



Bonneville
POWER ADMINISTRATION



INTEGRATED PROGRAM REVIEW

Transmission Services

June 20, 2018

Proposed IPR Program Expenses



Transmission Services

- Transmission Service is responsible for planning, designing, marketing, operating and maintaining approximately 15,000 miles of the Pacific Northwest's high-voltage transmission assets across multiple states.
- Agency strategic goals
 - Goal 1 – Strengthen financial health
 - Goal 2 – Modernize assets and system operations
 - Goal 3 – Provide competitive Power products and services
 - Goal 4 – Meet Transmission customer needs efficiently and responsively

Transmission Services

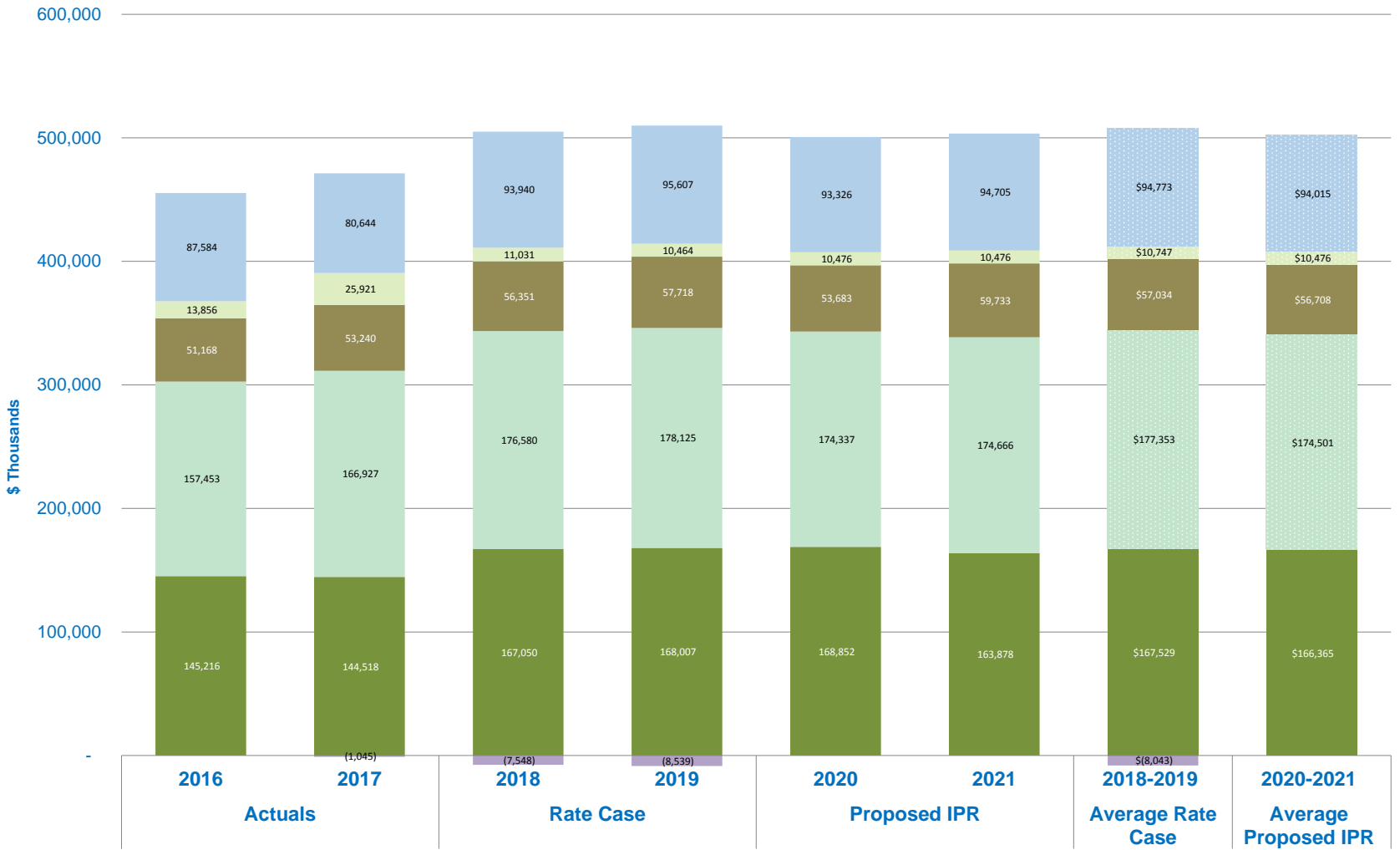
IPR principles:

