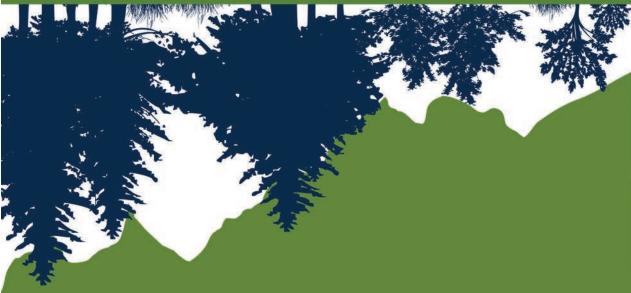
## 2014 STRATEGIC PLAN





THE ENERGY WE LIVE BY™

ESTES PARK | FORT COLLINS | LONGMONT | LOVELAND



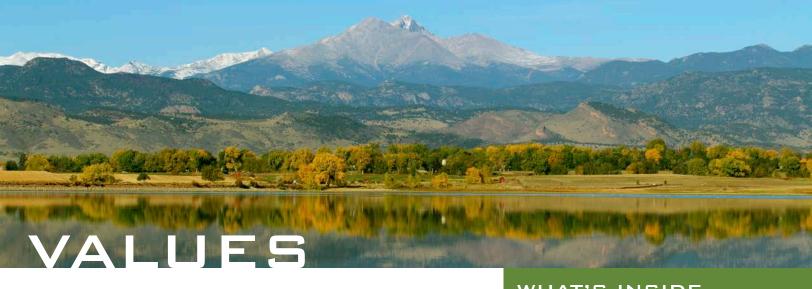
www.PRPA.org

## Our Mission...

Provide safe, reliable, environmentally responsible, and competitively priced energy and services.

## Our Vision...

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



#### SAFETY

Working safely and protecting the public, our employees, and the assets we manage is non-negotiable.

#### INTEGRITY

Being ethical and holding ourselves accountable to conduct business in a fair, honest, open, compliant, and environmentally responsible manner is at the core of what we do.

#### CUSTOMER SERVICE

Providing quality service at a competitive price while being responsive to our owners' needs creates added value and improves customer satisfaction.

#### RESPECT

Encouraging constructive dialogue that promotes a culture of inclusiveness, recognizes our differences, and accepts varying viewpoints will lead us to optimal solutions for even the most difficult challenges.

#### **OPERATIONAL EXCELLENCE**

Engaging employees to strive for excellence and continuous improvement ensures that we provide reliable service while managing costs and creating a rewarding work environment.

#### INNOVATION

Supporting the development of technologies to promote the efficient use of electricity, protect the environment, and create a diversified energy supply portfolio mitigates risk and creates opportunities.

#### SUSTAINABILITY

Maintaining financial integrity, minimizing our environmental impact, and supporting responsible economic development in our owner communities ensures the long-term viability of the organization and the communities we serve.

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Jackie Sargent - General Manager
PLATTE RIVER POWER AUTHORITY

## from the... GENERAL MANAGER

Platte River Power Authority is honored to provide safe, reliable, environmentally responsible and competitively priced energy and services to Estes Park, Fort Collins, Longmont and Loveland, Colorado. This mission has allowed us to improve the quality of life for the citizens of our four owner communities over the past forty years.

Our Board of Directors and staff have begun an in-depth planning process—one that will support strategic thinking and the development of adaptive strategies for the future. The result of our effort thus far is outlined in this summary document. Platte River's 2014 Strategic Plan is fluid, and will be updated annually as detailed analyses of future scenarios are completed, new technologies evolve, and market opportunities develop. The plan is not set in stone, but is rather a guide for developing an adaptive strategy to sustain Platte River Power Authority and the communities we serve for the next forty years and beyond.

The plan is not set in stone, but is rather a guide for developing an adaptive strategy to sustain Platte River Power Authority and the communities we serve for the next forty years and beyond.

#### GENERAL MANAGER

CONTINUED

In managing any business, it is important to think strategically about risks and opportunities—no different from how one would manage an investment portfolio. Generation resources currently serving the four cities are comprised of coal, hydropower, wind and natural gas. Because we rely heavily on coal resources, we are faced with potentially significant financial, legislative and regulatory risks. The lack of intermediate resources in the existing resource mix also limits our flexibility in potential future electric markets. Citizens have expressed interest in more renewable generation and innovative technologies that will help reduce the carbon footprint of Platte River's energy resources. We are listening closely to discern customers' future resource preferences.

Understanding the implications of potential future changes to our resource mix will require detailed analysis—we have so far only scratched the surface. Platte River is committing staff and other resources to evaluate options to diversify our future energy supply portfolio and reduce our carbon footprint while remaining the lowest cost wholesale power provider based in Colorado. We will be considering a number of potential future scenarios and comparing these to a "business as usual" base case, trying to identify the associated risks and opportunities. We're also stepping up our capabilities to ensure expanded collaboration and communications with the communities. As we develop these new areas, we will continue to focus on our values of safety, integrity, customer service, respect and operational excellence. We will seek opportunities to integrate technological innovation and sustainability in all areas of Platte River's business.

We are committed to building on our strong foundation to create the energy future our communities deserve.



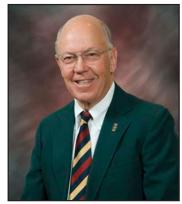


### **BOARD OF DIRECTORS**

Platte River Power Authority is a joint action agency and political subdivision of the State of Colorado. It is governed by an independent eight-member Board of Directors that provides local decision making and control. The Board has been actively involved in the development of the 2014 Strategic Plan.



TOM ROINIOTIS
CHAIRMAN
Director, Power & Communications
City of Longmont



BILL PINKHAM VICE CHAIRMAN Mayor Town of Estes Park



CECIL GUTIERREZ SECRETARY Mayor City of Loveland



DENNIS COOMBS

Mayor

Town of Longmont



REUBEN BERGSTEN

Utilities Director

Town of Estes Park



STEVE ADAMS
Director, Water and Power
City of Loveland



Mayor
City of Fort Collins

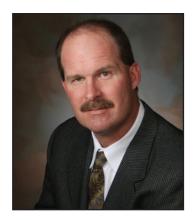


GERRY HORAK
Mayor Pro Tem
City of Fort Collins



## SENIOR MANAGEMENT TEAM

Platte River Power Authority operates under the direction of a General Manager who serves at the pleasure of the Board of Directors. Platte River's senior management has extensive experience, with an average of over 25 years of service in the utility industry.



