

2019 | Annual Budget



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## Message to the **board of directors**

As a leading utility in Colorado, Platte River Power Authority will help drive fundamental changes in the way we make and deliver electricity to our owner communities during the coming years. I am pleased to provide you with the 2019 Annual Budget, which highlights activities in support of these changes.

As you review the 2019 budget, you will more clearly understand how planned activities and investments will support each of our four strategic initiatives: 1) enhanced customer experience; 2) collaborative communications and community outreach; 3) resource diversification and alignment, and; 4) infrastructure advancement and technology development. You will also recognize how each of the initiatives and their underlying activities and investments will support our core pillars of system reliability, environmental responsibility and financially sustainable energy and services.

Core operations comprise most of our operational and capital investment budget, including existing power purchase agreements for hydropower, wind and solar. Over \$245 million in expenditures are planned in 2019. Of the operating and capital budgets, approximately 24 percent will focus on strategic initiatives and 76 percent on core operations. In addition, we plan to invest \$193.6 million in capital infrastructure over the following four years (2020-2023), setting the roadmap for future budgets and ongoing support of these efforts. These investments along with our dedicated and committed staff are all key to Platte River's continued success.

Platte River and our owner communities have invested \$43 million in jointly administered energy efficiency programs from 2002 to 2017 to reduce annual system load by 5.3 percent. Similarly, businesses and homeowners have invested \$47 million in energy efficiency upgrades and are saving \$15 million a year on their electricity bills. The combined efforts have also delayed the need to invest in new energy resources. Further investment in efficiency programs will continue to provide benefits.

In addition to our commitment to greater energy efficiency, we will increase work with energy resource modeling and strategic planning during 2019. We will grow our commitment to our communities through greater engagement and transparent communications. We will improve security systems, our technological capabilities, rate framework, and continue to make infrastructure investments.

Going forward, we will develop budget documents like this to function collaboratively with our other core business documents — the strategic plan, annual report and integrated resource plan (IRP) — to provide you and all Platte River stakeholders with a complete picture of Platte River as we continue our leadership role in Colorado. We appreciate your continued leadership and support.

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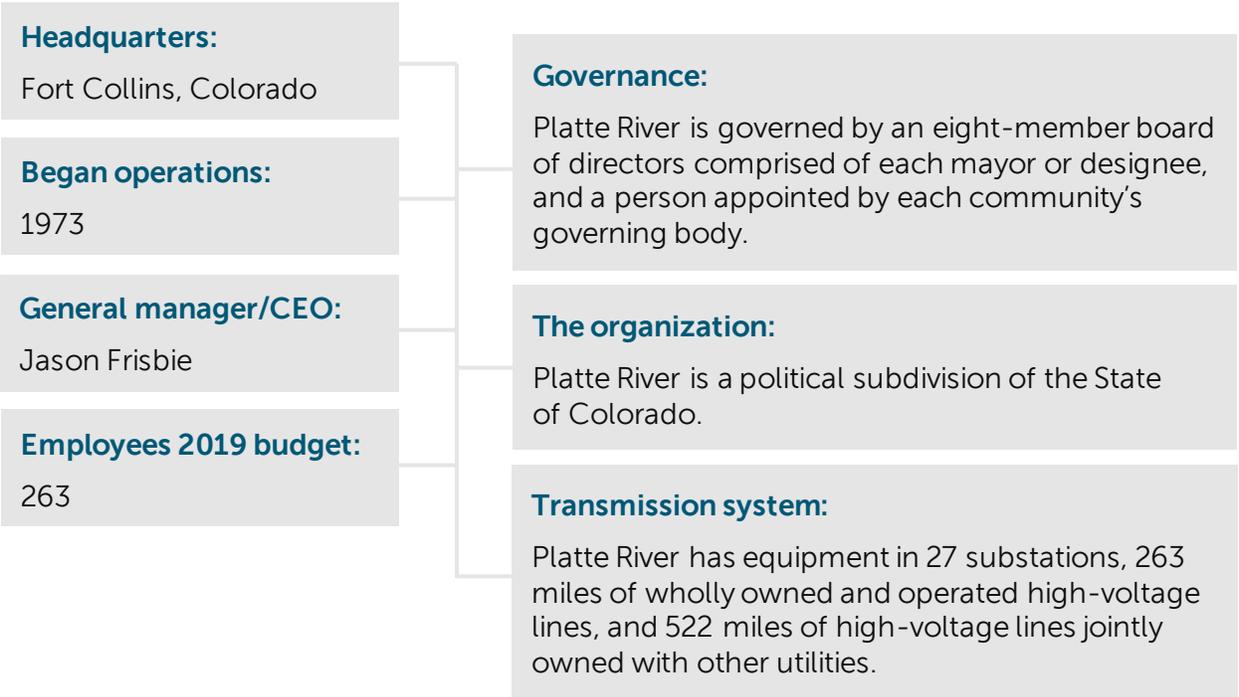


Jason Frisbie

General manager/CEO

# Platte River at a glance

Platte River Power Authority is a not-for-profit wholesale electricity generation and transmission provider that delivers safe, reliable, environmentally responsible, and competitively priced energy and services to its owner communities of Estes Park, Fort Collins, Longmont and Loveland, Colorado, for delivery to their utility customers.



## Resource capacity

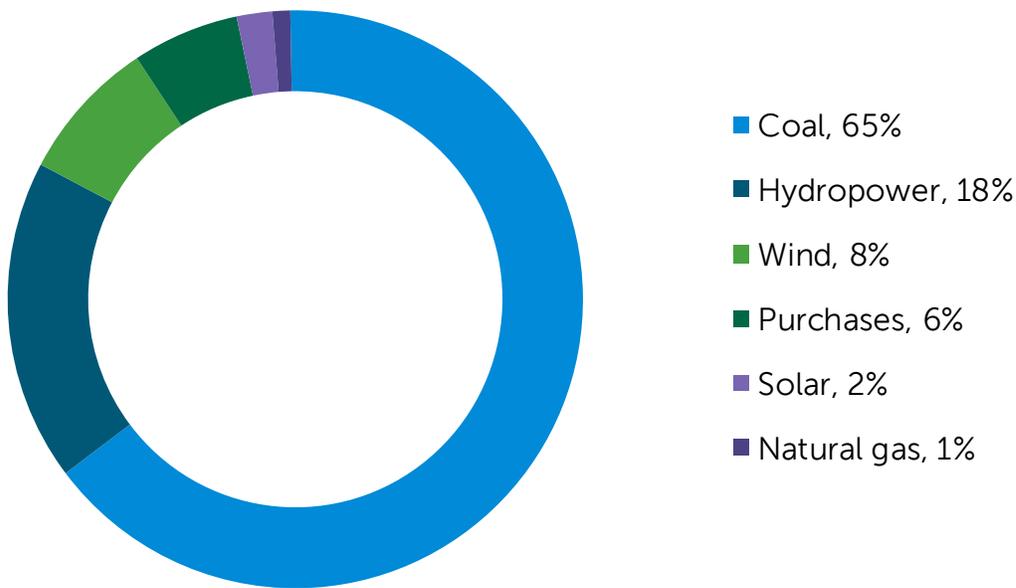
Rawhide Unit 1 ( <i>coal</i> )	280 MW
Rawhide Units A, B, C, D, F ( <i>natural gas</i> )	388 MW
Craig Units 1 and 2 ( <i>coal</i> )	151 MW
Hydropower	90 MW
Wind power	78 MW
Rawhide Flats Solar	30 MW
<b>Total summer effective capacity</b>	<b>928 MW</b>

Note: For the effective capacity calculation, wind facilities are assigned firm capacity of 12.5% of their nameplate capacity and solar facilities are assigned 30% of their nameplate capacity.

# 2019 budget at a glance

Revenues	\$	231.3M	<b>Deliveries of energy to owner communities 2019 budget:</b> 3,229,726 MWh  <b>Peak owner communities demand 2019 budget:</b> 674 MW  <b>Deliveries of energy 2019 budget:</b> 4,273,534 MWh
Operating expenses	\$	180.6M	
Capital additions	\$	45.8M	
Debt expenditures	\$	19.5M	

## Deliveries of energy to owner communities 2019 budget



About 30 percent of the energy Platte River will deliver to its owner communities in 2019 is projected to come from non-carbon emitting sources.

# Organizational structure

## Board of directors

**Reuben Bergsten**  
Vice chairman  
Director of utilities  
Town of Estes Park

**Todd Jirsa**  
Chairman of the board  
Mayor  
Town of Estes Park

**Joseph Bernosky**  
Director of Loveland  
Water and Power

**Wade Troxell**  
Mayor  
City of Fort Collins



**Gerry Horak**  
Mayor pro tem  
City of Fort Collins

**Jacki Marsh**  
Mayor  
City of Loveland

**Susan Wisecup**  
Interim general manager  
Longmont Power &  
Communications

**Brian Bagley**  
Mayor  
City of Longmont

Platte River is governed by an eight-person board of directors designed to bring relevant expertise to the decision making process. The board includes two members from each owner community.

The mayor may serve or designate some other member of the governing board of his/her owner community to serve in his/her place on Platte River's board of directors. Each of the other four directors is appointed to a four-year staggered term by the governing body of the owner community being represented by that director.

## Senior management team

**Joseph Wilson**  
General counsel

**Jason Frisbie**  
General manager/CEO

**Alyssa Clemens Roberts**  
Chief strategy officer

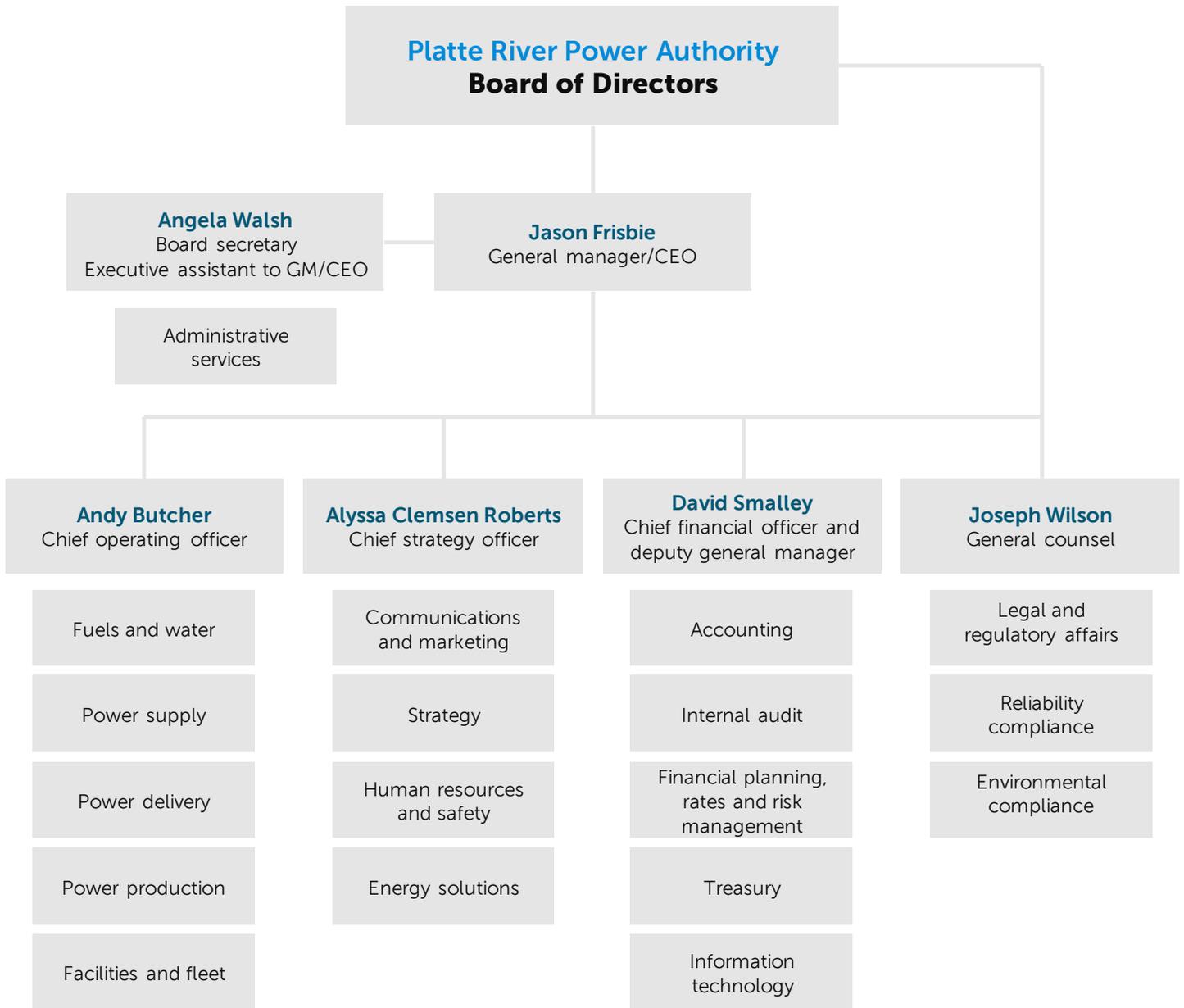


**Angela Walsh**  
Board secretary  
Executive assistant to the  
general manager/CEO

**David Smalley**  
Chief financial officer  
and deputy general  
manager

**Andy Butcher**  
Chief operating officer

Platte River operates under the direction of a general manager who serves at the pleasure of the board of directors. The general manager is the chief executive officer with full responsibility for planning, operations and the administrative affairs of Platte River.



# Mission, vision and values

## Mission

Provide safe, reliable, environmentally responsible and competitively priced energy and services to our owner communities of Estes Park, Fort Collins, Longmont and Loveland, Colorado, for their utility customers.

## Vision

As a respected leader and responsible energy partner, improve the quality of life for the citizens served by our owner communities.

## Values

The listed values tangibly define our daily commitment to following the mission and vision of Platte River, which will strengthen our organization and improve the quality of life in the communities we serve.



### Safety

Working safely to protect the public, our employees, and the assets we manage.



### Integrity

Being ethical and holding ourselves accountable to conduct business in a fair, honest, transparent, compliant, and environmentally responsible manner.



### Service

Providing quality service at a competitive price while being responsive to our owners' needs.



### Respect

Encouraging constructive dialogue that promotes a culture of inclusiveness, recognizes our differences, and accepts differing viewpoints.



### Operational excellence

Engaging employees to strive for excellence and continuous improvement.



### Sustainability

Maintaining financial integrity, minimizing our environmental impact, and supporting responsible economic development in our owner communities.

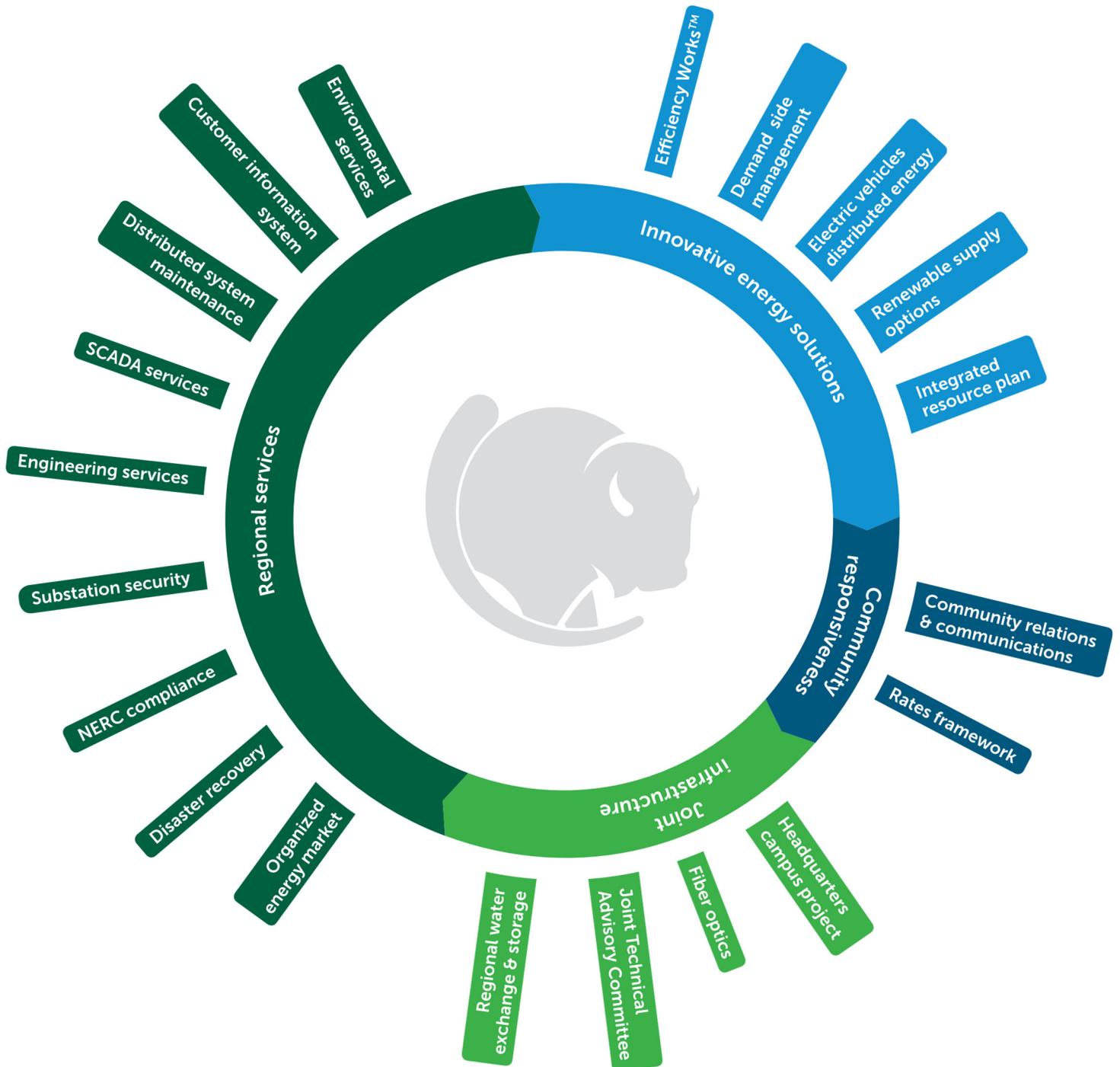


### Innovation

Striving to be creative, pioneering and the best in class at solving tough challenges with resourcefulness.

# Collaboration

Working towards shared goals



# 2019 budget summary

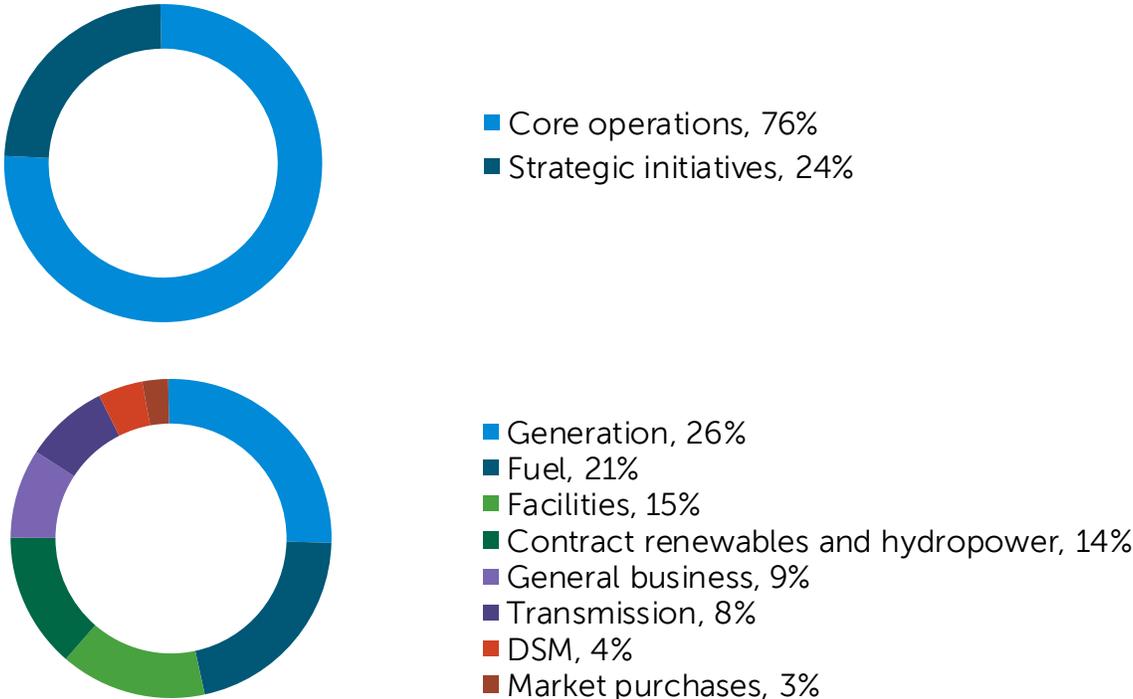
The Platte River Power Authority Annual Budget is produced under the direction of the organization’s leadership to provide community leaders, stakeholders and the public with a transparent roadmap of Platte River’s operational and capital plans for the coming year.

The foundation for Platte River’s 2019 budget is based upon the organization’s strategic plan and core operations. These are aligned with Platte River’s core pillars of system reliability, environmental responsibility and financial sustainability. The pillars guide the decision-making process which have directed the resource allocations, revenues and expenses enumerated in the budget.

Expenses are managed from a broad perspective with the goal of operating the system in a safe, compliant and reliable manner, while cost effectively optimizing resources and expanding environmental stewardship. Platte River communicates and collaborates with the owner communities to align processes and outcomes to the benefit of all customers.

Platte River’s budget includes \$231.3 million in revenues and \$245.9 million in expenses consisting of operating, capital and debt. Of the \$226.4 million in operating expenses and capital additions, approximately 24 percent and 76 percent is allocated to activities supporting strategic initiatives and core operations, respectively.

## Operating expenses and capital additions: \$226.4 million



## Core pillars

System reliability • Environmental responsibility • Financial sustainability

### Strategic initiatives

**\$54.4 million**

**24 percent of operating and capital**

- Enhanced customer experience, \$11.4M, 5 percent
- Communications and community outreach, \$1.6M, 1 percent
- Resource diversification and alignment, \$2.5M, 1 percent
- Infrastructure advancement and technology development, \$38.9M, 17 percent

#### Activities

- Energy efficiency expansion, electric vehicle charging stations, smart thermostats, demand response, wholesale rate redesign
- Public engagement, effective internal and external communications
- Resource planning for IRP, future wind and solar projects, energy market research
- Substation security and modifications, LED lighting, control systems, airflow spoilers, cybersecurity, fiber optics, Windy Gap Firming Project
- The new headquarters campus will provide an easily accessible amenity to owner communities and the public while providing employees with the resources needed to operate more effectively and efficiently in a rapidly changing industry. Significant construction activities will continue into 2019 including a distributed solar system that will provide up to 50 percent of its power needs.

### Core operations

**\$172 million**

**76 percent of operating and capital**

- Generation including fuel, \$113.8M, 50 percent
- Transmission, \$21.3M, 10 percent
- Purchases including hydropower, wind and solar energy, \$36.9M, 16 percent

#### Activities

- Predictive maintenance strategies – Craig Units 1 and 2 and combustion turbine Unit F scheduled maintenance outages, information technology investments, centralized fleet management system
- Proactive capital investments – monofill upgrades, protective relays, grading and drainage projects, oil breaker replacements, SONET replacement
- Staffing additions are included to support the changing environment and focus on strategic initiatives. Increased requirements are associated with information technology, accounting, facilities, engineering and legal.

# Strategic initiatives

\$54.4 million, 24 percent of operating and capital



## Enhanced customer experience

\$11.4 million, 5 percent

As an industry leader, Platte River commits to providing owner communities and their customers with solutions and programs to achieve their varied energy goals. Platte River will collaborate with owner communities to support its strategic initiatives of enhanced customer experience through programs and services that improve energy efficiency, promote demand response and encourage effective use of distributed energy resources. A new rate structure will also be developed to address the existing and anticipated changes occurring in the utility industry and meet the needs of the owner communities. The 2019 budget supports the following initiatives.

### Energy efficiency

Platte River will expand its work with owner communities to increase customer efficiency in alignment with the 2016 IRP and load forecast. Programs through Efficiency Works™ will include new or enhanced services for both business and residential customers.

In 2019, \$9.7 million is budgeted for energy efficiency programs to obtain 38,000 MWh of additional energy savings along with 6.8 MW of demand reduction during the year, an increase of approximately 20 percent over 2018 goals. The increase in funding will be used to expand business and consumer product offerings, which are the most cost-effective programs currently offered. Platte River anticipates receiving supplemental funding from the owner communities to augment Platte River's budget and to administer programs of their individual design. Platte River's funds will be used first before accessing the supplemental funding to ensure each owner community receives its equity share of Platte River budgeted dollars.

### Distributed energy resources and demand response

Platte River continues to work with owner communities to develop new approaches to distributed energy resources and demand response to provide net benefits to Platte River, the owner communities and their customers. Approximately \$0.5 million is planned in 2019 for the following initiatives.

Initiated in 2015, the demand response pilot program is planned to conclude in mid-2019 and is expected to transition to a new wholesale program. The demand response pilot program has given Platte River's system operators the ability to operate demand response resources developed by the cities of Longmont and Fort Collins.

On a retail level, Platte River will support the owner communities' interest in residential and commercial demand response programs. Funds are budgeted to develop new programs and initiate pilot programs that could lead to dispatchable load reductions. For the residential sector, funds are budgeted to pilot a retail smart thermostat or electric water heater DR program, using technologies supported by Efficiency Works™, to provide a scalable source of demand reduction. For the commercial sector, funds may be used to design a retail large commercial and industrial demand response program.

Platte River plans to conduct an electric vehicle charging study. This study was postponed from 2018 due to the manufacturer canceling its plans to make technology critical for the study. The 2019 charging study will encourage adoption of electric vehicle charging technologies that will provide Platte River and the owner communities with data to monitor and understand charging load profiles as well as a platform to develop demand response programs aimed at influencing when customers charge their electric vehicles.

Platte River is working with the owner communities and has budgeted funds to support a collaborative effort to develop a web-based marketing, advising and enrollment system for renewable energy. This could support the owner communities' efforts to inform their customers of renewable energy options, including low-cost renewable energy provided by Platte River and the owner communities.

### Wholesale rate redesign

During 2018, Platte River initiated a comprehensive review of its rate making practices to recognize and address the significant existing and anticipated changes occurring in the electric utility industry. Platte River identified the following goals important to the rate setting process.

- Improve value added of Platte River in support of owner communities.
- Offer a desirable portfolio of services and rates that meet owner communities' needs.
- Better align wholesale time of use pricing signals with cost of service and owner community retail pricing signals.
- Send pricing signals that result in system benefits.

In 2019, Platte River plans to adopt, for implementation in 2020, a revised rate design that achieves the rate setting goals. The revised rate design will also provide unbundled transmission and generation rates, as well as transparent renewable pricing information for retail utilities to establish renewable pricing options for retail customers.

## Communications and community outreach

\$1.6 million, 1 percent

Internal and external communications and community outreach at Platte River are integral to the organization's overall success. An accurate understanding of Platte River and its priorities will drive greater collaboration among all stakeholders to achieve shared goals. Community engagement and effective communications will better position Platte River to be viewed as a trusted energy partner.