- Limit rate increases. – Goal 1
- Mission critical work. – Goals 1, 2, & 4
- Make investments that provide savings to ratepayers.
 - Goals 1, 2, & 4
- Focus on risk-prioritized investments - Goals 1, 2, & 4

Transmission expense

- Proposed funding levels at BP-18 rate case levels, absorbing all upward pressure items plus personnel cost increases. – Goal 1
- To hold costs at BP-18 rate case, Transmission identified cost savings and efficiencies. – Goal 1
- Trade-offs absorbed cost pressures, cost reductions were identified, and personnel will focus on mission critical work. – Goals 1, 2 & 4

Transmission Services

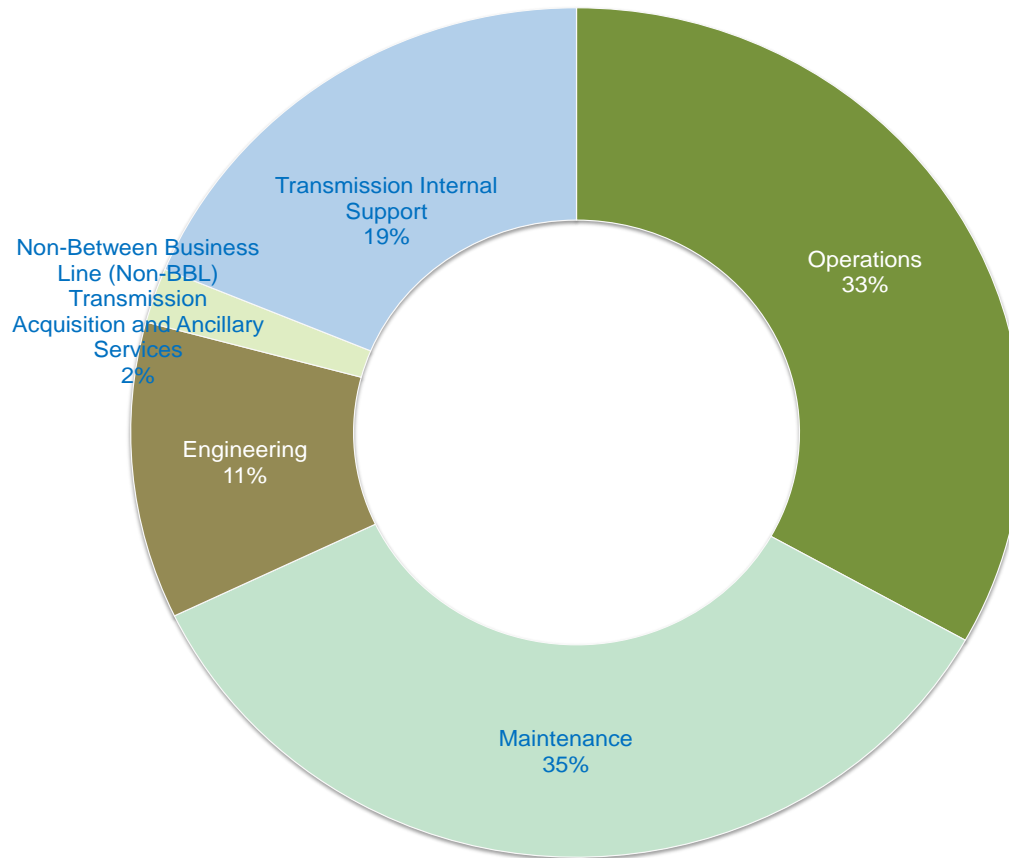


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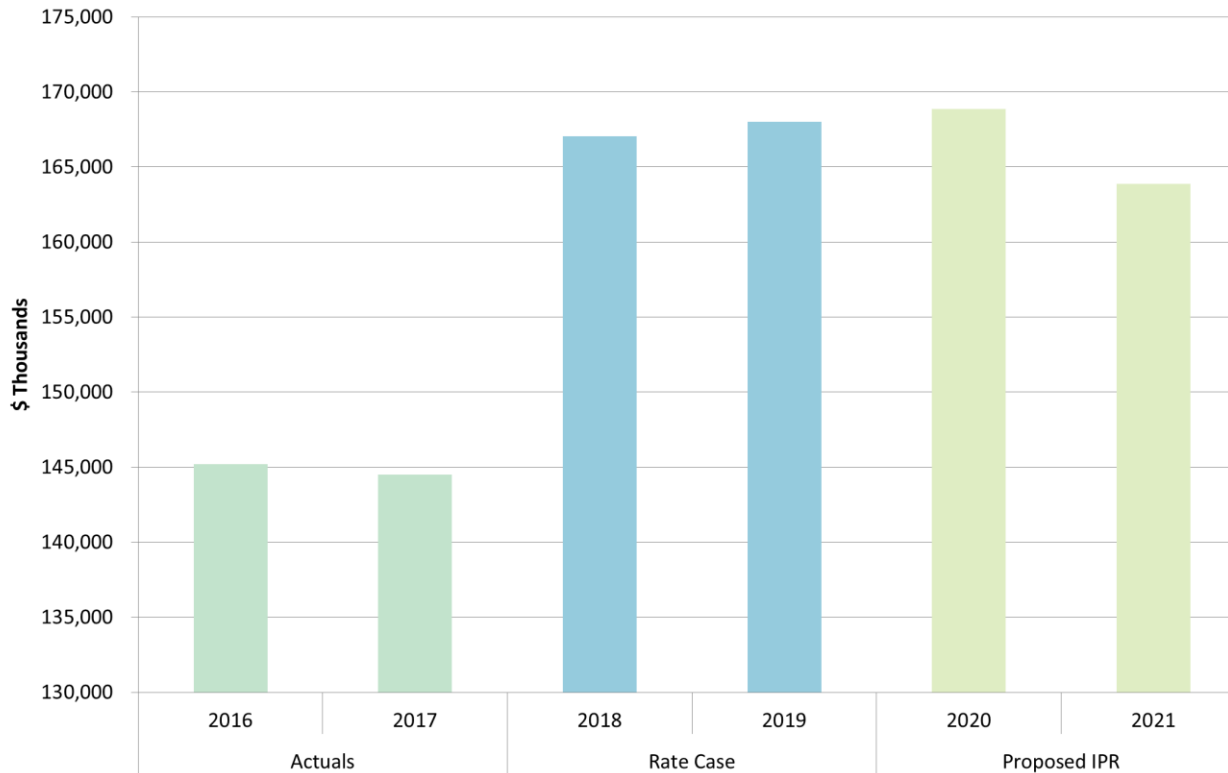
- Operations
- Engineering
- Transmission Internal Support

- Maintenance
- Non-Between Business Line (Non-BBL) Transmission Acquisition and Ancillary Services
- Undistributed Reduction

IPR FY 2020-21 Average



Transmission operations



| (\$Thousands) | Actuals | | Rate Case | | Proposed IPR | |
|---------------|---------|---------|-----------|---------|--------------|---------|
| | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
| Grand Total | 145,216 | 144,518 | 167,050 | 168,007 | 168,852 | 163,878 |