JASON E. FRISBIE Chief Operating Officer



JACKIE SARGENT
General Manager



KARIN L. HOLLOHAN Corporate Services Director



DEBORAH R. SCHANEMAN
Environmental Services &
Compliance Director



**DAVID D. SMALLEY**Chief Financial & Risk Officer



JOHN R. BLEEM
Strategic Planning &
Customer Service Director



JOSEPH B. WILSON
General Counsel

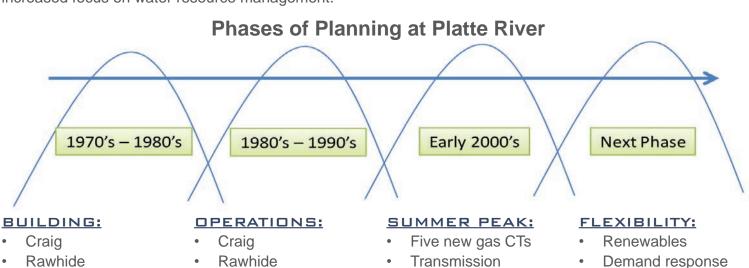


BARBARA ATESHZAR
Government &
External Affairs Officer



#### INTRODUCTION

Since its inception, Platte River has been active in planning for the future. Planning has taken many forms over the years, with the primary focus on new electric supply resources to serve the needs of the Municipalities. Planning efforts have continued to evolve over Platte River's history. As indicated in the graphic below, the initial focus of the organization was on building resources to meet the growing Municipal loads as federal hydropower sources were limited (1970's - 1980's). Once these resources were built, the focus shifted toward operational considerations, along with ensuring sales of excess capacity and energy (1980's - 1990's). The last planning cycle (early 2000's) was dominated by the addition of new gas generation to meet the fast growing summer peak demands of the Municipalities. Rate increases were also a significant consideration during this time, with the first rate increase since 1983 occurring in 2004 and cumulative rate increases of over 50% of the 2003 level implemented by 2013. Other considerations during this period included expansion of demand side management resources, increased maintenance costs for aging infrastructure, expansion of transmission capacity and increased focus on water resource management.



- **Transmission**
- Transmission
- Municipal sales
- PSCo CAE sale
- Debt reduction
- End of PSCo sale
- Hydro (drought)
- Craig & Rawhide operations
- Rate increases
- Distributed generation
- New technologies
- Diverse member needs
- Balancing multiple uncertanties & managing risks

Going forward, the organization faces new, significant risks, including the challenges of climate change, other new environmental legislation and regulations related to coal generation, fuel and market price volatility, physical and cyber security threats, an aging workforce, increasingly diverse needs among the Municipalities and new transitions in wholesale markets. The next phase of planning will require Platte River to increase its flexibility, focusing on new areas, while building on existing strengths.

Platte River's management team began a new strategic planning effort in late 2012 by reviewing challenges and opportunities facing the organization. Gaps were identified and a reorganization was implemented to allow for increased attention to long-term planning and risk management. Working with the Board of Directors, a new set of Mission, Vision and Value statements were developed and multiple activities were initiated to prepare for an in-depth discussion with Board members regarding future direction of Platte River.



## STRATEGIC PLANNING DIRECTION

As part of the strategic planning process, a special all-day meeting of the Board of Directors was held in July 2013 to review planning-related information and to allow management to gather direction from the Board regarding Platte River's future. During this meeting, seven statements of strategic direction were provided to the management team by the Board.

#### STRATEGIC DIRECTION STATEMENTS

- Management should explore ways to improve collaboration and communication among the partner cities, facilitated by Platte River.
- ▶ Platte River should investigate options to reduce/mitigate its carbon footprint using Colorado's approved Climate Action Plan *as a guide* (20% below 2005 levels by 2020 and 80% below 2005 levels by 2050).
- Platte River management should be directed to look at diversifying and balancing the generation supply portfolio.
- ▶ Platte River management should be directed to look at the expansion of renewable resources using the measures established for cooperatives in Colorado SB 13-252 **as a guide** (20% of retail energy from qualified sources by 2020).
- In the context of above items (2, 3 and 4), Platte River management should present to the Board an energy-portfolio diversification plan [in the context of a comprehensive strategic plan] that keeps us competitive, meaning Platte River should remain the lowest cost wholesale power provider located in Colorado.
- ▶ Platte River management should explore opportunities for administering a common survey with the four Cities.
- Platte River should become strategically aware of technology, innovation trends and opportunities.



## OUR 2014 INITIATIVES & GOALS





Based on the directives from the Board and other planning efforts completed to date, a set of initiatives, objectives and goals has been developed for 2014. These provide high level direction and focus for all divisions within Platte River. Six of these relate to bolstering existing strengths and enhancing ongoing efforts in the areas of safety, customer service, operations, compliance, financial strength and employee engagement. Three new initiatives have been developed in response to Board direction and staff's initial risk analysis: (1) improving collaboration and communications among the Municipalities and Platte River, (2) evaluating options to reduce greenhouse gas emissions and, (3) increasing focus on technology and innovation. It is anticipated that these Initiatives, Objectives and Goals will be updated by management and brought to the Board of Directors for approval on an annual basis—as part of the annual strategic planning process.



#### SAFETY FOCUS

It is the basic safety policy of Platte River that no job is so important and no service so urgent that an employee must violate a safety rule or risk injury/illness over taking the time to perform work safely.

- Review and update the Emergency Response Plan.
- Reach out to local law enforcement, emergency management services, and fire departments to engage in tabletop exercises and support coordinated emergency response planning and communications.
- Continue to define and implement a safety focused culture and further document safety procedures.



### EXCEPTIONAL CUSTOMER SERVICE

Continuously improve services to the Municipalities by maintaining a high level of knowledge regarding Municipality and retail customer needs and preferences, identifying and tracking key performance metrics, and integrating new information into future program/ services planning decisions.

- Meet energy savings and peak demand reduction targets for established Common DSM programs and services.
- Expand DSM program offerings to include implementation of new innovative technologies.
- Support the Municipalities' key account program by engaging more actively with Municipal staff and targeting program and service offerings more directly to these customers.
- Support economic development efforts in the Municipalities through program and service offerings with a focus toward contributing to the success of local businesses.
- Develop proactive and comprehensive methods of obtaining feedback from Municipalities and customers, including implementing joint customer satisfaction surveys.
- Work jointly with the Municipalities, establish customer satisfaction goals for Platte River services, and provide staff support to the Municipalities.
- ▶ Align strategic planning efforts to support key 2014 initiatives of the Municipalities.
- ▶ Engage in expanded outreach opportunities to Municipality and community groups.
- Work with the Municipalities on legislative and regulatory issues that impact all of us.
- ldentify and implement co-branding opportunities with the Municipalities.



#### OPERATIONAL EXCELLENCE

Platte River will implement a coordinated process whereby we optimally manage physical and personnel assets and their performance in a way that maximizes value, while taking into account risk, costs, safety, efficiency and performance for the purpose of achieving our mission and strategic objectives.

#### GOALS

- Provide system-wide transmission reliability to maximize safe and efficient energy delivery to our owner communities and surplus sales customers.
- ▶ Operate and maintain safe, reliable, affordable and environmentally responsible generating assets to provide owner communities a strategic advantage in wholesale power costs.
- Maximize fuel efficiency at all generating facilities in order to minimize fuel costs.
- ▶ Reduce generation and transmission operating and maintenance expenditures to manage delivered energy costs.
- Maximize asset utilization to improve opportunities to generate surplus sales revenue.
- Manage our water resources through a comprehensive Board approved water policy that facilitates asset utilization and optimization both now and into the future.
- Work with our local, state and federal government and regulatory agencies to ensure a favorable political climate for our continued operations.
- Develop a long-term facilities master plan.
- Develop an overall security policy.
- Develop and implement a formalized project management process.

