

# Bonneville Power Administration Overview

As of September 24, 2015



Grand Coulee Dam



High Voltage Transmission



Columbia Generating Station

Moody's: Aa1/Stable

S&P: AA-/Stable

Fitch: AA/Stable



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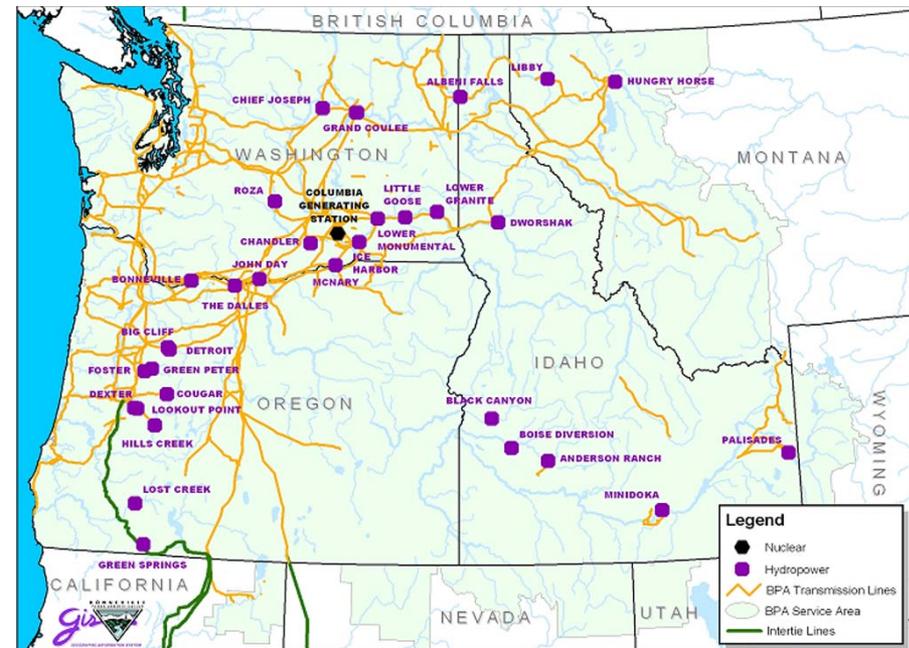
# Background



Columbia River

# BPA at a Glance

- Bonneville Power Administration (“BPA”) is one of four regional federal power marketing administrations within the United States Department of Energy
  - Established by Congress in the Bonneville Project Act of 1937
  
- BPA markets power from 31 federally-owned hydroelectric projects and several Non-Federal projects (including Energy Northwest’s Columbia Generating Station) totaling over 23,000 MW of nameplate capacity
  
- Summary Statistics:
  - BPA’s electric power supply service area is over 300,000 square miles, and the population of the area is approximately 12 million people
  - BPA accounts for about one-third of the electric power consumed within the Pacific Northwest
  - Over 80% of BPA’s total firm power supply is carbon emission-free hydroelectric power
  - BPA’s grid provides about 75% of the bulk transmission capacity in the Region



Bonneville Power Resources Map

# One BPA -Two Business Units

## Power Services

- BPA sells power to over 125 Preference Customer utilities and several federal agencies at Priority Firm (PF) Rates, which is BPA's lowest cost, statutorily-designated rate class
- Under planning assumptions for Operating Year 2016, of the firm load BPA is expected to meet, 87% would be Preference Customer load, and 5% would be federal agency and Direct Service Industry (DSI) load
- BPA also markets seasonal surplus (secondary energy) and electric power capacity throughout the western U.S. and Canada
- Approximately \$2.7 billion in Power Services sales in FY14

## Transmission Services

- For purposes of Federal Energy Regulatory Commission (FERC) transmission regulation, BPA is a non-jurisdictional utility; however, BPA makes transmission and related services available under an Open Access Transmission Tariff based on FERC's *pro forma* tariff
- Approximately \$932 million in Transmission and related Services sales in FY14

## Power Services Top 10 Customers (FY14)

| Customer Name  | Approximate % of Sales* |
|--|-------------------------|
| Snohomish County PUD No. 1 (Preference)                    | 8%                      |
| Cowlitz County PUD No. 1 (Preference)                      | 6%                      |
| City of Seattle, City Light Dep't (Preference)             | 6%                      |
| Pacific Northwest Generating Cooperative (Preference)      | 5%                      |
| Tacoma Power (Preference)                                  | 4%                      |
| Alcoa Inc (DSI)  | 4%                      |
| Powerex Corp. (Independent Power Producer)                 | 4%                      |
| Clark Public Utilities (Preference)                        | 4%                      |
| Eugene Water & Electric Board (Preference)                 | 3%                      |
| Iberdrola Renewables Inc.(Wind Developer & Power Marketer) | 2%                      |

## Transmission Services Top 10 Customers (FY14)

| Customer Name   | Approximate % of Sales* |
|---|-------------------------|
| Puget Sound Energy Inc. (IOU)                         | 12%                     |
| PacifiCorp (IOU)                                      | 11%                     |
| Portland General Electric Company (IOU)               | 9%                      |
| Powerex Corp. (Power Marketer)                        | 7%                      |
| City of Seattle, City Light Dep't (Preference)        | 5%                      |
| Snohomish County PUD No.1 (Preference)                | 4%                      |
| Iberdrola Renewables Inc. (Wind Developer)            | 4%                      |
| Pacific Northwest Generating Cooperative (Preference) | 2%                      |
| Hermiston Power LLC (Power Marketer)                  | 2%                      |
| Clark Public Utilities (Preference)                   | 2%                      |