Platte River will continue to develop communications and expand engagement with community and stakeholder organizations. A key objective is to more fully and transparently explain the transformational progress Platte River will make in the coming years – progress that will better serve the owner communities and their citizens. Communications and community outreach will include the following actions.

- Further development and expanded use of electronic communications tools such as social media channels and Platte River's website, [www.prpa.org](http://www.prpa.org).
- More consistent public and stakeholder presentation materials.
- Increased participation and outreach with stakeholder organizations in the business, environmental and philanthropic communities; activities may include event sponsorships, community informational open houses, presentations and active participation on boards or committees of stakeholder organizations.
- Production of key documents – annual report, annual budget, IRP, strategic plan – to create a seamless "family" of core documents for the organization.
- Management of expanded internal communications, employee activities and recognition, and brand standards.

These activities mark a significant expansion of communications and outreach from a responsive strategy to one that is more robustly proactive. This strategic shift has been driven by Platte River's desire to more fully and accurately explain the organization's leadership role in the communities it serves and how it will lead the evolution of energy production and delivery within the region and state. This will require additional professional staff but will also lead to a reduced need for consulting assistance.

## Resource diversification and alignment

\$2.5 million, 1 percent

### Resource planning

Platte River's future resource diversification and alignment will be determined largely through the integrated resource planning process, a significant portion of which will occur in 2019. This planning will stem from a board-adopted resource diversification policy that provides guidance in resource planning.

In addition to annual load forecasting and market outlooks that comprise Platte River's power supply plan, approximately \$0.9 million in contracted services in 2019 will fund the research and development of Platte River's 2020 IRP, which will formalize short- and long-term plans to meet carbon reduction goals of the owner communities. The IRP will include an analytical assessment of Platte River's current and potential resource mix and will be produced with the support of industry experts. Consultants will provide studies concerning greenhouse gas emissions within Platte River's supply chain, battery technology capabilities, plant decommissioning, regional economic impacts, distributed resources and conservation technologies. The IRP work will also include the drafting and editing of final documents, as well as public and stakeholder outreach. More information regarding the IRP can be found at [www.prpa.org/irp](http://www.prpa.org/irp).

### Renewable generation

Following the installation of the 30 MW Rawhide Flats Solar facility in 2016, Platte River announced an additional 150 MW of wind power capacity to be added by 2020, nearly tripling the amount of wind, and another 20 MW of solar power with a battery storage component. As part of a long-term strategy to reduce Platte River's carbon footprint, the organization will continue to explore more solar and wind energy and consider adding energy storage and distributed power sources as this technology progresses.

Significant construction activities associated with the 150 MW wind installation are expected to take place during 2019 and Platte River will purchase its full output under a power purchase agreement. Platte River's staff will begin to design and construct the interconnection of the wind facility into Platte River's transmission system in 2019, the full costs of which are reimbursed by the developer. No significant budget impact is expected until the resource becomes commercial and power purchases commence. However, to take advantage of a portion of the additional wind energy option under this agreement and reduce transmission expense, existing higher priced wind energy was sold to a third party under a long-term contract. In 2019, work will

ensue on the interconnection of the solar facility to Platte River's transmission system. The cost is budgeted for \$0.3 million. Both projects also require internal labor to work through the contract details and ensure execution. Adding renewable resources requires assessment and potential changes to how Rawhide Unit 1 operates to manage these additional intermittent resources.

As part of its headquarters campus project construction activities, Platte River will install a distributed solar system that will provide up to 50 percent of the power needs of the new campus facilities. The headquarters campus project budget includes \$0.7 million for the installation. The remaining energy required by the headquarters building will be provided under a green/renewable energy tariff to be developed by the city of Fort Collins utilities department. Despite a significant increase in square footage, the new headquarters building is projected to use less energy than the current building.

### Energy market

Platte River's future participation in a broader organized energy market will be important to the organization's long-term strategy for resource diversification and adding intermittent renewable energy resources. When notified that some participants in the Mountain West Transmission Group would not join the Southwest Power Pool, staff began researching options that will continue to be pursued in 2019. Platte River will continue to research joining an existing regional transmission system or forming a new one among Mountain West partners and/or new entrants and expanding the joint dispatch agreement to include offline capacity. This will require expenses for needed studies, travel, meetings and legal work.

# 4

## Infrastructure advancement and technology development

\$38.9 million, 17 percent

Platte River's generation, transmission and support assets continue to perform extremely well, largely due to effective management that includes prudent, timely investment and proactive maintenance. Platte River will continue to pursue the infrastructure advancement and technology development initiative to provide secure, safe and reliable service to our owner communities. While these are necessary investments for Platte River, they also have a strategic component. Investments during 2019, primarily in capital projects, will emphasize the following areas.

### Security, engineering and operations

Installation of surveillance and access control systems at the city of Loveland substations will take place over the next few years once the new block walls are completed. These projects will enable the city of Loveland to monitor and protect their critical substation assets. This is a shared expense with the city of Loveland and Platte River's portion for one substation in 2019 is approximately \$0.1 million.

With the possibility of joining an energy market in the future, the existing revenue meters are being replaced to accommodate the requirement for high-side loss compensation. The new meters also have enhanced data reporting capabilities. This project is budgeted for \$0.4 million in 2019 and is expected to be completed by 2020 with a total estimated project cost of \$0.6 million.

The Rawhide Energy Station's high-pressure sodium lighting will be replaced with more efficient LED lighting. This is expected to save electricity consumption and reduce maintenance costs. The project began in 2016 and will continue to 2022 for an estimated project cost of \$0.7 million. The 2019 budget is for \$0.1 million.

The distributed control system of Rawhide Unit 1 was previously upgraded to unify the controls onto a single platform. The control system upgrade also positively impacted compliance requirements and cybersecurity. In 2019, the controls on the combustion turbines will also be upgraded and will be consistent with the new plant control system. The combustion turbine projects began in 2018 and are expected to conclude in 2019 for a total estimated project cost of \$4.9 million. The planned cost to finalize these upgrades is \$3 million in 2019.

The transmission line airflow spoiler installations prevent icing and galloping on the transmission lines and increase reliability. Installation of all the airflow spoilers is expected to be completed by 2021 for an estimated total project cost of \$1.7 million; the 2019 cost estimate for four installations is \$0.4 million.

Upgrades to vaults along the transmission line leading to Crossroads Substation and Rogers Road Substation will be completed by 2020. These projects will improve reliability by de-energizing existing circuits separately. This allows vault maintenance to take place while keeping one circuit energized. The two projects are planned for a cost of \$0.1 million in 2019 including carryover funds and an estimated total project cost of \$0.9 million.

Key modifications or improvements to targeted substations will also be made bringing systems in conformity with current engineering standards. The Harmony Substation project will be completed and includes upgrades to circuit switchers, breakers, relays and transformers. The project is expected to be complete in 2019 for a total project cost estimate of \$1.5 million. The 2019 budgeted amount is \$0.6 million. New circuits will also be installed at Linden Tech Substation beginning in 2019 for \$42 thousand and are expected to be complete in 2020 for a total of \$0.6 million. Further, hydrogen gas detectors will be installed in all control buildings to improve safety. This effort will begin in 2019 for \$45 thousand and end by 2021 for a total project cost of \$0.1 million.

A real time tools system will be purchased to conduct real time contingency analysis, which is required by the North American Electric Reliability Corporation to enable Platte River's power system operators to complete a system assessment every 30 minutes on Platte River's portion of the bulk electric system. This service has been provided by Peak Reliability but will conclude at the end of 2019. An investment of \$0.6 million will be made to provide reliable service to our owner communities.

A new software solution to centralize source data for control center operations for outages, work scheduling, tracking and coordination will take place in 2019 with a budget of \$0.2 million. This tool will improve communications between Platte River, the reliability coordinator, neighboring transmission operators and maintenance personnel, as well as our owner communities.

## Cybersecurity

A comprehensive enterprise-wide cybersecurity system and policies have been developed to ensure reliable operations, effective regulatory compliance and ongoing critical infrastructure protection. Work in 2018 was devoted to the initial stages of development of the system and Platte River's cybersecurity strategy, as well as documenting policies, processes and procedures, and conducting education programs with personnel. The project will continue into 2019 with an investment of approximately \$1 million. New equipment will manage incident and disaster prevention and responses.

## Fiber optic strategic initiatives

Platte River's regional fiber optic network plays an essential role in the reliable operation of Platte River's transmission system and is used to provide telecommunications connectivity within the owner communities. During 2019, Platte River will continue to collaborate with the owner communities to define Platte River's

role with respect to the fiber optic system and to implement the ownership and management framework. Based on the new fiber framework, Platte River will transfer ownership of the excess fiber assets to the owner communities. As a result, Platte River will no longer receive fiber optic lease revenue; therefore, lease revenue is not budgeted for 2019. Further, installation of the new long-haul segment from Loveland to Estes Park is scheduled to be completed by mid-2019. Funds are planned to be carried over from 2018 to complete the project. The total project estimate is \$5.5 million.

### **Windy Gap Firming Project**

Seeking to increase water resource reliability for electric generation operations, Platte River will follow the board directive and collaborate with its partners to continue development of the Windy Gap Firming Project. The majority of the 2019 budgeted amount of \$3.2 million will be devoted to construction preparation. The total project is estimated to be \$102.6 million and completed by 2023. Due to recent pending litigation, the project will likely be delayed, shifting the project funds to a future period. The approximately \$100 million in Series KK bonds to be issued in 2019 is planned to be allocated for this project. Meanwhile, potential Windy Gap water unit sales will continue to be explored in 2019, providing additional cash and reducing funds required under the debt financing.

### **Headquarters campus project**

Construction on the new campus will be underway by the end of 2018. Following site preparation, needed demolition of smaller facilities and initial foundation work in 2018, significant construction activities in 2019 will include the new headquarters building and maintenance facilities, landscaping and parking lots. Demolition of existing buildings is planned for early 2020. Funds required in 2019 are \$29.1 million, with a total estimated project budget of \$50.4 million and estimated completion date of early 2020.

# Core operations

\$172 million, 76 percent of operating and capital

Continued investment in Platte River's core business of power production and transmission facilities is necessary to ensure reliability, compliance and safety. Power purchase agreements are also in place for hydropower, wind and solar, thereby diversifying Platte River's portfolio. With a focus on preventive and predictive maintenance strategies, these core operating and maintenance expenses are relatively consistent from year to year. The most significant increases in operations and maintenance for 2019 are related to medical expenses and scheduled maintenance outages for Craig Units 1 and 2 and combustion turbine Unit F. Described below are the key highlights, including capital projects for 2019.

## Generation

Following the 2018 scheduled maintenance outage for significant work on Rawhide Unit 1, systems testing and adjustments will be required on the new bottom ash system and Unit 1's new rotor, stator and regulator upgrades during 2019. The unit will also have a four-day scheduled maintenance screen outage which is required after an extended boiler maintenance outage. As detailed below, several other key activities and projects are planned for 2019, largely concerning portions of Platte River's generating resources and environmental performance.

The 2019 fuel expense increase for Rawhide is more than offset by the Craig units decrease, primarily impacted by scheduled maintenance outages. Platte River is active in western energy markets and may choose to purchase power if prices are lower than the cost to generate, resulting in higher purchased power expense and lower fuel expense. The joint dispatch agreement is an example of a market Platte River utilizes to purchase and sell needed energy. This agreement works as an energy imbalance market, thus creating access to low cost energy.

## Rawhide Energy Station

Significant capital projects planned in 2019 to ensure reliability and compliance, as well as improve efficiency, are listed below. More details on each project can be found in the capital additions section.

- The bottom ash conveying system and containment project will be substantially complete in 2018 with the scheduled maintenance outage. Final system testing and adjustments will take place in 2019. This multi-year project is required to comply with federal and state waste management regulations and is a significant investment of \$21.1 million.
- Updating the plan to change the design and operations of the Rawhide monofill to be compliant with state regulations began in 2018. The state is expected to approve the plan in 2019, which may impact schedule and the cost of the project. The total project cost estimate is \$6.6 million and is expected to be completed in 2020.

- Protective relays will be replaced on all the combustion turbines. Information will be more readily available and diagnosing failures and trips of the units will be improved. The projects started in 2018 and will be complete in 2019 for approximately \$1.3 million.
- Grading and drainage projects reduce the ponding of water around structures, better facilitate the removal of water during washdowns, and better protect existing buildings. Two projects will be completed by 2020 for a total project cost of approximately \$2.1 million.
- To take advantage of the full design of the hauling capacity of the aluminum cars that carry coal to Rawhide, Platte River will convert the rotary car dumper to use variable frequency drives thereby increasing railcar efficiency. Funds of \$0.5 million will be carried over from 2018 to complete the project for an estimated total of \$2.5 million.

Once the new bottom ash system is in place, the closure of the bottom ash ponds to comply with environmental regulations will take place. The original closure was planned for 2019; however, due to recent developments in the regulations, this project may be completed in 2020. Recognition of closure expenses began in 2017 with final costs in 2019 of \$0.2 million. The total closure cost is expected to be approximately \$2 million.

Combustion turbine Unit F will undergo its first scheduled maintenance outage since inception in 2008 for approximately \$0.6 million. To ensure continued reliability, significant maintenance is required on combustion turbines after a predefined number of starts has been achieved. The other units are approaching their limits and will require scheduled maintenance outages in the coming years.

Further tuning and testing of Rawhide Unit 1 will occur in 2019 to provide more flexibility in operating at lower levels without emissions issues, which could accommodate potentially higher levels of renewable generating capacity. Testing may also include quick-start capabilities for the combustion turbines. The impacts will be monitored and analyzed to determine long-term costs and benefits.

### **Craig Station**

Outages at the Craig Station are planned for Units 1 and 2, both of which are partially owned by Platte River. Unit 1's outage will last for three weeks and include the replacement of key hardware and flex links within its generator. Its breakers will be rebuilt, and several other components will be replaced to ensure reliable operation through 2025. A two-week outage is planned for Unit 2, which will also include the replacement of key hardware and flex links within its generator as well as components associated with the selective catalytic reduction. Platte River's share of the outages is anticipated to be \$1.4 million which is made up of \$1.1 million and \$0.3 million in maintenance and capital projects, respectively.

## Transmission

Necessary transmission capital projects are determined by the assessment of the annual 10-year load study which identifies areas that must be addressed to meet operational standards. Collaboration and coordination with owner communities is required to schedule future delivery points. Significant transmission related capital projects planned for 2019 are listed below. More details can be found in the capital additions section.

- The current SONET system, which utilizes the fiber system, will be replaced as parts are becoming scarce and will not be supported in the future. The project is expected to be completed by 2021 for \$1.2 million.
- Replacing existing oil circuit breakers with more efficient and reliable gas circuit breakers has been a focus the past few years and will continue through 2022. The planned replacements for 2019 are at the Longs Peak and Valley substations for \$0.5 million.
- The planning and design of the replacement of the generator step up transformers will begin in 2019 as they approach the end of their useful life. These transformers are critical to the operation of Rawhide Unit 1 and the project is expected to be complete in 2021 for \$8.5 million.

Compliance with North American Electric Reliability Corporation's critical infrastructure protection requirements, which include proactive maintenance of cyber and physical security equipment, will also be a focus for 2019.

## Other expenses

Approximately 24 percent of the operating expense budget relates to employee salaries and benefits which are primarily retirement, medical and dental. Combined, the expenses are expected to rise approximately 9 percent from 2018. With the changing environment and focus on the strategic initiatives, additional staff is required. As positions become vacant, they are evaluated to determine if replacement is required or if the positions can be allocated to another area. In 2019, a total of six full-time employees will be added to Platte River staff, five of whom will serve within the administrative and general services departments, while the sixth will serve in the transmission department. The forecasted need for the new positions has been accelerated due to increased requirements associated with information technology, facilities, accounting, engineering and legal. The salary market adjustment for 2019 is 3.1 percent. Benefits are spread across all functional areas as a percentage of salaries. Based on claims experienced in recent years, a significant increase is expected in medical expense and may continue into future years.

Significant investment in information technology has taken place and will continue over the coming years. Recent investments included upgrading all employees' equipment and operating systems to a single platform. In addition to cybersecurity, general information technology improvements in system engineering and help-desk support will be a focus.

In 2019, Platte River will initiate a centralized fleet management program to provide for more consistent management and tracking of fleet vehicles and equipment.

Platte River will work with the owner communities' staffs to renew the organic contract and power supply agreements to extend the terms of the agreements and address distributed generation, which will require a significant amount of effort for both parties to develop acceptable language for the agreements. These documents are critical to Platte River's ability to issue debt and to implement its long-term strategies.

## Revenues

Approximately \$231.3 million in revenue is anticipated during 2019. The majority of revenues are derived from sales to the owner communities and sales for resale. Based on the latest load forecast, owner communities' loads are not expected to grow in 2019. Market prices are lower than the prior year as the soft surplus sales market conditions continue. Increases in sales for resale are predominately due to more energy for sale as Rawhide does not have a scheduled outage in 2019 and owner communities' loads are forecast to be slightly lower than 2018.

Platte River provides stable and competitive wholesale rates — currently the lowest wholesale rates in Colorado — and will continue with its plan to implement incremental increases to its owner communities to provide a more predictable path of smaller, more consistent annual rate increases. This strategy will meet all financial requirements and adequately fund strategic initiatives and core operations while avoiding significant year-to-year fluctuations. A two-percent increase in the Tariff— Schedule 1: Firm Resale Power Service rate to the owner communities has been approved and will take effect Jan. 1, 2019.

## Financial review

In addition to the budget items discussed, the financial results shown below are compared to the strategic financial plan (SFP) metrics. In the years represented, all financial metrics were or are expected to be met. In addition, positively impacting the results is a reduction in depreciation expense, which is a non-budgeted expense. Depreciation expense has been declining as original plant assets have become fully depreciated. In 2019, depreciation expense is also positively impacted by the sale of Windy Gap water units. During 2017 and to date through October 2018, Platte River sold water units generating \$39 million and \$6 million in proceeds, respectively. Additional sales are expected later in 2018 and in 2019. According to the Federal Energy Regulatory Commission accounting guidelines, the sale will be recognized through 2046, the projected remaining useful life of Rawhide Unit 1. Completed sales through October 2018 positively impact net income by approximately \$1.5 million each year. The sale proceeds also increase available reserves, which reduces future debt financing requirements.

Key financial indicators	Minimum SFP targets <sup>(1)</sup>	2017 actual	2018 budget	2018 estimate <sup>(2)</sup>	2019 budget
Net income (\$000)	3% of projected annual operating expenses	\$ 14,130	\$ 22,613	\$ 30,924	\$ 23,013
Fixed obligation charge coverage ratio	1.50 times	1.75x	2.48x	2.90x	2.60x
Debt ratio	50% or lower	29%	38%	26%	36%
Unrestricted days cash on hand	200	298	268	318	313

### Other selected data (\$000)

Accumulated net assets	\$ 530,429	\$ 552,523	\$ 561,353	\$ 584,366
Dedicated reserves and available funds	\$ 162,711	\$ 202,572	\$ 152,842	\$ 245,360
Long-term debt, net	\$ 223,568	\$ 300,474	\$ 205,474	\$ 291,747
Capital additions	\$ 38,299	\$ 73,509	\$ 69,652	\$ 45,804

(1) SFP targets were updated and approved by the board in February 2018. All amounts shown were recalculated under the revised metrics.

(2) 2018 estimate represents ten months actual and two months budget adjusted for revised projections on all budget schedules.

**Statements of revenues,  
expenses, and changes in  
net position**

	2017 actual	2018 budget	2018 estimate	2019 budget
<b>Operating revenues</b>				
Sales to owner communities	\$ 189,579,316	\$ 197,016,282	\$ 197,572,489	\$ 200,595,408
Sales for resale	18,972,783	18,855,843	19,462,028	21,064,201
Wheeling	<u>4,745,283</u>	<u>4,620,236</u>	<u>5,173,127</u>	<u>5,385,508</u>
Total operating revenues	213,297,382	220,492,361	222,207,644	227,045,117
<b>Operating expenses</b>				
Purchased power	\$ 35,420,652	\$ 34,525,190	\$ 40,404,818	\$ 36,918,802
Fuel	47,707,773	49,654,175	42,459,478	47,986,111
Operations and maintenance <sup>(1)</sup>	63,869,352	62,393,013	59,149,948	64,817,100
Administrative and general <sup>(1)</sup>	15,454,895	16,704,091	17,112,897	20,715,140
Demand side management <sup>(1)</sup>	6,059,719	8,707,893	8,508,565	10,200,935
Depreciation <sup>(1)</sup>	<u>26,012,877</u>	<u>22,513,609</u>	<u>21,146,082</u>	<u>20,701,265</u>
Total operating expenses	<u>\$ 194,525,268</u>	<u>\$ 194,497,971</u>	<u>\$ 188,781,788</u>	<u>\$ 201,339,353</u>
Operating income	\$ 18,772,114	\$ 25,994,390	\$ 33,425,856	\$ 25,705,764
<b>Nonoperating revenues (expenses)</b>				
Interest income	\$ 1,746,475	\$ 2,795,022	\$ 2,922,108	\$ 4,210,780
Other income	625,844	255,667	506,340	37,824
Interest expense	(9,582,069)	(10,946,142)	(8,729,473)	(9,129,275)
Amortization of bond financing costs <sup>(1)</sup>	2,123,277	2,193,015	2,193,015	2,166,981
Allowance for funds used during construction	902,904	2,323,411	827,034	-
Net (decrease) increase in fair value of investments <sup>(1)</sup>	<u>(458,833)</u>	<u>(2,212)</u>	<u>(220,439)</u>	<u>21,320</u>
Total nonoperating revenues (expenses)	<u>\$ (4,642,402)</u>	<u>\$ (3,381,239)</u>	<u>\$ (2,501,415)</u>	<u>\$ (2,692,370)</u>
Income	<u>\$ 14,129,712</u>	<u>\$ 22,613,151</u>	<u>\$ 30,924,441</u>	<u>\$ 23,013,394</u>

(1) Actual and estimate include nonappropriated expenses of vacation accrual, depreciation expense, amortization of bond financing costs, and unrealized investment holding gains and losses.

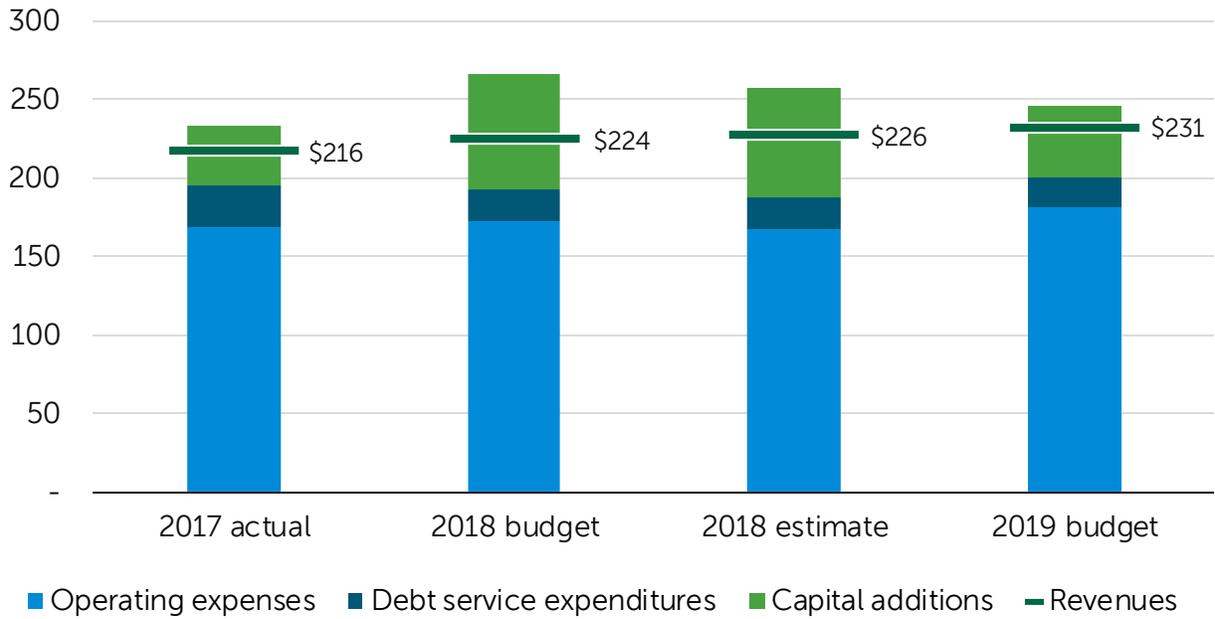
# Consolidated budget schedules

Source and use of funds	2017 actual	2018 budget	2018 estimate	2019 budget
<b>Source of funds</b>				
<b>Operating revenues</b>				
Sales to owner communities	\$ 189,579,316	\$ 197,016,282	\$ 197,572,489	\$ 200,595,408
Sales for resale	18,972,783	18,855,843	19,462,028	21,064,201
Wheeling	4,745,283	4,620,236	5,173,127	5,385,508
Total operating revenues	213,297,382	220,492,361	222,207,644	227,045,117
<b>Other revenues</b>				
Interest income	1,796,416	2,792,810	2,917,496	4,232,100
Other income	625,844	255,667	506,340	37,824
Total other revenues	2,422,260	3,048,477	3,423,836	4,269,924
Total revenues	215,719,642	223,540,838	225,631,480	231,315,041
Funds from prior reserves and debt financing	17,893,909	65,737,758	31,701,506	37,602,016
Total sources	\$ 233,613,551	\$ 289,278,596	\$ 257,332,986	\$ 268,917,057
<b>Use of funds</b>				
<b>Operating expenses</b>				
Purchased power	\$ 35,420,652	\$ 34,525,190	\$ 40,404,818	\$ 36,918,802
Fuel	47,707,773	49,654,175	42,459,478	47,986,111
Production	49,617,002	45,193,779	43,318,554	48,122,593
Transmission	14,152,143	17,199,234	15,924,191	16,694,507
Administrative and general	15,360,511	16,704,091	17,059,559	20,715,140
Demand side management	6,059,719	8,707,893	8,508,565	10,200,935
Total operating expenses	168,317,800	171,984,362	167,675,165	180,638,088
<b>Capital additions</b>				
Production	23,649,308	45,163,601	45,953,519	11,775,533
Transmission	10,498,939	5,772,166	4,720,975	2,430,047
General	4,150,834	22,573,651	18,977,136	31,598,703
Total capital additions	38,299,081	73,509,418 <sup>(1)</sup>	69,651,630	45,804,283
Total operating expenses and capital additions	206,616,881	245,493,780	237,326,795	226,442,371
<b>Debt service expenditures</b>				
Principal	18,317,505	12,162,085	12,103,752	10,345,411
Interest expense	9,582,069	10,946,142	8,729,473	9,129,275
Allowance for funds used during construction	(902,904)	(2,323,411)	(827,034)	-
Total debt service expenditures	26,996,670	20,784,816	20,006,191	19,474,686
Total expenditures	233,613,551	266,278,596	257,332,986	245,917,057
Contingency appropriation	-	23,000,000 <sup>(1)</sup>	-	23,000,000
Total uses	\$ 233,613,551	\$ 289,278,596	\$ 257,332,986	\$ 268,917,057

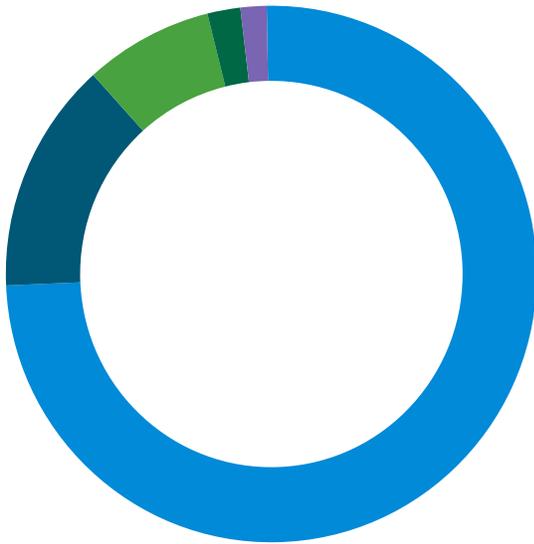
(1) Excludes projections for contingency transfer for capital projects to be requested at the December 2018 board of directors meeting.