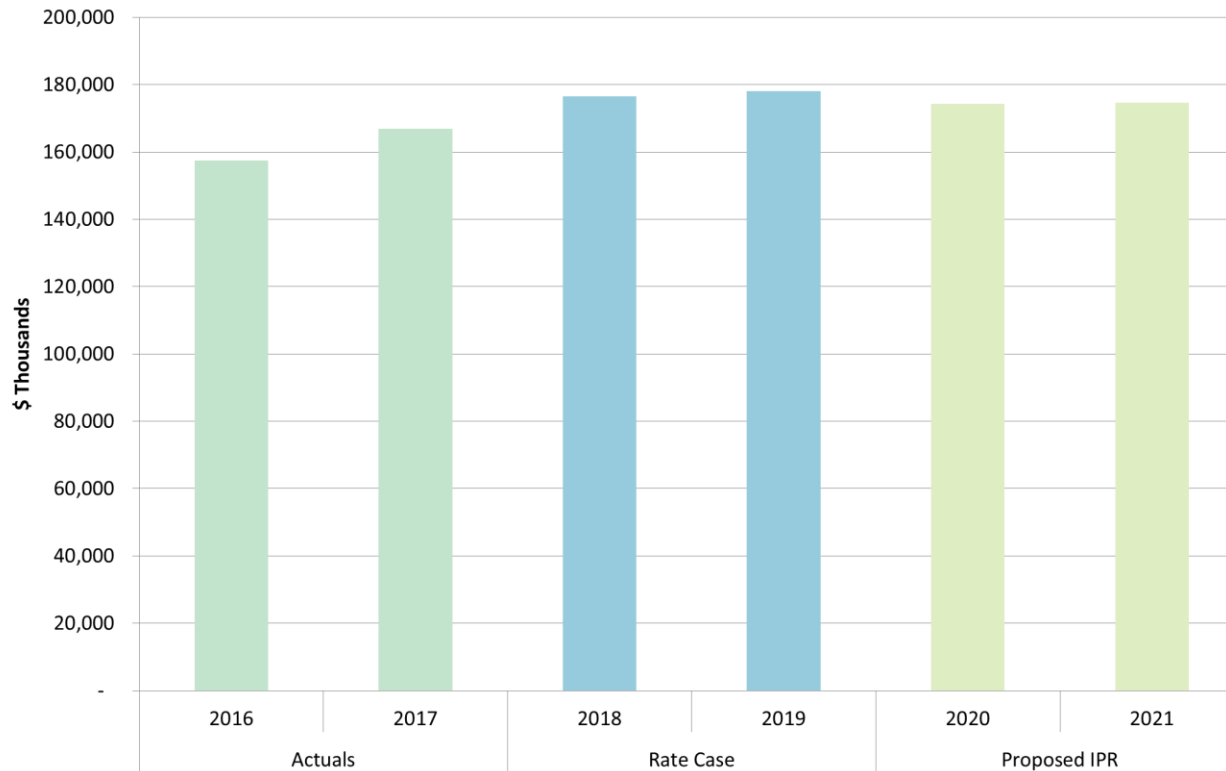
Transmission operations

- FY20/21 average proposed levels: \$166.4 million
- Change from BP-18 rate case: -\$1.2 million
- Transmission Operations is comprised of System Operations, Business Support, Scheduling and Marketing.
- **Work expected in 2020 and 2021:**
 - Operate a safe and reliable transmission grid.
 - Modernize the grid and its supporting technology. Goal 2
 - Enhance overall data availability, visualization, and situational awareness in all control centers. Goal 2
 - Improve BPA's System modeling capabilities. Goal 2
 - Make significant updates to BPA's mission-critical IT processes and infrastructure. Goal 2
 - Implement current and emerging NERC and federal cyber-security requirements. Goal 2

Transmission operations

- **Commercial Activities:**
 - Offer and maintain standardized and streamlined NT and PTP products through a product portfolio that is consistent with industry standards. Goal 3 & 4
 - Manage BPA's commercial transmission inventory including ways to more efficiently and responsibly meet customer requests. Goal 4
 - Consistently support the evolution of our Network Integration Service customers resulting from load growth. Goals 2 & 4
- **Impacts of proposed spending levels:**
 - Careful balanced between core reliability and grid modernization
 - Safe and reliable operations, compliance, market analysis, implementation of product portfolio and cyber security

Maintenance



| (\$Thousands) | Actuals | | Rate Case | | Proposed IPR | |
|---------------|---------|---------|-----------|---------|--------------|---------|
| | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
| Grand Total | 157,453 | 166,927 | 176,580 | 178,125 | 174,337 | 174,666 |

