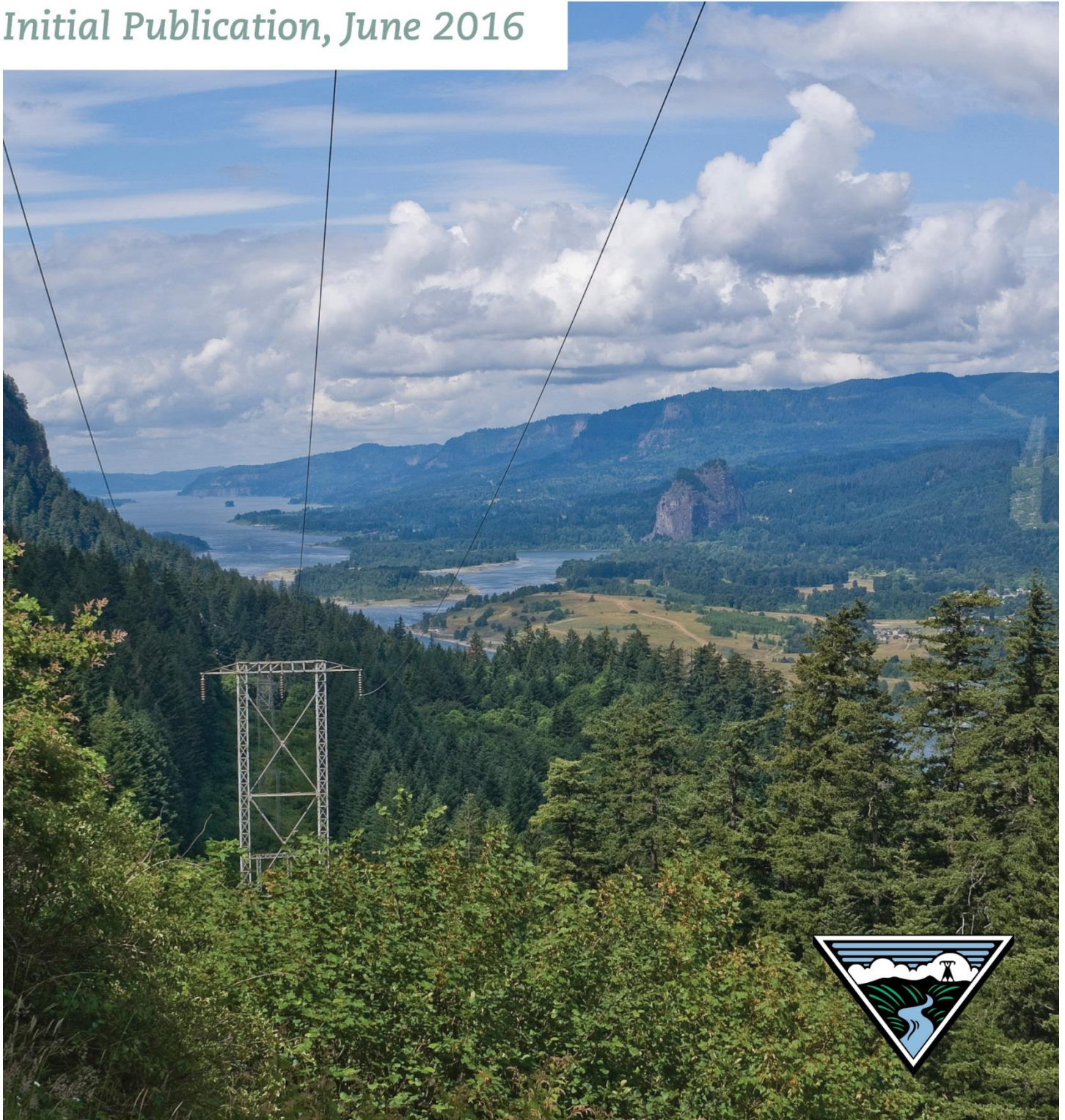


Integrated Program Review and Capital Investment Review

Initial Publication, June 2016



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Letter from the administrator

The Bonneville Power Administration invites you to participate in the 2016 combined Integrated Program Review (IPR) and Capital Investment Review (CIR), which begins June 16. Your input will inform our spending levels for the next rate period covering fiscal years 2018 and 2019.

This year, we're doing things a little differently. We have consolidated IPR and CIR into a single process, providing the significant benefit of centralized decision-making for capital and expense spending levels. Many of you asked for this change, and I believe the holistic approach will help us achieve our long-term objectives of maintaining financial strength and cost competitiveness, which were at the forefront of our recent Focus 2028 discussions.

The themes of Focus 2028 have informed the capital and expense program funding proposals outlined in this document, and we will clearly demonstrate the difficult trade-offs we are making to keep rates as low as possible, consistent with sound business principles. These trade-offs were informed by a long-term rate trajectory and balanced against near-term impacts on our ability to deliver on our mission. Further, as we continue to examine our cost structure, we will highlight cost categories where flexibility over the long term exists and focus on those areas where we have the greatest ability to bend the cost curve downward. As well, we will continue to provide context and engage in dialogue about the areas of our business where we have less flexibility, due to regulatory requirements, statutory obligations and other externalities.

In addition, we will discuss the development of BPA's long-term strategic objectives. We are incorporating your thoughtful input from the Focus 2028 process into BPA's Key Strategic Initiatives, which support our five agency priorities. These initiatives are critical for us to achieve our long-term objectives and ensure we provide efficient and operationally excellent service for generations to come. Therefore, we have prioritized funding for these initiatives, which you will read more about in this publication.

We believe the proposed spending levels strike the right balance between meeting our customers' and stakeholders' near-term needs while keeping an eye toward long-term competitiveness and affordability. This is your opportunity to review and share your perspectives on our proposed spending levels, and help set the stage for fiscal year 2018 and 2019 rate development.

About IPR/CIR

In this combined IPR/CIR process, from June 16 through August 12, we'll examine BPA's long-term capital forecasts and near-term program spending levels for the next rate period. Topics will include transmission, federal hydro, facilities, information technology, and fish and wildlife.

Join us for the June 16 kickoff meeting in BPA's Rates Hearing Room at 9 a.m. This meeting will initiate an eight-week public comment period on our proposed spending levels. The current schedule is enclosed. More information, including meeting details and presentation materials, will be posted on [BPA's website](#) as it becomes available.

If you have questions about the combined IPR/CIR process, call Mary Hawken at 503-230-3421, or contact your power, transmission, tribal or constituent account executive.

I look forward to working with you as we continue to shape our future together.

Sincerely,



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1. INTRODUCTION

The Integrated Program Review and Capital Investment Review occur every two years, before each rate case, giving participants the opportunity to review and comment on BPA’s proposed program spending levels, draft asset strategies and proposed capital spending levels. BPA has consolidated IPR and CIR into a single process, providing all relevant expense and capital spending level estimates in the same forum. The final spending levels will serve as a foundation for developing Power and Transmission rates for the next rate period, fiscal years 2018 and 2019.

For the past several rate cases, BPA has made difficult decisions to raise rates in response to a number of variables, including escalating capital investment requirements and low natural gas prices. Understandably, customers and stakeholders have expressed the need for greater rate certainty

and predictability, as well as visibility into BPA’s long-term financial picture.

IPR/CIR Commitments

- Show customers and constituents the trade-offs made between programs — the funding requests on the margin.
- All FTE requests will need to be justified.
- We will use cost targets based on analysis of both short-term and long-term rate levels, financial health and competitiveness.
- We will differentiate firm versus flexible elements of BPA’s cost structure.
- We will better integrate capital and expense program funding proposals, emphasizing debt repayment and O&M impacts of capital investment proposals.