### Revenues and expenditures

\$ millions



## 2019 sources



■ 75%	Sales to owner communities	\$	200,595,408
■ 8%	Sales for resale		21,064,201
■ 2%	Wheeling		5,385,508
■ 1%	Interest and other income		4,269,924
	Total revenues		<u>231,315,041</u>
■ 14%	Funds from prior reserves and debt financing		37,602,016
	Total sources	\$	<u><u>268,917,057</u></u>

## 2019 uses



■ 18%	Production	\$	48,122,593
■ 18%	Fuel		47,986,111
■ 17%	Capital additions		45,804,283
■ 14%	Purchased power		36,918,802
■ 8%	Administrative and general		20,715,140
■ 7%	Debt service expenditures		19,474,686
■ 6%	Transmission		16,694,507
■ 4%	Demand side management		10,200,935
	Total expenditures	\$	<u>245,917,057</u>
■ 8%	Board contingency		23,000,000
	Total uses	\$	<u><u>268,917,057</u></u>

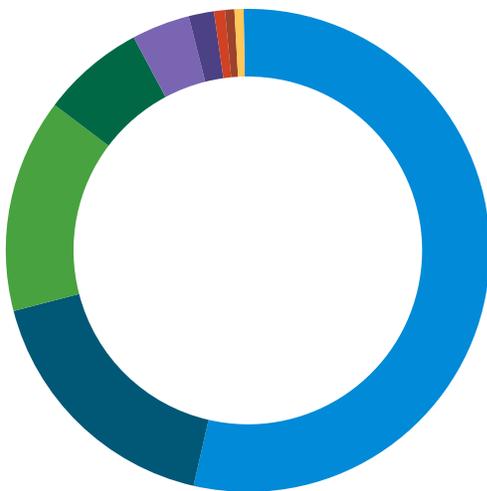
<b>Revenue and expenditure detail</b>	<b>2017 actual</b>	<b>2018 budget</b>	<b>2018 estimate</b>	<b>2019 budget</b>
<b>Revenues</b>				
Sales to owner communities	\$ 189,579,316	\$ 197,016,282	\$ 197,572,489	\$200,595,408
Sales for resale	18,972,783	18,855,843	19,462,028	21,064,201
Wheeling	4,745,283	4,620,236	5,173,127	5,385,508
Interest income	1,796,416	2,792,810	2,917,496	4,232,100
Other income	<u>625,844</u>	<u>255,667</u>	<u>506,340</u>	<u>37,824</u>
Total revenues	215,719,642	223,540,838	225,631,480	231,315,041
Funds from prior reserves and debt financing	<u>17,893,909</u>	<u>65,737,758</u>	<u>31,701,506</u>	<u>37,602,016</u>
Total revenues and prior funds	<u>\$ 233,613,551</u>	<u>\$ 289,278,596</u>	<u>\$ 257,332,986</u>	<u>\$ 268,917,057</u>
<b>Expenditures</b>				
<b>Personnel expenses</b>				
<b>Salaries</b>				
Regular wages	\$ 25,380,191	\$ 27,702,396	\$ 26,674,554	\$ 28,807,968
Overtime wages	<u>1,582,679</u>	<u>2,078,899</u>	<u>1,824,082</u>	<u>1,362,358</u>
Total salaries	26,962,870	29,781,295	28,498,636	30,170,326
<b>Benefits</b>				
Pension - defined contribution	730,970	918,000	894,569	1,033,236
Pension - defined benefit	5,070,351	4,679,368	4,679,368	4,798,371
Social security	1,962,461	2,201,195	2,135,052	2,225,633
Long-term disability	148,939	156,000	154,668	160,000
Medical and dental	3,014,159	3,684,996	4,673,442	7,409,500
Recruiting	219,984	221,000	100,403	207,500
Life insurance	153,198	153,000	162,482	160,000
Accidental death	21,157	22,000	22,587	25,000
Workers' compensation	137,778	220,000	202,047	220,000
Unemployment compensation	28	10,000	11,439	5,000
Salary and pension services	<u>329,645</u>	<u>364,477</u>	<u>316,781</u>	<u>381,678</u>
Total benefits	11,788,670	12,630,036	13,352,838	16,625,918
Total personnel expenses	38,751,540	42,411,331	41,851,474	46,796,244
Less charged to capital and other	<u>2,370,452</u>	<u>2,059,047</u>	<u>2,401,820</u>	<u>2,902,148</u>
Total operating personnel expenses	36,381,088	40,352,284	39,449,654	43,894,096
<b>Materials and other expenses</b>				
Office expenses	61,262	70,960	57,529	61,250
Safety expenses	196,206	261,420	244,374	216,949
Furniture and equipment	81,926	85,300	55,127	51,250
Local business expense	199,332	238,158	287,822	270,978
Postage and deliveries	25,549	35,368	25,938	36,268
Rawhide O&M materials	4,322,352	6,002,041	5,565,937	4,444,262
Other O&M materials	431,491	292,838	273,998	779,434
Rawhide coal	27,908,165	28,858,820	24,152,547	31,020,084

<b>Revenue and expenditure detail</b> (continued)	<b>2017 actual</b>	<b>2018 budget</b>	<b>2018 estimate</b>	<b>2019 budget</b>
<b>Materials and other expenses</b> (continued)				
Craig Units 1 and 2 coal	\$ 17,404,031	\$ 19,492,381	\$ 14,646,701	\$ 15,068,298
Oil	172,451	130,000	161,345	81,000
Natural gas (Rawhide Units A, B, C, D and F)	1,603,817	283,979	2,713,943	1,054,116
Natural gas (Craig units startup)	120,139	100,000	66,783	110,000
Gasoline and diesel	131,539	171,160	165,721	149,235
Tools, shop, and garage equipment	137,809	137,150	199,427	144,526
Purchased power	34,547,345	36,615,343	42,494,970	36,385,788
Craig Units 1 and 2 operating expenses	12,908,154	10,372,409	10,347,500	10,972,963
Computer equipment	422,623	585,400	638,631	325,850
Wheeling expense	4,280,763	4,426,996	4,051,498	3,772,370
Outage accrual	<u>5,293,948</u>	<u>(9,124,033)</u>	<u>(9,124,033)</u>	<u>4,321,964</u>
Total materials and other expenses	110,248,902	99,035,690	97,025,758	109,266,585
<b>Contractual services</b>				
Rawhide contracted services	5,732,178	13,501,647	12,819,408	5,283,684
Other contracted services	6,973,609	7,810,490	7,570,605	9,360,113
Insurance	1,143,876	1,205,900	1,160,405	1,396,100
Travel and training	713,615	724,738	685,811	749,540
Telephone services	183,449	189,854	206,158	195,503
Utilities	652,123	618,694	572,564	663,510
Dues, memberships and fees	651,133	682,690	713,476	758,271
Trustees fees	34,926	43,748	29,185	25,500
Water leases and rents	588,241	716,825	429,374	721,194
Other leases and rents	100,271	102,206	106,207	103,017
Economic development	60,000	60,000	60,000	100,000
Fiscal impact payment	61,099	61,099	61,099	62,932
Rebates/incentives to owner customers	4,621,727	6,498,000	6,498,000	7,847,500
Rebates/incentives to owner communities	<u>71,982</u>	<u>336,957</u>	<u>250,664</u>	<u>163,433</u>
Total contractual services	21,588,229	32,552,848	31,162,956	27,430,297
<b>Capital additions</b>				
Personnel expenses	2,076,169	1,705,413	2,385,418	2,391,676
Capital expenditures	37,394,468	69,594,940	66,714,518	43,542,761
Capital reimbursements and trade-in value	(2,074,460)	(114,346)	(275,340)	(130,154)
Allowance for funds used during construction	<u>902,904</u>	<u>2,323,411</u>	<u>827,034</u>	<u>-</u>
Total capital additions	38,299,081	73,509,418 <sup>(1)</sup>	69,651,630	45,804,283

Revenue and expenditure detail (continued)	2017 actual	2018 budget	2018 estimate	2019 budget
<b>Financing expenses</b>				
Principal	\$ 18,317,505	\$ 12,162,085	\$ 12,103,752	\$ 10,345,411
Interest expense	9,582,069	10,946,142	8,729,473	9,129,275
Allowance for funds used during construction	(902,904)	(2,323,411)	(827,034)	-
Other financing expenses	99,581	43,540	36,797	47,110
Total financing expenses	<u>27,096,251</u>	<u>20,828,356</u>	<u>20,042,988</u>	<u>19,521,796</u>
Total expenditures	<u>233,613,551</u>	<u>266,278,596</u>	<u>257,332,986</u>	<u>245,917,057</u>
Contingency appropriation	-	23,000,000 <sup>(1)</sup>	-	23,000,000
Total expenditures and contingency	<u>\$ 233,613,551</u>	<u>\$ 289,278,596</u>	<u>\$ 257,332,986</u>	<u>\$ 268,917,057</u>

(1) Excludes projections for contingency transfer for capital projects to be requested at the December 2018 board of directors meeting.

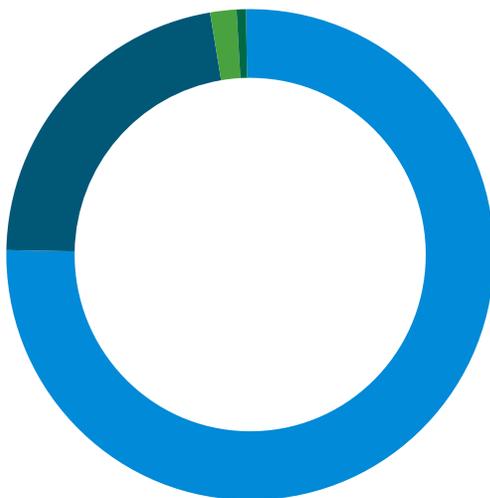
## Resources



- Rawhide Unit 1 (2,303 GWh)
- Craig Units 1 and 2 (742 GWh)
- Hydropower (612 GWh)
- Wind (295 GWh)
- Joint dispatch agreement purchases (166 GWh)
- Solar (72 GWh)
- Combustion turbines (31 GWh)
- Other purchases (27 GWh)
- Forced outage exchange (26 GWh)

Total resources = **4,274 GWh**

## Deliveries



- Owner communities (3,230 GWh)
- Sales for resale (943 GWh)
- Losses and other (75 GWh)
- Forced outage exchange (26 GWh)

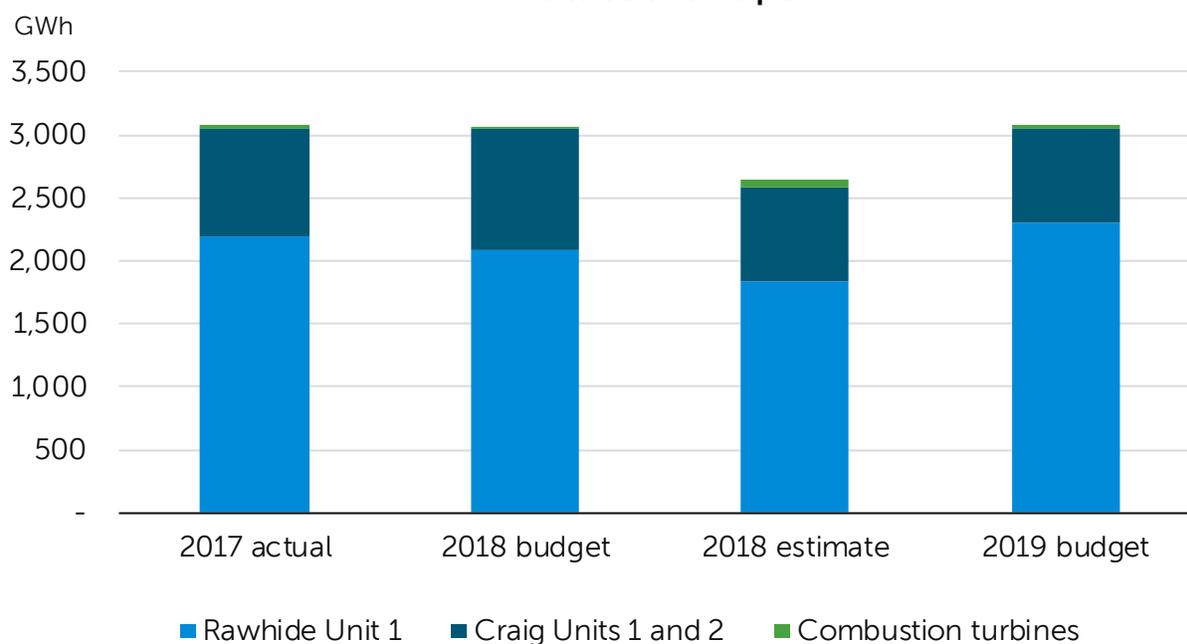
Total deliveries = **4,274 GWh**

Power operations resources	2017 actual	2018 budget	2018 estimate	2019 budget
<b>Rawhide Unit 1 (280 MW)</b>				
Generation (GWh)	2,196	2,081	1,833	2,303
Capacity factor	89.5%	84.8%	74.7%	93.9%
Fuel cost (\$/MWh)	\$ 12.9	\$ 14.1	\$ 13.4	\$ 13.6
O&M cost (\$/MWh)	12.6	18.7	20.1	12.6
Total Rawhide (\$/MWh)	\$ 25.5	\$ 32.8	\$ 33.5	\$ 26.2
<b>Craig Units 1 and 2 (151 MW) <sup>(1)</sup></b>				
Generation (GWh)	852	972	750	742
Capacity factor	63.2%	72.0%	55.9%	56.1%
Fuel cost (\$/MWh)	\$ 20.8	\$ 20.7	\$ 20.2	\$ 21.0
O&M cost (\$/MWh)	14.9	9.9	13.0	14.2
Total Craig (\$/MWh)	\$ 35.7	\$ 30.6	\$ 33.2	\$ 35.2
<b>Combustion turbines (388 MW) <sup>(2)</sup></b>				
Generation (GWh)	38	7	67	31
Capacity factor	1.1%	0.2%	2.0%	0.9%
Fuel cost (\$/MWh)	\$ 41.6	\$ 42.7	\$ 40.5	\$ 34.6
O&M cost (\$/MWh)	33.8	191.1	19.9	72.1
Total combustion turbines (\$/MWh)	\$ 75.4	\$ 233.8	\$ 60.4	\$ 106.7

(1) Craig Unit 1 = 77 MW, Craig Unit 2 = 74 MW. Prior to October 2018, Craig Units 1 and 2 = 77 MW each for 154 MW total.

(2) Rawhide Units A, B, C, D = 260 MW, Rawhide Unit F = 128 MW.

### Generation output



<b>Purchased power resources</b>	<b>2017 actual</b>	<b>2018 budget</b>	<b>2018 estimate</b>	<b>2019 budget</b>
<b>WAPA-CRSP (106 MW-summer/ 136 MW-winter) <sup>(1)</sup></b>				
Generation (GWh)	518	502	502	502
Capacity factor	48.9%	47.4%	47.4%	47.4%
Total WAPA-CRSP (\$/MWh)	\$ 26.7	\$ 27.1	\$ 27.1	\$ 27.1
<b>WAPA-LAP <sup>(2)</sup> (30 MW-summer/ 32 MW-winter)</b>				
Generation (GWh)	113	110	115	110
Capacity factor	41.7%	40.3%	42.2%	40.3%
Total WAPA-LAP (\$/MWh)	\$ 34.1	\$ 29.7	\$ 29.1	\$ 29.7
<b>Wind (78 MW) <sup>(3)</sup></b>				
Generation (GWh)	290	295	285	295
Capacity factor	42.4%	43.2%	41.7%	43.2%
Total wind (\$/MWh) - delivered	\$ 48.0	\$ 49.3	\$ 49.2	\$ 47.7
<b>Rawhide Flats Solar (30 MW)</b>				
Generation (GWh)	59	65	64	63
Capacity factor	22.5%	24.7%	24.4%	24.1%
Total solar (\$/MWh)	\$ 53.5	\$ 53.5	\$ 53.5	\$ 53.5
<b>Solar - community (5 MW) <sup>(4)</sup></b>				
Generation (GWh)	-	3	-	-
Capacity factor	0.0%	18.9%	0.0%	0.0%
Total solar - community	\$ -	\$ 46.0	\$ -	\$ -
<b>Solar - owner communities programs (4.5 MW) <sup>(5)</sup></b>				
Generation (GWh)	7	7	7	9
Capacity factor	17.5%	18.8%	18.4%	23.3%
Total solar - owner communities programs (\$/MWh)	\$ 35.7	\$ 31.6	\$ 37.1	\$ 33.1
<b>Joint dispatch agreement purchases</b>				
Energy (GWh)	40	-	254	166
Total JDA purchases (\$/MWh)	\$ 17.2	\$ -	\$ 15.9	\$ 16.2
<b>Other purchases</b>				
Energy (GWh)	62	114	234	27
Total other purchases (\$/MWh)	\$ 26.9	\$ 26.7	\$ 25.3	\$ 28.3

(1) WAPA-CRSP (Western Area Power Administration - Colorado River Storage Project) capacity amounts shown represent the contract rate of delivery. Actual capacity available varies by month. During the summer season, available capacity ranges from 51 MW to 60 MW. In the winter season, available capacity ranges from 72 MW to 85 MW.

(2) LAP - Loveland Area Projects.

(3) Medicine Bow = 6 MW, Silver Sage = 12 MW, Spring Canyon = 60 MW. Effective October 2018, Silver Sage energy and the renewable attribute have been sold to a third party and, therefore, cannot be claimed as a renewable resource by Platte River or its owner communities.

(4) Timing of the project is uncertain due to negotiations. A 20 MW facility is planned for the future.

(5) Solar - Fort Collins = 4 MW, Solar - Loveland = 0.5 MW; the owner communities retain the renewable attribute.

# Revenues

## Operating revenues

Platte River's operating revenues consist of sales to owner communities, sales for resale and wheeling revenues. The production cost model determines the forecast of revenues for the budget; however, actual results are strongly impacted by weather and market conditions and can vary from budget.

### Sales to owner communities

Budgeted revenues from sales to owner communities are based on Platte River's load forecast and wholesale rates. Sales to the owner communities represent the largest source of revenue. The owner communities' load growth has been relatively flat since the economic downturn in 2008 and energy efficiency programs help consumers reduce energy usage. Rate increases are required to continue support of Platte River's core functions and strategic direction. Based on the board's desire for multi-year rate smoothing, a two percent increase in the Tariff—Schedule 1: Firm Resale Power Service rate to the owner communities will take effect Jan. 1, 2019. Platte River's wholesale rate will continue to be the lowest in the region.

### Sales for resale

Sales for resale can include contract sales or short-term sales. Contract sales are for a term greater than one year. Short-term sales are for a term of one year or less and include seasonal, monthly, hourly spot market, and joint dispatch agreement sales. (More information on the joint dispatch agreement is included in the operating expenses section.) The assumed spot market prices are based on current market projections. The production cost model determines the level of sales for resale for the budget. Typically, sales for resale are made when energy available exceeds requirements of the owner communities and prices are higher than the cost to generate. Sales for resale provide additional revenue and help to lower rates for our owner communities. Due to low market prices in recent years, sales for resale have not contributed as significantly to revenues as in previous years.

### Wheeling revenue

Wheeling revenues represent payments from other utilities for the use of Platte River's transmission system. There is a limited amount of demand for usage of the system; thus, it represents a smaller portion of the budget. Platte River charges other utilities for the use of its transmission system per Tariff—Schedule 4: Wholesale Transmission Service. The wheeling revenues include charges for network transmission service for delivery to various Xcel Energy and Tri-State Generation and Transmission, Inc., (Tri-State) substations over Platte River's transmission system. Also included is a long-term contract with PacifiCorp for 25 MW of capacity on the Craig-Bonanza transmission line. The transmission system usage rates are adjusted annually based on the prior year's actual transmission system costs and loads.

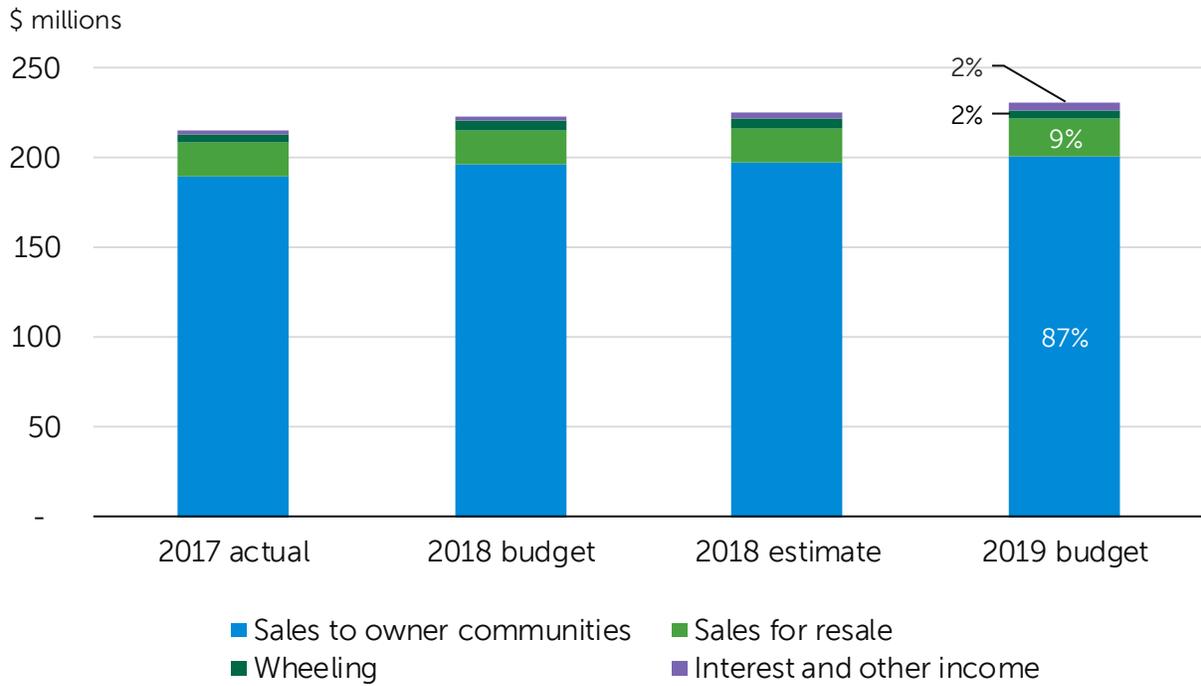
## Other revenues

### Interest and other income

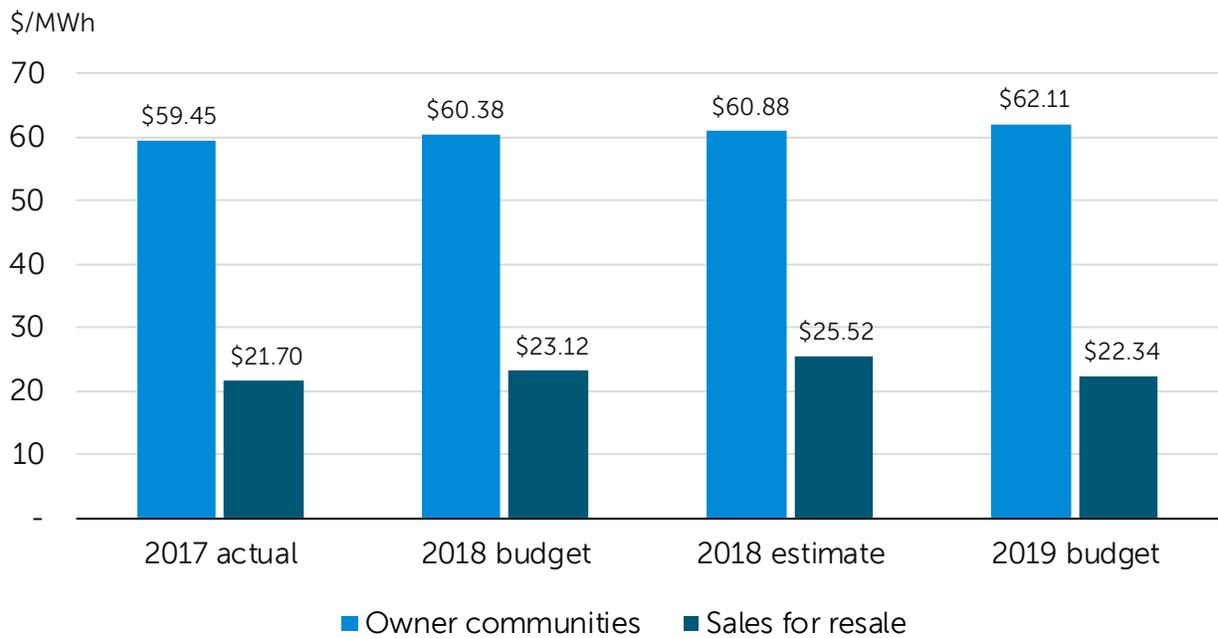
Interest and other income represent a small portion of the revenue budget. Interest income fluctuates with cash balances and interest rates. Interest rates have been low over the past decade; however, they are expected to increase. Cash balances have been favorably impacted by the sale of the Windy Gap water units over the past couple of years. Other income includes fiber and tower leases, in addition to other miscellaneous revenues. With the change in ownership of the fiber assets expected in 2019, Platte River will no longer receive fiber revenue, creating a reduction in other income.