# Sources of Capital and Cost Recovery

## ■ Sources of Capital

- BPA has revolving authority (\$7.7 billion in aggregate) to borrow from the U.S. Treasury at rates comparable to rates available to other U.S. agencies
- BPA does not issue or sell debt to the public in its own name. To assist in meeting capital program needs, BPA makes financial commitments that secure the debt service on debt instruments issued by third parties. BPA refers to these instruments as “Non-Federal Debt”
- In these transactions, a third party issues debt instruments that are payable from amounts (cash and/or monetary credits) provided by BPA under agreements in which BPA obtains the use or benefit of the facilities so financed:
  - Nuclear project capability net billing agreements (Energy Northwest)
  - Transmission facility lease-purchase agreements (e.g., Port of Morrow)
  - Power and conservation resource acquisition agreements (e.g., Lewis County PUD)
- In FY13, BPA also received \$340 million in aggregate from four customers as prepayments for future deliveries of electric power to those customers (also included as Non-Federal Debt)

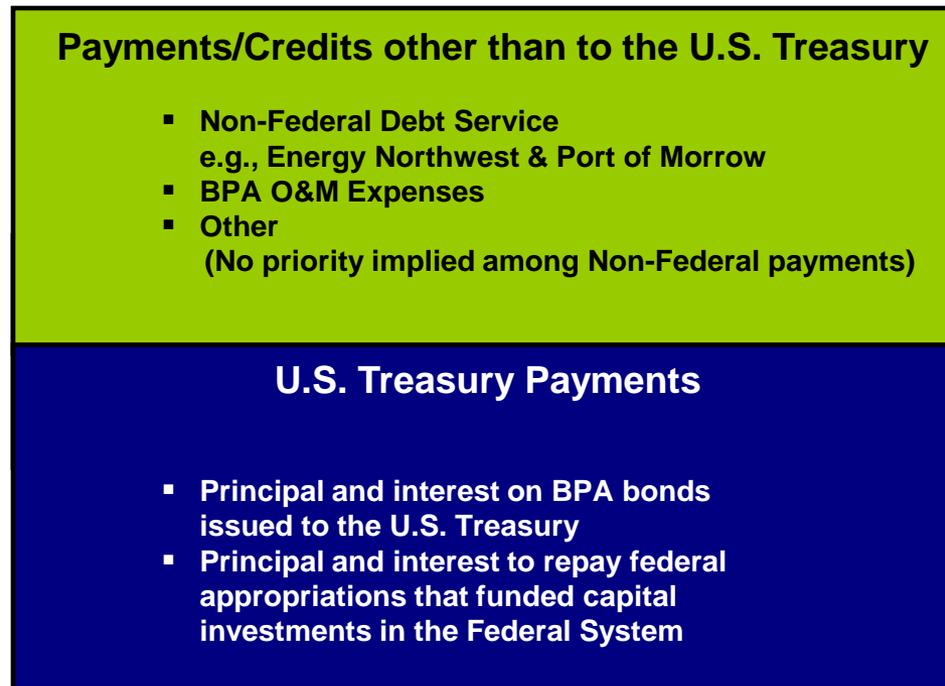
## ■ Cost Recovery

- BPA is required by law to establish rates that recover **all** of its costs, including amounts for Non-Federal Debt
- FERC is required by law to review BPA’s rate proposals to assure that BPA meets the foregoing cost recovery obligations

*Although Power Services and Transmission Services function as separate business units, ALL BPA funds are available to meet Non-Federal costs including debt service costs for Non-Federal Debt*

# Order in Which BPA's Costs Are Met

- BPA has contractual commitments to meet the debt service on Non-Federal Debt and to make other payments to other Non-Federal entities
- BPA's payments (and monetary credits in the case of Energy Northwest bonds and power prepayments by Preference Customers) are met prior to all of BPA's payments to the U.S. Treasury
- BPA supported debt currently rated Aa1 (Moody's) / AA- (S&P) / AA (Fitch)



(Not to scale)

*BPA's total scheduled payment of \$670 million to the U.S. Treasury was made on time and in full in FY14, marking the 31st consecutive year of full and timely payments to the U.S. Treasury. BPA also prepaid \$321 million of high interest federal appropriation debt.*