## COMPLIANCE ASSURANCE

Platte River will reinforce, support and sustain a strong and consistent culture of compliance which builds compliance consciousness into our daily activities and operations and encourages each employee to conduct business with the highest standards of integrity, operational excellence and sustainability.

- No regulatory compliance violations resulting in fines.
- No environmental compliance violations.
- ▶ Review and update policies to enhance operations, create efficiencies, and ensure that appropriate controls are in place.
- ▶ Review and update the process for contract administration and compliance.

## FINANCIAL STABILITY

Platte River will maintain long-term financial stability by focusing on financial planning, financial reporting and risk management.

#### GOALS

- Manage budgeted revenues and expenditures to meet Strategic Financial Plan targets.
- Review and update the Strategic Financial Plan to ensure targets are adequate based on new strategic initiatives that are developed.
- ▶ Review and analyze opportunities for the next bond financing.
- Evaluate new technology to improve efficiency and effectiveness of budgeting, analysis and reporting.
- Provide timely and accurate reporting of financial information as well as the implementation of new accounting standards.
- ▶ Review and revise Risk Plan assessments and mitigations with the Risk Oversight Committee.
- ▶ Review and revise internal processes to improve efficiency and controls.

## DIVERSIFIED ENERGY SUPPLY PORTFOLIO

Platte River will evaluate options for diversifying its future mix of resources – integrating both supply and demand side technologies and capitalizing on regional competitive strengths (proximity to natural gas and coal, excellent wind and solar resources and local/regional energy technology research and development).

- Evaluate natural gas combined cycle generation and other options to support integration of additional renewable energy resources, to diversify the resource mix and to provide flexibility for future electric market scenarios.
- Conduct an analysis to evaluate alternatives for decreasing Platte River's greenhouse gas emissions and identify the associated cost implications.
- ▶ Conduct an analysis for meeting retail customer energy requirements using increasing levels of renewable resources and the associated cost implications.
- ▶ Update Platte River's Renewable Energy Supply Policy.
- Analyze the potential benefits and costs of distributed generation at Municipal utility and retail customer levels and integrate cost effective alternatives into the next Integrated Resource Plan.
- ► Track innovative technologies to enhance energy supply and implement cost effective improvements utilizing new technology opportunities.
- Seek Board approval of a new Integrated Resource Plan that integrates increased renewable energy, distributed generation, resource diversification and greenhouse gas reduction, while maintaining Platte River's position as the lowest cost wholesale electric supplier located in Colorado.

# IMPROVED COLLABORATION AND COMMUNICATION

Platte River will explore options for increased coordination and collaboration in the areas of joint planning, new programs and services, stakeholder communications and leverage of resources.

#### GOALS

- ▶ Evaluate options for a system-wide demand response pilot program.
- Evaluate potential for system-wide solar energy programs such as solar gardens.
- Form a joint load forecasting team to investigate options for utilizing end-use load research, improved measurement/verification of DSM programs and other coordinated approaches to enhance system forecasting.
- ▶ Study options for expanding joint training among the Municipalities and Platte River.
- ▶ Evaluate new services and other opportunities identified in the 2013 Utility Director Survey.
- Expand the joint strategic planning team among the Municipalities and Platte River to identify issues of mutual interest, evaluate potential new areas for collaboration and integrate appropriate aspects of the Municipalities' plans into Platte River's Strategic Plan.
- ▶ Develop and implement a stakeholder involvement process to enhance communications and gain support for key initiatives and the next Integrated Resource Plan / Strategic Plan.
- ▶ Collaborate with Municipalities' teams on stakeholder communications, joint marketing programs, sponsorships and educational events.
- ▶ Through effective external communications, ensure that stakeholders are well-informed of the value Platte River's partnership brings.

## EMPLOYEE ENGAGEMENT

By continuing to invest in its human resources, Platte River Power Authority will leverage diversity, grow internal talent, attract innovative skills and facilitate high standards of professional and ethical behavior.

- ▶ Design a Leadership Development Program that identifies successor candidates for all levels of supervision and builds current and emerging leaders' skills to support Platte River's mission and strategy.
- ▶ Develop a Diversity and Inclusion Program that equips leaders and employees to provide a welcoming and respectful work environment, model inclusive behavior as well as support an inclusive and diverse workplace, and links all Platte River programs and initiatives.
- ▶ Implement an Ethics and Compliance Program that empowers employees to not only report but also prevent, identify and stop noncompliant behavior, ensuring that ethics is at the core of Platte River's culture and providing transparency in everything we do.



# TECHNOLOGICAL INNOVATION AND SUSTAINABILITY

Platte River will actively monitor research and advance the use of new, emerging technologies in all areas of business to enhance performance and support the needs of the Municipalities and their customers.

- ▶ Dedicate staff resources to actively research and advance the use of new, emerging technologies in areas such as electric vehicles, distributed generation, demand response, demand side management, energy storage and smart grid applications.
- Deploy cost effective system efficiency improvements available through application of new technologies and techniques.
- Continue to support the FORTZED initiative through active participation on committees and working groups.
- ▶ Support the Net Zero Cities conference in 2014.
- Establish a technology working group with subject matter experts from Platte River, the Municipalities, Colorado State University and other stakeholders.
- Actively seek funding for new technology applications in areas that provide benefits to the Municipalities and Platte River.
- Coordinate joint seminars with expert speakers on new technology and sustainability.

### STRATEGIC PLANNING PROCESS

Historically, separate planning documents were produced for operations, financial, legislative/regulatory, climate action, transmission, and risk management areas. For 2014, many of these separate plans have been incorporated into the overall Strategic Plan prepared for approval by the Board of Directors. Through consolidation of these separate documents the Board will be provided a more straightforward summary of the issues confronting the organization as well as the efforts underway to address identified risks and opportunities. The figure below provides a graphical representation of this effort.



The Strategic Plan is a business tool used to sustain and promote the long-term success of the organization. It provides context through a description of existing issues and sets out a framework for analyzing how a variety of factors will impact the organization and its ability to perform in current and potential new market scenarios. New scenarios may include greenhouse gas emission reductions, FERC initiatives (regional transmission organizations, energy imbalance markets, etc.), significant expansion of renewable energy resources, evolution and integration of new and innovative technologies, changing customer needs and other factors.

### STRATEGIC PLANNING PROCESS



One significant aspect of the new planning initiative is a greater focus on coordinated planning with the Municipalities. Over the last several years, multiple teams have been formed to enhance planning and project management, including the Joint Technical Advisory Committee and joint teams in the areas of demand side management, renewable energy, key account customer services and rates. Going forward, Platte River's strategic planning process will include integration of Municipal plans and initiatives. Municipality efforts in areas such as load forecasting, energy policy, sustainability, climate change and strategic planning will be reviewed with a focus toward identifying key aspects of the Municipalities' plans that should be integrated into Platte River's future Strategic Plans. This effort to collaborate more formally on planning will expand in 2014, with new Platte River staff resources dedicated to this effort.

The strategic planning process also provides an opportunity to gather information on the preferences of the Municipalities as customers. An initial survey of potential new services that may be of interest to the Municipalities was conducted with Utility Directors and their staffs during 2013. This effort will be expanded and clarified during 2014. In addition, staff is collecting and aggregating information from past retail customer surveys conducted by the Municipalities. Platte River and the Municipalities began collaboration on customer surveys during 2013 by adding some questions related to resource preferences as part of the Municipal surveys. Additional survey efforts will be conducted during 2014 to enhance planning.