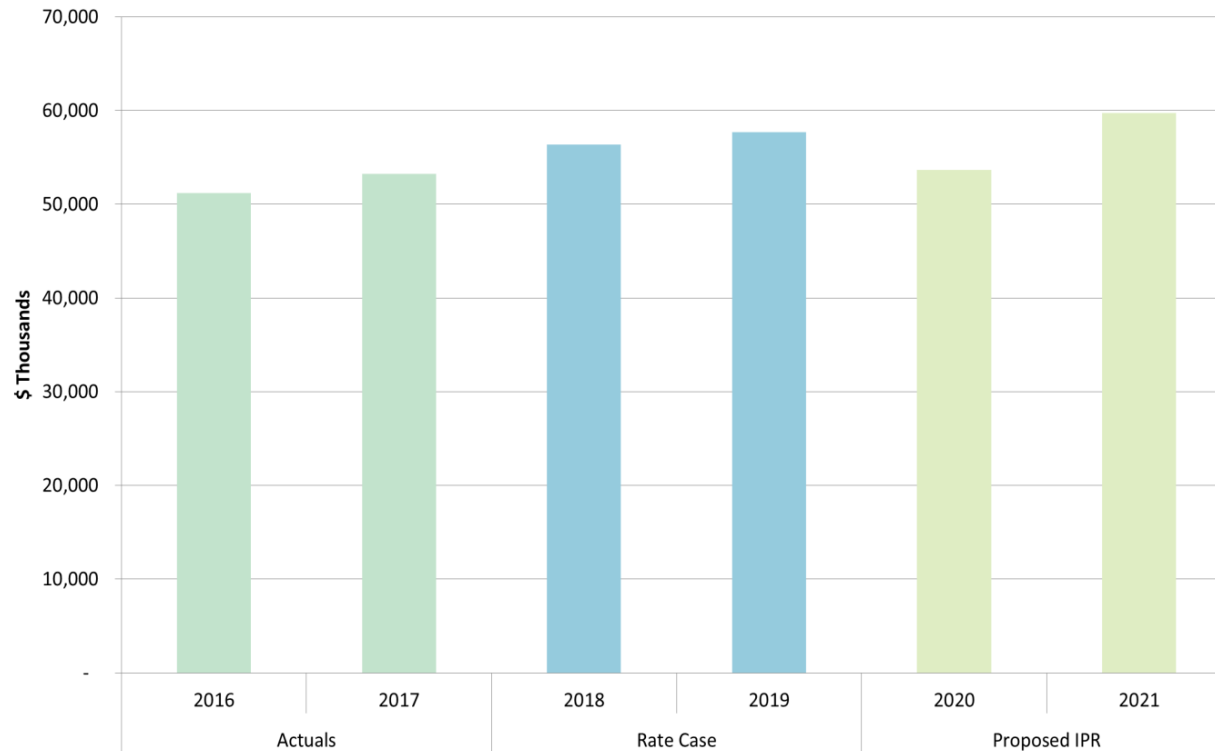
Maintenance

- FY20/21 average proposed levels: \$174.5 million
- Change from BP-18 rate case: -\$2.9 million
- **Work Expected In 2020 and 2021, Tied to Strategic Plan**
 - Work is completed in a manner which ensure BPA staff safety and occupation health including adherence to emerging safety rules and investments in safety devices and training.
 - Sustain internal apprenticeship program to assure qualified hourly crafts and trades talent.
 - Complete maintenance on transmission assets for overall system reliability requirements, compliance-driven requirements, emergency response and ensure public safety. Goal 2
 - Optimize maintenance activities through Work Planning and resource scheduling as efficiently and cost-effectively as possible. Goals 1 & 2
 - Maintenance plans will be informed by asset health and criticality, and coordinated with replacement plans. Periodic routine maintenance frequency will be adjusted as informed by condition and risk assessments. Goals 1 & 2

Maintenance

- FY20/21 average proposed levels: \$174.5 million
- Change from BP-18 rate case: -\$2.9 million
- **Impacts of Proposed Budget Level, Supporting Financial Plan**