To that end, in FY 2015 BPA renewed its approach to strategy development and adopted multi-year *Key Strategic Initiatives*. These KSIs are designed to help us achieve long-term *priorities*, which BPA further refined this year. This strategic framework clarifies BPA’s long-term direction and guides our funding proposals.

Further, in 2015 BPA developed a way to project our financial health and rates through 2030, given a set of program costs, investment levels and market inputs through what we refer to as a “reference case.” The reference case serves as a baseline against which to test alternate scenarios and financial policies and strategies. This new analytic capability

informed our proposed capital spending levels for fiscal years 2018 and 2019.

The reference case was a centerpiece of Focus 2028, a forum BPA launched in late 2015 for the region to come to a shared understanding of our financial structure and the types of strategic choices we may face given the changing industry landscape. With our long-term Regional Dialogue power contracts expiring in 2028 and rapid West-wide transmission and market changes, BPA’s objective is to remain the power and transmission service provider of choice, by assuring we maintain financial strength and cost-competitiveness while continuing to meet our multiple statutory responsibilities and delivering the public benefits that are so valuable to the region.

The themes of long-term cost competitiveness and financial strength, which were at the forefront of Focus 2028, informed our development of the proposed IPR/CIR spending levels outlined in this document. Organizations considered the relationship between capital investments and expenses as well as revenues to optimize spending level proposals. Power Services used a lifecycle cost-minimization analysis for hydro system assets to demonstrate that a \$300 million capital program, compared to the current \$200 million program, could unlock significant long-term benefits, such as increased power production, with minimal near-term rate impacts and slightly lower future rates.

Focus 2028: Next Steps

Through Focus 2028, we gained valuable insights into the issues and opportunities that are important to our customers and stakeholders. The themes of long-term financial health, cost management and operational excellence guided our decision-making for near-term spending levels. The actions BPA is proposing to fund through FY 2019 reflect the initial steps BPA is taking to build a path to 2028. BPA expects to share an updated strategic plan later this year, outlining our long-term strategy for sustaining BPA's regional value and financial health.

We also constrained cost increases by prioritizing funding for our Key Strategic Initiatives – the work we believe will provide the greatest strategic impact and help position BPA to meet its long-term objectives – and deferring or eliminating lower priority projects. Transmission prioritized projects that could provide greater long-term savings to ratepayers if completed in the near-term. Environment, Fish and Wildlife used aggressive cost management and re-prioritization rather than new funding to address emerging mitigation issues.

The proposed spending levels also reflect a collaborative emphasis on operational excellence with our federal partners, including working with the Corps of Engineers and Bureau of Reclamation to prioritize and contain operations and maintenance costs. In addition, we are scrutinizing staffing levels within BPA, ensuring resources are dedicated to our highest-priority efforts.

BPA believes these proposed spending levels will meet our customers' and stakeholders' near-term needs while ensuring we continue to serve the Northwest as a pillar of economic and environmental vitality for generations to come. More detailed information on spending levels and programs can be found in the IPR/CIR Details document.

Strategic Direction and Priorities

BPA achieves its mission through a strategic framework that is anchored by a set of agency priorities. These are ongoing, long-term outcomes BPA pursues across all dimensions of its business. During Focus 2028, our customers and stakeholders supported such priorities as regional interests that will support BPA’s long-term health and vitality. BPA’s strategic priorities and associated outcomes are as follows:

Our People. We provide a safe, positive and inclusive work environment that attracts and retains a diverse, highly skilled workforce with a deeply embedded commitment to delivering regional value and customer service.

Physical Assets. We execute sustainable and affordable investment strategies to maintain and modernize clean and renewable power and transmission system infrastructure.

Sustainable Finances & Rates. We ensure long-term financial strength by balancing reliability, low rates, cost-effective access to capital, responsible cost management and our other public purpose objectives.

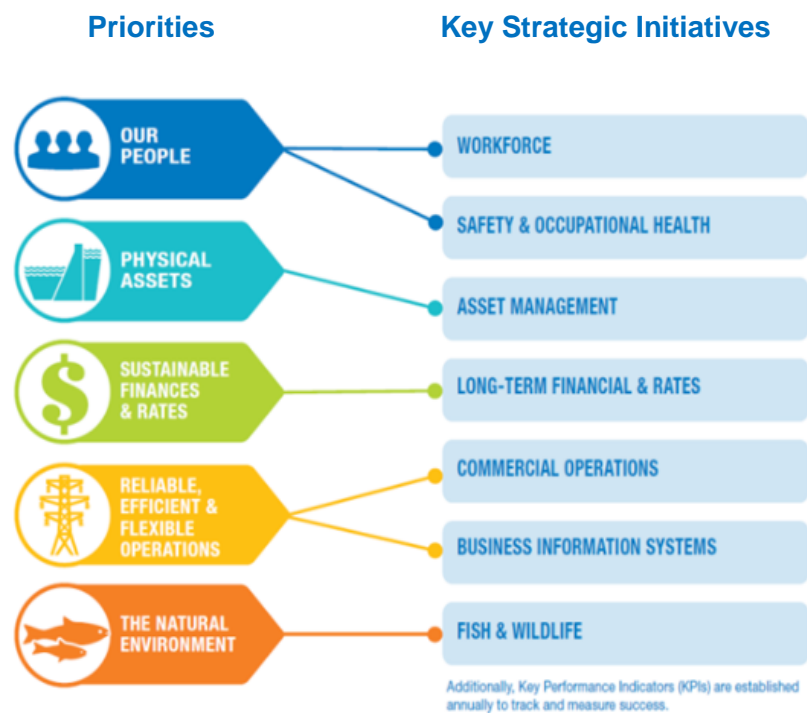
Reliable, Efficient & Flexible Operations. We reliably operate the power and transmission assets and other business operations through highly efficient and effective systems and processes. We enhance our flexibility and interoperability to adapt to changes in supply mix and market design.

The Natural Environment. We protect the environment, fish and wildlife with a focus on good science, fiscal efficiency and on-the-ground results.

1.1 Key Strategic Initiatives

Our Key Strategic Initiatives support and define how we will achieve our priorities. They are transformational, multi-year initiatives that are updated annually and implemented in a phased, programmatic approach.

BPA has estimated the spending levels needed to execute the work that is planned for the next rate period. To the extent possible, these spending estimates are met through redeployment of existing resources and included as part of proposed spending levels. What could



BPA’s FY 2017 Key Strategic Initiatives support the agency’s long-term priorities.

not be met through redeployment was added to the proposed spending levels.

We describe our KSIs by expressing the end state BPA will achieve from the initiative. BPA will further define the KSI end states listed below, as well as corresponding metrics for them.

Our KSIs are:

Safety and Occupational Health

BPA's engaged employees and contractors are empowered to recognize job hazards and address safety and occupational health issues. Safety and occupational health are integrated into all aspects of work with a goal of zero injuries.

Workforce

BPA has a diverse workforce of the right size and composition, with the right skills and competencies, working in a positive work environment to deliver on its public responsibilities and strategic priorities.

Asset Management

Investments are created, selected and executed through leading practice-based portfolio and project management practices.

Long-Term Financial and Rates

BPA delivers cost-based power and transmission services priced to fully subscribe FCRPS power among Northwest public preference customers, while balancing the goals of low rates, reliable operations, sustainable and affordable investment strategies and long-term financial health, while meeting its public purpose objectives and statutory obligations as a federal power marketer and open-access transmission provider.

Commercial Operations

BPA is fully enabled with the core functionality required to successfully participate in the management of a regional modernized electrical grid.