<b>Total revenues (\$000)</b>	<b>2017 actual</b>	<b>2018 budget</b>	<b>2018 estimate</b>	<b>2019 budget</b>
<b>Operating revenues</b>				
Sales to owner communities	\$ 189,579	\$ 197,016	\$ 197,572	\$ 200,595
Sales for resale	18,973	18,856	19,462	21,064
Wheeling				
Craig-Bonanza	938	916	946	946
Network and other	3,807	3,704	4,227	4,440
Total wheeling revenues	<u>4,745</u>	<u>4,620</u>	<u>5,173</u>	<u>5,386</u>
Total operating revenues	213,297	220,492	222,207	227,045
<b>Other revenues</b>				
Interest income	1,796	2,793	2,918	4,232
Other income	<u>626</u>	<u>256</u>	<u>506</u>	<u>38</u>
Total interest and other income	<u>2,422</u>	<u>3,049</u>	<u>3,424</u>	<u>4,270</u>
Total revenues	<u>\$ 215,719</u>	<u>\$ 223,541</u>	<u>\$ 225,631</u>	<u>\$ 231,315</u>

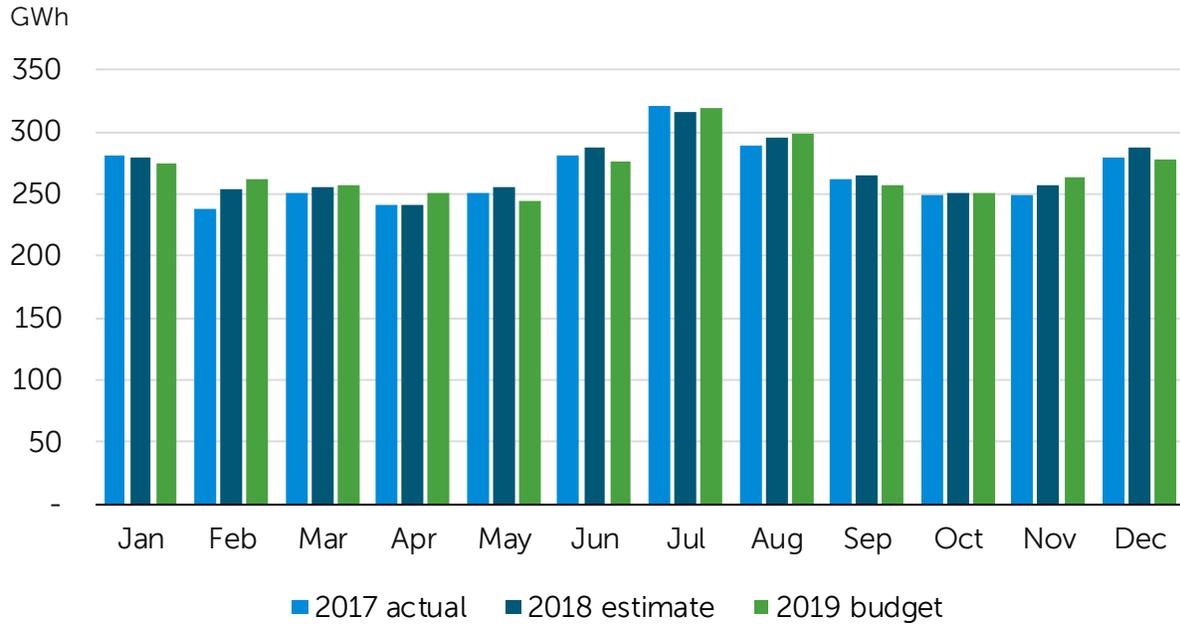
### Total revenues



### Average owner community rate & sales for resale price



## Owner communities' energy usage



Owner communities' loads	2017 actual	2018 budget	2018 estimate	2019 budget
Summer peak demand (MW)	661	658	688	674
Winter peak demand (MW)	584	573	590	596
Billing demand (MW)	6,080	6,183	6,303	6,339
Energy (GWh)	3,189	3,263	3,245	3,230
<b>Sales for resale</b>				
Energy (GWh)	874	816	763	943

<b>Sales to owner communities</b>	<b>2017 actual</b>	<b>2018 budget</b>	<b>2018 estimate</b>	<b>2019 budget</b>
<b>Fort Collins</b>				
Demand MW	2,877	2,919	2,964	2,987
Energy MWh	1,532,296	1,562,183	1,554,998	1,545,962
Demand	\$ 27,244,362	\$ 28,153,169	\$ 28,598,150	\$ 29,408,142
Energy	62,451,354	64,940,863	64,643,647	65,556,244
Community solar	-	16,176	-	-
Renewable energy premium	<u>1,900,007</u>	<u>1,899,995</u>	<u>1,899,995</u>	<u>1,900,000</u>
Total Fort Collins	\$ 91,595,723	\$ 95,010,203	\$ 95,141,792	\$ 96,864,386
<b>Longmont</b>				
Demand MW	1,571	1,593	1,621	1,634
Energy MWh	800,576	822,828	811,335	810,742
Demand	\$ 14,932,197	\$ 15,459,332	\$ 15,710,496	\$ 16,144,638
Energy	32,638,921	34,219,837	33,742,420	34,390,198
Community solar	-	8,832	-	-
Renewable energy premium	<u>540,977</u>	<u>540,975</u>	<u>540,975</u>	<u>540,975</u>
Total Longmont	\$ 48,112,095	\$ 50,228,976	\$ 49,993,891	\$ 51,075,811
<b>Loveland</b>				
Demand MW	1,288	1,312	1,353	1,339
Interruptible demand MW	<u>127</u>	<u>138</u>	<u>142</u>	<u>153</u>
Total Demand MW	1,415	1,450	1,495	1,492
Energy MWh	626,434	648,320	646,186	633,395
Interruptible energy MWh	<u>99,148</u>	<u>96,720</u>	<u>100,809</u>	<u>107,761</u>
Total Energy MWh	725,582	745,040	746,995	741,156
Demand	\$ 12,274,560	\$ 12,749,973	\$ 13,125,848	\$ 13,261,886
Energy	25,542,135	26,965,215	26,876,695	26,868,797
Interruptible	4,567,178	4,251,482	4,673,070	4,573,966
Community solar	-	7,247	-	-
Renewable energy premium	<u>137,502</u>	<u>137,498</u>	<u>137,498</u>	<u>137,500</u>
Total Loveland	\$ 42,521,375	\$ 44,111,415	\$ 44,813,111	\$ 44,842,149
<b>Estes Park</b>				
Demand MW	217	221	223	226
Energy MWh	130,165	133,025	131,703	131,866
Demand	\$ 2,004,051	\$ 2,084,579	\$ 2,107,153	\$ 2,170,968
Energy	5,284,547	5,518,136	5,455,017	5,580,569
Community solar	-	1,448	-	-
Renewable energy premium	<u>61,525</u>	<u>61,525</u>	<u>61,525</u>	<u>61,525</u>
Total Estes Park	\$ 7,350,123	\$ 7,665,688	\$ 7,623,695	\$ 7,813,062

<b>Sales to owner communities</b> (continued)	<b>2017 actual</b>	<b>2018 budget</b>	<b>2018 estimate</b>	<b>2019 budget</b>
<b>Total owner communities</b>				
Demand MW	6,080	6,183	6,303	6,339
Energy MWh	3,089,471	3,166,356	3,144,222	3,121,965
Interruptible energy MWh	99,148	96,720	100,809	107,761
Total energy MWh	3,188,619	3,263,076	3,245,031	3,229,726
Demand	\$ 56,455,170	\$ 58,447,053	\$ 59,541,647	\$ 60,985,634
Energy	\$ 125,916,957	\$ 131,644,051	\$ 130,717,779	\$ 132,395,808
Interruptible	4,567,178	4,251,482	4,673,070	4,573,966
Total energy	\$ 130,484,135	\$ 135,895,533	\$ 135,390,849	\$ 136,969,774
Community solar	\$ -	\$ 33,703	\$ -	\$ -
Renewable energy premium	\$ 2,640,011	\$ 2,639,993	\$ 2,639,993	\$ 2,640,000
Total sales to owner communities	<u>\$ 189,579,316</u>	<u>\$ 197,016,282</u>	<u>\$ 197,572,489</u>	<u>\$ 200,595,408</u>

# Operating expenses

Expenses incurred to perform the operations of generating and delivering electricity include purchased power, fuel, production, transmission, and administrative and general. In addition, operating expenses include investments in demand side management. The production cost model determines the budgeted expense for purchased power and fuel, whereas expenses for production, transmission, administrative and general, and demand side management are predominately determined by departmental budgets. Emphasis is placed on predictive and preventive maintenance resulting in the ability to control expenses.

## Purchased power

Purchased power is one of the largest operating expenses. Purchased power includes purchases made under long-term contracts for hydropower and renewable energy. Spot market purchases and joint dispatch agreement purchases provide additional energy required. An accrual for estimated future replacement power costs during specified maintenance outages is also included. Purchased power fluctuates with outages and market conditions. When market prices are low, Platte River may decide, for economic reasons, to purchase rather than generate from a coal-fired or natural gas facility. Through the joint dispatch agreement, the lowest cost resource is dispatched and Platte River is able to take advantage of low cost energy.

Platte River continues to diversify its portfolio by adding more renewable resources, moving away from coal-fired resources through power purchase agreements. By 2020, Platte River is expected to add 150 MW of wind and 20 MW of solar to its portfolio at more favorable prices than current contracts. Below is a list of the current purchased power arrangements.

## Hydropower

Hydropower is received under two long-term contracts with Western Area Power Administration. Colorado River Storage Project contract rate of delivery amounts are 106 MW in the summer and 136 MW in the winter. Actual capacity available varies by month. During the summer season, available capacity ranges from 51 MW to 60 MW. In the winter season, available capacity ranges from 72 MW to 85 MW. Loveland Area Projects capacity is 30 MW in the summer and 32 MW in the winter. The hydropower contracts are subject to potential annual price increases. The Colorado River Storage Project and Loveland Area Projects contracts end Sept. 30, 2057, and Sept. 30, 2054, respectively.

## Wind

Wind generation includes 78 MW provided under long-term power purchase agreements with regularly defined price escalations. The agreements are for deliveries from the following facilities.

- Spring Canyon Wind Energy Center Phase II and III (60 MW) in Colorado; contract ends Oct. 31, 2039, and Dec. 10, 2039, respectively.
- Silver Sage Windpower Project (12 MW) in Wyoming; contract ends Sept. 30, 2029. To accommodate additional wind energy available from the new future wind power purchase agreement and reduce transmission expense, the energy and renewable attribute from this site have been sold under a long-term contract. Therefore, it is not delivered to the owner communities.
- Medicine Bow Wind Project (6 MW) in Wyoming; contract ends Dec. 30, 2033.

## **Solar**

Solar generation includes 30 MW provided under a long-term power purchase agreement from the Rawhide Flats Solar facility located at Rawhide. The contract ends Dec. 14, 2041. In addition, Platte River purchases solar capacity of approximately 4 MW and 0.5 MW from Fort Collins and Loveland, respectively. For these two facilities, the owner communities retain the renewable attribute.

## **Joint dispatch agreement**

The joint dispatch agreement is between Xcel Energy, Black Hills Corporation and Platte River and operates as an energy imbalance market. This agreement provides access to lower cost resources and increases operational efficiencies while enhancing reliability. The agreement renews annually.

## **Other purchases**

Spot market purchases provide energy to satisfy loads, replace power during outages and meet reserve requirements.

## **Forced outage exchange agreement**

Platte River has a forced outage exchange agreement with Tri-State, whereby in the event that either Rawhide Unit 1 or Tri-State's Craig Unit 3 is out of service the other utility will provide up to 100 MW of generation on a short-term basis. The agreement is in effect until March 31, 2024.

## **Maintenance outage accrual policy**

This policy allows the costs of replacement power for Rawhide Unit 1 scheduled maintenance outage costs exceeding \$5 million to be spread over the interim period between outages to smooth rate impacts to the owner communities.

## **Fuel**

Fuel expense is typically the largest operating expense. Fuel expense includes coal purchased for Rawhide Unit 1, Craig Units 1 and 2, and natural gas expense for the combustion turbines. The production cost model determines the majority of fuel expense for the budget year and fluctuates with resource availability primarily due to outages and market conditions.

Rawhide Unit 1 (280 MW) is Platte River's largest base-load and lowest cost resource; thus, it is operated at a high capacity factor. In 2019, with the plan to add more renewable energy to the portfolio in future years, Rawhide Unit 1 will be tested to run at lower levels to accommodate potentially higher levels of renewable resources on the system. The full impact of this change in operations will be assessed.

Coal for Rawhide Unit 1 is purchased under a long-term market-based contract with Cloud Peak Energy to secure all of Rawhide Unit 1's coal needs through 2022. The coal price defaults to a market index unless Platte River chooses to utilize price lock provisions outlined in the contract. A long-term transportation agreement with BNSF Railway establishes a base rate per ton, which is subject to an annual adjustment in accordance with specified indices and a fuel adjustment charge.

Platte River has 18 percent ownership in Craig Units 1 and 2 (151 MW combined). Coal for the Craig units is purchased under the long-term contract with Trapper Mining, Inc., through 2020. Platte River's ownership share of the mine is 19.93%. In 2019, work will be done on structuring a new contract representing a 5-year glide path to close Craig Unit 1. With recent trends of adding more renewable energy resources and low market energy prices, these units are run at lower capacity factors.

Natural gas-fired combustion turbines include five simple cycle combustion turbines, which includes four GE 7EAs (Rawhide Units A, B, C and D, 65 MW each) and one GE 7FA (Rawhide Unit F, 128 MW). The combustion turbines are utilized to meet peak load demand, provide reserves during outages of the coal-fired units, and make short-term sales for resale. Natural gas is purchased at market prices as needed. At this time, natural gas needs are projected to be minimal due to slow load growth, market energy prices, and the addition of renewable energy resources.

## Production

Production expenses include operating and maintenance expenses (excluding fuel) incurred at the Rawhide Energy Station, Craig Station, and power operations. The Rawhide expenses are predominately determined by departmental budgets. The Craig expenses are determined by Tri-State, the operating agent, and approved by the engineering and operations committee. An accrual for estimated future costs during specified Rawhide maintenance outages is also included.

### Rawhide Energy Station

Being the largest and lowest cost resource, Platte River believes strongly in investing in preventive and predictive maintenance to ensure the resources at the Rawhide Energy Station are reliable, safe and compliant. Through this proactive and planned approach, ongoing operations and maintenance expenses have been consistent from year to year. Regular outages are required to ensure the plant remains operable and reliable. An accrual for estimated future costs during specified maintenance outages is also included and smooths out the cost of those outages over a longer period. Major outages are performed every three years with a minor outage every 18 months. Scheduled maintenance outages are also required for the combustion turbines,

which are determined on the number of starts of the units. With increased operations in 2018, the units are approaching a required maintenance outage. Combustion turbine Unit F will be the first one planned for 2019. Personnel expenses that are charged to operations and maintenance can fluctuate with the amount of labor charged to capital projects in any given year.

### **Craig Station**

Similar to Rawhide, routine operating and maintenance expenses for Craig Units 1 and 2 have been consistent from year to year. The scheduled maintenance outages, however, cause increases in expenses. In 2019, both units will have scheduled maintenance outages in the spring. Based on the desire to diversify the resource portfolio and limit reliance on coal-fired resources, Platte River plans to exit Craig Unit 1 by the end of 2025. As a result, participants have been prudent about the amount of investment in Craig Unit 1 to ensure reliability until exit.

### **Power operations**

Power operations relates to managing resources to meet load and obligations. The focuses are to ensure the owner communities have a reliable energy supply, cost-effectively optimize resources, and create additional value through the sale of available energy and capacity to third parties.

### **Transmission**

Transmission maintenance is important to support the safe and reliable delivery of power across Platte River's regional transmission system. These expenses also include Platte River's share of operating and maintaining jointly owned transmission facilities, ancillary services for regulation of wind and solar, and wheeling expenses paid to Western Area Power Administration and/or others for wind and a portion of Platte River's load. Transmission expenses are primarily developed by departmental budgets. Personnel expenses that are charged to operations and maintenance can fluctuate with the amount of labor charged to capital projects in any given year.

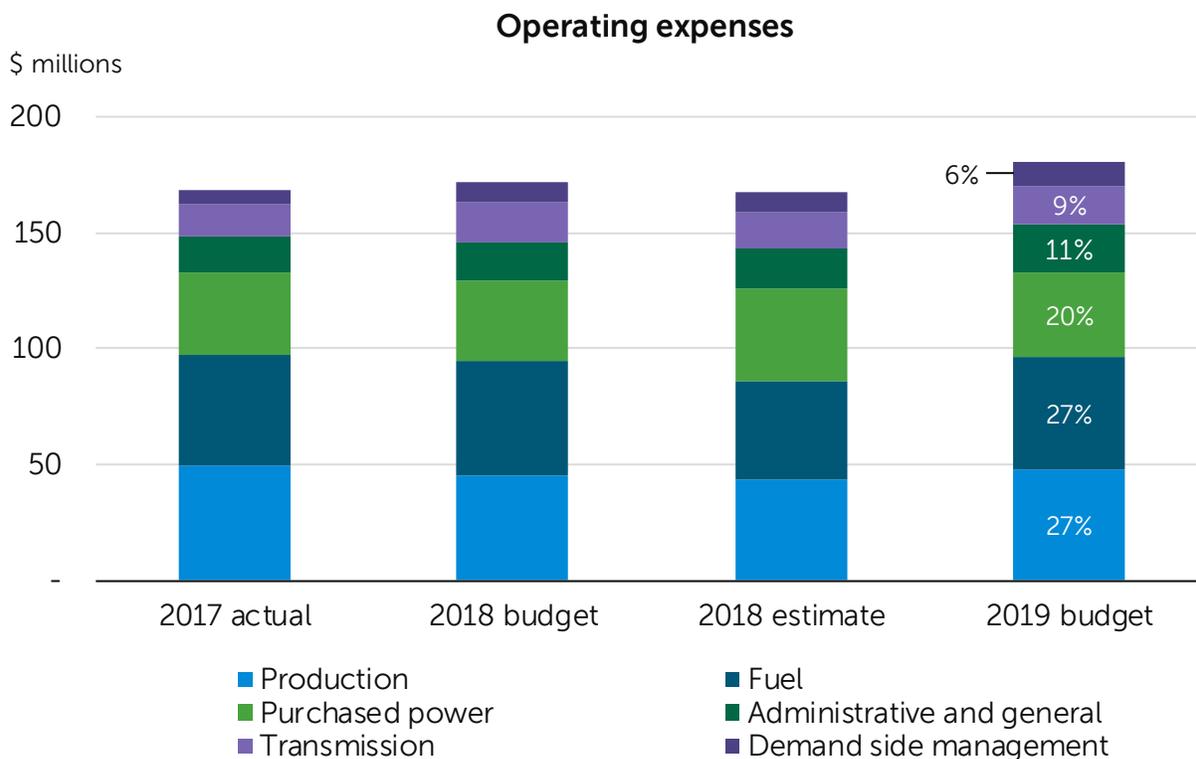
### **Administrative and general**

Administrative and general expenses include all expenses incurred that are not directly allocated to capital or assignable to fuel, production or transmission expenses. These expenses are budgeted by operations and maintenance and include expenses related to human resources, finance, communications, facilities, information technology, general counsel and the general manager. The largest component of this expense is personnel which includes salaries and benefits. With the changing environment and continued focus on operational excellence, Platte River has made investments and will continue to invest in employees to ensure the strategic initiatives and goals can be achieved. The planning department focuses on resource diversification, modeling and long-term planning. This department also assists with budget development. Emphasis has been placed on technology and communications, with services also being expanded in accounting and legal to better provide support and reporting.

## Demand side management

Demand side management expenses include all expenses applicable to the administration and implementation of Platte River’s demand side management programs. These programs began in 2002 with a budget of \$0.4 million and increased energy efficiency investment continues as programs have been very successful. Further development and testing continue with other distributed energy resources and demand response programs as described earlier.

Operating expenses (\$000)	2017 actual	2018 budget	2018 estimate	2019 budget
Purchased power	\$ 35,421	\$ 34,525	\$ 40,405	\$ 36,919
Fuel	47,708	49,654	42,459	47,986
Production	49,617	45,194	43,318	48,123
Transmission	14,152	17,199	15,924	16,694
Administrative and general	15,360	16,704	17,060	20,715
Demand side management	6,060	8,708	8,509	10,201
<b>Total operating expenses</b>	<b>\$ 168,318</b>	<b>\$ 171,984</b>	<b>\$ 167,675</b>	<b>\$ 180,638</b>



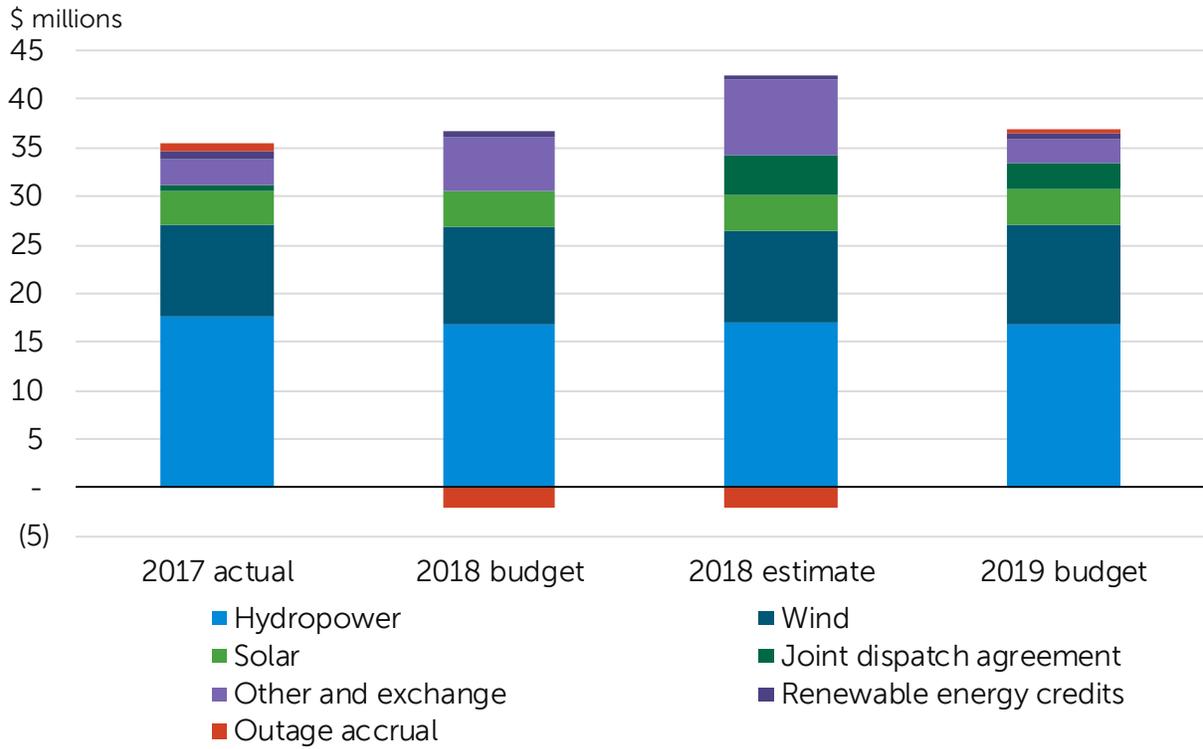
<b>Purchased power</b>	<b>2017 actual</b>	<b>2018 budget</b>	<b>2018 estimate</b>	<b>2019 budget</b>
<b>Hydropower</b>				
<b>WAPA-CRSP</b>				
Demand (kW-Mo)	1,450,002	1,450,002	1,450,002	1,450,002
Demand \$	\$ 7,511,010	\$ 7,511,010	\$ 7,511,010	\$ 7,511,010
Energy (kWh)	517,890,008	502,466,838	502,466,838	502,466,838
Energy \$	\$ 6,313,079	\$ 6,125,071	\$ 6,125,071	\$ 6,125,071
Total CRSP	\$ 13,824,089	\$ 13,636,081	\$ 13,636,081	\$ 13,636,081
<b>WAPA-LAP</b>				
Demand (kW-Mo)	372,606	372,606	372,606	372,606
Demand \$	\$ 1,784,783	\$ 1,535,136	\$ 1,535,136	\$ 1,535,136
Energy (kWh)	113,136,421	109,536,421	114,648,421	109,536,421
Energy \$	\$ 2,068,134	\$ 1,721,911	\$ 1,802,273	\$ 1,721,911
Total LAP	\$ 3,852,917	\$ 3,257,047	\$ 3,337,409	\$ 3,257,047
Total hydropower				
Demand (kW-Mo)	1,822,608	1,822,608	1,822,608	1,822,608
Demand \$	\$ 9,295,793	\$ 9,046,146	\$ 9,046,146	\$ 9,046,146
Energy (kWh)	631,026,429	612,003,259	617,115,259	612,003,259
Energy \$	\$ 8,381,213	\$ 7,846,982	\$ 7,927,344	\$ 7,846,982
Total \$	\$ 17,677,006	\$ 16,893,128	\$ 16,973,490	\$ 16,893,128
<b>Wind</b>				
<b>Spring Canyon II</b>				
Energy (kWh)	127,325,936	129,985,343	125,369,248	129,985,343
Energy \$	\$ 3,622,231	\$ 3,789,498	\$ 3,655,706	\$ 3,884,623
<b>Spring Canyon III</b>				
Energy (kWh)	108,931,940	109,987,596	107,308,129	109,987,596
Energy \$	\$ 3,089,503	\$ 3,199,559	\$ 3,121,801	\$ 3,279,955
<b>Silver Sage <sup>(1)</sup></b>				
Energy (kWh)	35,396,418	37,267,472	34,549,824	37,267,472
Energy \$	\$ 2,041,734	\$ 2,200,774	\$ 2,039,745	\$ 2,255,638
<b>Medicine Bow</b>				
Energy (kWh)	18,218,941	18,165,905	17,666,128	18,165,905
Energy \$	\$ 637,595	\$ 721,436	\$ 695,997	\$ 744,801
Total wind				
Energy (kWh)	289,873,235	295,406,316	284,893,329	295,406,316
Energy \$	\$ 9,391,063	\$ 9,911,267	\$ 9,513,249	\$ 10,165,017
<b>Solar</b>				
<b>Rawhide Flats Solar</b>				
Energy (kWh)	59,168,744	64,858,619	64,206,967	63,273,450
Energy \$	\$ 3,162,543	\$ 3,466,693	\$ 3,431,860	\$ 3,381,967
<b>Community</b>				
Energy (kWh)	-	2,773,400	-	-
Energy \$	\$ -	\$ 127,576	\$ -	\$ -

<b>Purchased power</b> (continued)	<b>2017 actual</b>	<b>2018 budget</b>	<b>2018 estimate</b>	<b>2019 budget</b>
<b>Solar</b> (continued)				
<b>Owner community programs</b> <sup>(2)</sup>				
Energy (kWh)	6,896,699	7,404,439	7,246,511	9,171,840
Energy \$	<u>\$ 245,887</u>	<u>\$ 234,203</u>	<u>\$ 268,846</u>	<u>\$ 303,134</u>
Total solar				
Energy (kWh)	66,065,443	75,036,458	71,453,478	72,445,290
Energy \$	<u>\$ 3,408,430</u>	<u>\$ 3,828,472</u>	<u>\$ 3,700,706</u>	<u>\$ 3,685,101</u>
<b>Joint dispatch agreement purchases</b>				
Energy (kWh)	39,995,000	-	253,658,000	166,200,422
Energy \$	<u>\$ 686,105</u>	<u>\$ -</u>	<u>\$ 4,026,011</u>	<u>\$ 2,697,089</u>
<b>Other purchases</b>				
Energy (kWh)	62,071,000	114,097,657	234,123,091	26,650,660
Energy \$	<u>\$ 1,670,825</u>	<u>\$ 3,044,585</u>	<u>\$ 5,921,667</u>	<u>\$ 755,156</u>
Reserves \$	<u>\$ 1,726,337</u>	<u>\$ 2,387,911</u>	<u>\$ 2,275,295</u>	<u>\$ 1,640,317</u>
Forced outage exchange	<u>\$ (807,945)</u>	<u>\$ -</u>	<u>\$ (475,058)</u>	<u>\$ -</u>
Other power charges	<u>\$ 39</u>	<u>\$ -</u>	<u>\$ 9,631</u>	<u>\$ -</u>
Renewable energy credits	<u>\$ 795,485</u>	<u>\$ 549,980</u>	<u>\$ 549,980</u>	<u>\$ 549,980</u>
Replacement power outage accrual	<u>\$ 873,307</u>	<u>\$ (2,090,153)</u>	<u>\$ (2,090,153)</u>	<u>\$ 533,014</u>
<b>Total purchased power</b>	<u><b>\$ 35,420,652</b></u>	<u><b>\$ 34,525,190</b></u>	<u><b>\$ 40,404,818</b></u>	<u><b>\$ 36,918,802</b></u>

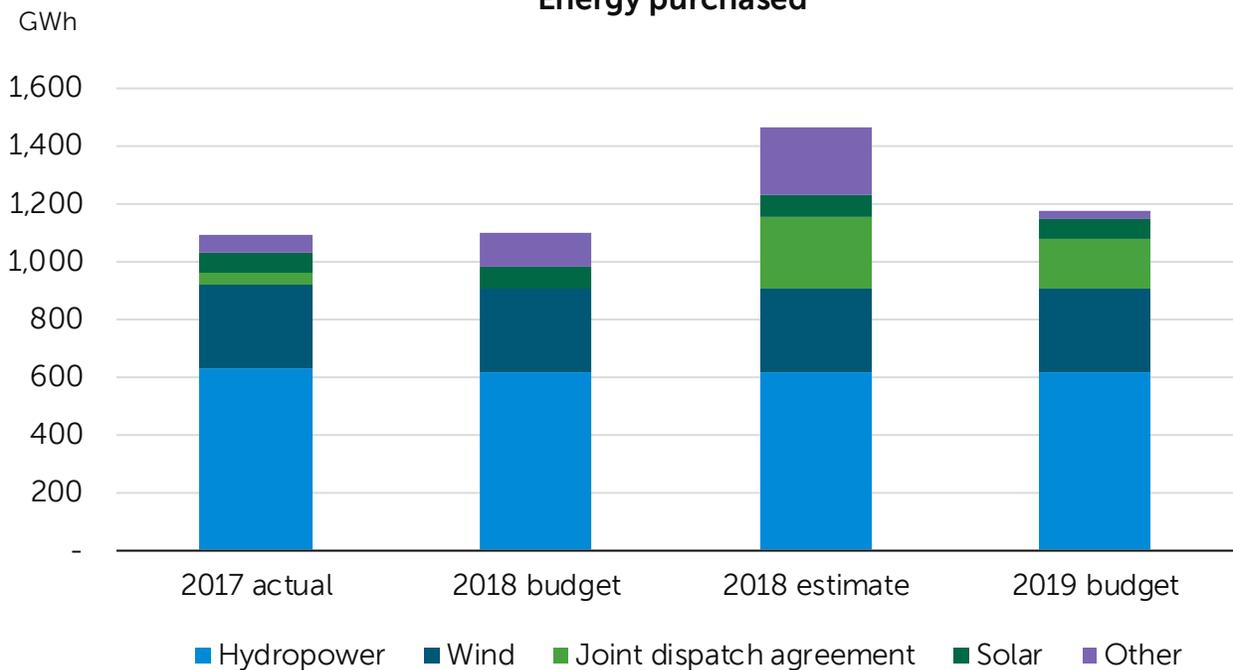
(1) Effective October 2018, Silver Sage energy and the renewable attribute have been sold to a third party and, therefore, cannot be claimed as a renewable resource by Platte River or its owner communities.