The coordinated planning activities of Platte River have always included other utilities in this region. Due to recent Federal Energy Regulatory Commission (FERC) initiatives this level of regional planning will be increased. To anticipate and prepare for new regional market structures that may result, Platte River will continue to monitor the development of energy imbalance markets.

It is anticipated that a new Integrated Resource Plan (IRP) will be developed during 2014 and will be incorporated into the 2015 Strategic Plan. Five integrated resource plans have been developed since the mid-1990's, leading to the addition of simple cycle natural gas generation and providing guidance for expanding energy efficiency and renewable energy resources. The most recent IRP approved by the Board (the 2012 IRP) will remain a separate planning document until it is updated and integrated into the 2015 Strategic Plan.





## STRENGTHS, WEAKNESSES, OPPORTUNITIES AND THREATS (SWOT)

As part of the process of considering how to ensure the long term success of Platte River and its Municipalities, a SWOT analysis was initiated by the management team in late 2012. A summary of this initial analysis was reviewed by the Board of Directors during 2013 and updates were made to develop the list of items below. This type of analysis will continue as part of the ongoing strategic planning process and the list will likely change over time.

STRENGTHS	WEAKNESSES
Strong financial position	Strategic planning and lack of adaptive strategy
▶ Technical expertise	Lack of diverse resources
Well maintained power plants and infrastructure	Lack of bench strength and succession planning
Lowest wholesale rates in Colorado	Lack of energy market knowledge and experience
Excellent reputation/Well respected in the industry	Relationships with cities at a policy level
Culture of commitment and operational excellence	

#### OPPORTUNITIES **THREATS** Community involvement Regulatory and legislative uncertainty Looming knowledge loss as employees retire Strengthen partnerships Asset optimization Lack of process documentation (water, transmission, generation, sales) Long term reliable water supply Improved communications - need for firming project Leverage the four Municipalities' resources Fuel price volatility including transportation costs for improved efficiency Outside pressures and not having an adaptive Partnering with the Municipalities to create strategy regional collaboration Loss of tax exempt financing Partnership opportunities with others to build Continued consolidation of large utilities generation so there are fewer players in the market Increased communication & educational outreach Increased negative outlook for hydraulic fracturing

Leadership development

and impact on natural gas supply

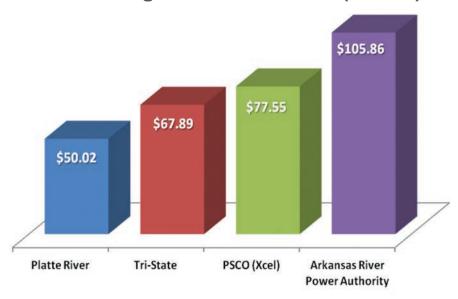
Litigation

## ADDITIONAL PLANNING CONSIDERATIONS

#### **RATES**

Balancing costs with risk mitigation will be a key consideration going forward. Even though rates have increased significantly over the last several years, Platte River's rates remain the lowest among wholesale electricity suppliers located in Colorado (see figure below).

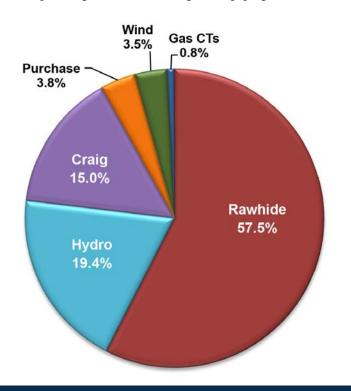
2012 Average Wholesale Rates (\$/MWh)



#### RESOURCE MIX

The energy provided to Platte River's Municipalities is comprised of the resources shown in the figure below.

### **Municipality Electricity Supply Mix – 2012**

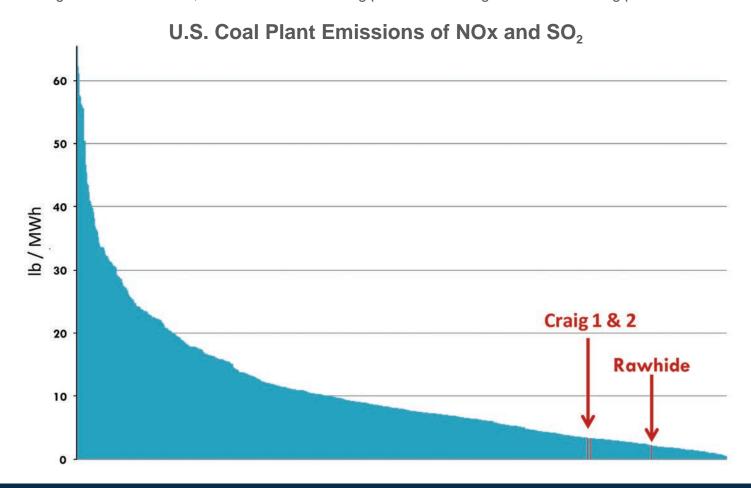


One of the most significant factors to consider for the current resource mix is the large amount of coal generation. Currently, 72.5% of all energy provided to the Municipalities comes from coal and this is expected to increase to about 75% by 2020 under a business as usual scenario. About 81% of all sales from all Platte River resources were generated by coal in 2012. This relatively high saturation of coal generation brings several potential risks, including:

- Legislative and regulatory risks:
  - ▶ CO₂ emissions (climate change)
  - ▶ SO<sub>2</sub>, NOx, Hg, VOC, air toxics (health)
  - ▶ Coal ash, cooling water, etc. (environment)
- Financial risks:
  - Greenhouse gas charges (carbon tax or other approaches)
  - ➤ Emission control installation & operation costs
  - ▶ Waste / water management costs
  - Credit rating downgrade

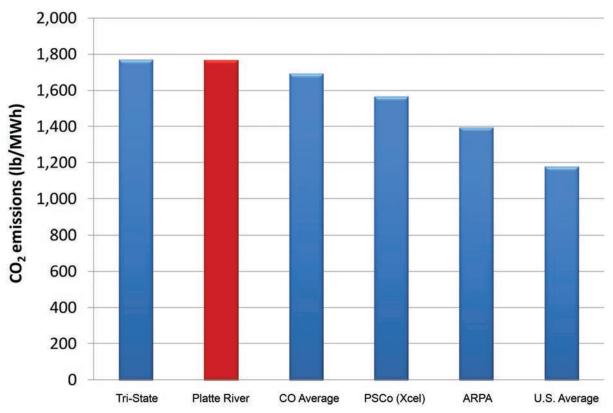
- Constrained resource optimization:
  - High base and peaking / no intermediate resource
  - Limited ability to integrate intermittent renewable energy sources
  - ▶ Less flexible overall resource operation
- Eroding public confidence:
  - Customer preferences vs. current resources

Relatively low emissions from its coal units combined with hydropower have allowed Platte River to provide electricity to the Municipalities with a strong environmental record. Through continued investment in new technologies over time, Platte River has reduced emissions levels for criteria pollutants (those associated with human health effects). A comparison of NOx and SO<sub>2</sub> for U.S. coal plants (nearly 500 units) is provided in the following chart. As indicated, both Rawhide and Craig plants are among the lowest emitting plants in the U.S.