KSIs aligned for maximum efficiency

Focus 2028 highlighted the importance of BPA's ability to execute critical business transformations. As we started to develop our FY 2017 KSIs, we recognized a need to build centralized, coordinated governance to implement complex, interrelated initiatives. BPA will strengthen its enterprise program management function and establish routine, repeatable practices for executing on prioritized business transformation efforts and Key Strategic Initiatives.

This new program management structure will lead the implementation of four KSIs: Long-Term Financial and Rates, Asset Management; Business Information Systems and Commercial Operations. Together, these efforts seek to overhaul the foundational processes, capabilities and systems that underpin BPA's corporate and commercial functions.

The work will be coordinated, prioritized and sequenced to maximize efficiencies and ensure effective execution.

Business Information Systems

BPA's business information systems optimize the value and reliability of agency decisions and enhance the accountability, integrity, insights and value of supported activities for our stakeholders and the region.

Fish and Wildlife

BPA meets its Endangered Species Act, Northwest Power Act, and tribal responsibilities using a performance-based approach, including setting and achieving performance metrics to fully address its obligations through a combination of hydro, habitat, hatchery and predator-management actions.

2. DIFFICULT CHOICES

Spending pool managers scrutinized program and staffing levels to keep costs low and minimize rate impacts. The following examples represent the types of trade-offs managers considered and ultimately chose to include in proposed spending levels.

Power

- Reducing O&M spending below existing long range plans through collaboration with generation partners (Corps of Engineers, Bureau of Reclamation and Energy Northwest)
- Constraining staffing costs below originally submitted requests
- Holding the Energy Efficiency program to its BP-16 level, in spite of increased program demands and energy efficiency incentive expenses.

Fish and Wildlife

- Using aggressive cost management and re-prioritization rather than new funding to address emerging mitigation issues
- Planning for asset management for BPA-funded hatcheries and tributary fish screens without increasing budgets from 2009 projections
- Holding fish and wildlife budgets flat across 2018 and 2019

Transmission

- Delaying and prioritizing needed investments in maintaining transmission infrastructure, including incurring maintenance backlog and deferring equipment replacements
- Slowing progress of internal Transmission Strategic Portfolio initiatives
- Reducing Transmission Load Service phase II support
- Delaying fiber inventory project
- Not filling or assuming longer lag times to fill mission critical vacancies and/or eliminating supplemental labor positions

Agency Services

- Deferring Maintenance Headquarters Renewal & Standardization programs, Ross Complex Replacement projects, and Hazmat Abatement & Demolition
- Re-prioritizing capital expenditures and extending the timeline for capital project completion to 15 years.
- Limiting budgets despite potential impacts to Personnel and Information Security and Continuity of Operations

3. SPENDING LEVEL DEVELOPMENT

3.1 Expense

To set baseline spending levels, organizations received guidance not to exceed actual FY 2015 spending levels. Organizations identified and prioritized the work they expect to accomplish in FY 2017-2019, including implementing BPA's KSIs. Spending requests in excess of the baseline were subject to further scrutiny and justification in one of four main budget pool categories: Power, Transmission, Chief Administrative Officer and Corporate (in this document, CAO and Corporate are combined into Agency Services).

Organizations determined full-time equivalent (FTE) employee levels based on agency needs and priorities. Existing FTE allocations served as initial guidance, but organizations made strategic choices about staffing rather than automatically budgeting to historic FTE levels. This approach is consistent with budgeting improvements identified in Focus 2028. Groups who proposed FTE increases were asked to evaluate scaling back or eliminating other projects to offset the costs. Managers and executives faced difficult trade-offs when deciding how to incorporate KSI costs and were tasked with developing plans to redeploy employees in some circumstances. The CAO reprogrammed resources across functions to fund the Safety KSI without exceeding BP-16 spending levels for those organizations.

Pool managers considered all requests for additional funds to determine which increases to include in the IPR proposed spending. The pool managers then raised those requests to an IPR executive sponsor team and the administrator to provide additional centralized oversight and controls over proposed spending levels. This method ensured additional funding above FY 2015 actual spending went to the highest priority programs.

3.2 Capital

BPA has been ramping up capital investment to replace and upgrade an aging system, to integrate new generating resources, to relieve system constraints, and meet fish and wildlife commitments. The impact of capital spending on power and transmission rates and long-term cost structure are key criteria in the prioritization of capital investment. BPA also evaluates the total economic costs of capital investments, which include not only BPA's costs to expand, replace and maintain assets, but also the costs that customers and others may bear should the assets fail to perform, including outages.

In the 2014 CIR, BPA introduced the concept of a capital "affordability cap." At that time, the capital spending cap was set at \$940 million per year over a 10-year period. While that cap considered rate impacts, it was primarily predicated on access-to-capital factors. In the 2014 CIR closeout letter, BPA said it would revisit the cap before the next CIR to place more emphasis on rate impacts.

BPA has since developed a new modeling capability and reference case, which informed the initial capital spending levels outlined below. Using the fall 2015 reference case as a baseline, BPA evaluated various scenarios, looking at the long-term outcomes of capital spending levels. In some cases, BPA is proposing capital levels that are higher than what was proposed in 2014, even

significantly so. However, we believe these proposed capital levels allow us to meet the pressing capital investment needs that are described throughout this document, while also maintaining our commitment to future competitiveness and financial health.

In this CIR, BPA also presents its next generation of [long-term asset strategies](#) and prioritized capital investments. The 2016 draft asset strategies represent another step forward in improved planning and management of BPA and FCRPS assets. The strategies cover a planning horizon of 14 years, FY 2017 to 2030, and the priority and focus continues to be on replacing and maintaining aging transmission, generation, facilities and information technology assets.

BPA's asset categories submitted various capital scenarios in late fall 2015 for the long-term rates analysis. These scenarios informed the initial CIR and led to the following proposed capital spending levels by asset category:

	Actuals		Rate Case		Proposed CIR			Remaining CIR							
	(Millions \$)	2015	2016	2017	2017	2018	2019	FY 17-19 Total	2020	2021	2022	2023	2024	2025	2026
Asset Category Direct Spending															
Transmission Direct	559	422	372	372	317	311	1,000	456	473	482	441	421	417	432	
Federal Hydro	159	224	230	236	258	281	775	306	331	338	344	351	358	365	
Facilities	13	39	17	22	18	35	75	25	25	25	25	26	27	27	
Security	1	6	8	8	6	8	22	7	7	7	7	5	6	6	
Fleet	2	7	8	6	7	7	20	8	8	8	9	9	10	10	
IT	31	33	25	25	25	25	75	3	12	5	7	15	15	15	
Fish & Wildlife	21	55	31	45	51	44	139	38	34	29	29	36	37	37	
Environment	6	5	5	5	6	6	17	6	6	6	6	6	6	6	
Energy Efficiency	87	0	0	0	0	0	0	0	0	0	0	0	0	0	
Direct Total	880	791	696	719	687	716	2,122	847	895	900	867	869	874	898	
PFIA	1	15	15	15	15	15	45	15	15	15	15	15	15	15	
Transmission Indirect	54	58	49	49	43	42	133	40	31	31	32	32	33	34	
Corporate Overheads	50	58	49	49	43	42	133	40	31	31	32	32	33	34	
AFUDC	52	63	39	50	32	30	111	30	31	31	30	30	30	30	
Grand Total	1,037	985	848	881	819	846	2,545	973	1,004	1,009	977	979	986	1,011	

Funding levels in the Transmission direct asset category exclude sufficient capital to build the proposed I-5 transmission and Boardman to Hemingway transmission lines. Future CIRs may consider funding adjustments should either or both of these transmission builds be approved for construction.