(2) The owner communities retain the renewable attribute.

### Purchased power

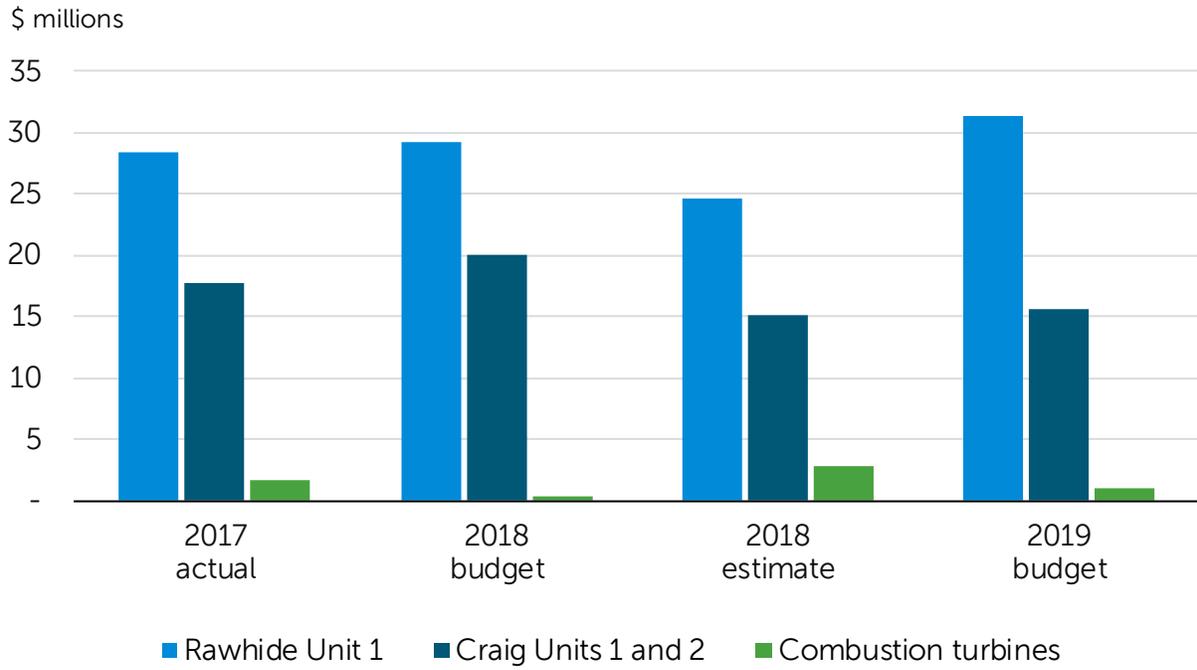


### Energy purchased

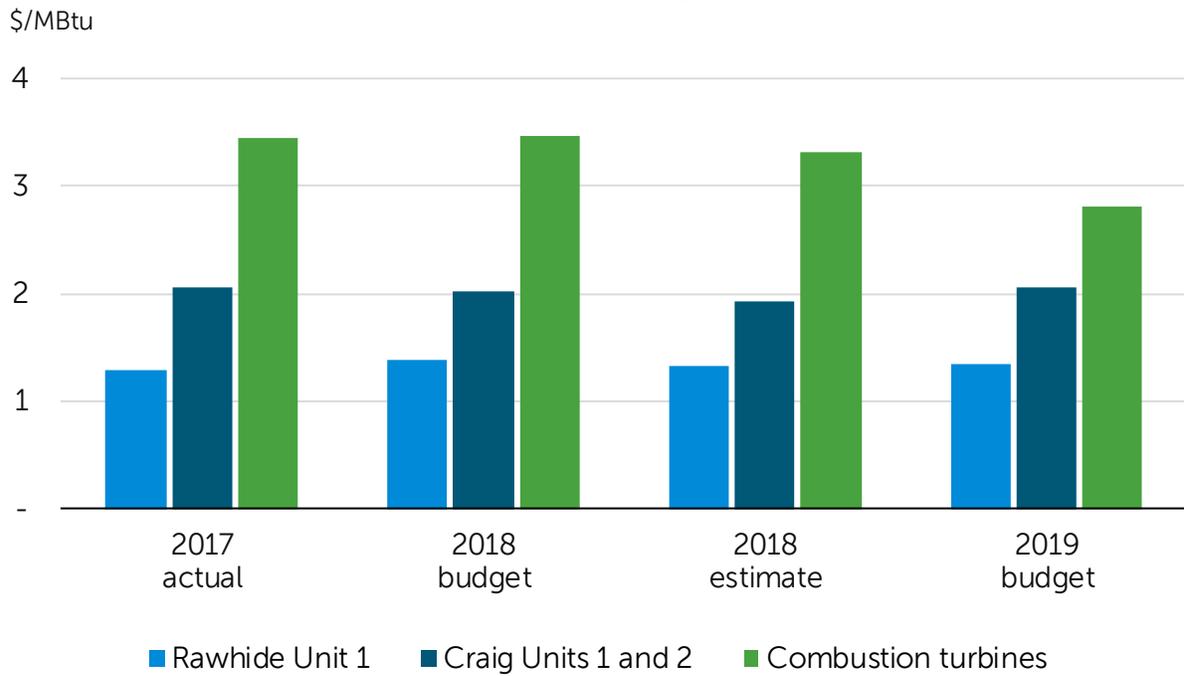


<b>Fuel</b>	<b>2017 actual</b>	<b>2018 budget</b>	<b>2018 estimate</b>	<b>2019 budget</b>
<b>Rawhide Unit 1</b>				
Coal burned MBtu	22,044,030	21,055,026	18,461,841	23,299,088
\$/MBtu	\$ 1.26	\$ 1.37	\$ 1.31	\$ 1.33
Coal expense	\$ 27,705,018	\$ 28,838,320	\$ 24,138,695	\$ 31,000,084
Car lease and other	203,146	20,500	13,852	20,000
Oil	154,049	115,000	136,342	65,000
Fuel ash disposal	-	(46,000)	(63,571)	(55,000)
Fuel handling	265,908	247,186	309,692	297,843
Testing and analysis	<u>36,074</u>	<u>105,000</u>	<u>86,325</u>	<u>56,000</u>
Total Rawhide Unit 1	\$ 28,364,195	\$ 29,280,006	\$ 24,621,335	\$ 31,383,927
<b>Craig Units 1 and 2</b>				
Coal burned MBtu	8,618,238	9,910,691	7,877,778	7,566,337
\$/MBtu	\$ 2.02	\$ 1.97	\$ 1.86	\$ 1.99
Coal expense	\$ 17,411,600	\$ 19,492,381	\$ 14,666,773	\$ 15,068,298
Trapper post-mining reclamation	(7,569)	-	(20,071)	-
Oil	18,402	15,000	25,003	16,000
Natural gas	120,139	100,000	66,783	110,000
Fuel handling	<u>197,189</u>	<u>482,809</u>	<u>385,713</u>	<u>353,770</u>
Total Craig Units 1 and 2	\$ 17,739,761	\$ 20,090,190	\$ 15,124,201	\$ 15,548,068
<b>Rawhide Units A, B, C, D and F (combustion turbines)</b>				
Gas burned MBtu	465,359	81,836	817,367	375,629
\$/MBtu	\$ 3.44	\$ 3.21	\$ 3.31	\$ 2.76
Natural gas expense	\$ 1,599,423	\$ 262,660	\$ 2,701,428	\$ 1,035,452
Other gas expense	<u>4,394</u>	<u>21,319</u>	<u>12,514</u>	<u>18,664</u>
Total natural gas	<u>1,603,817</u>	<u>283,979</u>	<u>2,713,942</u>	<u>1,054,116</u>
Total fuel	<u>\$ 47,707,773</u>	<u>\$ 49,654,175</u>	<u>\$ 42,459,478</u>	<u>\$ 47,986,111</u>

### Fuel



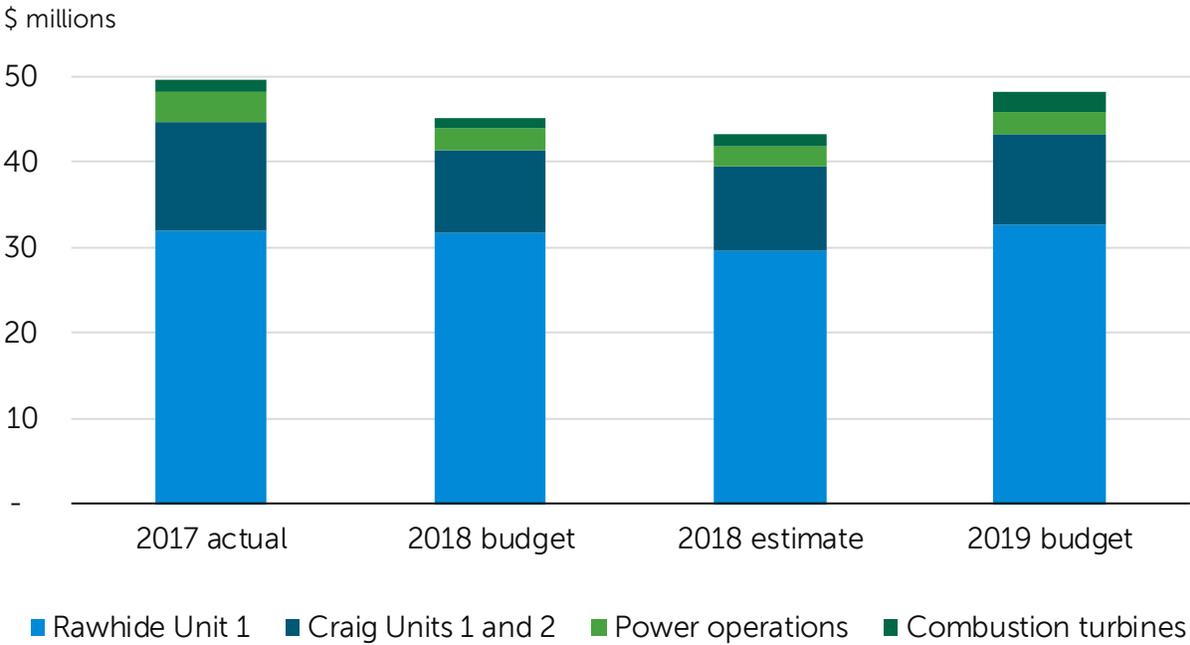
### Fuel unit cost per MBtu



	2017 actual	2018 budget	2018 estimate	2019 budget
<b>Production</b>				
<b>Rawhide Unit 1</b>				
<b>Personnel expenses</b>				
Regular wages	\$ 9,637,340	\$ 10,372,078	\$ 9,847,079	\$ 10,088,681
Overtime wages	951,106	1,325,339	1,067,212	660,662
Benefits allocation	<u>4,534,684</u>	<u>4,847,692</u>	<u>4,948,270</u>	<u>5,794,650</u>
Total personnel expenses	15,123,130	16,545,109	15,862,561	16,543,993
<b>Operations and maintenance</b>				
Office expenses	21,766	26,900	20,445	21,430
Safety expenses	105,097	138,300	137,262	114,025
Furniture and equipment	-	56,800	41,587	28,750
Local business expense	12,944	36,800	40,299	17,850
Postage and deliveries	7,214	14,068	6,650	9,068
O&M materials and supplies	4,522,234	6,232,508	5,785,778	4,729,823
Gasoline and diesel	73,380	115,600	104,961	72,600
Tools and shop equipment	92,036	84,550	160,183	92,050
Computer equipment	<u>78,957</u>	<u>193,200</u>	<u>231,755</u>	<u>-</u>
Total operations and maintenance	4,913,628	6,898,726	6,528,920	5,085,596
<b>Contractual services</b>				
Contracted services	5,700,043	13,397,647	12,733,250	5,230,728
Insurance	454,727	489,100	468,472	563,100
Travel and training expenses	213,864	194,408	177,804	195,584
Telephone services	61,421	60,974	65,127	63,496
Utilities	509,356	487,820	434,253	515,920
Dues, memberships and fees	43,526	49,347	48,387	45,055
Outage accrual	<u>4,420,641</u>	<u>(7,033,880)</u>	<u>(7,033,880)</u>	<u>3,788,950</u>
Total contractual services	11,403,578	7,645,416	6,893,413	10,402,833
<b>Windy Gap</b>				
Rawhide operating portion	<u>588,241</u>	<u>716,825</u>	<u>429,374</u>	<u>721,194</u>
Total Rawhide Unit 1 production	32,028,577	31,806,076	29,714,268	32,753,616
<b>Craig Units 1 and 2</b>				
Operating expenses	12,619,602	9,569,069	9,714,558	10,465,079
Fiscal impact payment	<u>61,099</u>	<u>61,099</u>	<u>61,099</u>	<u>62,932</u>
Total Craig Units 1 and 2 production	<u>12,680,701</u>	<u>9,630,168</u>	<u>9,775,657</u>	<u>10,528,011</u>
Total thermal production	44,709,278	41,436,244	39,489,925	43,281,627

<b>Production</b> (continued)	<b>2017 actual</b>	<b>2018 budget</b>	<b>2018 estimate</b>	<b>2019 budget</b>
<b>Rawhide Units A, B, C, D and F (combustion turbines)</b>				
Regular wages	\$ 368,057	\$ 377,227	\$ 413,466	\$ 420,859
Overtime wages	42,742	43,315	40,016	42,829
Benefits allocation	175,028	174,975	216,435	250,703
O&M materials and supplies	147,263	127,889	148,350	535,633
Contracted services	283,151	247,627	223,818	643,111
Insurance	262,691	272,300	262,687	285,300
Travel and training expenses	13,248	18,000	20,824	13,400
Telephone services	555	600	565	600
Utilities	1,931	2,000	1,930	2,000
Dues, memberships and fees	<u>5,945</u>	<u>6,000</u>	<u>6,333</u>	<u>6,000</u>
Total Rawhide Units A, B, C, D and F production	1,300,611	1,269,933	1,334,424	2,200,435
<b>Power operations</b>				
Regular wages	2,085,615	1,490,192	1,458,943	1,455,736
Overtime wages	50,400	61,924	63,789	61,780
Benefits allocation	911,623	632,739	685,604	809,792
Local business expense	1,538	2,000	1,480	1,500
O&M materials and supplies	1,587	2,000	5,887	2,000
Craig Units 1 and 2 operating expenses	24,188	34,764	28,338	37,560
Computer equipment	32,635	-	9,989	-
Contracted services	410,412	197,202	190,950	208,588
Travel and training expenses	71,705	49,550	31,766	49,800
Telephone expenses	16,885	16,056	13,534	10,250
Dues, memberships and fees	<u>525</u>	<u>1,175</u>	<u>3,925</u>	<u>3,525</u>
Total power operations expenses	<u>3,607,113</u>	<u>2,487,602</u>	<u>2,494,205</u>	<u>2,640,531</u>
Total production	<u>\$ 49,617,002</u>	<u>\$ 45,193,779</u>	<u>\$ 43,318,554</u>	<u>\$ 48,122,593</u>

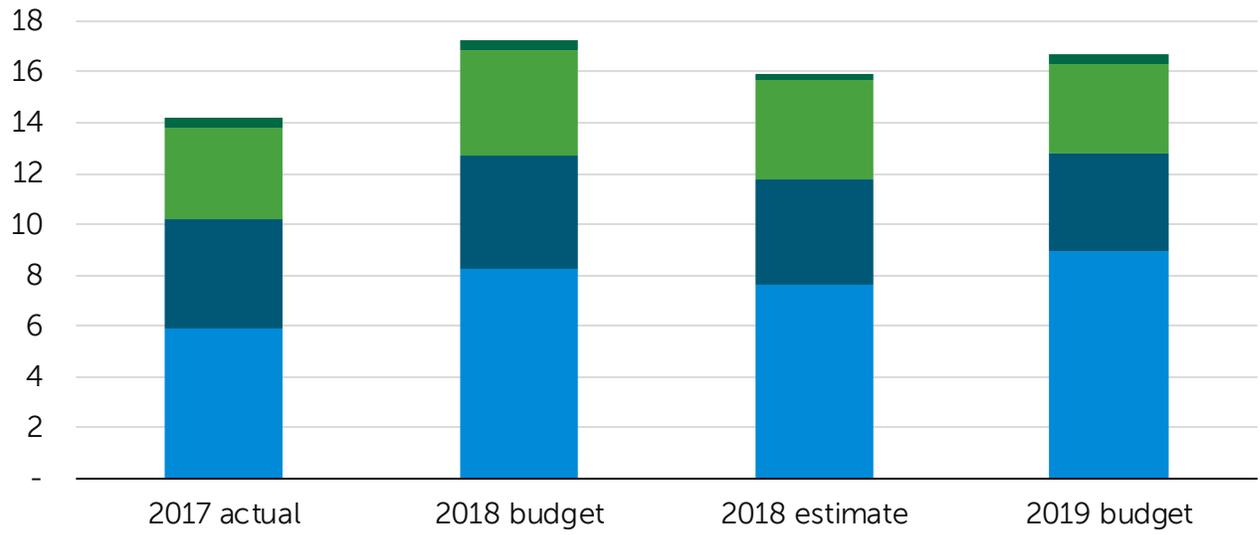
### Production



<b>Transmission</b>	<b>2017 actual</b>	<b>2018 budget</b>	<b>2018 estimate</b>	<b>2019 budget</b>
<b>Personnel expenses</b>				
Regular wages	\$ 3,865,406	\$ 5,497,124	\$ 4,914,008	\$ 5,446,215
Overtime wages	292,654	348,660	346,428	395,368
Benefits allocation	<u>1,778,041</u>	<u>2,408,741</u>	<u>2,352,262</u>	<u>3,135,146</u>
Total personnel expenses	5,936,101	8,254,525	7,612,698	8,976,729
<b>Materials and other expenses</b>				
Office supplies	8,664	9,000	11,864	6,550
Safety expenses	10,142	9,270	6,688	13,250
Local business expense	9,002	10,100	6,535	10,425
Postage and deliveries	8,288	5,300	7,911	7,200
O&M materials and supplies	260,090	205,906	166,549	241,368
Gasoline and diesel	35,424	32,100	34,205	34,635
Tools and shop equipment	35,774	32,000	21,332	29,000
Computer equipment	<u>-</u>	<u>46,900</u>	<u>26,128</u>	<u>73,350</u>
Total materials and other expenses	367,384	350,576	281,212	415,778
<b>Contractual services</b>				
Contracted services	2,810,956	3,141,838	3,040,184	2,642,008
Travel and training expenses	96,735	102,500	84,465	107,136
Telephone services	49,647	58,306	65,021	62,279
Utilities	22,350	14,070	24,440	14,070
Dues, memberships and fees	420,761	428,367	433,896	451,413
Leases and rents	100,271	102,134	106,194	103,017
Craig Units 1 and 2 transmission expenses	<u>67,176</u>	<u>319,922</u>	<u>224,583</u>	<u>149,707</u>
Total contractual services	<u>3,567,896</u>	<u>4,167,137</u>	<u>3,978,783</u>	<u>3,529,630</u>
Total transmission	9,871,381	12,772,238	11,872,693	12,922,137
<b>Transmission by others</b>				
Wheeling expense				
Load	738,087	848,998	646,703	674,839
Spring Canyon Wind Energy Center	2,908,620	2,928,936	2,926,694	3,030,828
Silver Sage Windpower Project	581,724	585,786	441,498	-
Medicine Bow Wind Project	<u>52,331</u>	<u>63,276</u>	<u>36,603</u>	<u>66,703</u>
Total wheeling expense	<u>4,280,762</u>	<u>4,426,996</u>	<u>4,051,498</u>	<u>3,772,370</u>
Total transmission	<u>\$ 14,152,143</u>	<u>\$ 17,199,234</u>	<u>\$ 15,924,191</u>	<u>\$ 16,694,507</u>

## Transmission

\$ millions

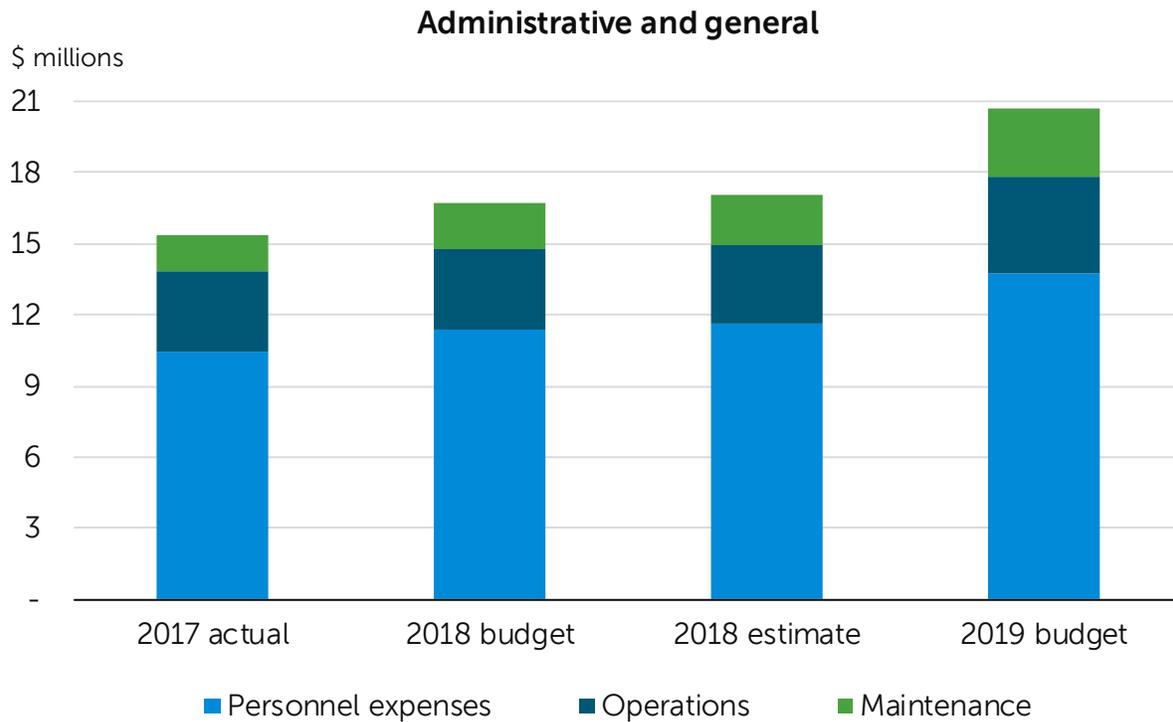


■ Personnel expenses ■ Wheeling ■ Contractual services ■ Materials and other expenses