# BPA Operation and Financial Information



Libby Dam



Hungry Horse Dam

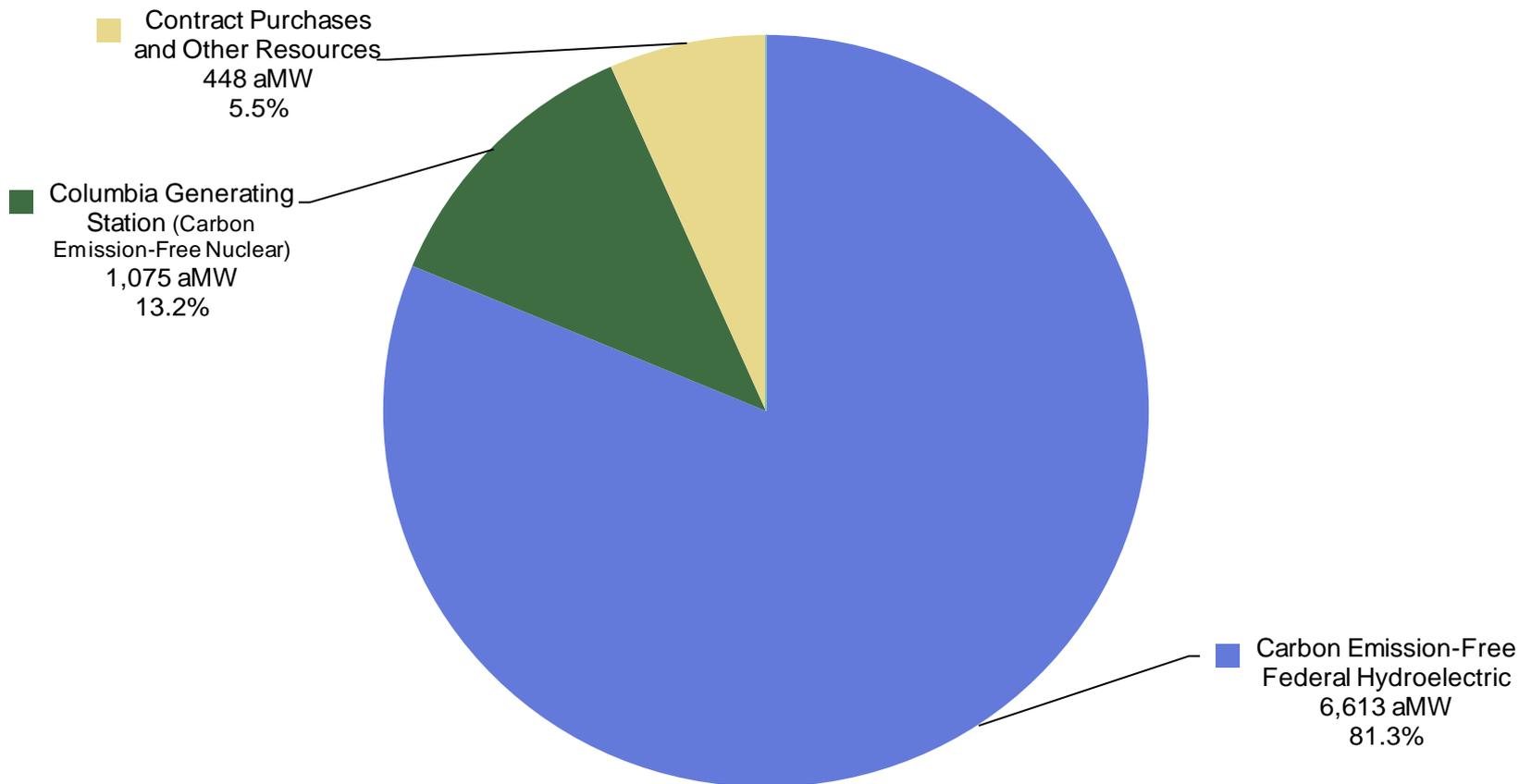


Dworshak Dam

# Virtually Carbon Emission-Free, Low-Cost, Hydro-Based System

## Federal System Power Resources

Average Megawatts (8,136 total) of Energy for Operating Year\* 2016  
assuming 1937 Low Water Conditions (Critical Water)

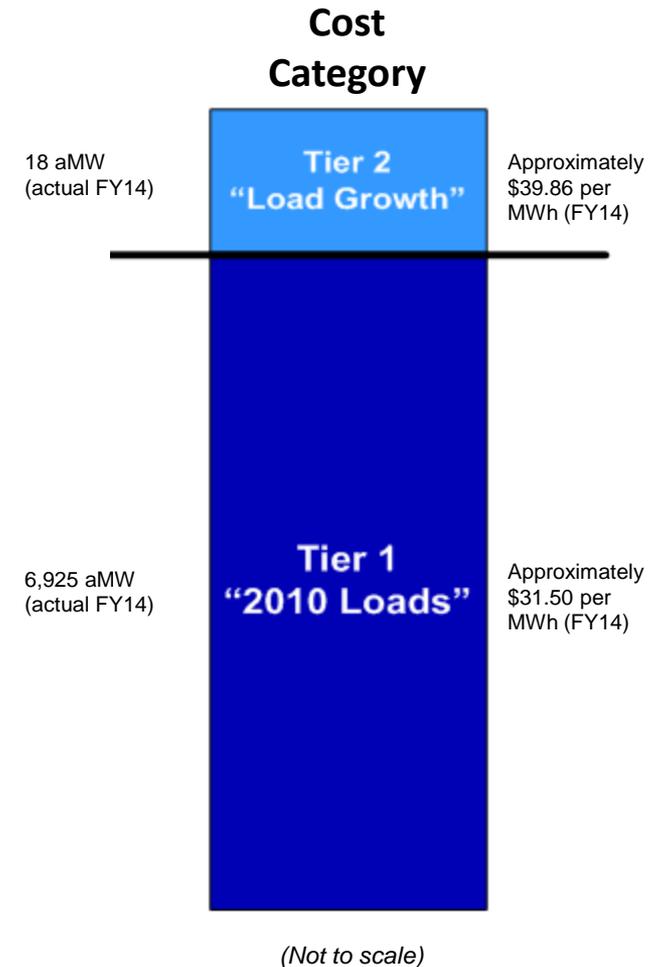


# Long-Term Power Purchase Commitments

- BPA uses the firm power of the Federal System to meet Preference Customers' (and federal agencies') net power requirements in the Region under two forms of Power Sale Contracts (PSCs)
  - Load Following – BPA meets actual loads on an hourly basis
  - Slice/Block – BPA provides a percentage of all Federal System power as generated (Slice), together with set amounts of power at set times (Block)
    - Slice portion of Slice/Block represents 26.6% of Federal System output
  