PFIA: Projects Funded in Advance

AFUDC: Allowance for Funds Used During Construction



4. POWER SERVICES

OVERVIEW

Preliminary rate increase is 4 to 9 percent¹.

Power Services minimized proposed IPR expense spending level increases to \$73 million by:

- scrutinizing program costs and focusing on areas with the most flexibility, such as Power Services' internal operations
- funding the highest priorities and deferring or eliminating other programs, projects and contracts
- taking a hard look at staffing levels and assigning employees to focus on the highest priority work

Power is proposing to ramp up its capital program to \$300 million annually to unlock significant long-term benefits, such as increased power production, with minimal near-term rate impacts and slightly lower future rates.

Power Services is responsible for marketing wholesale electrical power from 31 federal hydropower projects in the Columbia River Basin, one nonfederal nuclear plant and several other small nonfederal power plants. It also oversees BPA's energy efficiency program and funds regional efforts to protect fish and wildlife affected by Federal Columbia River Power System operations and configurations. In addition, Power Services works with its federal partners to manage the FCRPS. The FCRPS is a multi-purpose system that includes flood control, navigation, irrigation, recreation, municipal and industrial water supply, and fish and wildlife.

Power Services held internal operations spending levels to BP-16 expense levels despite upward pressure by delaying or eliminating some service contracts and taking on greater risk without threatening the underlying operation of the business.

¹ Significant rate uncertainty remains primarily due to uncertainty in gas and electricity price forecasts.

Increase in IPR costs: \$73 million

The main drivers are:

- **Reclamation and Corps O&M Expense** is increasing by \$20 million, primarily due to increasing labor and routine and non-routine maintenance requirements.
- **Columbia Generating Station O&M** expenses are increasing by \$14 million due to increased labor and operations and maintenance costs.
- Consistent with BPA commitments in biological opinions and the Fish Accords, **Fish and Wildlife** costs are increasing by \$8 million.

Power Services also limited rate increase impacts by working closely with the Corps of Engineers and Bureau of Reclamation. These discussions resulted in a reduction of \$13 million over initially proposed 2016 IPR spending levels. BPA also worked with Energy Northwest to reduce its proposed spending levels by \$6 million. BPA has proposed what it believes will be the right level of investment to maintain the current system while investing in the region's future.

Power Services has also advanced its ability to evaluate the impacts of hydro capital investment levels, providing valuable insight into investment proposals. Using coordinated capital and expense numbers and the long-term rates analysis, BPA determined that the optimal annual hydro capital investment level is \$300 million. The study suggested that power rates will be slightly lower in 2028 with a \$300 million per year capital program, relative to the 2014 CIR program, due to higher unit availability and slightly reduced non-routine expense. Therefore, BPA is proposing a \$300 million per year capital program.

Power Services did not reduce spending on some IPR programs due to existing agreements, particularly for fish and wildlife. The Environment, Fish and Wildlife organization aggressively managed expense and capital costs and reprioritized work rather than asking for new funding to address emerging mitigation issues, including new Northwest Power and Conservation Council program priorities, asset management for BPA-funded hatcheries and tributary fish screens, and new FCRPS biological opinions for salmon and bull trout. The proposed Power Services program for FY 2018–19 supports BPA's mission to provide an adequate, reliable and low-cost power supply and to mitigate the impacts of the FCRPS on fish and wildlife.

The key drivers of the level of capital funding for Fish and Wildlife are the Northwest Power and Conservation Council's Fish and Wildlife Program, the Endangered Species Act, biological opinions, the Columbia Basin Fish Accords and fish and wildlife agreements (e.g. Willamette; Southern Idaho). There are many uncertainties that impact the implementation of the Fish and Wildlife Program. For capital spending, annual spending level planning is based on best estimates that are subject to change given issues that are outside of BPA's control, such as permitting and environmental compliance. Accordingly, the program focuses on the flexibility of multi-year planning and shaping of available spending levels on an annual basis to support work that is most likely to be ready to implement.

One of the primary uncertainties for the Fish and Wildlife Program is the decision issued in May by the U.S. District Court for the District of Oregon. The order requires NOAA to issue a new biological opinion by March 1, 2018. It also calls for the Corps of Engineers and Bureau of Reclamation to issue a new environmental impact statement under the National Environmental Policy Act on the effects of the federal hydroelectric system. The Court also ordered the Corps and Reclamation to continue to implement and fund the 2008 BiOp through 2018, so the spending level proposals in this document reflect BPA's continued funding commitments consistent with the Court's direction. BPA is working with the Corps and Reclamation to identify resource needs associated with completing a new EIS as directed by the Court. BPA will update its spending level proposals if needed as information is available. BPA recognizes the region's unprecedented collaboration and commitment to protect fish, and the important progress these efforts have produced. We will continue our efforts with our partners to protect salmon and steelhead in the Basin while continuing to strengthen our focus on the disciplined cost management of our Fish and Wildlife program.

BPA is also committed to acquiring public power's share of the energy efficiency goals in the Council's Seventh Power Plan, and the proposed spending levels are forecast to achieve these goals. This will fund energy efficiency as BPA considers potential changes to the EE service delivery model, one of the commitments of Focus 2028. For the IPR period, we will continue to provide quality control and engineering support for programs and continue the development of energy efficiency

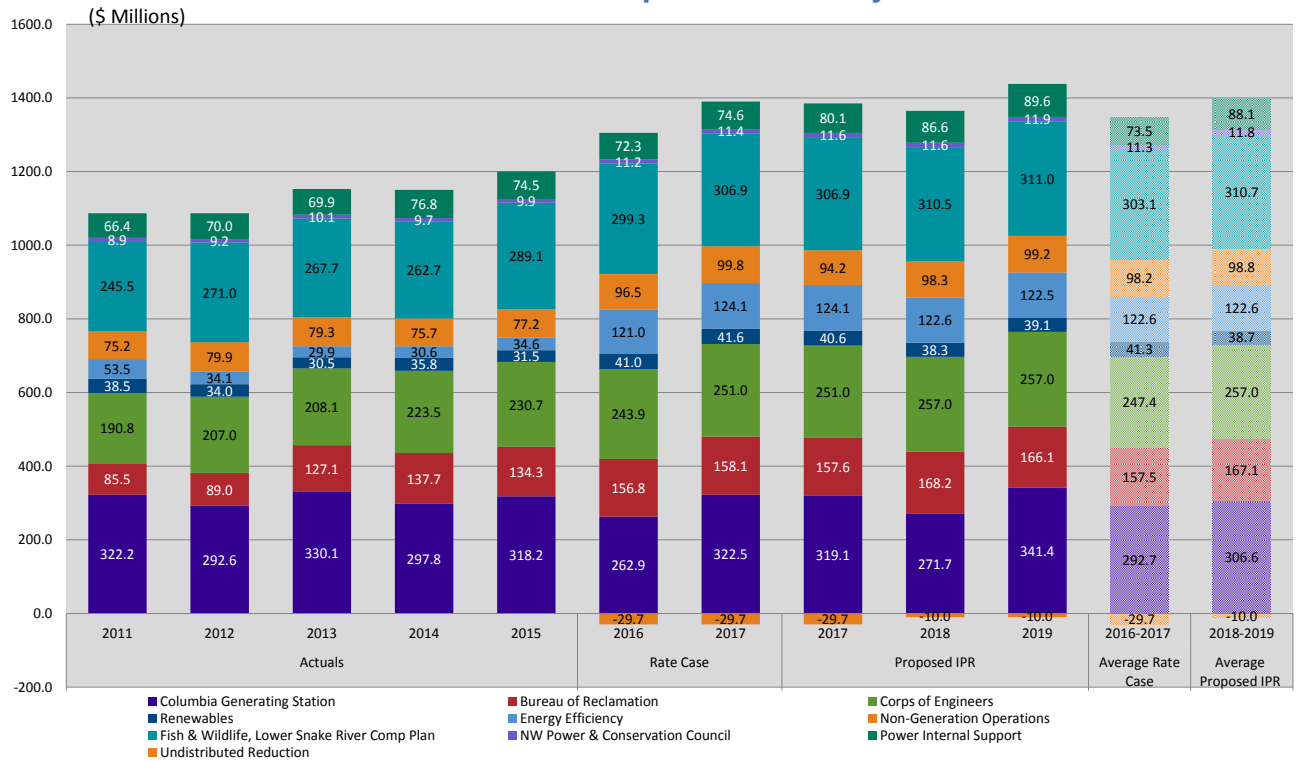
Capital Costs

- **Fed Hydro** is increasing \$14.2 million on average per year to begin the ramp up to the higher proposed capital levels.
- Increases of \$4 million on average per year to the **Fish and Wildlife** capital program reflect BPA's current obligations under the Columbia Basin Fish Accords and wildlife agreements.