<b>Administrative and general</b>	<b>2017 actual</b>	<b>2018 budget</b>	<b>2018 estimate</b>	<b>2019 budget</b>
<b>Operations</b>				
<b>Personnel expenses</b>				
Regular wages	\$ 7,243,120	\$ 8,000,188	\$ 7,884,963	\$ 8,886,868
Overtime wages	47,451	33,000	37,892	34,380
Benefits allocation	<u>3,135,873</u>	<u>3,357,636</u>	<u>3,739,366</u>	<u>4,860,314</u>
Total personnel expenses	10,426,444	11,390,824	11,662,221	13,781,562
<b>Office operations and other expenses</b>				
Office expenses	28,125	30,460	19,857	27,270
Furniture and equipment	68,469	18,500	9,789	12,500
Local business expense	95,647	107,158	142,253	109,603
Postage and deliveries	9,194	15,000	10,659	19,000
Gasoline and diesel	22,735	23,460	26,556	42,000
Computer equipment	<u>309,125</u>	<u>325,300</u>	<u>365,760</u>	<u>237,500</u>
Total office operations and other expenses	533,295	519,878	574,874	447,873
<b>Safety and training expenses</b>				
Safety expenses	7,526	35,300	30,811	6,650
Local business expense	1,017	2,000	1,212	2,000
Contracted services	1,196	24,200	26,185	19,875
Dues, memberships and fees	1,099	900	1,309	1,050
Wellness and incentive program	137,545	152,550	135,862	145,974
Travel and training expenses	<u>244,561</u>	<u>237,330</u>	<u>282,616</u>	<u>241,778</u>
Total safety and training expenses	392,944	452,280	477,995	417,327
<b>Contractual services</b>				
Contracted services	712,004	653,249	652,973	754,384
Travel and training expenses	48,121	67,550	48,861	92,442
Telephone services	34,381	35,969	41,203	40,929
Utilities	118,486	114,804	111,942	131,520
Dues, memberships and fees	41,983	47,188	57,927	61,548
Other financing expenses	<u>99,582</u>	<u>43,540</u>	<u>36,797</u>	<u>47,110</u>
Total contractual services	1,054,557	962,300	949,703	1,127,933
<b>Insurance</b>	426,458	444,500	429,246	547,700
<b>Board and enterprise expenses</b>				
Local business expense	9,921	7,000	8,353	8,000
Travel and training expenses	8,479	27,000	12,703	22,500
Dues, memberships and fees	137,269	142,285	153,542	149,620
Trustees fees	34,926	43,748	29,185	25,500
Owner community economic development	<u>60,000</u>	<u>60,000</u>	<u>60,000</u>	<u>100,000</u>
Total board and enterprise expenses	250,595	280,033	263,783	305,620

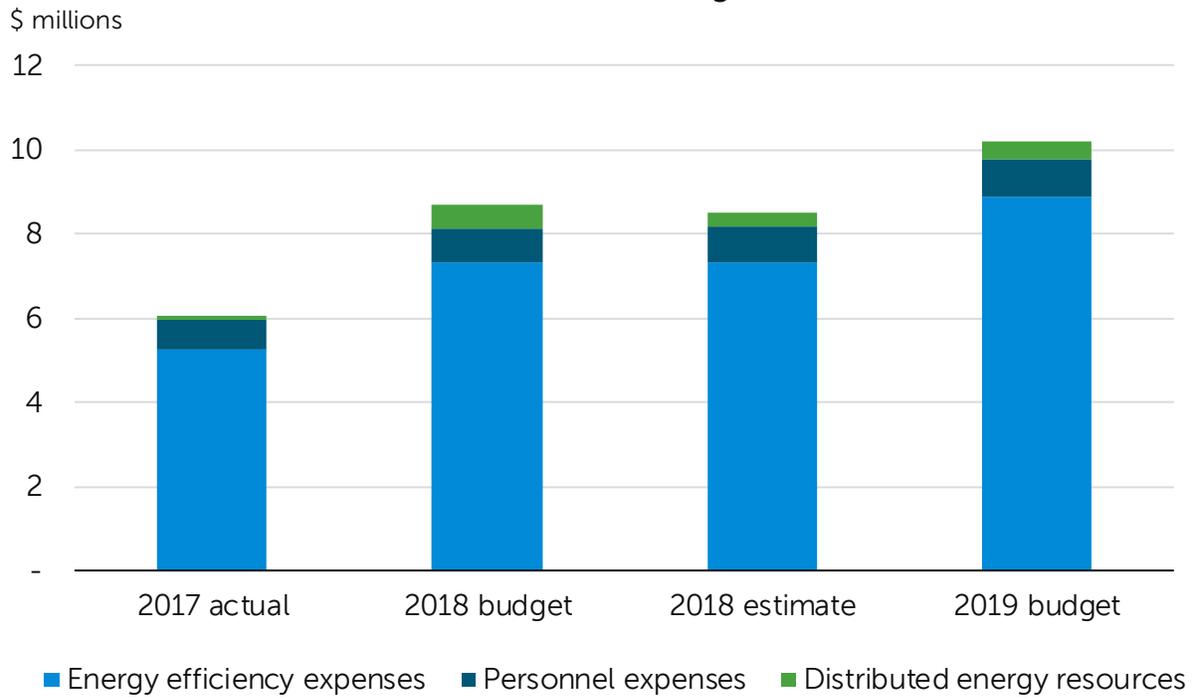
<b>Administrative and general</b> (continued)	<b>2017 actual</b>	<b>2018 budget</b>	<b>2018 estimate</b>	<b>2019 budget</b>
<b>Operations</b> (continued)				
<b>Reporting and other expenses</b>				
Office expenses	\$ 2,708	\$ 4,600	\$ 5,364	\$ 6,000
Local business expense	44,403	38,000	53,501	59,000
Contracted services	<u>82,010</u>	<u>148,090</u>	<u>93,144</u>	<u>158,465</u>
Total reporting and other expenses	129,121	190,690	152,009	223,465
<b>Planning and customer service expenses</b>				
Contracted services	476,715	450,421	435,164	919,475
Travel and training expenses	<u>2,701</u>	<u>-</u>	<u>3,381</u>	<u>-</u>
Total planning and customer service expenses	479,416	450,421	438,545	919,475
<b>Compliance expenses</b>				
Computer equipment	1,255	20,000	5,000	15,000
Contracted services	104,771	33,600	6,982	34,200
Travel and training expenses	<u>14,183</u>	<u>28,400</u>	<u>22,127</u>	<u>26,900</u>
Total compliance expenses	<u>120,209</u>	<u>82,000</u>	<u>34,109</u>	<u>76,100</u>
Total administrative and general operations	13,813,039	14,772,926	14,982,485	17,847,055
<b>Maintenance</b>				
<b>Building and grounds maintenance</b>				
Materials and supplies	76,925	48,280	58,197	66,068
Tools and shop equipment	7,224	12,200	5,449	4,896
Contracted services	<u>200,634</u>	<u>196,310</u>	<u>218,901</u>	<u>272,530</u>
Total buildings and grounds maintenance	284,783	256,790	282,547	343,494
<b>Computer maintenance</b>				
Contracted services	<u>1,142,091</u>	<u>1,491,991</u>	<u>1,600,406</u>	<u>2,251,170</u>
Total computer maintenance	1,142,091	1,491,991	1,600,406	2,251,170
<b>Office equipment maintenance</b>				
Contracted services	853	1,000	718	1,000
Telephone services	<u>20,560</u>	<u>17,949</u>	<u>20,708</u>	<u>17,949</u>
Total office equipment maintenance	21,413	18,949	21,426	18,949
<b>Vehicle maintenance</b>				
Materials and supplies	15,456	20,400	8,318	20,400
Tools and shop equipment	-	6,000	8,459	16,180
Contracted services	<u>10,862</u>	<u>59,100</u>	<u>37,834</u>	<u>25,200</u>
Total vehicle maintenance	26,318	85,500	54,611	61,780

<b>Administrative and general</b> (continued)	2017 actual	2018 budget	2018 estimate	2019 budget
<b>Maintenance</b> (continued)				
<b>Security maintenance</b>				
Materials and supplies	\$ 21,579	\$ 11,200	\$ 14,260	\$ 15,700
Tools and shop equipment	2,775	2,400	4,003	2,400
Contracted services	48,513	64,335	99,821	174,592
Total security maintenance	<u>72,867</u>	<u>77,935</u>	<u>118,084</u>	<u>192,692</u>
Total administrative and general maintenance	<u>1,547,472</u>	<u>1,931,165</u>	<u>2,077,074</u>	<u>2,868,085</u>
Total administrative and general	<u>\$ 15,360,511</u>	<u>\$ 16,704,091</u>	<u>\$ 17,059,559</u>	<u>\$ 20,715,140</u>



<b>Demand side management</b>	<b>2017 actual</b>	<b>2018 budget</b>	<b>2018 estimate</b>	<b>2019 budget</b>
<b>Personnel expenses</b>				
Regular wages	\$ 487,538	\$ 586,281	\$ 584,680	\$ 600,419
Benefits allocation	<u>221,293</u>	<u>245,183</u>	<u>260,161</u>	<u>324,055</u>
Total personnel expenses	708,831	831,464	844,841	924,474
<b>Energy efficiency</b>				
Contracted services	632,179	811,472	811,472	1,054,968
Rebates/incentives	<u>4,621,727</u>	<u>6,498,000</u>	<u>6,498,000</u>	<u>7,817,500</u>
Total energy efficiency expenses	5,253,906	7,309,472	7,309,472	8,872,468
<b>Distributed energy resources</b>				
<b>General expenses</b>				
Contracted services	-	120,000	75,000	-
Dues, memberships and fees	<u>-</u>	<u>-</u>	<u>-</u>	<u>32,560</u>
Total - general expenses	-	120,000	75,000	32,560
<b>Demand response</b>				
Contracted services	25,000	35,000	26,511	75,000
Rebates/incentives	<u>71,982</u>	<u>336,957</u>	<u>250,664</u>	<u>163,433</u>
Total - demand response expenses	96,982	371,957	277,175	238,433
<b>Electric vehicles</b>				
Contracted services	-	75,000	2,077	75,000
Rebates/incentives	<u>-</u>	<u>-</u>	<u>-</u>	<u>25,000</u>
Total - electric vehicles expenses	-	75,000	2,077	100,000
<b>Smart thermostat</b>				
Contracted services	-	-	-	28,000
Rebates/incentives	<u>-</u>	<u>-</u>	<u>-</u>	<u>5,000</u>
Total - smart thermostat expenses	-	-	-	33,000
Total distributed energy resources	<u>96,982</u>	<u>566,957</u>	<u>354,252</u>	<u>403,993</u>
Total demand side management expenses	<u>\$ 6,059,719</u>	<u>\$ 8,707,893</u>	<u>\$ 8,508,565</u>	<u>\$ 10,200,935</u>

### Demand side management



# Capital additions

Capital projects are viewed strategically with a five-to-ten-year outlook in support of Platte River's three pillars of system reliability, environmental responsibility and financial sustainability, and in support of the strategic initiatives and core operations. Capital additions generally consist of projects aimed at ensuring and improving system reliability, replacing and upgrading aging infrastructure, implementing technology improvements, maintaining compliance, improving efficiency and completing replacements due to reaching the end of useful life. These projects are necessary to maintain a reliable low-cost energy system.

Production capital additions include power plant upgrades, equipment purchases and replacements, and compliance related projects at the Rawhide and Craig generating stations. Also included in production additions is the Windy Gap Firming Project. Transmission capital additions include transmission lines, substations and supporting equipment. Projects are based on transmission studies and consultation with the owner communities' staffs through the joint technical advisory committee. These projects will provide enhanced system reliability and add capacity to serve new and existing loads. General plant capital additions include computer hardware and software, communication equipment, vehicle replacements, building and grounds modifications, compliance projects and other general plant equipment purchases.

Project management continues to be a focus. In the past few years, emphasis has been placed on resource availability, as well as improving project planning and execution. This process will continue to evolve, striving towards operational excellence.

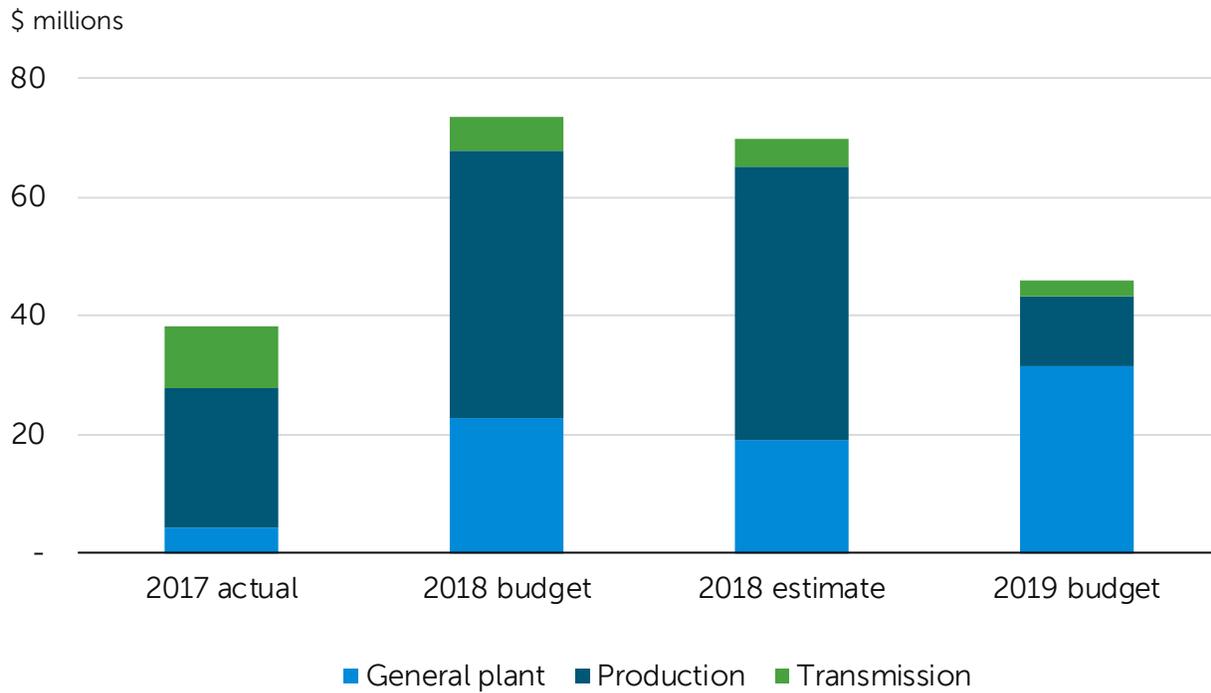
The five-year capital forecast is developed to outline future investment in capital projects. Capital planning is an ongoing effort as needs change, thus the plan is reviewed and updated three times a year along with financial projections. The plan is the basis for each budget year. Production projects focus on plant equipment improvements, including major outages and fire protection system replacements, as well as replacement of a portion of the 10-inch water line to the plant. Transmission projects include coordinating and planning owner community requests for substation work, investing in a potential transmission line for renewable resources, in addition to completing Platte River's transmission and substation projects. Future general projects include replacing information technology equipment, the SONET system and the financial information system, as well as investing in security improvements.

Projects typically experience schedule changes for various reasons, therefore, a portion of unspent 2018 budget capital additions will be requested to be carried over into the 2019 budget.

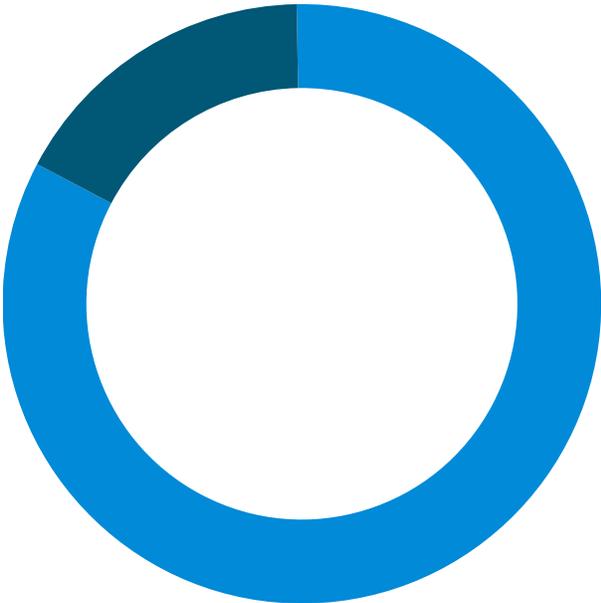
The next pages include brief project descriptions, as well as estimated project cost and carryover amounts. The projects supporting the strategic initiatives of infrastructure advancement and technology development or resource diversification are also identified.

Capital additions (\$000)	2017 actual	2018 budget	2018 estimate	2019 budget
Production	\$ 23,649	\$ 45,163	\$ 45,954	\$ 11,775
Transmission	10,499	5,772	4,721	2,430
General plant	4,151	22,574	18,977	31,599
Total capital additions	<u>\$ 38,299</u>	<u>\$ 73,509</u>	<u>\$ 69,652</u>	<u>\$ 45,804</u>

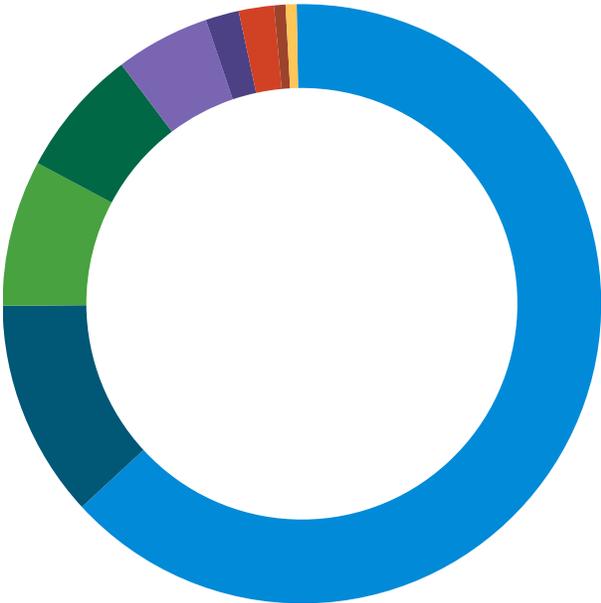
### Capital additions



2019 Capital additions: \$45.8 million

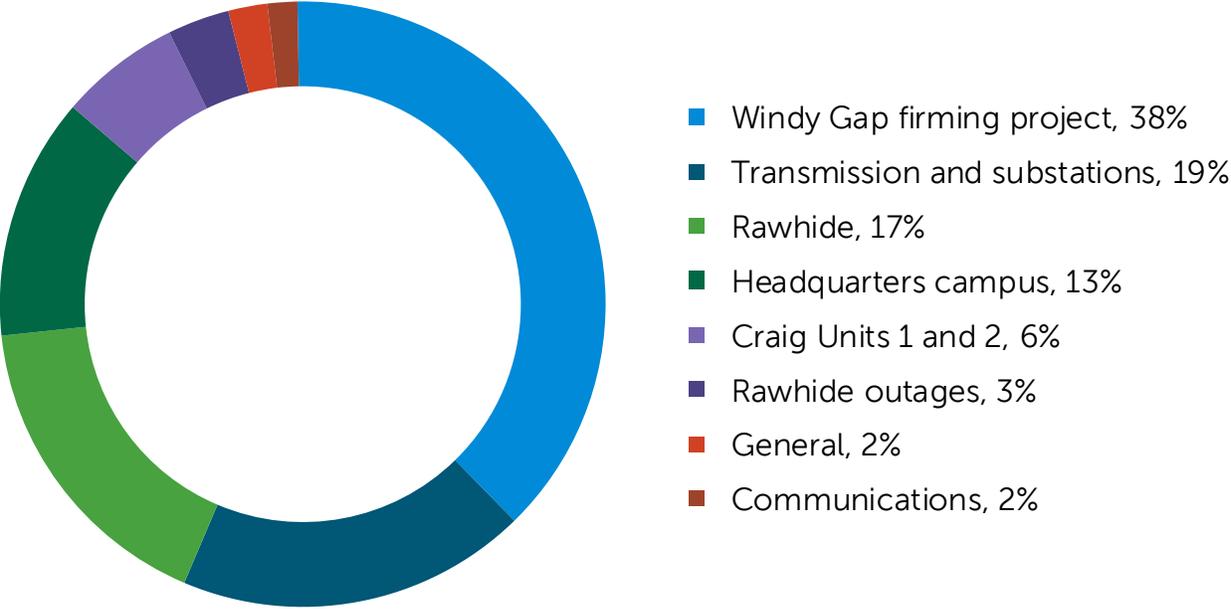


- Strategic initiatives, 83%
- Core operations, 17%



- Headquarters campus, 63%
- Strategic, 12%
- Asset management and maintenance, 8%
- Windy Gap Firing Project, 7%
- Compliance, 5%
- Craig Units 1 and 2, 2%
- Purchases, 1.8%
- Major outage (final costs), 0.6%
- Interconnection - solar project, 0.6%

**Capital five-year forecast  
2019-2023  
\$244.9 million**



<b>Production capital additions</b>	<b>2019 budget</b>	<b>Total cost estimate <sup>(1)</sup></b>
<b>Rawhide projects</b>		
• Controls upgrade to Ovation distributed control system		
Combustion Turbine Unit A	\$ 703,835	
Combustion Turbine Unit B	479,742	721,000
Combustion Turbine Unit C	479,742	721,000
Combustion Turbine Unit D	447,378	1,265,000
Combustion Turbine Unit F	895,564	1,472,000
Monofill upgrades - Rawhide <sup>(2)</sup>	669,382	6,569,000
<b>Grading and drainage improvements</b>		
Grading and drainage improvements - Rawhide	450,063	1,326,000
Grading and drainage improvements - warehouses	252,105	816,000
Chilled water system upgrade - 5th floor mechanical room	435,113	
Rack and pinion elevator replacement - ash silo	385,431	
Soot blower replacement	290,152	1,463,000
<b>Protective relay replacement</b>		
Combustion Turbine Unit A	229,278	
Combustion Turbine Unit B	229,278	
Combustion Turbine Unit C	229,278	
Combustion Turbine Unit F <sup>(2)</sup>	221,958	384,000
Combustion Turbine Unit D <sup>(2)</sup>	87,360	220,000
HVAC units - combustion turbine yard	173,680	370,000
Station battery replacement - Rawhide Unit 1	101,946	
• LED lighting	100,000	733,000
Transformer nitrogen generator upgrade - combustion turbines	93,445	
Controls upgrade on auxiliary boiler	58,239	
Oil water separator - Rawhide Unit 1	47,309	216,000
Switchgear replacement - Rawhide pump station <sup>(2)</sup>	27,955	391,000
Total Rawhide projects	7,088,233	
<b>Rawhide outage projects</b>		
GenAdvisor generator monitoring system - Rawhide Unit 1	243,621	1,078,000
Bottom ash and reclaim pond - coal combustion residuals compliance <sup>(2)</sup>	35,411	21,069,000
Feedwater heater 102 replacement - Rawhide Unit 1	7,689	598,000
Total Rawhide outage projects	286,721	
<b>Rawhide purchases</b>		
Railcar moving equipment	265,000	
Engine 12 replacement <sup>(2)</sup>	120,000	453,000
Demineralizer silica analyzer replacement	18,425	
Total Rawhide purchases	403,425	
Total Rawhide capital additions	\$ 7,778,379	

<b>Production capital additions</b> (continued)	<b>2019 budget</b>	<b>Total cost estimate <sup>(1)</sup></b>
<b>Other production projects</b>		
• Windy Gap Firing Project <sup>(2)</sup>	\$ 3,173,628	\$ 102,618,000
Craig Units 1 and 2 projects	<u>823,526</u>	21,909,000
Total other production projects	<u>3,997,154</u>	
Total production capital additions	<u><u>\$ 11,775,533</u></u>	

## Transmission capital additions

<b>Transmission projects</b>		
• Circuit switcher (T1,T3) addition, breaker replacement, relay upgrade - Harmony Substation <sup>(2)</sup>	\$ 599,059	\$ 1,463,000
• Revenue meter replacements	385,818	626,000
• Airflow spoilers	350,851	1,698,000
• Solar interconnection - Rawhide Substation	270,366	
Oil breaker replacements		
2082 replacement - Longs Peak Substation	236,967	
362 replacement - Valley Substation	214,912	
HVAC unit replacements - substations	144,266	774,000
Boundary metering remote terminal units - headquarters and disaster recovery center	58,310	
• Hydrogen gas detectors	45,376	116,000
• Circuit switcher (T1,T2) addition - Linden Tech Substation	41,689	586,000
• Transmission line vault upgrades - Crossroads Substation <sup>(2)</sup>	27,383	681,000
Power line carrier equipment replacement - Blue River Substation (Tri-State)	24,852	
Power line carrier equipment replacement - Rifle Substation (Tri-State)	20,472	
Generator step up transformer replacements - Rawhide	<u>9,726</u>	8,535,000
Total transmission capital additions	<u><u>\$ 2,430,047</u></u>	

## General plant capital additions

<b>General plant projects</b>		
• Headquarters campus	\$29,050,509	\$50,416,000
• Real time tools	568,624	
SONET communications system replacement	307,805	1,203,000
Storage area network replacement	300,000	
Distribution switches - headquarters	235,000	
• Integrated tools for operations application software - system operations	197,820	

<b>General plant capital additions</b> (continued)	<b>2019 budget</b>	<b>Total cost estimate <sup>(1)</sup></b>
<b>General plant projects</b> (continued)		
Conference rooms audio-video equipment replacement - Rawhide	\$ 100,000	
Core switches - headquarters	85,000	
Virtual machine host replacement - headquarters	66,000	
SCADA periodic network equipment replacement	61,011	239,000
Internet small computer systems interface switches - headquarters	60,000	
• Security - Loveland substations walls	58,653	
SCADA periodic server equipment replacement	26,464	208,000
Network monitoring intrusion detection system hardware	15,000	
Total general plant projects	<u>31,131,886</u>	
<b>General plant purchases</b>		
Vehicle fleet replacements	254,062	
Test equipment - optical time-domain reflectometer	52,255	102,000
Substation maintenance application licenses	50,000	
Copier replacement - headquarters	40,000	
Electric forklift - headquarters warehouse	38,500	
Records management system scanner replacements	12,000	
Plotter - headquarters facilities	11,000	
Tool box - fleet mechanic	9,000	
Total general plant purchases	<u>466,817</u>	
Total general plant capital additions	<u>31,598,703</u>	
Total capital additions	<u><u>\$45,804,283</u></u>	

(1) If no amount is shown, the 2019 budget amount represents the total project cost estimate.

(2) Projects with estimated unspent 2018 funds that will be requested to be carried over to the 2019 budget.

- Project supports strategic initiative.

# Production capital additions

## Rawhide projects

● Controls upgrade to Ovation distributed control system	
Combustion turbine Unit A	\$ 703,835
Combustion turbine Unit B	479,742
Project time frame: 2018-2019	
Total cost estimate: \$721,000	
Combustion turbine Unit C	479,742
Project time frame: 2018-2019	
Total cost estimate: \$721,000	
Combustion turbine Unit D	447,378
Project time frame: 2018-2019	
Total cost estimate: \$1,265,000	
Combustion turbine Unit F	<u>895,564</u>
Project time frame: 2018-2019	
Total cost estimate: \$1,472,000	
	<b>\$ 3,006,261</b>

Upgrade the distributed control system on combustion turbine Units A, B, C, D and F by converting the GE Mark VI turbine control, replacing the GE human machine interface with an Ovation human machine interface, and replacing the Allen Bradley balance of plant controls. The current GE hardware and software are obsolete. The new Ovation system will create a more unified platform and will make training and troubleshooting more efficient. New monitor stands for the packaged electronic electrical control compartment as well as new firing boards for the load commutated inverter will be installed.