 - Maintaining current spending levels increasing only for hourly crafts & trades and engineering salary inflation. Goal 1
 - To offset these increased costs, work prioritization, work planning and scheduling processes, and combining work activities, will reduce some impacts, but purposeful backlogging will be necessary to offset all cost increases. Goal 1
 - All Maintenance decisions, including engineering program support and consideration of any new initiatives will be based on priority considering compliance/regulatory requirements, safety, reliability, criticality, health, and risk assessments. Goals 1 & 2

System engineering



| (\$Thousands) | Actuals | | Rate Case | | Proposed IPR | |
|---------------|---------|--------|-----------|--------|--------------|--------|
| | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
| Grand Total | 51,168 | 53,240 | 56,351 | 57,718 | 53,683 | 59,733 |

System engineering

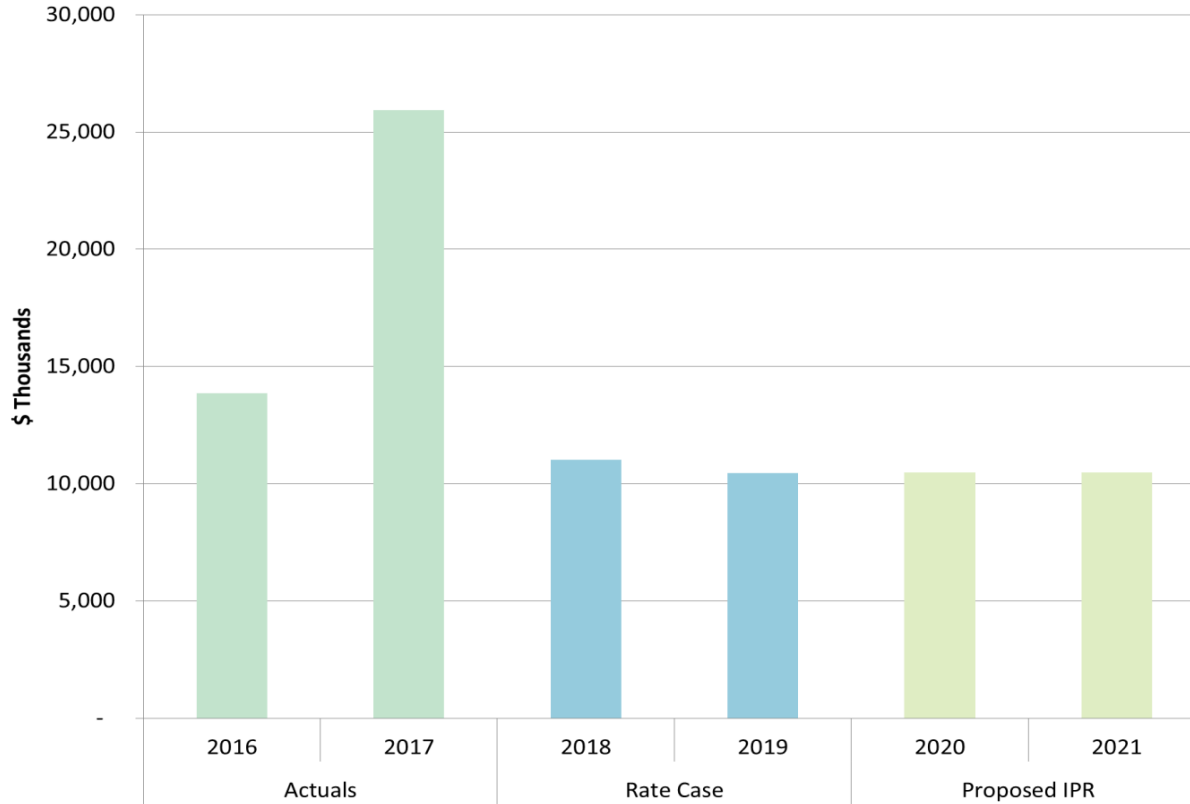
- Change from BP-18 rate case: $-\$0.3$ million
- **Tied to Strategic Plan**
 - Regional planning process. Goals 1, 2 & 4
 - Customer partnership/collaboration. Goals 1, 2 & 4
 - Following Institute of Asset Management (IAM) best practices. Goals 2 & 4
 - Transmission Capital Investment Acquisition. Goals 1 & 4