measures at BP-16 funding levels. As the dialogue around our Energy Efficiency program progresses through this summer and fall, we will update our assumptions to reflect any proposed changes in the Energy Efficiency service delivery model.

The cost containment in this IPR/CIR is continuing Power Services' trajectory to better manage to the long-term strategic direction that is under development as part of the Focus 2028 process. Power will continue to actively manage its internal costs and review its actual spending in real time, as well as proactively engage with its federal partners and Energy Northwest to examine the costs of the power business unit on a holistic level.

Power Services Expense Summary



*Note: Effective FY 2016, Energy Efficiency reflects the capital-to-expense transition.



5. TRANSMISSION SERVICES

OVERVIEW

Preliminary rate increase is 3 to 5 percent.

- Transmission Services is investing to save: Spending levels reflect investments that, if completed today, will provide greater savings to ratepayers.
- By focusing on mission-critical work, our proposal holds capital to 2014 CIR levels and limits expense level increases to \$42 million.

Transmission Services is responsible for planning, designing, marketing, operating and maintaining about three-fourths of the high-voltage transmission assets in the Pacific Northwest across eight states. The proposed Transmission Services spending for FY 2018–19 builds on BPA’s longstanding legacy of transmission system reliability by cost-effectively managing and maintaining our assets, built on a foundation of safety, regulatory and statutory compliance that delivers innovative products and market-based solutions for Northwest customers.

The average age of Transmission’s assets is approaching 50 years and many are well past the end of their economic life. In addition, the pace of change and the level of integration required across the compliance, operations, maintenance and market transformation arenas continues to increase, imposing significant workflow and resource challenges on the Transmission Services organization.

Transmission Services’ goal is to meet compliance requirements while ensuring the continuing safe, economic and reliable operation of the transmission system, now and in the future, at the lowest cost consistent with sound business principles. To maintain a competitive position and effectively serve the region, Transmission must position itself to adapt with flexible products and services as forecasted demand, impacts to energy markets, generation choices and policies evolve. To establish priorities and spending levels, Transmission Services applied three main principles: restrain spending to limit rate increases, focus on mission-critical work, and make investments that provide greater savings to ratepayers if completed today. After considering these three principles and determining which projects were most likely to be executed in the BP-18 rate period, Transmission was able to defer approximately \$90 million in expense. These deferred costs include removal of

Increase in IPR costs: \$42 million

The main drivers are:

- Transmission proposes investing \$18 million toward the Commercial Operations and Asset Management Key Strategic Initiatives.
- A new special salary rate for engineers and negotiated hourly wage adjustment is increasing costs by \$16 million.

the transmission contingency fund, assuming longer lags in filling vacancies, redeployment of staff to higher-priority work, and the delay of the fiber inventory project.

As a result, Transmission Services' expense spending levels were set, where possible, to BP-16 levels. The proposed spending levels support safety, compliance, reliability and market transformation activities,

including the 24/7 operations at Munro Scheduling Center to support business continuity, establishing a shift study desk to improve reliability and situational awareness, investing in maintenance to avoid unplanned outages, and upgrading bushings at high risk of failure.

The Transmission Asset Management Strategy focuses on maintaining current infrastructure, including transmission lines, substations, control center equipment and other facilities and equipment to meet safety, reliability, compliance and availability requirements.

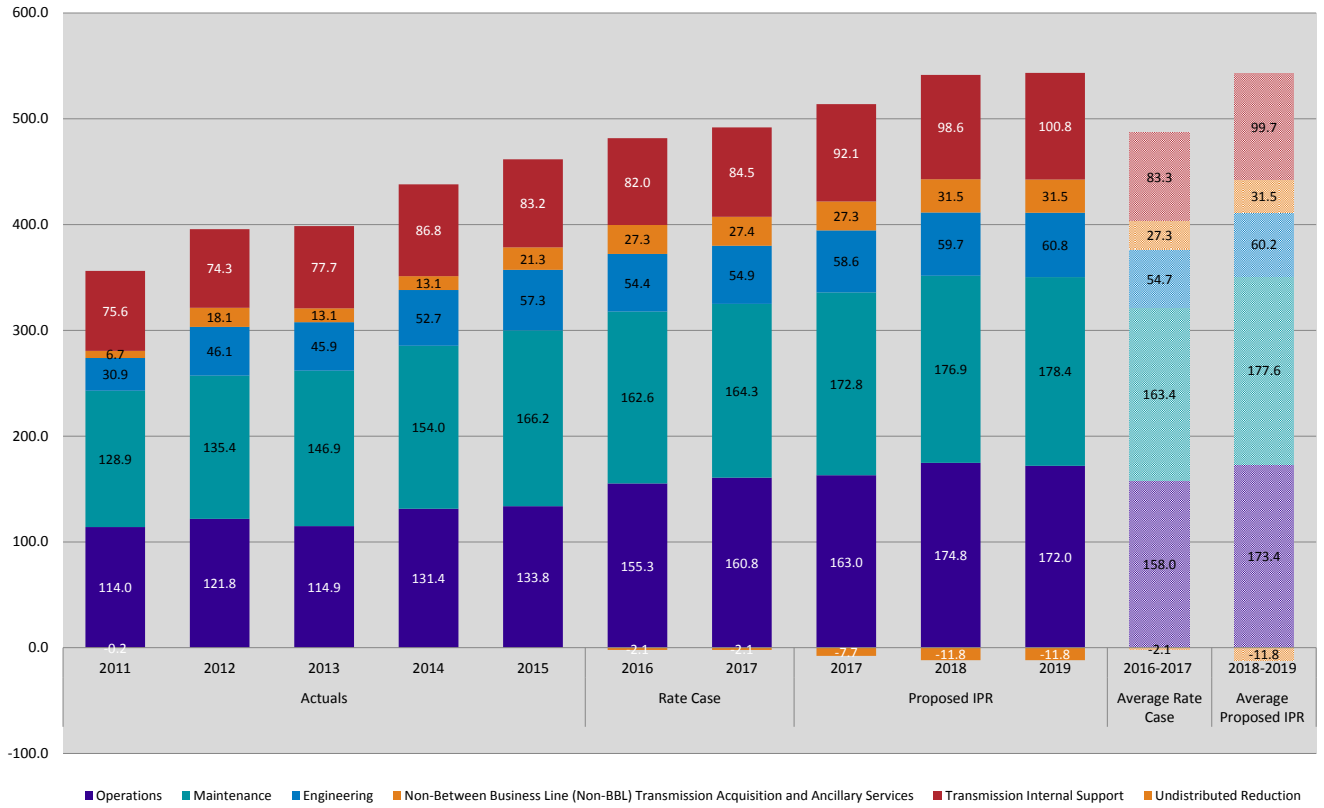
In total, Transmission's capital proposal holds capital spending to 2014 CIR levels by strategically prioritizing to minimize total economic cost while mitigating the most critical system risks. Replacements that provide the most value to the system at optimal asset lifecycle costs were included in the BP-18 proposal. Capital funding levels are not sufficient if BPA decides to build the I-5 Corridor Reinforcement Project to mitigate South of Allston system constraints.