- Preference Customers are consumer- or publicly-owned electric utilities that have an obligation to serve end-use consumers' power needs
  
- Key Provisions of the Power Sale Contracts
  - Cover FY12 through FY28 (federal law limits PSCs to 20-year terms, PSCs were executed in December 2008)
  - Customers must pay the power rates that BPA establishes periodically
  - Customers must pay for power tendered by BPA (although if a customer's loads in the Region fall, the customer's right and obligation to purchase, in general, is reduced equally)

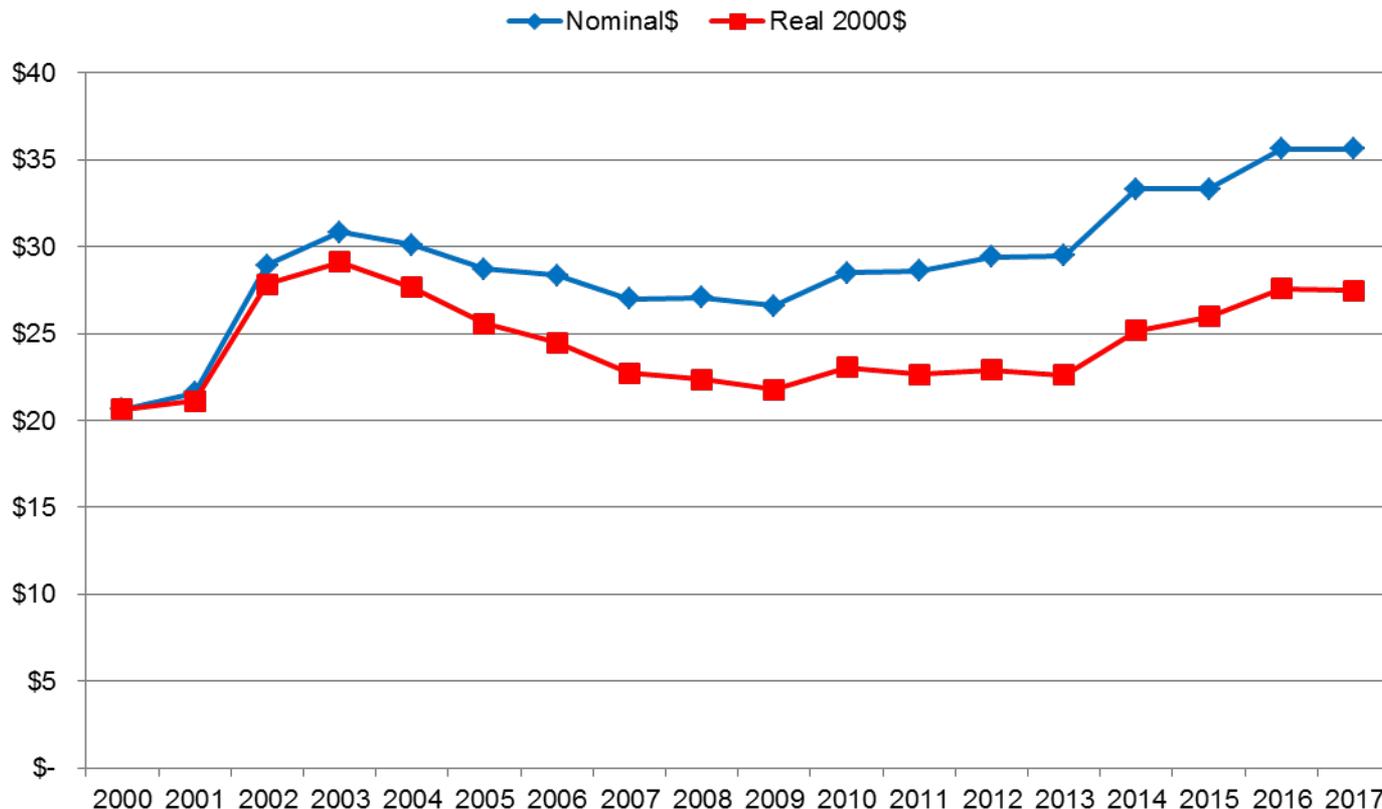
# Meeting Load Obligation through Tiered Rates

- BPA is obligated by law to meet loads within the Region, primarily Preference Customers' loads
  - Historically, BPA blended the cost of meeting load growth with the low cost of the existing system, which incentivized customers to place load growth on BPA
- Under current PSCs, BPA has two tiers of power rates for Preference Customers
- BPA establishes Tier 1 power rates based on the classes of costs associated with meeting a customer's loads tied to its historical purchases from BPA (based primarily on 2010 loads)
- Tier 2 rates are designed to recover the power purchase cost to BPA of meeting customers' loads above Tier 1 (Tier 2 loads, primarily load growth)
- Customers are not obligated to purchase from BPA for Tier 2 needs, but may elect to meet that need on their own
- If a customer does elect to make a Tier 2 purchase commitment, it is on a take-or-pay basis



# Recent Historical BPA Power Rates

Average Rates for Power Sold to Preference Customers & Federal Agencies  
(Excludes Associated Transmission Costs)



- BPA power rates have remained relatively stable, especially on an inflation-adjusted basis
- BPA implemented a significant rate increase when needed in 2002 following the 2001 West Coast Power Crisis

\* The FY16-17 rates are proposed rates which have been granted interim approval by FERC and will take effect on a preliminary basis on October 1, 2015.