<b>Monofill upgrades - Rawhide</b>	<b>669,382</b>
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Project time frame: 2018-2020

Total cost estimate: \$6,569,000

Carryover estimate: \$60,000

Update and implement the monofill engineering design and operations plan in order to ensure compliance with Colorado Department of Public Health and Environment regulations and the Environmental Protection Agency coal combustion residuals rule. An engineering design and operations plan will be submitted to the Colorado Department of Public Health and Environment with approval expected to be received mid-2019. Construction planning and final design work will occur in 2019 following approval of the updated engineering design and operations plan. The monofill upgrade will include the design of the liner, leachate, and cover system as well as geotechnical and geological investigations. Construction of the first phase of the liner, leachate, collection systems, and any balance of plant connections are also included in the project.

### Grading and drainage improvements

Grading and drainage improvements - Rawhide \$ 450,063

Project time frame: 2016-2019

Total cost estimate: \$1,326,000

Grading and drainage improvements - warehouses 252,105

Project time frame: 2016-2019

Total cost estimate: \$816,000

\$ 702,168

Restore proper grading and drainage and install soil holding materials to control erosion of land in various sites around the plant and warehouses. Erosion and drainage issues have occurred due to weather, wash downs and leaks. Banks along roads are eroding causing mud to cover asphalt driveways. Standing water is also an issue, not only causing erosion to structures but causing safety hazards in the winter when it freezes. Work will be done at the coal silos, crusher building, coal transfer building, and water treatment and storage areas. Additional concrete and asphalt will be added around active coal silos for better building access and reduced erosion. Exploring design solutions such as fencing, netting or other structures to mitigate drifting coal from plugging sediment basins and culverts at silos is also part of the project. The project will include drainage ditch improvements leading to the storm water retention pond to better facilitate water removal during washdowns. Warehouse improvements include removing a portion of the existing concrete slab by the warehouse to make the elevation and grades more effective. The balance of the unfinished ground to the west will be graded to the east and infilled with a slab of concrete to match the original improvements. Drainage will be improved by installing a new slab, concrete curbs, and bollards which will create added protection for the electrical transformers.

### Chilled water system upgrade - 5th floor mechanical room 435,113

Replace the existing R-22 refrigerant system that has become obsolete and unreliable. The current refrigerant system will be replaced with an upgraded air-cooled glycol feed system with updated piping. The new system will serve the control and relay rooms.

### Rack and pinion elevator replacement - ash silo 385,431

Replace the rack and pinion elevator at the ash silo. The current elevator was originally installed during construction of the plant and is now obsolete making it difficult to find replacement parts.

### Soot blower replacement 290,152

Project time frame: 2016-2020

Total cost estimate: \$1,463,000

Replace all existing retractable soot blowers for the Rawhide Unit 1 boiler to ensure unit heat rate and reliability. The current soot blowers are obsolete and require

frequent maintenance while replacement parts are becoming scarce. The new soot blower power and controls have a plug-in feature, which is safer for plant personnel. Currently Unit 1 has three models from two vendors installed. Once the project is complete, Unit 1 will have standardized equipment from one vendor. This allows for fewer inventory parts and reduced maintenance due to a rack-and-pinion style drive as opposed to the current chain driven equipment.

<b>Protective relay replacement</b>	
Combustion turbine Unit A	\$ 229,278
Combustion turbine Unit B	229,278
Combustion turbine Unit C	229,278
Combustion turbine Unit F	221,958
Project time frame: 2018-2019	
Total cost estimate: \$384,000	
Carryover estimate: \$87,000	
Combustion turbine Unit D	87,360
Project time frame: 2018-2019	
Total cost estimate: \$220,000	
Carryover estimate: \$10,000	
	<b>\$ 997,152</b>

Replace existing protective relays associated with combustion turbine Units A, B, C, D and F with microprocessor-based relays. A data connector will be installed that will collect analog and digital information from each newly installed relay. The relays will make information readily available for the Ovation system, enabling plant personnel to have the ability to utilize fault recording and sequence of events recording as a tool to diagnose failures or trips on the system. The upgrade will also help further standardize Schweitzer Engineering Laboratories as the primary manufacturer used at Rawhide, which will increase employees' ability to diagnose issues that may arise.

<b>HVAC units - combustion turbine yard</b>	<b>173,680</b>
Project time frame: 2019-2020	
Total cost estimate: \$370,000	

Replace 10 existing air conditioning units in the packaged electronic electrical control compartment buildings at the combustion turbine yard with updated 5.0 ton SunAir wall mounted units. The current R-22 units are reaching the end of their useful life and are becoming increasingly difficult and expensive to maintain.

<b>Station battery replacement - Rawhide Unit 1</b>	<b>101,946</b>
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Replace the Unit 1 station service battery bank by removing and replacing the 58 battery units currently in use. The current C&D Technologies LCR-25 batteries are reaching the end of their useful life and need to be replaced. They are the sole energy source to run oil pumps and other protective equipment when the unit trips.

• **LED lighting** \$ 100,000

Project time frame: 2016-2022

Total cost estimate: \$733,000

Replace all exterior and interior lighting throughout the plant with LED lighting which is more energy efficient and requires less maintenance than the standard high pressure sodium lighting currently installed. The LED lights have a 10 year warranty, thus reducing maintenance costs for that time period.

**Transformer nitrogen generator upgrade - combustion turbines** 93,445

Install nitrogen generators on combustion turbine transformers A-D. After the nitrogen generators are installed, the two 300 pound nitrogen bottles currently used will no longer be in service. The nitrogen bottles pose a safety issue for technicians and are not cost effective.

**Controls upgrade on auxiliary boiler** 58,239

Change the manual actuator on the sparging valve and install an actuator on the pegging valve allowing both to be controlled through Ovation. This change will allow operators to make subtle changes from their consoles rather than in the field.

**Oil water separator - Rawhide Unit 1** 47,309

Project time frame: 2019-2020

Total cost estimate: \$216,000

Install an oil water separator along the common storm water drain. Currently, storm water to the west and northwest of Unit 1 flows into Hamilton Reservoir without going through an oil water separator. With the installation of the new separator, Platte River will meet the criteria for what is considered to be best practice by the Colorado Department of Public Health and Environment.

**Switchgear replacement - Rawhide pump station** 27,955

Project time frame: 2018-2020

Total cost estimate: \$391,000

Carryover estimate: \$50,000

Replace Rawhide pump station switchgear in the substation. The existing switchgear was built before the power plant; newer and safer technology has been created since. The new switchgear will have an automated breaker scheme that has automatic transfer abilities making it safer than the current version.

**Total Rawhide projects** \$ 7,088,233

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## Rawhide outage projects

<b>GenAdvisor generator monitoring system - Rawhide Unit 1</b>	<b>\$ 243,621</b>
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Project time frame: 2018-2019

Total cost estimate: \$1,078,000

Install a monitoring system on the Rawhide Unit 1 generator. The new system monitors partial discharges, end winding vibrations, rotor interturn short circuits (flux probe) and rotor shaft voltage/shaft grounding current. The new system will provide information on the condition of equipment, reduce inspection time and will assist in mitigating unplanned outages. Each monitoring system will be tied to a platform server and power diagnostics center allowing for prompt detection of issues which can mitigate the number of unplanned outages. New cabinets and furniture will be installed in order to house monitoring equipment and organize the new equipment. The 2019 amount represents final costs to complete the project.

<b>Bottom ash and reclaim pond - coal combustion residuals compliance</b>	<b>35,411</b>
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Project time frame: 2017-2019

Total cost estimate: \$21,069,000

Carryover estimate: \$867,000

Install an ash handling system to comply in advance with federal and state solid waste management regulations. The project will include installing an under boiler chain conveyor which conveys bottom ash, pyrites and economizer ash into a new bunker. The new system will possess redundant capabilities allowing for maintenance while still online. The existing reclaim pond will also be modified to comply with state section 9 requirements. The 2019 funds will be used to complete the project which includes grading, installing pumps, completing backfill work, siding buildings, updating drawings and adding new drawings to Adept, collecting and filing O&M manuals, updating the distributed control system simulator and completing any remaining performance tests.

<b>Feedwater heater 102 replacement - Rawhide Unit 1</b>	<b>7,689</b>
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Project time frame: 2017-2019

Total cost estimate: \$598,000

Redesign and replace low pressure feedwater heater 102. Piping in the current heater is reaching the recommended replacement criteria of 10 percent plugged. Additionally, it has been degrading quickly due to added stress from heater 101 underperforming and significant wall loss. Replacement will allow for changes in incoming water and steam conditions and prevent problems from cascading into heater 103. The 2019 amount represents final costs to complete the project.

<b>Total Rawhide outage projects</b>	<b>\$ 286,721</b>
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## Rawhide purchases

<b>Railcar moving equipment</b>	<b>\$ 265,000</b>
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Purchase railcar moving equipment to move and empty loaded aluminum coal railcars on site. The new railmover has the ability to travel both on track and off track on rubber tires for maximum mobility. The current locomotive used to stage aluminum coal railcars has experienced recent mechanical issues that require an engine rebuild estimated to be \$0.1 million. There would likely be more problems beyond the repair with unknown cost estimates.

<b>Engine 12 replacement</b>	<b>120,000</b>
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Project time frame: 2018-2019

Total cost estimate: \$453,000

Carryover estimate: \$219,000

Replace Engine 12 with a type 3 interface engine. The new engine is a four-wheel drive vehicle that serves as a multi-purpose unit for industrial, structural, and wildland fire suppression with increased foam and water capabilities. The new engine will be safer for personnel and meet National Fire Protection Association standards.

<b>Demineralizer silica analyzer replacement</b>	<b>18,425</b>
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Replace the current silica analyzer for the demineralizer system. The current analyzer is reaching the end of its useful life and will no longer be supported by the manufacturer.

<b>Total Rawhide purchases</b>	<b>\$ 403,425</b>
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<b>Total Rawhide capital additions</b>	<b>\$ 7,778,379</b>
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## Other production projects

<b>Windy Gap Firming Project</b>	<b>\$ 3,173,628</b>
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Project time frame: 2001-2023

Total cost estimate: \$102,618,000

Carryover estimate: \$621,000

Platte River is participating in the Windy Gap Firming Project storage system to support long-term reliable delivery of Platte River's Windy Gap water. The Windy Gap system currently has very limited water storage capability putting Rawhide at risk. There is currently no dedicated storage for Windy Gap water requiring Platte River to find an alternative water supply in both wet and dry years as the Windy Gap water cannot be pumped during wet periods (no storage), or during dry periods (no water in priority to pump). Therefore, this project will provide storage and help ensure a continuous water supply in both wet and dry years. Platte River's share in the project is currently 16,000 acre feet of the total 90,000 acre feet of storage. The project is moving into the final design phase and construction is estimated to be complete with the reservoir ready to fill in 2023. The amounts shown represent Platte River's share of the project.

<b>Craig Units 1 and 2 projects</b>	<b>823,526</b>
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Project time frame: 2019-2028

Total cost estimate: \$21,909,000

The engineering and operating committee approved capital projects for plant improvements and additions at the Craig Station. The budget includes expenses for various projects for Craig Units 1 and 2 including the Ovation distributed control system upgrade, drum level, generator line and neutral flex link replacements, and battery monitoring. The amount shown represents Platte River's ownership share responsibility.

<b>Total other production projects</b>	<b>\$ 3,997,154</b>
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<b>Total production capital additions</b>	<b>\$ 11,775,533</b>
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# Transmission capital additions

## Transmission projects

- |   |                   |
|---|-------------------|
| <b>• Circuit switcher (T1,T3) addition, breaker replacement, relay upgrade - Harmony Substation</b> | <b>\$ 599,059</b> |
|---|-------------------|

Project time frame: 2017-2019  
 Total cost estimate: \$1,463,000  
 Carryover estimate: \$80,000

Replace existing motor operated disconnect switches on T1 and T3 with a circuit switcher that has a built-in disconnect switch to conform with current engineering standards, which will minimize North American Electric Reliability Corporation's standard requirements for the City of Fort Collins while providing equipment maintenance benefits to Platte River. The project includes replacing four oil circuit breakers with new SF6 gas breakers in an attempt to replace all oil filled circuit breakers in the transmission system by the year 2022. Additional dual core slipover bushing current transformers will be added to transformer T1. The project will also implement new standardized equipment for both metering and human machine interfacing.
  
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|-------------------------------------|----------------|
| <b>• Revenue meter replacements</b> | <b>385,818</b> |
|-------------------------------------|----------------|

Project time frame: 2018-2020  
 Total cost estimate: \$626,000

Replace 44 revenue meters. The existing meters are at the end of their useful life and are no longer supported. With the possibility of joining an energy market in the future, the existing meters need to be replaced to accommodate the requirement for high-side loss compensation. The new meters will also have enhanced data reporting capabilities.
  
- |                           |                |
|---------------------------|----------------|
| <b>• Airflow spoilers</b> | <b>350,851</b> |
|---------------------------|----------------|

Project time frame: 2017-2021  
 Total cost estimate: \$1,698,000

Install new airflow spoilers on the four transmission circuits near Rawhide where high-wind damage has occurred in the past. The new airflow spoilers will minimize conductor icing thus reducing galloping. Installation of the airflow spoilers will increase transmission system reliability by preventing system faults, as well as reduce maintenance costs.
  
- |   |                |
|---|----------------|
| <b>• Solar interconnection - Rawhide Substation</b> | <b>270,366</b> |
|---|----------------|

Purchase a portion of the capital assets necessary to connect to an existing 34.5.kV switchgear lineup for the 20MW solar addition. The solar developer is responsible for the switchgear protection, SCADA, construction contractors and current transformers. Platte River will retain a portion of the capital assets including the transformer modification, 38kV power cable and metering.

**Oil breaker replacements**

2082 replacement - Longs Peak Substation	\$ 236,967
362 replacement - Valley Substation	<u>214,912</u>
	\$ 451,879

Replace the existing oil breakers with new SF6 gas circuit breakers at the Longs Peak and Valley substations, and replace two disconnect switches at Valley Substation. The current oil breakers are over 30 years old and are reaching the end of their useful life. Spare parts have become difficult to locate as the equipment has aged. The new SF6 breakers are more reliable, require less maintenance and have less of a potential for environmental hazards.

**HVAC unit replacements - substations**

144,266

Project time frame: 2017-2028

Total cost estimate: \$774,000

Replace HVAC units at the Drake, Longs Peak, Timberline and Valley substations. The units are quickly deteriorating and have been operating past their expected useful life. HVAC units will be replaced with like units.

**Boundary metering remote terminal units - headquarters and disaster recovery center**

58,310

Replace the existing boundary metering remote terminal units. A new unit will be installed in the new headquarters campus building as well as an additional unit at the disaster recovery center for backup. The current remote terminal units are near the end of useful life and need to be replaced.

- **Hydrogen gas detectors**

45,376

Project time frame: 2019-2021

Total cost estimate: \$116,000

Install hydrogen gas detectors in all Platte River control buildings by 2021 to improve safety. Platte River substations have lead acid battery banks for control power, which produce oxygen and hydrogen during charging. Hydrogen, at high concentrations is highly explosive and currently Platte River has a limited number of installations that measure concentrations of hydrogen and annunciate if gas has accumulated.

- **Circuit switcher (T1,T2) addition - Linden Tech Substation**

41,689

Project time frame: 2019-2020

Total cost estimate: \$586,000

Replace existing motor operated disconnect switches on T1 and T3 with a circuit switcher that has a built-in disconnect switch to conform current engineering design standards. Replacing the motor operated disconnect switches will minimize North

American Electric Reliability Corporation's standard requirements for the City of Fort Collins while providing equipment maintenance benefits to Platte River. The project includes adding dual winding slipover bushing current transformers to transformers T1 and T2 and adding circuit switcher failure protection, overcurrent relaying, and bus protection to T1 and T2.

• **Transmission line vault upgrades - Crossroads Substation** **\$ 27,383**

Project time frame: 2018-2020

Total cost estimate: \$681,000

Carryover estimate: \$29,000

Upgrade five vaults along the transmission line to separate the existing circuits. Due to increased load, it will no longer be possible to de-energize both circuits at the same time. Separation of the underground 115kV circuits will improve system reliability and vault maintenance while keeping one circuit energized.

**Power line carrier equipment replacement - Blue River Substation (Tri-State)** **24,852**

Replace the current 230kV Gore Pass power line carrier equipment with a new RFL Gard Pro and RFL 9512 tuning cabinet in the yard. The current RFL 9780 in use was discontinued by the manufacturer making spare parts extremely difficult to find.

**Power line carrier equipment replacement - Rifle Substation (Tri-State)** **20,472**

Replace the current 345kV Meeker power line carrier equipment with a new RFL Gard Pro and RFL 9512 tuning cabinet in the yard. The current RFL 9780 in use was discontinued by the manufacturer making spare parts extremely difficult to find.

**Generator step up transformer replacements - Rawhide** **9,726**

Project time frame: 2019-2021

Total cost estimate: \$8,535,000

Replace the existing single phase generator step up transformers with new single phase ones. The Rawhide Unit 1 generator step up transformers were installed in 1984 and are reaching the end of their expected life. The spare single phase generator step up has also reached the end of its useful life. Generator step ups are critical to the operation of Unit 1. In order to operate Rawhide Unit 1 until the planned retirement date the single phase units need to be replaced.

**Total transmission capital additions** **\$ 2,430,047**

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# General plant capital additions

## General plant projects

- Headquarters campus** \$ 29,050,509  
Project time frame: 2017-2020  
Total cost estimate: \$50,416,000  
Design and build a cost effective and viable headquarters campus to better keep pace with advancements in the industry. The new campus will more accurately reflect Platte River's values while providing an easily accessible amenity to owner communities and the general public. An updated headquarters campus will provide a consolidated facility to currently separated work groups while accommodating future growth for decades to come. The project will allow Platte River to capitalize on new technologies and provide staff with the resources needed to operate more effectively and efficiently in a rapidly changing industry. The campus will also provide the community with better access to the region's energy experts and policy leaders who will guide a cleaner and more diverse energy future. Owner, contractors, design and bid contingencies are built into the project costs. More information on the project can be found on Platte River's website at [www.prrpa.org/headquarters](http://www.prrpa.org/headquarters).
- Real time tools** 568,624  
Integrate a real time tools system, including state estimation, and real time contingency analysis into Platte River's existing survalent SCADA system. The implementation of the real time tools system will help meet compliance standards for transmission operators and ensure reliable service to the owner communities.
- SONET communications system replacement** 307,805  
Project time frame: 2016-2021  
Total cost estimate: \$1,203,000  
Replace Platte River's current SONET system. The current SONET system is reaching the end of its useful life and will no longer be supported by 2023. Industry trends are moving away from SONET making maintenance of the current SONET system difficult and costly. The funds for this project are an estimate as a technology has not yet been selected. The selection is expected by the end of 2018.
- Storage area network replacement** 300,000  
Replace the storage area network which is approaching the end of its useful life. The new storage area network will provide better performance and administration.

The timing of the replacement will be aligned with the new headquarter campus project minimizing network downtime as both the old and new environments will be available concurrently.

**Distribution switches - headquarters** **\$ 235,000**

Install new distribution switches in the headquarters campus building to replace the existing switches in the current building. The distribution switches are used to extend the backbone core to the headquarters campus building and provide a point of connection for the building's access layer. This project will be aligned with the new headquarters building with intent to eliminate disruption. Existing switches are nearing the end of their useful life and are due for replacement. Installing the new switches will increase reliability, security and overall performance. Project completion is contingent on the headquarters campus project.

• **Integrated tools for operations application software - system operations** **197,820**

Install a software solution to create a centralized source/repository for Platte River control center operations for outages, work scheduling, work flow tracking, field requests, coordination with the reliability coordinator, and switching with maintenance personnel. The software solution will help improve Platte River's safety, reliability, compliance and communications between Platte River and the reliability coordinator, neighboring transmission operators, transmission maintenance personnel, as well as the owner communities.

**Conference rooms audio-video equipment replacement - Rawhide** **100,000**

Replace audio/video equipment in the Rawhide large conference room, small conference room, and construction management building. The current systems are at the end of their useful life and have support issues. The new equipment will be comparable to the new headquarters building allowing for ease of use and tech support.

**Core switches - headquarters** **85,000**

Install new core switches in the headquarters campus building, which are positioned within the physical core of the network and serve as a gateway to the internet as a final aggregation point. The current core switch hardware is 15 years old and security patches are no longer offered by the vendor. Replacing the hardware will increase overall network reliability and security. The installation will allow Platte River to run both old and new networks simultaneously, reducing the amount of network disruption while transitioning from the old to the new headquarters campus building.

**Virtual machine host replacement - headquarters** \$ 66,000

Replace the existing physical servers that house the virtual server environment with four new servers that will be placed in the new headquarters campus building. The old and new environments will run concurrently, minimizing downtime and impacts to Platte River's computer users.

**SCADA periodic network equipment replacement** 61,011

Project time frame: 2017-2022

Total cost estimate: \$239,000

Replace network equipment that has reached the end of its useful life and is no longer supported by the vendor. SCADA reliability, security and compliance rely on the availability of patches and vendor support which will be available once again after the hardware is replaced.

**Internet small computer systems interface switches - headquarters** 60,000

Install new internet small computer systems interface switches in the headquarters campus building. The new switches will allow for Platte River to run the old and new server environments concurrently, which minimizes downtime and the impact on network users. Current switches are nearing the end of their useful life and are due for replacement. Installation of the new switches will provide increased reliability, security and overall network performance. The project's completion is contingent on the completion of the headquarters campus project.

• **Security - Loveland substations walls** 58,653

Install surveillance and access control systems at a City of Loveland substation. The installation will take place after the new block wall is completed. The project will enable the City of Loveland to monitor and protect their critical substation assets.

**SCADA periodic server equipment replacement** 26,464

Project time frame: 2017-2023

Total cost estimate: \$208,000

Replace server equipment that has reached end of life and is no longer supported by the vendor. The current servers are out of warranty and need to be replaced to maintain a high level of reliability.

<b>Network monitoring intrusion detection system hardware</b>	<b>\$ 15,000</b>
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Replace network monitoring system "Albert." The existing system is old and the connectivity for monitoring the environment is slower than a newer unit. The current unit will be moved to the disaster recovery site and used for a backup internet link. The new unit will allow the network to be fully utilized with no restrictions.

<b>Total general plant projects</b>	<b>\$ 31,131,886</b>
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## General plant purchases

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<b>Vehicle fleet replacements</b>	<b>\$ 254,062</b>
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Replace five vehicles which meet or exceed Platte River's vehicle replacement criteria of twelve years or 90,000 miles. Platte River utilizes a fleet team to review fleet replacement processes and criteria. Platte River's vehicles have been maintained through average to long replacement cycles compared to other utilities. Replacement of these vehicles will bring the fleet up to standards.

<b>Test equipment - optical time-domain reflectometer</b>	<b>52,255</b>
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Project time frame: 2019-2020

Total cost estimate: \$102,000

Purchase a new EXFO optical time-domain reflectometer that will increase functionality to support fiber characterization and multi-mode fiber testing. Fiber characterization is necessary to run high capacity 10 gigabyte and higher bandwidth to support the future connectivity of the owner communities. Characterization modules will be purchased in 2020.

<b>Substation maintenance application licenses</b>	<b>50,000</b>
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Purchase additional software licenses for the Enoserv RTS 7 and Power Base 7 software packages purchased in 2017-2018. The additional licenses will allow multiple users to access the database at the same time.

<b>Copier replacement - headquarters</b>	<b>40,000</b>
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Replace the current copiers in service that are either up for lease or due for replacement. The replacement of these units will align with the new headquarters campus project.

<b>Electric forklift - headquarters warehouse</b>	<b>\$ 38,500</b>
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Purchase a Yale model #ERC065VG electric forklift for the new headquarters warehouse. The new warehouse will have storage shelving that is too high for the current forklift to reach.

<b>Records management system scanner replacements</b>	<b>12,000</b>
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Replace scanners that are beginning to have support issues and are approaching the end of their useful life. The new scanners will be configured to operate in conjunction with the records management software and will help standardize equipment.

<b>Plotter - headquarters facilities</b>	<b>11,000</b>
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Purchase and install a new plotter for the facilities department at headquarters. Currently, the systems engineering and facilities departments share a plotter. In the new headquarters building, these departments will not share the same work space. The purchase of an additional plotter for the facilities department will increase efficiency.

<b>Tool box - fleet mechanic</b>	<b>9,000</b>
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Purchase a Snap-on roll cabinet that will be used by the fleet technician. The current tool box is undersized and cannot accommodate the upfitting of a new complete tool set needed by the fleet technician.

<b>Total general plant purchases</b>	<b>\$ 466,817</b>
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<b>Total general plant capital additions</b>	<b>\$ 31,598,703</b>
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<b>Total 2019 capital additions</b>	<b>\$ 45,804,283</b>
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## Debt service expenditures

Long-term financial projections in line with SFP financial metrics determine the need and timing of debt financings. Debt proceeds historically have been used to finance production and transmission assets. Outstanding long-term debt consists of fixed-rate debt issued under Platte River's general power bond resolution. The debt service expenditures include principal repayments and interest expense, based on scheduled debt payments. Series HH will be paid off in 2019. Also in 2019, an accounting standard will be adopted resulting in interest during construction no longer being allocated to capital projects. Of the \$169.4 million debt outstanding, approximately 85 percent and 15 percent relate to transmission and Rawhide projects, respectively. A new Series KK debt financing of approximately \$100 million is planned for 2019 to fund the Windy Gap Firing Project. The weighted average cost of debt during 2019 is forecast to be approximately 3.4 percent.

### Credit ratings for power revenue bonds

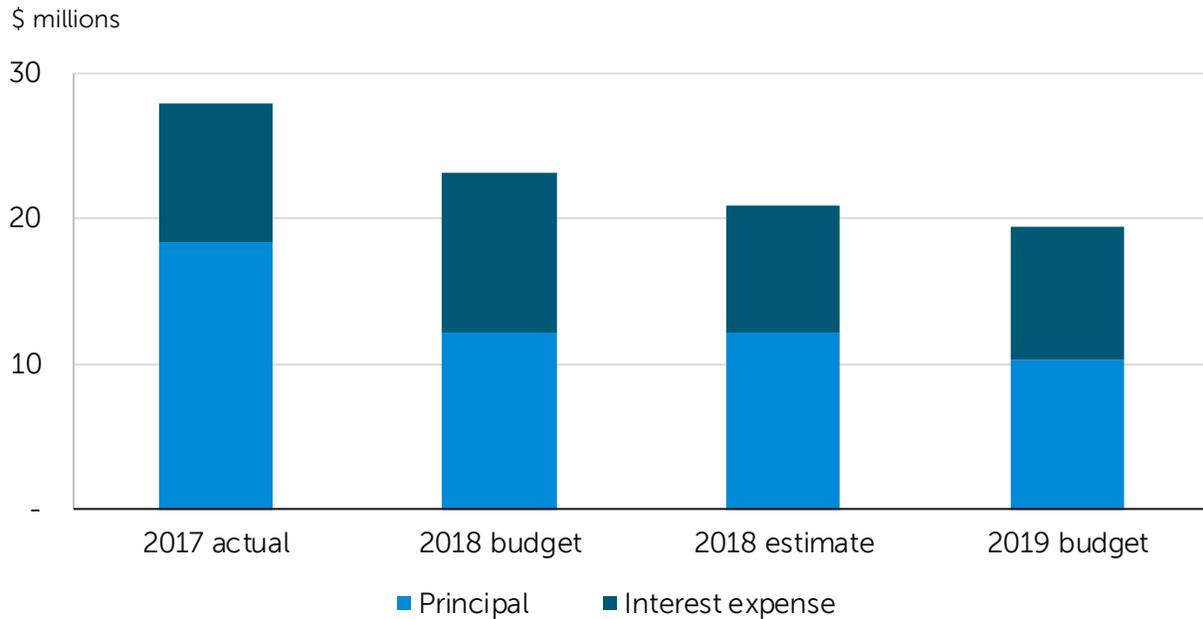
Platte River is committed to maintaining a strong credit rating, which is a significant factor in determining cost of debt. The senior lien debt credit is rated AA by all three credit rating agencies: Moody's, Fitch and Standard & Poor's (S&P). The key factors in determining these ratings are the diversity and economic strengths of the owner communities, Platte River's financial position, management expertise and overall competitive position.