During the FY 2018–19 rate period, Transmission Services expects to begin realizing benefits from improved asset management practices enabled under the Asset Management KSI. Spending proposals in 2020 are expected to reflect the progress made in evaluating the long-term impacts of near-term investment decisions, as well as a continued emphasis on the values of Focus 2028. In the meantime, levels reflected in this document will help maintain and move the system forward.

Vision for managing transmission assets:

Transmission Services will manage its assets to achieve safety, reliability, availability and adequacy standards and maximize economic value for the region. It will use efficient and transparent practices that are effective in managing risks and delivering results.

Transmission Services Expense Summary





6. AGENCY SERVICES

OVERVIEW

- Even with the additional funding in support of Key Strategic Initiatives, Agency Services held close to BP-16 spending levels, in part by reducing other program costs.
- The majority of cost increases are in labor, leading to difficult staffing level decisions balanced against a need to provide efficient services.

Agency Services includes the corporate organizations that provide support services and benefits to all of BPA. Its costs are ultimately covered by power and transmission rates.

The majority of Agency Services costs are expense. Spending levels were set to be consistent with FY 2015 actual levels for many of the organizations. In the CAO organization specifically, costs were held to levels consistent with BP-16, including the additional costs to support KSIs.

To maintain costs at these levels, Agency Services first determined whether the service is still required and, if so, how to provide the service at the lowest cost consistent with sound business principles. This includes Workplace Services implementing new design processes on major facility projects to improve design quality and reduce rework, delays and operations and maintenance difficulties; and more intense scrutiny of utility consumption and execution of energy and water efficiency projects to lower facilities' utility and operational costs.

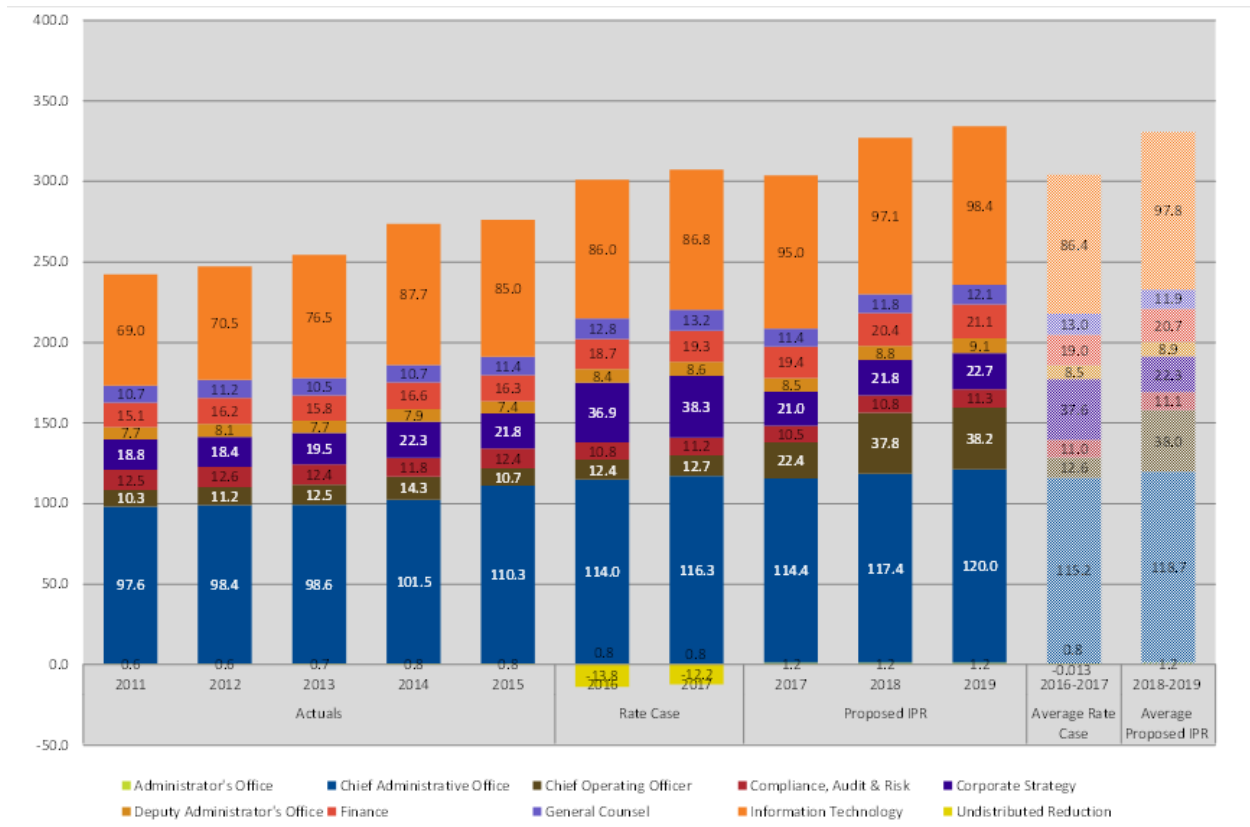
The majority of costs in Agency Services are for labor, which led to difficult decisions about staffing levels, such as the Office of General Counsel's decision to reduce supplemental labor levels and law clerk support; and Audit's commitment to leave entry level positions vacant. Agency Services is also assuming longer lapses in staffing compared to previous IPR/CIR processes.

Increase in IPR costs: \$40 million

The main drivers are:

- KSI costs — \$25 million was added for the Commercial Operations KSI, and another \$3 million for the other KSIs.
- Information Technology — Increases of \$11 million as a result of movement toward more cloud-based services and an increased expense component in support of the capital program.

Agency Services Expense Summary



- The amounts in this chart are included in the Power and Transmission program totals and are not additive to the total agency spending proposal.
- The increase over BP-16 is made up of the KSI costs (\$25million for Commercial Operations, \$3+ million for all others) and IT (about \$11 million).

7. EMERGING PROGRAMS/ISSUES

7.1 South of Allston

To address increasing congestion occurring in Southwest Washington and Northwest Oregon on BPA's transmission lines, BPA is considering whether to reinforce its existing high-voltage transmission lines in that area. BPA also recently began exploring and identifying expanding the use of additional non-wires options that, if feasible, can be implemented to assist in mitigating and avoiding adverse operational impacts during certain peak-use periods given BPA's current transmission operating limits. The congestion is limiting BPA's ability to move power during times of high demand. BPA has recently issued a non-wires request for offers for congestion management measures on South of Allston. BPA is reviewing offers this summer and will consider the offers based on whether the proposals may be operationally effective and cost effective.

Project Build Option: In a recent environmental impact statement, BPA evaluated, but has not decided to build, a 500-kilovolt lattice-steel-tower transmission line that would run from a new 500-kV substation near Castle Rock, Washington, to a new 500-kV substation near Troutdale, Oregon, known as the I-5 Corridor Reinforcement Project.

The cost of this project, including financing costs, would be recovered in BPA's transmission rates after FY 2019. Potential impacts to rates may be offset in part by increased revenues generated from transmission sales, which are still being evaluated at this time as part of the business case for the line.