Going forward, emissions of greenhouse gases, particularly CO<sub>2</sub>, will be a major factor in resource planning. A comparison of estimated CO<sub>2</sub> emissions for wholesale suppliers located in Colorado is provided in the following figure. This graph also includes average CO<sub>2</sub> emissions from electric utilities in the U.S. and Colorado.

## CO<sub>2</sub> Emissions Comparison for Wholesale Suppliers in Colorado



As indicated in the chart, Platte River's average CO<sub>2</sub> emissions are about 4% above the Colorado average and about 50% above the U.S. national average. Platte River ranks second among wholesale electric suppliers located in Colorado.

Having a relatively high  $CO_2$  emission rate could lead to significant rate increases in the event that a carbon tax or other action is implemented to reduce  $CO_2$  emissions. As part of the 2009 Climate Action Plan analysis, Platte River and its consultant (KEMA, Inc.), estimated that costs to meet a 20% reduction in  $CO_2$  emissions by 2020 could be about \$31 million annually, resulting in a wholesale rate increase of about 16%. If "Cap and Trade" were implemented (the dominant legislative approach being considered at the time), cost increases could be much higher. Working with another consultant (Ventyx) during 2013, preliminary resource analysis showed potential wholesale rate impacts of 18% to over 50%, depending on the level of  $CO_2$  charges assessed (\$10 per ton to \$50 per ton).

Many options exist for reducing Platte River's CO<sub>2</sub> emissions, including increased renewable energy sources (utility scale or distributed), increased energy efficiency (at customer, distribution and generation levels), integration of distributed generation resources, increased use of natural gas generation vs. coal and other new technologies. Additional options may exist through coordination / collaboration with the Municipalities in areas such as transportation, waste, natural gas usage and vegetation management. CO<sub>2</sub> mitigation options will be evaluated in detail as part of the process for developing the 2014 Integrated Resource Plan.

#### SCHEDULE

A new strategic planning process has just begun and this 2014 Strategic Plan is limited in specific details regarding Platte River's future plans. The first full cycle of the annual strategic planning process will be completed next year, leading to a more detailed 2015 Strategic Plan. Efforts in several key areas are planned, as outlined in the table below. Once new staff, software, market data and other tools have been acquired, detailed analysis of potential future resource options can begin. This analysis will inform the development of the 2014 Integrated Resource Plan and 2015 Strategic Plan.

PRELIMINARY PLANNING SCHEDULE						
ACTIVITIES	Q4 2013	Q1 2014	Q2 2014	Q3 2014	Q4 2014	
Staffing, Tools & Support						
Staff selection / integration						
Load & test software / data sets						
Retain consultants						
Gas Generation Site Evaluation						
Site options identification						
Transmission system studies						
Water supply evaluation						
Gas delivery / pipeline / firming studies						
Real estate cost estimates						
Site environmental impact evaluation						
Air and land use permitting studies						
Right of way studies						
Conceptual plant design / configuration					ı	
Resource Diversification Modeling						
Combined cycle gas central station						
Utility scale renewable energy						
Distributed generation						
Demand side management						
Resource integration						
Carbon reduction analysis						
Cost & rates evaluations					I	
Public / Stakeholder Process						
Extended / coordinated municipal surveys						
Detailed resource preference surveys						
Additional listening sessions						
Collaborative Program Expansion						
Joint planning team expansion						
Demand response pilots						
Joint solar garden program						
Other new programs						
2014 Integrated Resource Plan					Approval	
2015 Strategic Plan					Approval	

#### RESOURCE PLANNING

Resource planning is the most significant element of the 2014 strategic plan. This is in large part due to the fact that Platte River was created and exists to meet the resource needs of the Municipalities—but also in direct response to strategic direction received from the Board: four of the seven strategic direction statements focused on future resources. Historically, Platte River's process for planning new resources has been conducted through the development, public review and Board approval of an Integrated Resource Plan (IRP). In coordination with its owner municipalities, Platte River has prepared four IRPs since the mid 1990s (one approximately every five years). The most recent IRP, approved by the Board of Directors in May 2011 and referred to as the 2012 IRP, focuses primarily on the five year period 2012 to 2016. This plan is available on Platte River's web site at the following link: www.prpa.org/irp.

No changes are recommended to the 2012 IRP at this time. It is anticipated that the next formal IRP will be developed during 2014 – and will be integrated into the 2015 Strategic Plan, the final form of which is anticipated to be approved by the Board in December 2014.

Though no changes are recommended to the 2012 IRP, several developments have occurred since this plan was approved in May 2011. The following sections provide background and updates on key items related to resource planning.

#### **OVERVIEW - 2012 IRP ACTION ITEMS**

Five action items were identified for implementation by Platte River and the owner Municipalities as a result of the 2012 IRP. These are summarized below, along with brief updates reflecting the current situation. More detail on changes since the 2012 IRP are provided after this overview.

1. CONTINUE OPERATING DEMAND SIDE MANAGEMENT (DSM) PROGRAMS – Platte River funding for Common Programs (those offered in all four Municipalities) was projected as approximately \$2 million annually (2012 to 2016), while funding from the Municipalities was anticipated to increase significantly relative to historical levels. Verifiable peak demand and energy savings were to be integrated into the overall system load forecast beginning in 2013.

**UPDATE** – The budget for 2014 provides for an increase in Common Program funding of \$200,000 – ten percent above the level approved for the 2012 IRP. The process of integrating DSM into the load forecast that began in 2013 will be expanded during 2014. Additional details on DSM are provided below.

2. CONTINUE IMPLEMENTATION OF THE RENEWABLE ENERGY SUPPLY POLICY – Anticipating the need for new renewable energy resources in approximately 2015, the process for seeking new renewable supply options was expected to begin in 2012. About 45,000 MWh/yr of new supply was anticipated by 2015, roughly one-third more than historical deliveries from existing sources.

**UPDATE**—Platte River has executed a Power Purchase Agreement for delivery of approximately 130,000 MWh/yr of new renewable energy supply by the fall of 2014. This purchase will more than double the amount of wind delivered to Platte River's system – adding more than three times the amount of renewable energy contemplated in the 2012 IRP and doing so ahead of the 2012 IRP schedule.

The Renewable Energy Supply Policy will be reviewed during 2014 to reflect changes in renewable supply due to the strategic planning process, to address accounting of renewable supply through Tariff 1 and Tariff 7, and to integrate other changes that have occurred since this Policy was last approved.

3. UPDATE SYSTEM RESOURCE PLANNING CRITERIA – In order to remove the risk of relying on real-time market purchases to meet load obligations when the Rawhide coal unit is out of service. Rather than planning on up to 65 MW in real-time market purchases (allowed in the 2007 IRP), only pre-arranged purchase options and other firm resources are to be considered for firm capacity needs.

**UPDATE** – Based on the most recent load forecast, new capacity will be needed to meet the Municipalities' peak load in about 2023 (see Load Forecast section). Criteria for addition of new resources will be expanded in the next IRP – to address planning reserve, loss of load probability, integration of new renewable supply, increased flexibility of resource operations, participation in new markets and other factors.

