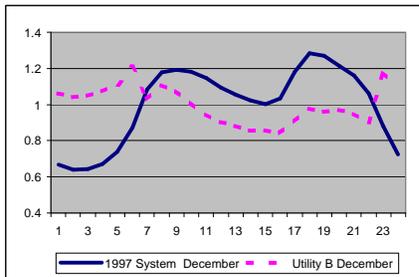
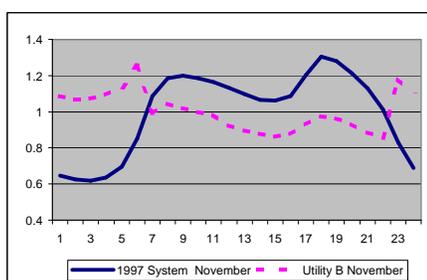
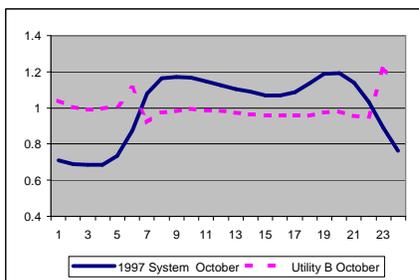
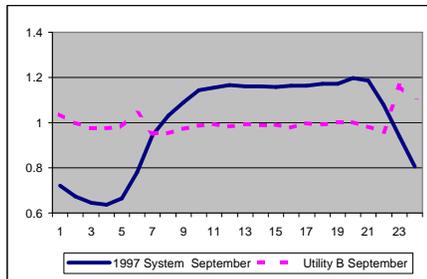
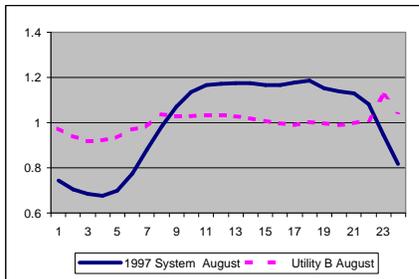
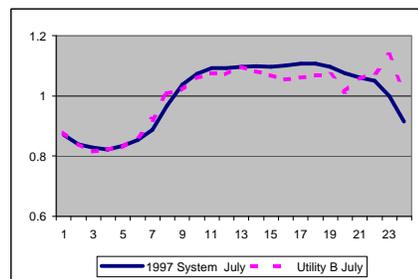
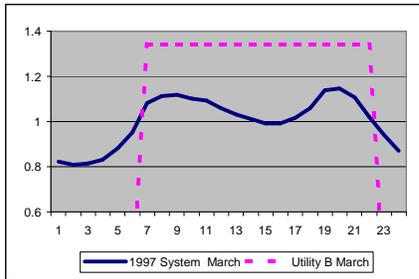
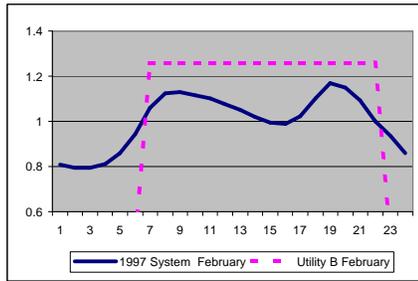
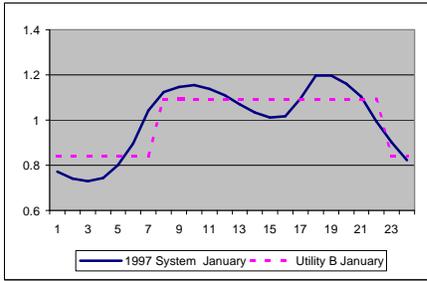
1. Although Slice would be purchased “at the bus bar”, Slice output would not come from any individual Federal project. Federal transmission likely would be required to make a Slice available on the Network.
2. Some Network paths are being oversubscribed. Although it is not clear what transmission paths a Slice resource would require, if an oversubscribed path were required there would be no guarantee of available transmission.
3. If a purchaser’s Slice resource were to exceed the transmission capability available to that purchaser, how would BPA dispose of the excess?
4. Establishing annual contract demand for transmission of Slice output may be difficult because Slice output would not be known in advance.
5. The extent to which Slice shares could be used for reserves and who would be responsible for carrying reserves on Slice output may be issues for Control Area operators.
6. Under FERC guidelines, Generation Integration costs are likely to be Power Business Line costs, but that question is under discussion.

Utility A HOURLY SHAPE OF PF POWER TAKE vs. BPA TOTAL SYSTEM GENERATION SHAPE 1997 System



All else being equal, a shift from the current shape of purchases from BPA to purchases shaped to BPA's total generation would increase Heavy Load Hour loads on BPA in the months that BPA must purchase HLH power to serve requirements loads. Slice would clearly lead to greater balancing purchase power costs.

Utility B HOURLY SHAPE OF PF POWER TAKE vs. BPA TOTAL SYSTEM GENERATION SHAPE 1997 System



All else being equal, a shift from the current shape of purchases from BPA to purchases shaped to BPA's total generation would increase Heavy Load Hour loads on BPA in the months that BPA must purchase HLH power to serve requirements loads. Slice would clearly lead to greater balancing purchase power costs.