The most recent estimate of the direct costs to build the project is \$722 million. No costs for the I-5 Corridor Project were included in the currently proposed capital spend or the updated reference case, however IPR/CIR spending levels do include possible non-wires options that may be examined as part of the entire analysis.

More information can be found on [BPA's I-5 Corridor Reinforcement Project website](#).

7.2 Southeast Idaho Load Service

BPA preference customer loads in Southeast Idaho are served through the South Idaho Exchange and the General Transfer Agreement between BPA and PacifiCorp. In 2011, PacifiCorp gave notice that it is terminating these agreements. This termination will take effect June 2016, with new service arrangements required July 2016. As a result, BPA must identify other means to deliver power to these customers. While BPA has made arrangements for near-term service through 2021 using market power purchases and third-party transmission capacity, BPA continues to consider long-term service options. In October 2012, BPA completed an initial prioritization of potential service arrangements, and identified "Boardman-to-Hemingway with transmission asset swap" as the best option and concluded that the agency should advance it in the near term as the top priority among several long-term service options.

Project Build Option: The Boardman-to-Hemingway Transmission Project is a 300 mile, 500-kilovolt transmission line proposed by the Idaho Power Company, planned to extend from a new substation near Boardman in northeast Oregon to Idaho Power's and PacifiCorp's Hemingway substation, southwest of Boise, Idaho. Idaho Power is currently proceeding through the federal and state permitting processes. BPA participates as a joint funder for permitting costs but has not made a decision to participate in the construction of B2H. PacifiCorp is also a joint funder of permitting costs for this line.

The current projection for the cost of construction and permitting for B2H is approximately \$1.2 billion, including overhead and contingency costs. BPA's share of that cost would be 24 percent. This amount includes the permitting costs, for which BPA has made partial payments.

Consistent with previous IPRs/CIRs, the costs of BPA's contemplated participation in B2H is not included in spending levels for IPR/CIR or the updated reference case.

More information can be found on [BPA's Southeast Idaho Load Service website](#).

7.3 Demand Response

BPA has successfully nurtured the growth of demand response in public utility service territories in the Pacific Northwest through pilots and demonstrations. Demand response, a practice which sees great use elsewhere in the U.S., has not been used as a long-term significant source of capacity by BPA or its preference customers. The primary reasons for this are the robust, flexible and inexpensive source of capacity provided by the FCRPS and the typically liquid Mid-Columbia market for wholesale electricity.

Today, regional capacity needs that exceed supply appear on the horizon, both in terms of aggregate system balance (as identified in the recently released Seventh Power Plan) and on a localized level with prospective use of demand response for non-wires initiatives.

This IPR reflects a change in BPA's demand response program. BPA is proposing the curtailment of a stand-alone demand response demonstration budget in favor of driving to commercialization of proven capability. This new approach seeks to make funding and use of demand response consistent with other resources. It is possible that further demonstrations may be necessary, as not all demand response products are ready to be commercialized. BPA continues to address the advancement of demand response consistent with Council direction as a cost-effective capacity resource and will pursue successful commercial deployment for both power and transmission needs.

8. 2016 IPR REFERENCE CASE

BPA first shared the reference case during Focus 2028 to inform discussions about BPA's long-term financial strength and competitiveness. The reference case has been updated to reflect the proposed capital and expense spending levels outlined in this document.

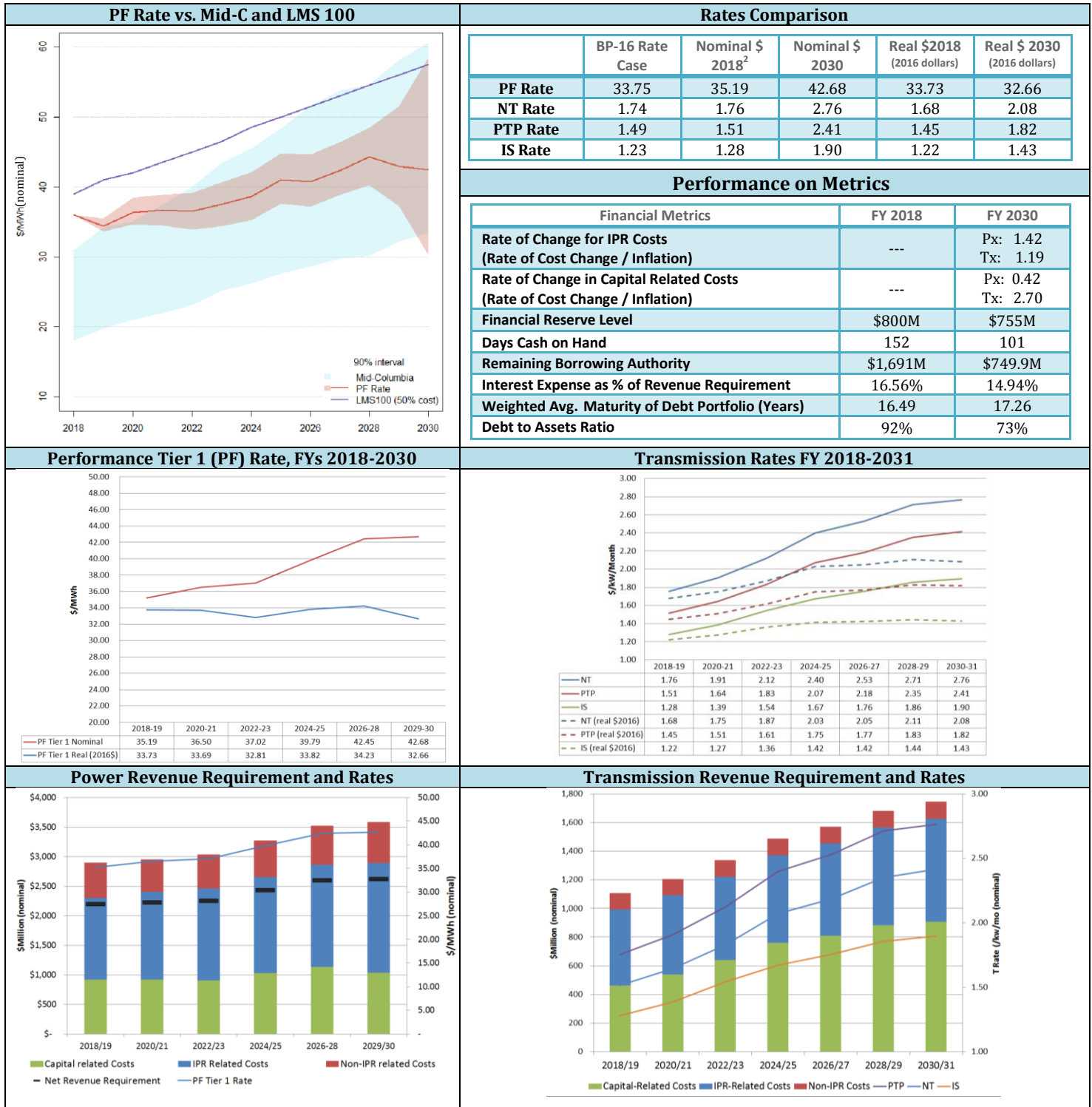
The reference case is meant to serve as a starting point for strategic discussions and as the basis for comparing the financial and rate implications of scenarios or alternatives BPA may consider. It provides the foundation for a long range view of BPA's financial health and rates.

Inputs include repayment studies, projections of program expenses and the most current market, load and resource forecasts. These inputs and results are not official rate proposals. The rate projections will change as market and other expectations change.