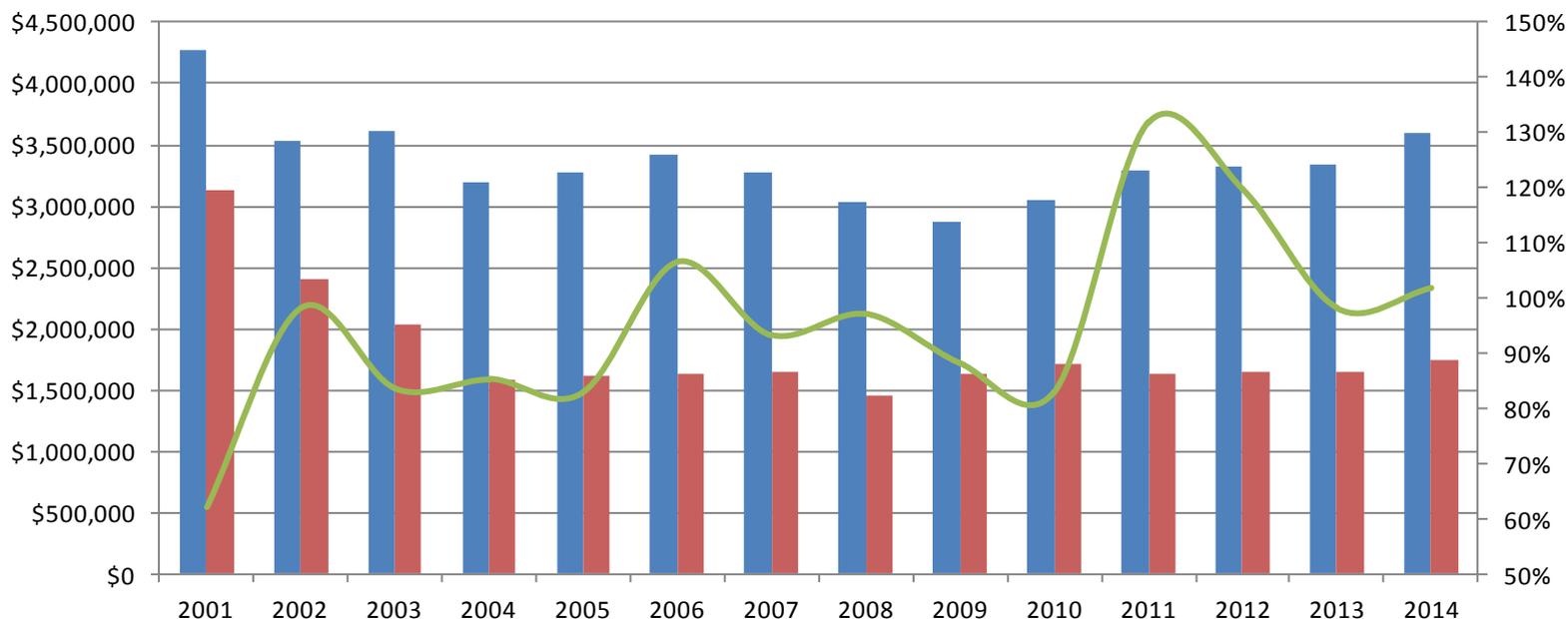
# BPA Rates Assure Cost Recovery

- To assure cost recovery despite generation variability and market uncertainty, among other risks, BPA policy is to establish power and transmission rates that achieve at least a 95% probability of meeting its scheduled U.S. Treasury payments (Treasury Payment Probability or “TPP”) in each year of the rate period. U.S. Treasury payments are paid only after all Non-Federal debt service, BPA O&M, and certain other obligations are met
- BPA establishes rates in a formal process every two years (since FY02 for Transmission Services and FY10 for Power Services)
- Transmission Services costs and revenues are generally more stable than Power Services costs and revenues
- For Power Services, BPA uses a Cost Recovery Adjustment Clause (CRAC) to address risks that may arise during the two-year rate cycle without an additional (time consuming) rate proceeding
  - BPA may increase rate levels to obtain up to \$300 million per year in additional Power Services revenues in the rate period
  - CRAC recoveries begin at the start of the fiscal year in which triggered
  - The trigger is based on financial performance factors and liquidity needs
  - The CRAC has not been utilized under existing PSCs
- Compared to the previous rate period, FY14-15 rates reflect:
  - 9% increase in power rate levels (aggregate average increase in PF Rates)
  - 11% increase in Transmission Services rate levels (aggregate average transmission rates)
- Compared to the FY14-15 rate period, BPA’s Final Record of Decision for FY16-17 rates reflect:
  - 7.1% increase in power rate levels (aggregate average increase in PF rates)
  - 4.4% increase in Transmission Services rate levels (aggregate average transmission rates)

# Revenues & Expenses More Stable than Streamflow

- Despite significant challenges in the energy market, the relationship of revenues to expenses has been stable relative to wide variances in stream-flows and hydro-generation
- In extreme market scenarios, rate mechanisms and risk management have enabled BPA to recover all costs, and make all scheduled payments to the U.S. Treasury on time and in full for the last 31 years
- The National Weather Service forecasts the FY 2015 water supply for the Columbia River basin to be approximately 82% of the 30-year average as of July 31, 2015

## BPA Operating Revenues and Expenses (\$millions) Comparison to Streamflow (% of Average\*)



\* Average of 133 Million Acre Feet (MAF) at The Dalles Dam. Streamflow reflects BPA's operating year results (August 1-July 31) and financial results reflect BPA's fiscal year (October 1-September 30)