**4. MONITOR DEVELOPMENTS OF NEW REGIONAL GENERATION & TRANSMISSION RESOURCES**To ensure a position in new resource options that may be of benefit to Platte River and the municipalities over the long term.

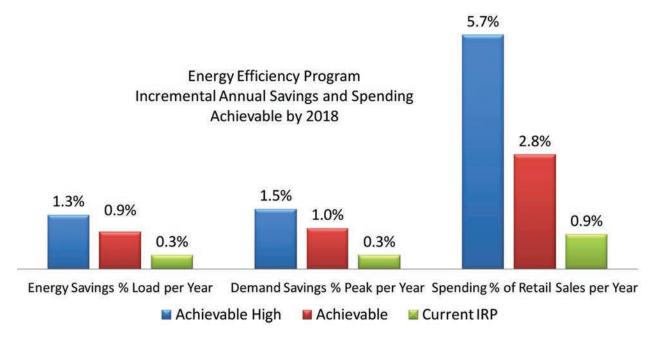
**UPDATE** – A preliminary analysis of combined cycle gas generation was completed during 2013. During 2014, potential benefits and costs of adding new resources will be modeled in more detail using computer simulations. New combined cycle gas generation and other resources with high levels of operating flexibility will be considered. Opportunities for joint development, sales of surplus capacity and other factors will be considered with regional power suppliers.

**5. MONITOR OTHER DEVELOPMENTS** – In municipal loads, technology development, wholesale electricity markets and regulation/legislation in order to support contingency planning.

**UPDATE** – New information sources for monitoring markets have been purchased and are being integrated into financial and resource planning efforts. To better track changes to municipal loads, a joint effort is planned for integrating end-use forecasting into the overall municipal load forecast. Information such as housing starts and planned business expansions should improve forecasting accuracy. Enhancements to DSM measurement and verification will also improve forecasting. A study is planned during 2014 to evaluate the risks and potential benefits of an energy imbalance market in the region.

#### DEMAND SIDE MANAGEMENT

In 2013, Platte River retained Nexant, Inc. (Nexant) to characterize and quantify the potential summer peak reduction and annual energy savings achievable in Platte River's service territory through implementation of energy efficiency, demand response, and distributed generation programs. The study considered potential impact over the next five years, and provided estimates of costs and benefits for the programs. The following chart provides a summary of the study results for energy efficiency programs. Note that a range of potential savings are possible, depending on investment in these programs. The study estimated that with an investment of up to 5.7% of retail revenues, energy savings of about 1.3% of total load could be realized (year after year). This result is fairly consistent with a study conducted by KEMA, Inc. in 2009. It is also consistent with a study of utility DSM programs conducted by the Large Public Power Council of the American Public Power Association.



#### LOAD FORECAST

The load forecast provided in the 2012 IRP has also been updated. The most recent Official Load Forecast for the Platte River System is included in Appendix A. This forecast indicates that new capacity resources will be needed in approximately 2023. Key updates in forecasting since the 2012 IRP include the following items.

- Municipal load growth over the last several years has remained below levels experienced during the 1990's. The forecasting model has used data since 1991 to predict future loads. Beginning this year, data from the period 2002 forward will be used and the load data from 1991 to 2002 will be removed.
- Demand side management programs continue to expand, but evaluation, measurement and verification of impacts on future loads needs to be completed for many of the programs. Going forward, a team will be formed among the Municipalities and load forecasting staffs to discuss how best to integrate the effects of DSM.

#### RATE STRUCTURE EVALUATION

During 2010 and 2011, Platte River staff, a rates consultant (Utility Financial Solutions) and rates staff from the Municipalities met several times to discuss and evaluate options for changing the wholesale rate (Tariff 1) to more accurately reflect costs and mitigate risks. After about 15 months of effort, a seasonal wholesale rate was approved by the Board of Directors and was initiated in January 2012. This new rate was recognized as a first step in a longer term process of developing more innovative rates. During 2014, additional opportunities are planned for collaboration on future electric rates. It will be important to have a more coordinated effort on rate making in the future; one that integrates wholesale and retail rate design and implementation.

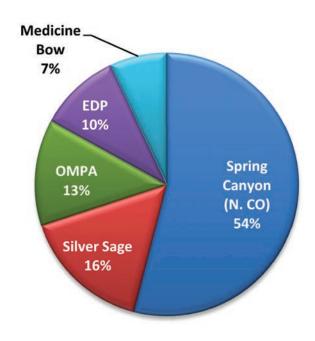
#### CLIMATE ACTION PLAN

Platte River staff served on the working group that developed Colorado's Climate Action Plan and on the Fort Collins Climate Action Task Force. Platte River developed its own unique Climate Action Plan (CAP), a summary of which was provided in the 2012 IRP. The full report is available on Platte River's web site at: <a href="https://www.prpa.org">www.prpa.org</a>. Since this CAP was approved, additional cursory studies were conducted to estimate costs of replacing coal generation with natural gas resources. Rate impacts associated with such replacements were significant. Natural gas prices have dropped considerably since the last studies were performed.

During the 2013 strategic planning retreat, the Platte River Board directed staff to investigate options to reduce/mitigate Platte River's carbon footprint using Colorado's Climate Action Plan as a guideline. The CAP and associated analysis conducted over the last several years will be expanded and updated – then included as part of the 2014 IRP (integrated into the 2015 Strategic Plan). No separate Climate Action Plan document is planned going forward.

#### WIND GENERATION

About 32 MW of wind generation will be added to Platte River's supply mix in the Fall of 2014 from the Spring Canyon II Wind Project. The anticipated renewable energy resource mix for 2015 is shown in the pie chart. The new wind resource represents a 117% increase in renewable supply relative to 2013 levels. This will increase wind sources to about 7% of Platte River's energy supply mix. Wind and hydropower combined will be about 27% of the total energy supply to the Municipalities in 2015 (assuming normal water conditions). Platte River has also moved the Medicine Bow and Silver Sage Wind Projects into Public Service Company's balancing authority (BA), removing them from Western Area Power Administration's BA. In the future, Platte River may need to dedicate firm resources to follow the wind generation. This consideration will be studied as part of the overall resource planning effort.



#### TRANSMISSION SYSTEM UPDATE

Since the 2012 IRP was approved, a large number of long-term transmission projects have been completed, representing over \$120 million in infrastructure investment. These projects have enhanced long-term reliability of wholesale electric service to Fort Collins, Longmont and Loveland. In December 2012, a new Transmission Plan was developed. This plan is updated annually to assure that an adequate transmission system is planned for the reliable delivery of electricity to the Municipalities and to other Platte River transmission customers. The planning studies and reliability assessments for the near-term and longer-term planning horizons demonstrate that the transmission system meets performance requirements of the Western Electricity Coordinating Council (WECC) and of the North American Electric Reliability Corporation (NERC). A summary of planned transmission projects is provided in the following table.