Internal Support

- FY20/21 Average proposed levels: \$94.0 M
- Change from BP-18 rate case : -\$0.8 M
- Internal support consists of two separate programs, “Additional Post Retirement Benefits Contributions” and “Agency Services General and Administrative” that are included in Transmission’s revenue requirements.
- The Agency Services G&A funding levels are determined by the level of service required to support the business units.
- Proposed funding levels for Agency Services have been reduced from the BP-18 funding levels and discussed at the Corporate IPR session.

| (\$Thousands) | Actuals | | Rate Case | | Proposed IPR | |
|---------------|---------|--------|-----------|--------|--------------|--------|
| | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
| Grand Total | 87,584 | 80,644 | 93,940 | 95,607 | 93,326 | 94,705 |

Non-between business line (Non-BBL) Transmission Acquisition and Ancillary Services



| (\$Thousands) | Actuals | | Rate Case | | Proposed IPR | |
|---------------|---------|--------|-----------|--------|--------------|--------|
| | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
| Grand Total | 13,856 | 25,921 | 11,031 | 10,464 | 10,476 | 10,476 |

Non-BBL Transmission Acquisition and Ancillary Services

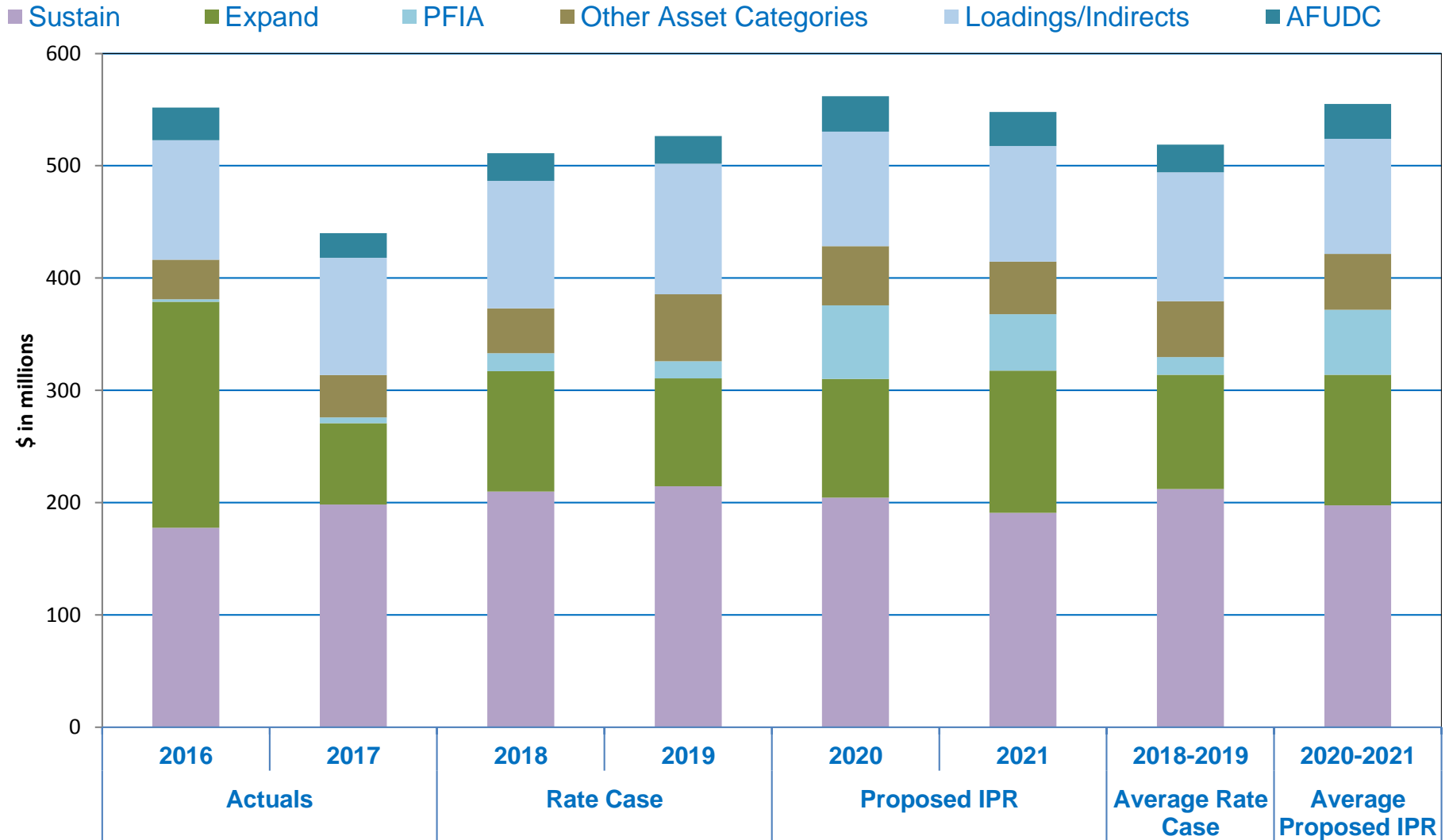
- FY20/21 average proposed levels: \$10.5 million
- Increase from BP-18 rate case: \$0.3 million
- **Work Expected In 2020 and 2021, Tied to Strategic Plan**
 - Continue to create agreements and services that ensure a reliable network such as balancing services for load and renewable resources.
Goal 4
 - Develop economical, flexible and scalable alternatives (such as non-wire alternatives) for balancing services and acquisition of services such as self-supply initiatives and third-party reserves.

Proposed Capital Program Levels

Vision for managing transmission assets:
Transmission Services will manage its assets to achieve safety, reliability, and 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.