Operating Revenue    Operating Expense    % of Average Streamflow

# Reserves & Liquidity

- Total Financial Reserves are cash, deferred borrowings and readily-liquidated U.S. Treasury securities held in BPA's account at the U.S. Treasury
- Reserves Available for Risk (RAR) are Total Financial Reserves less amounts received and held for specified expenditures or purposes
- While Total Financial Reserves can be used at any time to meet obligations if necessary, BPA adopts a conservative stance and relies on RAR and not Total Financial Reserves in its rate-making and calculations of TPP
- As of 9/30/2014, BPA had \$784 million in RAR and a \$750 million short-term expense line of credit with the U.S. Treasury (no outstanding balance)
- RAR balances and the short-term borrowing facility combine to provide a cushion of liquidity for BPA to meet its cash obligations in situations where revenues and expenses deviate from rate case assumptions
- BPA will establish higher rates (for the relevant business line) to generate additional RAR when needed to meet BPA's 95% TPP standard (the probability that BPA will have sufficient liquidity to make all U.S. Treasury payments in a rate period)

| Year-End BPA Financial Reserves (\$millions) |                          |                             |                               |                         |
|--|--------------------------|-----------------------------|-------------------------------|-------------------------|
| Fiscal Year                                  | Total Financial Reserves | Reserves Available for Risk | U.S. Treasury Short-Term Line | Days Liquidity on Hand* |
| 2010   | 1,114                    | 839                         | 750                           | 335                     |
| 2011   | 1,006                    | 747                         | 750                           | 329                     |
| 2012   | 1,022                    | 704                         | 750                           | 319                     |
| 2013   | 1,272                    | 641                         | 750                           | 303                     |
| 2014   | 1,224                    | 784                         | 750                           | 317                     |

***BPA's reserves available for risk combined with U.S. Treasury line of credit provided 317 days liquidity on hand at the end of FY14***

# Financial Performance and Coverage

- Cash payments and financial credits by BPA for Non-Federal costs (including for Non-Federal Debt) are met before payments by BPA to the U.S. Treasury
- BPA is required to defer U.S. Treasury payments if necessary to meet Non-Federal obligations

## (Actual Dollars in Thousands)

| Fiscal Years ending September 30                   | 2014        | 2013        | 2012        |
|--|-------------|-------------|-------------|
| 1 Total Operating Revenue                          | 3,600,346   | 3,346,281   | 3,317,850   |
| 2 Less Operating Expense                           | 1,743,969   | 1,653,552   | 1,642,148   |
| 3 Net Funds Available for Non-Federal Debt Service | 1,856,377   | 1,692,729   | 1,675,702   |
| 4 Total Non-Federal Debt Service                   | 425,407     | 775,012     | 685,131     |
| 5 <b>Non-Federal Debt Service Coverage Ratio</b>   | <b>4.4x</b> | <b>2.2x</b> | <b>2.4x</b> |
| 6 Annual Treasury Payment <sup>1</sup>             | 991,027     | 691,787     | 886,120     |

<sup>1</sup>Included in BPA's annual U.S. Treasury payment for FY14 was \$321 million of high interest federal appropriation debt prepaid with freed up revenues related to a regional cooperation debt refinancing.

\*For presentation purposes, the above information is summarized differently than other published BPA audited financial statements. For example, line 4 includes Non-Federal Project Debt Service, lease-purchases, and Prepaid Customer Power Purchases

# BPA Debt Management



**Bonneville Dam**



**John Day Dam**

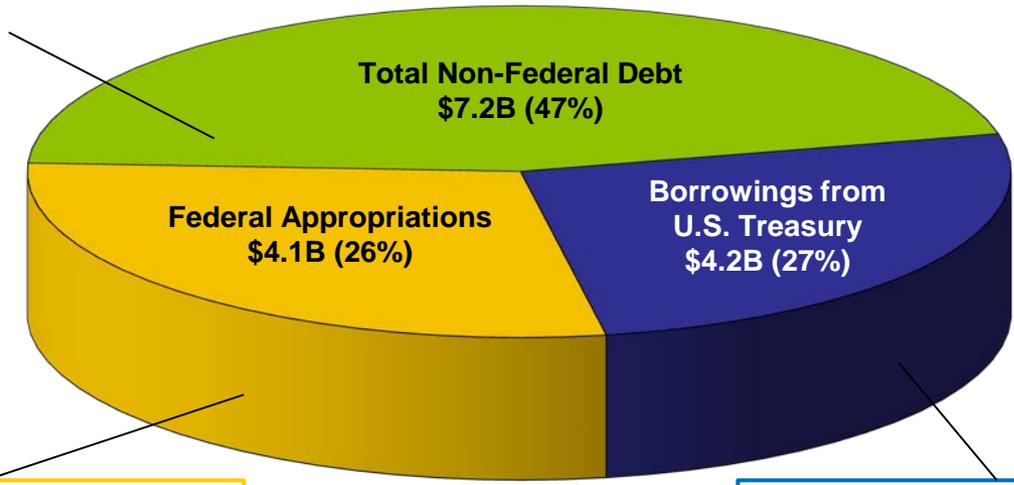


**The Dalles Dam**

# BPA Debt Composition

## Total Liabilities to Federal and Non-Federal Parties as of September 30, 2014

Debt associated with purchase of generating capability of Energy Northwest projects (\$5.36B), lease-purchases of transmission facilities (\$1.45B), electric power prepayments (\$319M), acquisition of generating capability of other Non-Federal generating projects (\$102M), and acquisition of electric power conservation savings (\$2M)