PLANNED TRANSMISSION PROJECTS							
In-Service	Project Name	Description	Purpose				
February 2014	Timberline 230/115kV Substation Expansion	Add 230/115kV transformer T4.	Improve system reliability in the Fort Collins area.				
May 2014	Laporte 230kV breaker addition Project.	Add 230kV breaker.	Gain more flexibility in the operation of Substation.				
May 2014	Crossroads 115kV Substation Expansion	Add 115/12.47kV transformer T2 and a Ring Breaker.	New delivery point to serve growing load.				
December 2014	Harmony 230kV Substation Terminals Upgrade	Modify CT tap and transformer relaying.	Remove conditional line ratings on the Boyd and Timberline lines.				
May 2015	Re-Configure Harvard Substation	Connect Harvard 115/12.47 kV transformers T1 and T2 to different bays at Longmont NW Substation.	Improve reliability to each transformer Meet Platte River Power Authority design criteria.				
May 2015	Boyd 230/115kV Substation Expansion	Add 230/115kV transformer T2.	Improve system reliability in the Loveland area.				
December 2015	Horseshoe 115kV Substation Expansion	Add 115/12.47kV transformer T3 and T4.	New delivery point to serve growing load.				
May 2016	Fordham 115kV Substation Expansion	Add 115/12.47kV transformer T3.	New delivery point to serve growing load.				
May 2016	Fort Collins Northeast 115/13.8kV Substation	Considering sites near Timnath or Cobb Lake 115kV Substations to locate additional 115/13.8kV transformer(s).	New delivery point to serve growing load.				
December 2016	Rawhide Plant GSU Replacements	Cycle through Rawhide GSU replacements in coordination with major Rawhide plant outage.	Satisfy Maintenance Requirements.				
May 2017	Timberline 230/115kV T3 Replacement	Replace 230/115kV transformer T3 with new transformer.	Improve system reliability in the Fort Collins area. Existing transformer installed 1976.				

Note that this list does not include transmission infrastructure additions that may be needed to support new generation resources on the Platte River system such as combined cycle gas and renewable energy. Considering new permitting requirements, lead times for transmission equipment and coordination of transmission operations with regional utilities, new transmission additions for future generation resources could take five years or more to permit and construct. It is anticipated that detailed modeling, planning and permitting research for new transmission will begin in 2014. This effort will be completed in parallel with an integrated evaluation of combined cycle gas generation, renewable energy, distributed generation and other alternatives.

#### PUBLIC PARTICIPATION

Details of past communications with stakeholders in the four Municipalities are outlined in the 2012 IRP. During May of 2013, Platte River held an initial set of "listening sessions" in each of the Municipalities to begin the process of gathering stakeholder comments for future resource planning. About 60 people participated (total for all four communities). Comments from participants indicated an interest in pursuing generation resources that would reduce reliance on coal, support for solar and other distributed generation, and interest in more wind resources, small hydro, and energy efficiency. There was interest in the use of more natural gas generation (vs. coal), but also concern regarding the potential risks of hydraulic fracturing. The majority of these participants indicated a willingness to pay more for electricity to have a more balanced portfolio, though some said cost was very important to them.

A detailed plan for public participation will be prepared for the 2014 IRP and presented to the Board of Directors in 2014. This expanded public participation effort will include customer surveys, public meetings and other means of gathering public comments.

### RISK AND FINANCIAL MANAGEMENT

#### RISK MANAGEMENT

For several years, Platte River has developed a stand-alone Risk Management Plan. Beginning in 2013, the Risk Management Plan is included in the Strategic Plan as Appendix B.

The Risk Oversight Committee consisting of the General Manager and senior management is charged with managing Platte River's risks and approving the Risk Management Plan. The Risk Management Plan is a summary of Platte River's proactive efforts to identify, evaluate, rank, and mitigate risks significant to Platte River which could negatively impact electric supply, finances, reputation, and safety requirements. Platte River's risk management process provides the framework to identify and assess specific risks by soliciting subject matter expert input and developing mitigation strategies.

## RISK AND FINANCIAL MANAGEMENT

#### FINANCIAL MANAGEMENT

Historically, Platte River has also developed a stand-alone Strategic Financial Plan (SFP). Beginning in 2013, the SFP is included as part of the overall Strategic Plan. The SFP, which includes detailed policies and targets, is available as Appendix C to Platte River's Strategic Plan.

Platte River's SFP is designed to provide long-term financial stability by generating adequate cash flows, maintaining access to low cost capital, providing stable and competitive wholesale rates and effectively managing financial risk. The Board of Directors reviews the SFP policies, goals, and financial projections at least annually.

Many of the SFP goals establish targets used in setting Municipal wholesale rates. The SFP is designed with the intent of maintaining Platte River's current AA senior lien debt credit rating by all three rating agencies: Fitch Ratings (AA), Moody's Rating Service (Aa2), and Standard & Poor's Rating Service (AA).

The SFP policies and goals are interrelated. By achieving the minimum target debt service coverage, the net income target, and the minimum days unrestricted cash on hand, Platte River should generate adequate cash flows to meet liquidity targets, exceed its debt to capitalization goal, and maintain access to low cost capital.

Maintaining the minimum unrestricted days cash on hand ensures a strong cash position, significantly enhancing future operating and financing flexibility. The Rate Stabilization Fund is available to help mitigate financial impacts if an unforeseen event were to occur, such as an extended unplanned Rawhide outage.

The remaining financial goals focus on providing competitive wholesale rates to the Municipalities, prudently investing capital, and establishing appropriate and cost effective programs to manage Platte River's risk against catastrophic losses.

Platte River's legislative and regulatory efforts support the mission of providing safe, reliable, environmentally responsible, and competitively priced energy and services while mitigating the environmental impacts of power generation. Platte River strives to maintain positive relationships with members of Colorado's Congressional delegation, the Governor's office, state departments, and the Colorado General Assembly. Coalitions are a cost effective way to participate in legislative and regulatory proceedings. Platte River works with a variety of local, state, regional, and national coalitions on issues of relevance.

Many of the key issues Platte River faces from a legislative and regulatory perspective relate to the environment. This section summarizes Platte River's Environmental Policy, outlines key environmental issues facing Platte River, and reviews other important energy policy issues.

#### ENVIRONMENTAL POLICY AND PRINCIPLES

Platte River uses state-of-the-art air quality control systems at its power generation stations to meet or exceed all applicable environmental laws and regulations. As new legislation and regulations are proposed, Platte River participates in public processes and supports additional control requirements when costs are commensurate with measurable environmental benefits. As technology develops and opportunities arise, Platte River is proactive in evaluating and implementing improvements in its power operations that balance environmental and other socio-economic concerns.

The following principles are used to guide Platte River's decision making and operations:

- Consider environmental factors in planning, design, construction, and operating decisions,
- ▶ Ensure compliance with applicable laws, rules, regulations, and permits,
- Conserve natural resources,
- Reduce environmental risks,
- Encourage pollution prevention,
- ▶ Communicate environmental values,
- ▶ Encourage public participation,
- Support cost-effective programs to conserve energy,
- Coordinate generation and transmission planning with neighboring utilities, and
- Consider environmentally progressive technologies to meet future generation needs.

Key environmental issues and associated activities are summarized on the following pages.