Bond issue	Moody's	Fitch	S&P
Series HH	Aa2	AA	AA
Series II	Aa2	AA	AA
Series JJ	- <sup>(1)</sup>	AA	AA

(1) A credit rating was not obtained from Moody's for the Series JJ debt issuance.

Debt service expenditures (\$000)	2017 actual	2018 budget	2018 estimate	2019 budget
Principal	\$ 18,318	\$ 12,162	\$ 12,104	\$ 10,346
Interest expense	9,582	10,946	8,729	9,129
Power revenue bond service	\$ 27,900	\$ 23,108	\$ 20,833	\$ 19,475
Allowance for funds used during construction	(903)	(2,323)	(827)	-
Net debt service expenditures	\$ 26,997	\$ 20,785	\$ 20,006	\$ 19,475

## Power revenue bond service



Long-term debt outstanding	2017 actual	2018 budget	2018 estimate	2019 budget
<b>Power revenue bonds</b>				
Series GG	\$ 12,755,000	\$ -	\$ -	\$ -
Series HH	8,085,000	7,985,000	7,985,000	-
Series II maturing 6/1/2037	26,270,000	26,170,000	26,170,000	25,530,000 <sup>(1)</sup>
Series JJ maturing 6/1/2036	147,230,000	145,605,000	145,605,000	143,895,000 <sup>(2)</sup>
Series KK	-	95,000,000	-	100,000,000 <sup>(3)</sup>
Total power revenue bonds	<u>194,340,000</u>	<u>274,760,000</u>	<u>179,760,000</u>	<u>269,425,000</u>
Unamortized bond premium	<u>29,227,725</u>	<u>25,713,536</u>	<u>25,713,536</u>	<u>22,321,896</u>
Total net long-term debt	<u>\$ 223,567,725</u>	<u>\$ 300,473,536</u>	<u>\$ 205,473,536</u>	<u>\$ 291,746,896</u>

(1) Series II remaining amount outstanding relates to transmission assets.

(2) Series JJ remaining amount outstanding relates to transmission assets and Rawhide assets of \$118.3 million (82 percent) and \$25.6 million (18 percent), respectively.

(3) Estimated amount of Series KK debt issuance. Issuance was delayed in 2018 and is planned for 2019.

<b>Bond service coverage</b>	<b>2017 actual</b>	<b>2018 budget</b>	<b>2018 estimate</b>	<b>2019 budget</b>
<b>Net revenues</b>				
Operating revenues	\$ 213,297,382	\$ 220,492,361	\$ 222,207,644	\$ 227,045,117
Operating expenses, excluding depreciation	<u>(168,512,391)</u>	<u>(171,984,362)</u>	<u>(167,635,706)</u>	<u>(180,638,088)</u>
Net operating revenues	44,784,991	48,507,999	54,571,938	46,407,029
Plus interest and other income	<u>2,422,260</u>	<u>3,048,477</u>	<u>3,423,836</u>	<u>4,269,924</u>
Net revenues before rate stabilization	47,207,251	51,556,476	57,995,774	50,676,953
<b>Rate stabilization</b>				
Deposits	-	-	-	-
Withdrawals	-	-	-	-
Total net revenues	\$ 47,207,251	\$ 51,556,476	\$ 57,995,774	\$ 50,676,953
<b>Bond service</b>				
Power revenue bonds	\$ 27,899,574	\$ 23,108,227	\$ 20,833,225	\$ 19,474,686
Allowance for funds used during construction	<u>(902,904)</u>	<u>(2,323,411)</u>	<u>(827,034)</u>	<u>-</u>
Net revenue bond service	<u>\$ 26,996,670</u>	<u>\$ 20,784,816</u>	<u>\$ 20,006,191</u>	<u>\$ 19,474,686</u>
<b>Coverage</b>				
Power revenue bonds	1.75x	2.48x	2.90x	2.60x

# Budget process

Platte River is a political subdivision of the State of Colorado and is subject to the Local Government Budget Law, C.R.S. § 29-1-101, *et seq.* Platte River is not subject to Colorado's Taxpayer's Bill of Rights provisions because it operates as a proprietary fund. The statutory deadline for submission of Platte River's annual budget to its board of directors is Oct. 15 of each year. By that date, a notice is published in newspapers of general circulation stating that the annual budget is available for inspection by the public. The date and time for the public hearing is also published. The budget document can be found on Platte River's website at [www.prpa.org](http://www.prpa.org) and at Platte River's headquarters at 2000 East Horsetooth Road, Fort Collins, Colorado.

The budget was developed in alignment with the strategic initiatives and compliance with the financial framework described in the financial governance section. The budget was also developed with an adaptive strategy to effectively maintain system reliability, ensure environmental responsibility and regulatory compliance, as well as manage risk. Below explains how the budget is developed, reviewed and approved.

## Owner communities load forecast

Platte River's long-range load forecast is developed using an econometric model that incorporates independent variables including population, employment and weather. The forecast also includes demand and energy changes anticipated from energy efficiency programs. The budgeted monthly demand and energy load projections were based on the 10-year official load forecast.

## Production cost model

The major revenue and expense categories (sales for resale, purchased power and fuel) are developed from the results of an hourly production cost simulation model, Aurora XMP. Generation by resource is determined using assumptions for resource availability and performance, fuel and transportation contract costs, power purchase contract terms, and market prices for sales for resale, supplemental purchased power and natural gas.

## Personnel budget

The salaries budget is developed in accordance with the board policy on employee total compensation. A cost of living adjustment is included in regular wages based on data from a variety of published sources, both regional general industry and from other utilities. Position step increases and new positions are also included in the budget. New positions are requested by department managers who submit a position description and justification. The senior management team reviews the requests and decides the positions for the upcoming year based on the greatest need and value to Platte River. As positions become vacant, they are evaluated to determine if replacement is required or if the position can be allocated to another area. Overtime and capital labor are budgeted by the individual departments as a component of total

salaries. The remaining operating salaries are allocated to the functional accounts based on recent historical data. Medical and dental expenses are based on a mid-year projection provided by Gallagher Benefit Services using historical claims and industry cost projections. All projected benefit costs are applied to the budgeted labor charges.

## Departmental budgets

Each department must submit a budget on an account-by-account basis along with justifications, explanations and statistical information supporting the budget.

Department managers develop internal goals and work plans and align their activities with Platte River's strategic initiatives. Through internal work sessions the department budgets are reviewed and approved by division managers and senior management.

## Craig Units 1 and 2 budget

The participation agreement provides for the joint ownership of Craig Units 1 and 2, of which Platte River owns 18 percent. Tri-State, as the operating agent of the Craig generation station, is responsible for the daily management, administration, operation and maintenance of Craig Units 1 and 2 and related transmission facilities. All costs of operation and maintenance, other than fuel costs, are shared on a pro rata ownership basis. Participants are obligated to advance funds to the operating agent as required to make payments of operating and maintenance costs when due. The engineering and operating committee works closely with Tri-State staff to develop capital and operations and maintenance budgets to ensure future plant reliability through the life of the project.

## Joint transmission

Platte River's share of joint ownership projects include costs for the Ault-Fort St. Vrain, Craig-Bonanza, Hayden-Blue River, and Craig-Ault transmission lines, as well as Craig Units 1 and 2 transmission costs. The joint ownership project budgets are developed by the operating agents and approved by the participants through the engineering and operating committees.

## Billable projects

Platte River performs services on behalf of its owner communities. The services are structured under intergovernmental agreements and are billed directly to each owner community. Examples of services provided include customer information systems, distribution, SCADA and substation security. These activities are shown in the collaboration diagram on page 13.

## Capital budget

Capital projects are developed based on a five-to-ten-year planning horizon. With each budget cycle, projects are submitted with a project description and justification. Projects are planned based on resource availability and are categorized, ranked, prioritized and strategic projects are identified. A long-term capital forecast is also

prepared, reviewed and updated three times a year. The long-term capital forecast is used for long-range financial planning to determine rates, cash flows and the timing of debt financings.

## Budget contingency

The budget contingency can be used to meet unexpected expenditures that could not be foreseen at the time the budget was prepared. Events that may require the use of the contingency include unplanned generation or transmission outages, significant increases in power market or natural gas prices, unplanned expenses to maintain power supply to the owner communities, or the adoption of an accounting policy which impacts expenditures. It may also be used for existing capital projects that require expenditures above those budgeted as the result of scheduling changes, payment timing differences, changes in work scope, price fluctuations or new projects the board of directors deem important to start before the next budget year. The contingency has been used five out of the last nine years and a contingency transfer is not unusual for capital projects. Prior to transferring contingency to an expense category, staff must notify the board of directors of the need for the transfer and present a resolution proposed for adoption. The budget contingency appropriation amount represents approximately 10 percent of the operating expenses and capital additions to align with fluctuations in the budget. Prior to 2018, the budgeted contingency was a fixed amount.

Year	Contingency appropriation budget (\$000)	Appropriated amount (\$000)	%	Purpose
2009	\$20,000	-	-	
2010	\$20,000	\$6,000	30%	Additional expenditures for timing changes related to the 230kV transmission expansion capital projects.
2011	\$20,000	\$5,407	27%	Cost overruns for the 230kV transmission capital projects.
2012	\$20,000	-	-	
2013	\$20,000	-	-	
2014	\$20,000	-	-	
2015	\$20,000	\$6,640	33%	Additional expenditures for several capital projects including the Craig Unit 2 NOx removal, the fiber route to Estes Park, and the control room for the digital control system, as well as ancillary services related to additional wind generation.
2016	\$20,000	\$1,200	6%	Additional expenditures for the initial progress payments for the generator rotor replacement project and the generator stator rewind project to be completed during the 2018 planned maintenance outage.
2017	\$20,000	\$1,100	6%	Additional expenditures for the initial progress payments for the bottom ash and reclaim pond project to be completed during the 2018 planned maintenance outage.
2018	\$23,000	- <sup>(1)</sup>		

(1) A contingency transfer for capital projects is planned to be requested at the December 2018 board of directors meeting.

## Management review

Financial statements, budget summary, budget detail and division/department budget reports are prepared and analyzed for management review. A proposed budget work session with the managers and the general manager/CEO is held to provide discussion and analysis of the budget and to ensure that expenditures for the budget year are consistent with goals, objectives and strategic initiatives, and conform to the rate structure and SFP. This discussion and analysis may result in revisions, deletions, reductions or additions of budget items. The budget is revised accordingly, and the reports are revised and distributed to management for further review.

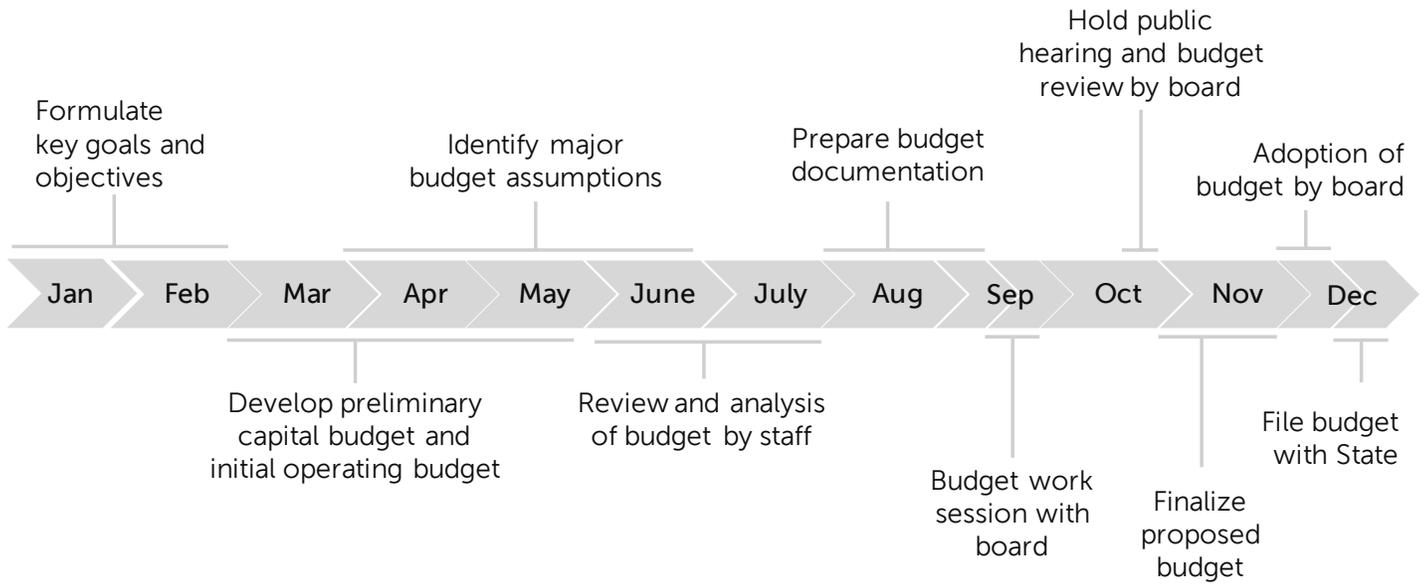
## Budget document

The annual budget document is a comprehensive document used by Platte River's management as a planning tool and a means of communicating to the board of directors and the public. The budget document is prepared in compliance with the Local Government Budget Law of Colorado and is submitted to the state no later than thirty days following the beginning of the fiscal year of the adopted budget. The budget document must show: all proposed expenditures as well as all sources of anticipated income; estimated beginning and ending fund balances; the corresponding actual figures for the prior fiscal year and estimated figures projected through the end of the current fiscal year; a written budget message; and explanatory schedules or statements.

## Board review and adoption

The proposed budget is distributed to the board of directors in September and a budget work session is scheduled at the September board meeting. Legal notices are published in the four owner communities' newspapers stating: the budget has been delivered to the board; it is available for public inspection; the date and time of a public hearing which is scheduled at the October board meeting; and that the adoption of the proposed budget will be considered at the December board meeting. Revisions to the budget during the board work session or other revisions arising from unanticipated changes are reviewed with the board at the October board meeting. Final adjustments to the proposed budget may be made prior to board adoption in December.

## Budget Schedule



# Financial governance

The Local Government Budget Law of Colorado, in addition to the policies listed below, provide the framework for Platte River's financial activities and budget development.

## Fiscal resolution

The resolution is adopted as a requirement of the organic contract that governs the financial transactions of Platte River.

## Strategic financial plan

Platte River Power Authority's SFP provides direction to create long-term financial sustainability, manage financial risk and support Platte River's mission, vision and values. The priorities of the SFP are to generate adequate cash flows, maintain access to low-cost capital, provide wholesale rate stability and maintain sufficient liquidity for operational stability. To achieve long-term financial sustainability and the lowest practical cost of debt necessary to finance Platte River's long-term capital program, financial metrics have been established in consideration of rating agency guidelines. Additionally, to manage financial assets and risk, staff will continue to implement and maintain prudent business practices in the management of reserves, maintain the enterprise risk management program, and comply with financial policies and procedures. Staff reviews the SFP annually and makes recommendations to the board as necessary.

## Rate requirements and practices

The general powers of Platte River, as stated by C.R.S § 29-1-204(3)(j), include the right to fix, maintain, and revise fees, rates, and charges for functions, services, or facilities provided. Platte River's board of directors has the exclusive authority to establish electric rates.

The power supply agreements with the owner communities require the board to review rates at least once each calendar year. The agreements also require that rates be sufficient to cover all operating and maintenance expenses, purchased power costs, debt service expenses, and to provide reasonable reserves and adequate earnings margins so Platte River may obtain favorable debt financing.

The general power bond resolution requires that rates be sufficient to generate net revenues that cover debt service expense at a minimum 1.10 times. The general power bond resolution also requires Platte River to review rates and charges as necessary, no less than once each calendar year.

Platte River strives to maintain long-term competitive rates relative to regional peer wholesale electric providers. Competitive wholesale rates provide the owner communities an economic advantage for their residential, commercial and industrial customers.

Platte River's tariffs and charges will be established to achieve SFP targeted financial metrics. Multi-year rate smoothing strategies will also be utilized, as deemed appropriate, to avoid greater single year rate impacts or to accomplish specified financial objectives.

### **Financial metrics**

The financial metrics outlined below aid in achieving long-term financial sustainability (liquidity, leverage, cash flow, earnings). Additionally, achieving strong financial metrics provides Platte River the flexibility to implement necessary rate changes and to change rates over longer periods of time to minimize short-term rate impacts. While the financial metrics are established and evaluated on an annual basis, multi-year performance is considered during the evaluation of rate action and decision making.

- Generate minimum 1.50 times fixed obligation charge coverage ratio
- Generate minimum net income equal to 3 percent of projected annual operating expenses
- Target debt ratio less than 50 percent
- Target minimum 200 days unrestricted cash on hand

### **Rate stabilization account**

Under the general power bond resolution, Platte River has established a rate stabilization reserve account. Deposits to this account are a reduction to current net revenues for purposes of computing bond service coverage. Future withdrawals will increase net revenues for purposes of computing bond service coverage and could assist Platte River, at such time, in meeting its wholesale rate covenant. Withdrawals from the reserve account have not occurred to meet bond service coverage in Platte River's history and the current rate stabilization reserve account is a balance sheet item of \$20 million. Risk analysis is performed annually to determine the appropriate level to maintain in the account.

### **Power supply agreements**

The power supply agreements define the terms and conditions for the sale and purchase of electricity by Platte River to its owner communities. Currently all four power supply agreements run through 2050.

### **General power bond resolution**

The general power bond resolution allows bonds to be issued and sold for a specific purpose and establishes the rights and responsibilities of each party in a bond contract (the issuer and the bondholder). The bonds represent money loaned and entitle the holder to interest payments and the return of principal.

## Bond service coverage

Bond service coverage is a key indicator of financial strength and is reviewed by the credit rating agencies when assessing Platte River's credit quality. Bond service coverage is a measure of Platte River's ability to generate cash to pay bondholders. Under the general power bond resolution, Platte River is required to charge wholesale electric energy rates to the owner communities that are reasonably expected to yield net revenues for the forthcoming 12-month period that are at least equal to 1.10 times total power bond service requirements.

## Use of restricted and unrestricted resources

The use of restricted and unrestricted resources is based on the intended purposes as indicated in the bond resolutions.

## Investments

Platte River's investment policy provides a framework for managing its investments. Platte River shall invest and manage assets as a prudent investor would, by considering the purposes, cash requirements and terms of the various funds. In satisfying this standard, the chief financial officer shall exercise reasonable care, skill and caution. Investment and management decisions will be evaluation not in isolation but in the context of the portfolio as a whole and as a part of an overall investment strategy having risk and return objectives reasonably suited to Platte River. The primary objectives of investment activities shall be safety, liquidity and yield. Platte River only invests in obligations of the United States government and its agencies and other investments permitted under Colorado law.

## Risk management

Platte River's risk oversight committee consists of the general manager/CEO, senior management and key staff members. Platte River proactively identifies, evaluates, ranks and mitigates risks significant to Platte River. These are risks that could negatively impact electric supply, finances, reputation and safety. Using a bottom-up approach, the risk management process provides the framework to identify and assess specific risks by soliciting input directly from subject matter experts throughout the organization and developing mitigation strategies. This approach has increased employee engagement, resulting in more accurate risk assessment and mitigation development.

Platte River maintains several different types of insurance including auto liability, commercial crime, directors and officers liability, fiduciary liability, excess liability, medical professional, property, employee health, and workers' compensation. The aggregate property casualty limits are \$150 million. Platte River self-insures the first one million dollars of general liability exposure with an excess liability policy of \$35 million. Platte River carries directors and officers liability insurance of \$10 million and will be securing cybersecurity insurance in 2019. A stop loss insurance policy covers medical claims in excess of \$175 thousand per participant, limiting Platte River's

exposure to significant claims in any given year; however, exceptions can be applied by the insurance carrier.

### **Basis of accounting**

Platte River accounts for its financial operations as a proprietary fund and financial statements are prepared using the accrual method of accounting in conformity with accounting principles generally accepted in the United States of America. Platte River's accounts are maintained in accordance with the Uniform System of Accounts as prescribed by the Federal Energy Regulatory Commission.

As a board-regulated entity, Platte River is subject to the provisions of Governmental Accounting Standards Board Statement No. 62, Codification of Accounting and Financial Reporting Guidance Contained in Pre-Nov. 30, 1989, FASB and AICPA Pronouncements, Regulated Operations, paragraphs 476–500, which requires the effects of the rate making process to be recorded in the financial statements. Accordingly, certain expenses and revenues normally reflected in the statements of revenues, expenses and changes in net position as incurred are recognized when they are included in Platte River's wholesale rates. Platte River has board approved accounting policies for specific activities following this standard.

### **Operating revenues and expenses**

Operating revenues and expenses consist of those revenues and costs directly related to the generation, purchase and transmission of electricity. Operating revenues are billed and recorded at the end of each month for all electricity delivered. Revenues and expenses related to financing, investing and other activities are considered to be nonoperating.

### **Capital**

Capital additions include expenditures of five thousand dollars or more for property, equipment or construction projects with an estimated useful life greater than two years. Expenditures less than five thousand dollars are reflected within the operations and maintenance expense budget. The Craig Units 1 and 2 capital budget was prepared by the operating agent, Tri-State, and has been approved by the engineering and operating committee of which Platte River is a member. Depreciation is recorded using the straight-line method over the estimated useful lives of the various classes of plant in service.

The project management framework establishes guidelines for initializing, planning, executing, controlling and closing a project. Capital and operations and maintenance projects that meet certain criteria follow this framework. Platte River management has placed an emphasis on reviewing resource availability to more realistically plan projects.

Capital projects can be delayed for various reasons. The previous year unexpended amounts may be due to construction delays, change in scope, or payment timing differences and will be determined after the Dec. 31 year-end closing. Budget law

allows Platte River to carry over into the next year any unexpended balance of funds appropriated for the previous year expenditures. The amounts required in the next year to complete the previous year projects will then be transferred to the appropriate budget categories in the next year. This is termed the carryover process and is preferred versus re-budgeting the funds. The capital additions will be funded either from current operations and/or proceeds from debt financings.

As unplanned projects come up throughout the course of the year, project managers follow the internal out-of-budget or over budget process to submit the project for consideration. Each project is described, justified and other impacts are evaluated. The project is then reviewed on merit by the general manager/CEO. If the project is approved, overall project schedules may change to accommodate the new or revised project. Given the amount of variability and uncertainty with projects, funding is tracked closely and the carryover process is implemented if a project cannot be completed in the given year. If additional funds are required, a contingency transfer will be requested of the board to move funds into the capital budget.

# Acronyms and terms

A&G	Administrative and general.
Accrual	An expense is recognized before cash is paid out.
Amortization	Gradual reduction of book value for a non-depreciable asset.
Capacity factor	The ratio of the average load on a generator for the period of time considered to the capacity rating of the generator.
Capital and debt management fund	A dedicated fund authorized by Platte River's strategic financial plan to be used in managing debt and to provide reserves for future capital additions.
CIP	Critical Infrastructure Protection – regulated by NERC.
Contingency	An appropriation of funds to cover unforeseen expenditures which may occur during the budget year.
CRSP	Colorado River Storage Project – division of Western Area Power Administration.
Debt service	Bond interest and principal.
Bond service coverage	Net revenue divided by debt service.
Debt ratio	Long term debt, net divided by total electric utility plant plus net working capital.
Depreciation	That portion of the cost of a fixed asset charged to operations to allow for lost usefulness.
DER	Distributed energy resources – a demand side management program.
DR	Demand response – a distributed energy resources program.
DSM	Demand side management.
Estimate	Current estimate of revenues and expenditures to reflect actual revenues and expenditures (January through October) and budget revenues and expenditures (November and December). Some modifications were made to reflect more accurate projections.
FERC	Federal Energy Regulatory Commission.
Fiscal resolution	A resolution that governs the financial transactions of Platte River.

<b>General power bond resolution</b>	A resolution for providing the issuance of power revenue bonds.
<b>GW</b>	One thousand megawatts; one million kilowatts.
<b>GWh</b>	One gigawatt of power delivered steadily for one hour.
<b>IRP</b>	Integrated resource plan.
<b>kW</b>	Kilowatt; one thousand watts.
<b>kW-Mo</b>	The maximum kW reached during a calendar month used for billing demand.
<b>kWh</b>	One kilowatt of power delivered steadily for one hour.
<b>kV</b>	Kilovolt; one thousand volts.
<b>LAP</b>	Loveland Area Projects – division of the Western Area Power Administration.
<b>MBtu</b>	One million Btu. A Btu is a British thermal unit and is the standard unit for measuring quantity of heat energy, and represents the amount of heat energy necessary to raise the temperature of one pound of water one degree Fahrenheit.
<b>Owner communities</b>	Estes Park, Fort Collins, Longmont and Loveland. The four owner communities of Platte River.
<b>MW</b>	Megawatt; one thousand kilowatts.
<b>MWh</b>	One megawatt of power delivered steadily for one hour.
<b>NERC</b>	North American Electric Reliability Corporation.
<b>Net income</b>	Revenues less operating costs, depreciation, amortization and interest expense.
<b>Net revenue</b>	Total revenues less operation and maintenance expenses during a period.
<b>O&amp;M</b>	Operations and maintenance.
<b>Projected</b>	Estimate of revenues and expenditures based on past trends, current economic conditions and future financial forecasts.
<b>Rate stabilization fund</b>	An account provided for by Platte River's general power bond resolution and funded in accordance with Platte River's strategic financial plan.

<b>Restricted assets</b>	Cash and investment accounts restricted to use by bond covenants or laws and regulations.
<b>SCADA</b>	Supervisory control and data acquisition.
<b>SFP</b>	Strategic financial plan.
<b>Sales for resale – contract</b>	Firm sales of energy intended to have assured availability as set forth by a contract with duration greater than a year.
<b>Sales for resale – short-term</b>	Sales of electric energy having limited or no assured availability for a period of one year or less.
<b>WAPA</b>	Western Area Power Administration.
<b>Wheeling</b>	Use of transmission facilities of other utilities.