In this version of the reference case, we have included a forecast of net secondary revenues in the computation of the PF rates. This is a shift from the version we shared during Focus 2028 discussions when our emphasis was on BPA's programs and costs, and the net secondary revenues was held constant at BP-16 levels adjusted for inflation. Including the forecast value of net secondary revenue to the FCRPS presents a more complete view of BPA's future position.

While there remain significant uncertainties embedded in the reference case, BPA will continue to deploy this new tool and associated scenarios to give customers a better sense of the longer-term trajectory of BPA's rates and the impact of short-term decisions on such variables as capital spending and O&M on BPA's long-term competitiveness.

Reference Case Dashboard



² FY18/19 rate period increase may range between 4% - 9% for Power and 3% -5% for Transmission. The rates shown are the low end of the range.

9. CONCLUSION/NEXT STEPS

If you need additional information, clarification on IPR/CIR materials, or wish to suggest a topic for discussion at an IPR/CIR workshop, e-mail BPAFinance@bpa.gov by June 20. Workshops are planned for June 20–24 in order to respond to any follow-up items.

Participants have an opportunity to submit public comments on BPA’s IPR/CIR Initial Publication and proposed IPR and CIR levels during an eight-week public comment period beginning June 16 and concluding August 12. Comments can be submitted [online](#); by [email](#); or by mail to: BPA, P.O. Box 14428, Portland, OR 97293-4428.

Please send questions to: BPAFinance@bpa.gov

If needed, BPA is open to conducting an IPR 2. IPR 2 is how BPA discusses potential changes to its funding levels after the rate proceedings have begun.

IPR/CIR Meeting Schedule

	THURSDAY JUNE 16	MONDAY JUNE 20	TUESDAY JUNE 21	WEDNESDAY JUNE 22	THURSDAY JUNE 23	FRIDAY JUNE 24	FRIDAY AUGUST 12	FALL 2016
MORNING	9 AM Kickoff		9 AM Fed Hydro	9 AM E,F&W	9 AM Transmission	9 AM Debt Management	Close of IPR Public Comment Period	Release IPR Close-Out Letter and Final Report
AFTERNOON	1:30 PM Capital Portfolio Management/ Reference Case	1 PM Chief Administrative Office 2:45 PM Information Technology	1:30 PM Columbia Generating Station	1:30 PM Energy Efficiency	1:30 PM Key Strategic Initiatives			

10. DISCLOSURES

10.1 Future Adjustments

BPA conducts the IPR/CIR process to solicit and consider regional input on BPA's financial priorities for the upcoming rate period. Through this collaborative process, BPA and regional parties can have a meaningful dialogue regarding BPA's initial program spending levels. At the conclusion of the IPR/CIR process, BPA issues a close-out letter and report in which BPA describes how its program funding and spending projections were informed by the parties' comments. The projected program levels described in the close-out letter and report reflect the administrator's best estimate regarding the appropriate spending levels to assume in establishing revenue requirements.

The close-out of the IPR/CIR process does not mark the consummation of BPA's decision-making process on budgetary levels because further adjustments to BPA's spending projections may occur after the conclusion of the IPR/CIR. While the IPR/CIR close-out letter and report reflect the administrator's best estimate regarding the appropriate spending levels to assume in setting revenue requirements, these levels may be further modified by subsequent future events that lead to changing priorities or by subsequent judicial, executive or congressional action. Thus, while the IPR/CIR serves the important role of receiving regional input on the priorities for BPA spending, the resulting final program levels are only recommendations that may be subsequently modified.

BPA will share adjustments to spending projections at Quarterly Business Reviews.

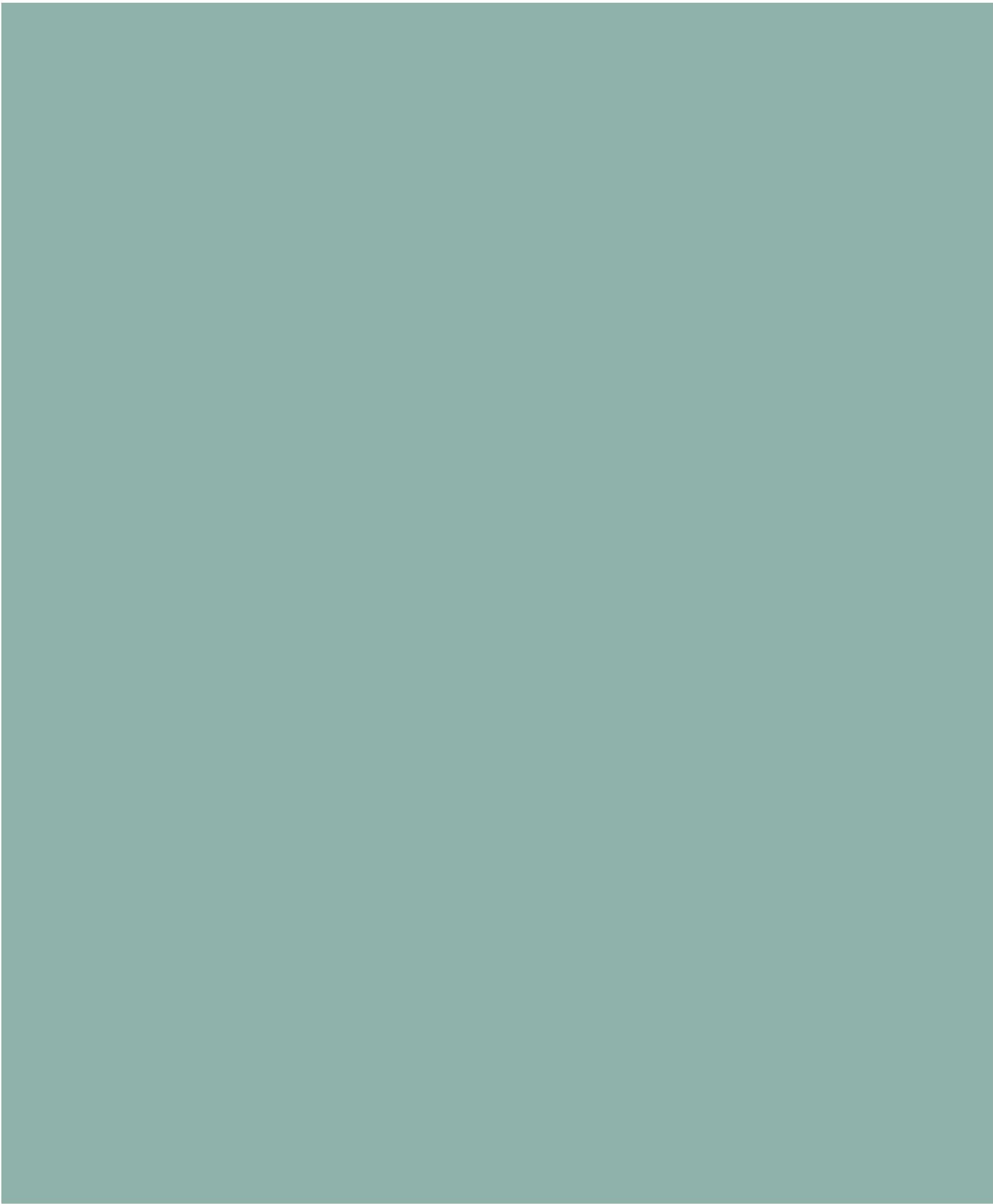
10.2 Financial Disclosure

FY 2015 actuals have been made publicly available by BPA and contain BPA-approved financial information.

FY 2016–17 forecasts for rate case and start-of-year have been made publicly available by BPA and contain BPA-approved financial information.

FY 2017–19 proposed IPR levels have been made publicly available by BPA on June 10, 2016, and reflect information not reported in BPA financial statements.

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DOE/BP-4764a • June 2016