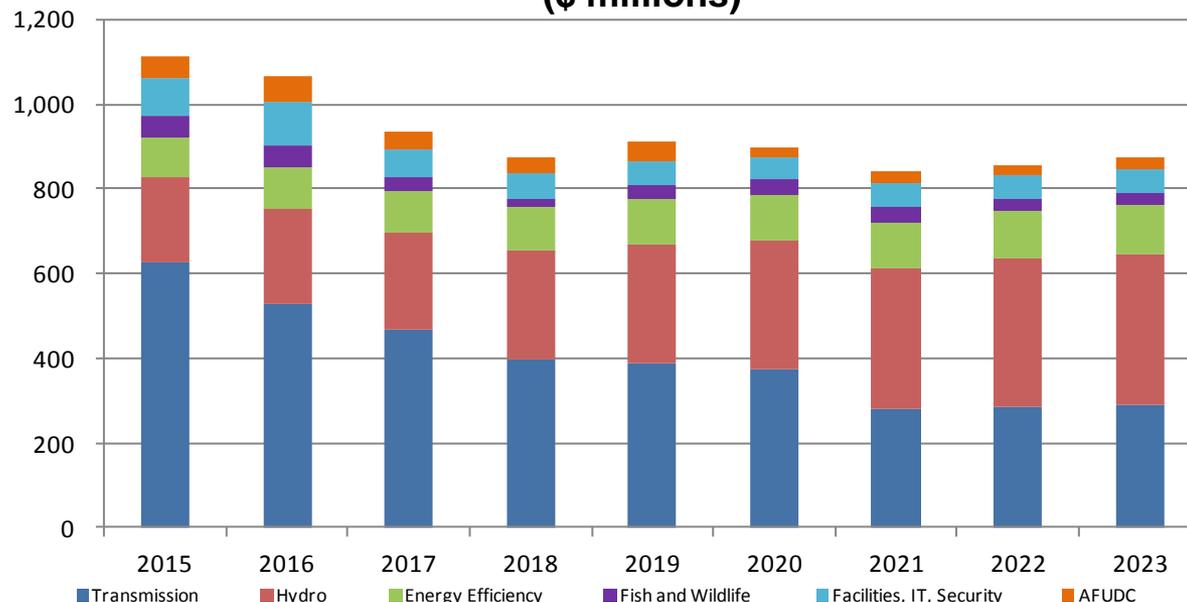
Bonneville is to return amounts to the U.S. Treasury over time as a repayment of amounts appropriated to the Army Corps of Engineers and Bureau of Reclamation for Federal System hydroelectric dams

BPA is authorized by Congress to issue bonds to the U.S. Treasury, up to \$7.7 billion revolving

**Total Liabilities: \$15.6 billion as of September 30, 2014**

# BPA Capital Plan and Strategy

**Proposed Capital Investment  
(\$ millions)**



- BPA has a substantial capital plan and is implementing a capital financing strategy developed with Regional input
- Strategy includes additional Non-Federal Debt: publicly-offered bonds issued by Energy Northwest, Port of Morrow, and others
- BPA will continue to assess tools available to fund these investments
- For the ten calendar years beginning in 2015, public issuance of BPA-supported new money debt for transmission facilities and for Energy Northwest’s CGS is projected to be between \$100 million and \$400 million per year

|                        |  | 2015           | 2016          | 2017          | 2018          | 2019          | 2020          | 2021          | 2022          | 2023          | Total          |
|------------------------|--|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|
| Transmission           |  | \$ 627         | \$ 530        | \$ 468        | \$ 399        | \$ 388        | \$ 372        | \$ 280        | \$ 286        | \$ 290        | \$3,640        |
| Hydro                  |  | \$ 200         | \$ 224        | \$ 230        | \$ 257        | \$ 282        | \$ 307        | \$ 332        | \$ 349        | \$ 355        | \$2,537        |
| Energy Efficiency      |  | \$ 92          |               |               |               |               |               |               |               |               | \$ 92          |
| Fish and Wildlife      |  | \$ 52          | \$ 55         | \$ 31         | \$ 19         | \$ 35         | \$ 35         | \$ 34         | \$ 29         | \$ 29         | \$ 318         |
| Information Technology |  | \$ 89          | \$ 100        | \$ 67         | \$ 61         | \$ 58         | \$ 53         | \$ 59         | \$ 52         | \$ 54         | \$ 594         |
| AFUDC <sup>(1)</sup>   |  | \$ 52          | \$ 63         | \$ 39         | \$ 38         | \$ 45         | \$ 25         | \$ 26         | \$ 27         | \$ 29         | \$ 345         |
| <b>Total</b>           |  | <b>\$1,112</b> | <b>\$ 972</b> | <b>\$ 835</b> | <b>\$ 773</b> | <b>\$ 808</b> | <b>\$ 792</b> | <b>\$ 731</b> | <b>\$ 744</b> | <b>\$ 758</b> | <b>\$7,525</b> |