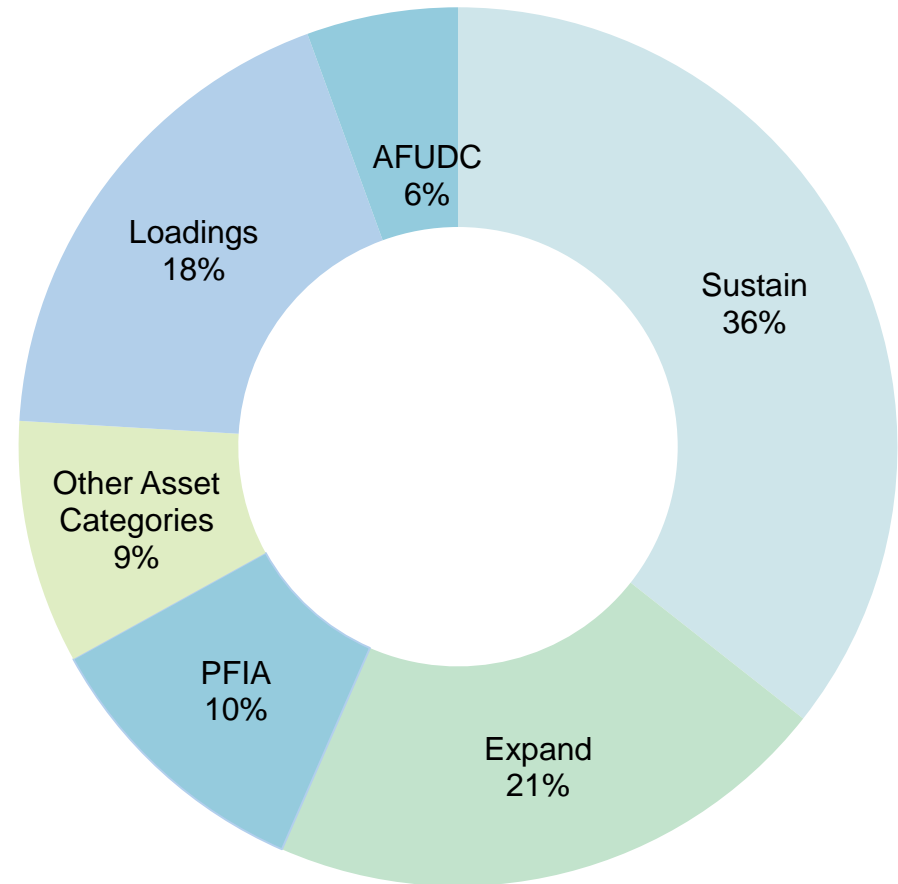
Transmission Capital



Transmission Capital

Transmission's proposed average FY20-21 capital spending of \$555 million supports BPA's Strategic Plan objectives by:

- Financial health – Goal 1
- Modernize assets and system operations – Goal 2
- Meet transmission customer needs efficiently and responsively – Goal 4

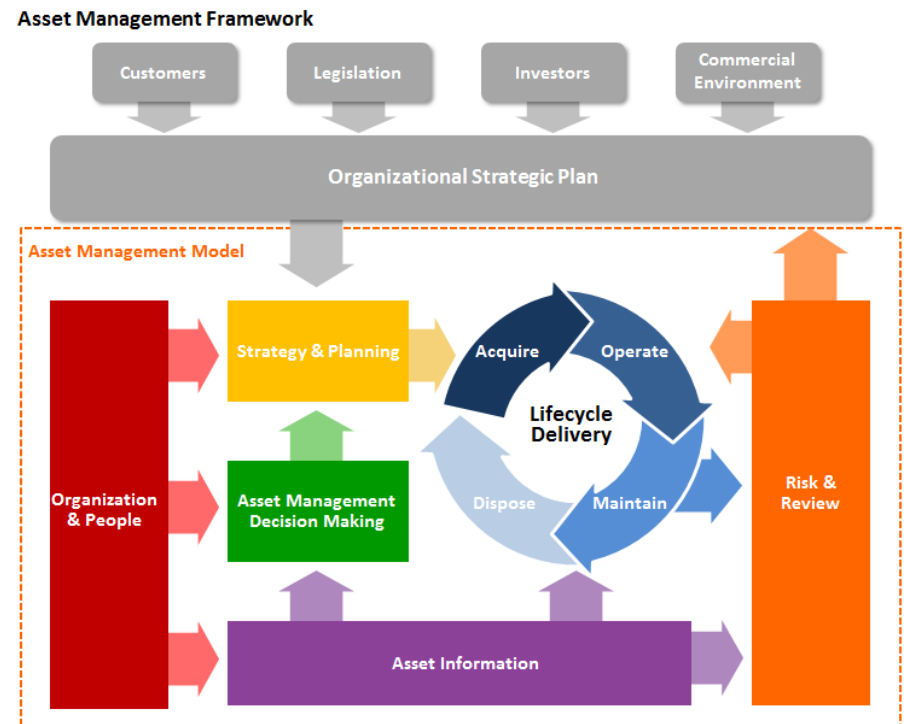


A robust asset management strategy and plan for capital deployment is essential.

Objectives of the Transmission Asset Management Strategy

Align with Institute of Asset Management (IAM) best practices

- Economic costs
- Technological obsolescence
- Compliance
- Greater system visibility.



The Institute of Asset Management (IAM)

Transmission Capital Program FY18-32

- **Specific initiatives include:**
 - Maximizes business value
 - Optimize performance
 - Integrate maintenance practices and asset replacement
- **FY18-32 levels for sustain and expand programs**
 - \$317M in FY18
 - \$310.5M in FY19
 - \$310M in FY20, with inflation applied FY21 - FY32

Strategic challenges

- Projects funded in advance (PFIA)
- Shift from expand to more small sustain projects
- Data driver decision making
- Goals from strategic challenges
 - Visibility
 - Certainty of delivery

A photograph of a forest path with sunlight streaming through the trees, creating a dappled light effect on the ground. The path is covered in fallen leaves and surrounded by green undergrowth. The trees are tall and thin, with dense foliage. The overall atmosphere is serene and natural.

QUESTIONS?

FINANCIAL DISCLOSURE

This information was publicly available on June 18, 2018, and contains information not sourced directly from BPA financial statements.

THANK YOU