(1) AFUDC - allowance for funds used during construction

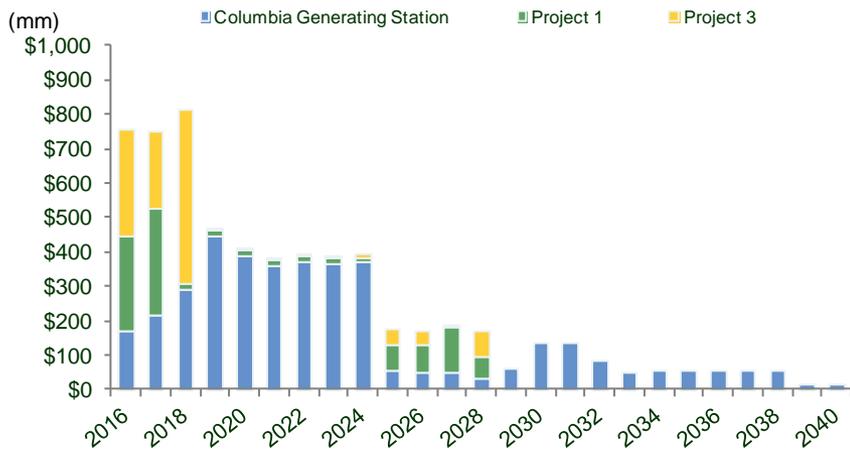
# Non-Federal Debt - Energy Northwest

*Bonds supported by BPA are not general obligations of the United States of America and are not secured by the full faith and credit of the United States of America*



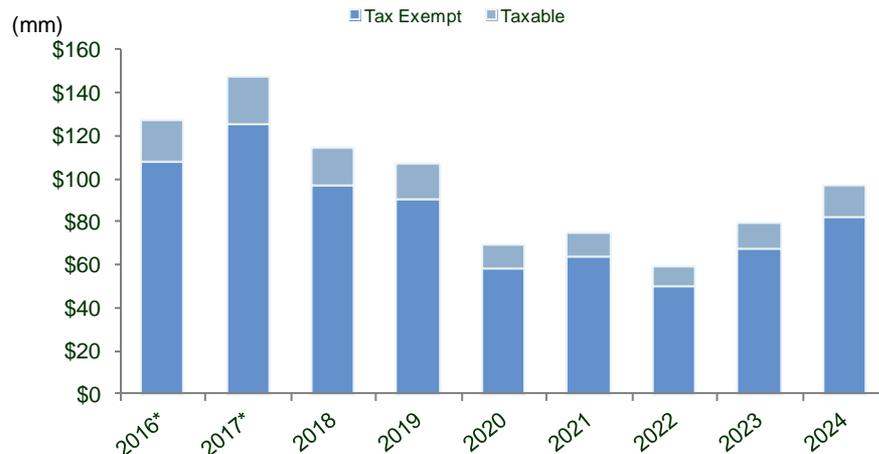
- Washington state Joint Operating Agency
- Owns/operates Columbia Generating Station
- \$5.33 billion in BPA-supported debt outstanding, some of which is expected to be refinanced
  - Columbia (operating)
  - Project 1 (terminated)
  - Project 3 (terminated)
- Interest on most Energy Northwest debt is exempt from federal income tax
  - \$3.84 billion tax-exempt
  - \$1.49 billion taxable
- BPA expects that Energy Northwest will debt finance 100% of new capital needs in addition to refinancing and/or extending certain debt

**BPA-Supported Energy Northwest Debt Service<sup>1</sup>**



<sup>1</sup>Debt service is shown net of certain forward sales of uranium fuel that was purchased with bond proceeds.

**Columbia Project New Capital Needs**



\*Financed with Energy Northwest Series 2015-A/B proceeds

# Regional Cooperation Debt

- BPA believes that managing and integrating Energy Northwest debt with BPA's overall debt on a long-term, portfolio basis can provide substantial benefits to the Region's ratepayers
- In 2014, BPA and Energy Northwest agreed to identify this debt management approach as "regional cooperation debt" (or "RCD")
  - Under RCD, Energy Northwest issues refunding bonds to extend the maturities of outstanding bonds to match more closely the originally expected useful lives of the financed facilities
- RCD maturity extensions free up BPA revenues in early years primarily to:
  - Prepay higher interest federal appropriations repayment obligations; and
  - Restore BPA's available U.S. Treasury borrowing capacity by reducing the outstanding principal amounts of bonds issued by BPA to the U.S. Treasury
- As currently envisioned, RCD will maintain or decrease the weighted average maturity of BPA's aggregate debt portfolio and reduce the weighted average interest rate of BPA's aggregate debt portfolio
- BPA believes that the ultimate potential for RCD issuances between 2014 and 2024 is approximately \$3.2 billion (excludes new money issuances for the Columbia Generating Station)
  - The Energy Northwest Board has supported \$1.7 billion of transactions from 2014-2018

# Non-Federal Debt – Transmission Issuers

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## ■ Transmission Lease-Purchases

- BPA expects to enter into short-term lease-purchase agreements related to approximately 50% of its transmission capital investments over the next 10 years
- BPA believes that public issuance of bonds supported by BPA lease purchases could be up to approximately \$500 million per year



- Oregon port district
- Authorized to finance transmission projects with publicly issued bonds and credit arrangements secured by BPA lease-purchase commitments
- \$376 million in long-term BPA-supported debt outstanding
- BPA believes that the Port of Morrow will participate in future lease-purchase transactions and will issue to the public substantial amounts of Non-Federal Debt
- BPA believes that, absent a change in law, interest on such bonds would **NOT** be exempt from federal income tax but would be exempt from Oregon state income tax



- Energy-related financing authority created by Idaho legislation
- Authorized to finance transmission projects with publicly issued bonds and credit arrangements secured by BPA lease-purchase commitments
- Currently has \$100 million in a short-term credit facility, but no BPA-supported bonds outstanding
- BPA believes that IERA will participate in future lease-purchase transactions and will issue to the public substantial amounts of Non-Federal Debt
- BPA believes that, absent a change in law, interest on such bonds would **NOT** be exempt from federal income tax but would be exempt from Idaho state income tax

## Contact Information

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