#### CARBON EMISSIONS MITIGATION

Platte River's management believes that carbon emissions mitigation will be one of the most significant issues facing the utility industry during the coming decades. The very resources that have allowed Platte River to be a regional leader in cost of service and reliability pose significant risks if carbon emissions are controlled or taxed. Management is beginning an aggressive effort to evaluate options to diversify the future energy supply portfolio and reduce its risk exposure, while also remaining the lowest cost wholesale provider located in Colorado. Despite its heavy reliance on coal-fired generation, Platte River is commencing this endeavor with some significant positives, including a large cost advantage over other regional utilities, a solid planning foundation derived from the Platte River Climate Action Plan developed in 2009 and the analyses performed to support the 2013 Board strategic planning retreat, a history of proven demand-side management programs and renewable resource production, and strong support and direction from the Board as a result of the retreat. In order to prepare the Board to make the best decisions concerning the optimal future resource portfolio, extensive and sophisticated analysis is necessary. The 2014 budget is designed to devote the appropriate human and financial resources to the task.

#### REGIONAL HAZE RULE

The Regional Haze Rule (RHR) was promulgated in 1999 by the EPA. State implementation has been ongoing since promulgation. EPA formally approved the Colorado RHR SIP in September 2012. The Rawhide compliance plan was submitted to the Air Pollution Control Division on September 16, 2013. Platte River had voluntarily installed low NOx burners on Rawhide Unit 1 in 2005. New air dampers, air nozzle tips, and burner tips were installed during the 2012 maintenance outage and boiler tuning was conducted. Cost for this equipment was approximately \$1.5 million. With these modifications Rawhide is presently meeting RHR SIP NOx emission limits. Meeting the emission limits associated with the rule requires significant investment in new NOx reduction technologies at the Craig Station. Platte River's portion of these costs is estimated at about \$43 million over the next five years.

#### **DZONE STANDARDS**

New and more stringent ozone standards are being considered by the EPA. Presently parts of Larimer County are in a non-attainment area for ozone, but the Rawhide Station is in an attainment area. It is uncertain whether this will change, and if so how the change will affect the Rawhide Station.

## HAZARDOUS WASTE DESIGNATION FOR COAL COMBUSTION RESIDUALS (CCR)

The EPA is evaluating options for revising federal regulations for CCR, including potentially regulating CCR as hazardous waste. CCR includes fly ash, some SO<sub>2</sub> scrubber waste products, and bottom ash from Rawhide and Craig generation facilities. The economic consequences of a hazardous waste designation to utilities, beneficial use industries and electricity consumers would be severe. The final rule is on hold and it is presently unclear when it will be issued.

#### **MERCURY**

Although federal efforts to regulate mercury are tied up in the courts, Colorado adopted rules to implement mercury reductions in early 2007 for Colorado utilities. These regulations, also known as the Colorado Utilities Mercury Reduction Program, are still in effect as state-only requirements. Installation of mercury monitoring equipment at Rawhide in 2008 was certified for operation to meet the State regulatory deadline of January 1, 2009. Mercury removal equipment was installed and the system was placed in service in November 2010. A mercury emission limit of 0.0174 lb/gigawatt hour (GWh) is required under the State program at Rawhide by 2012 and an emission limit of 0.0087 lb/GWh is required by 2018. Platte River is in compliance with the 2012 requirements and will meet the 2018 emission reduction requirements. Due to the type of coal burned, boiler chemistry and other factors, mercury emissions from Craig Station are low and no emission control equipment is currently required at that facility.

## ELECTRIC UTILITY MERCURY AND AIR TOXICS STANDARD (MATS)

In response to the 2008 court ruling that vacated the federal mercury rule, EPA promulgated the electric utility MATS rule. The MATS rule establishes national emissions limits, monitoring and reporting requirements, and work practice standards for listed Hazardous Air Pollutants emitted from coal-fired and oil-fired electric utility steam generating units. Despite pending legal challenges to the MATS rule, Platte River has taken all necessary compliance steps. Platte River does not anticipate significant cost increases associated with MATS, since investments already have been made to reduce air emissions.

#### OTHER FEDERAL AND STATE POLICY ISSUES

A number of other policy issues that could impact Platte River are also being considered by legislative and regulatory bodies at the federal and state level. Key items of concern to Platte River are outlined below and the following pages.

#### TAX-FREE STATUS OF MUNICIPAL BONDS

Federal budget concerns have put the tax-free status of municipal bonds at risk. The unique tax-exempt status of public financings dates back to the inception of the income tax, and recognizes the public nature of the capital projects funded by municipal bonds. Platte River has issued \$2.4 billion in debt during its history. The issuance of this debt has been critical for developing the infrastructure necessary to meet the needs of the growing populations in our owner Municipalities, and the reduced interest costs associated with tax-exempt financings are passed directly to electric utility customers in these communities. Platte River strongly opposes repealing or altering the current tax-exempt status of municipal bonds.

## TRANSMISSION GRID PROTECTIONS FROM CYBER, PHYSICAL & GEOMAGNETIC DISTURBANCES

Platte River takes a proactive approach to securing infrastructure from hazards such as cyber or physical attacks or geomagnetic storms—not only because it is best practice, but also because it makes good business sense. An array of measures involving prevention, protection, mitigation, response and recovery are employed to withstand and rapidly recover from cyber, physical, and geomagnetic threats. Platte River supports the North American Electric Reliability Corporation (NERC) approach to cyber and physical security.

#### DODD-FRANK REFORM

The Dodd-Frank legislation and subsequent rulemakings affect a number of Platte River business practices. Platte River has complied with new Dodd-Frank protocols for natural gas hedging. Platte River supports ongoing legislative and statutory efforts to limit the application of Dodd-Frank requirements so that public power business transactions that bear no relationship to the types of transactions creating the need for financial reform are not affected.

#### TRANSMISSION ACCESS REFORM

The Federal Energy Regulatory Commission (FERC) requires jurisdictional utilities to operate their transmission systems as common carriers. Platte River is non-jurisdictional, but voluntarily adopted an open access transmission tariff. The Platte River open access tariff is modeled after the FERC pro forma tariff with rates established using a rate setting formula consistent with those applied by the FERC.

The FERC also requires jurisdictional utilities to engage in regional transmission planning. Platte River is involved with regional planning initiatives and has been involved in WestConnect, a regional transmission planning organization. Platte River is concerned about movements toward a region-wide transmission operator and centralized power markets, but also recognizes that under the proper circumstances such reforms may be beneficial.

#### RENEWABLE ENERGY STANDARD

Platte River believes locally owned and controlled utilities are best suited to determine the proper mix of renewable resources for power generation and delivery. The Colorado RES currently only applies to municipal utilities with more than 40,000 customers. The 40,000 customer threshold means that the RES presently applies only to Fort Collins and Colorado Springs; it is estimated it could apply to Longmont and Loveland within the next 10 years.

Platte River supports the continuation of federal financial incentives to encourage the development of renewable energy. Renewable energy incentives should continue, be expanded, and be made available on an equal basis to municipal power systems, rural electric cooperatives, and investor-owned utilities.

#### FUEL AND RESOURCE DIVERSITY

Platte River supports policies that promote improved technology for all electricity generation sources including coal, natural gas, hydro, nuclear, wind, solar, geothermal, and biomass as vital components of the country's energy portfolio. Plans to encourage diversity should include classifying hydroelectric generation as a renewable fuel source, providing clean coal technology funding, and increasing research and development funds to make renewable energy sources more plentiful and cost competitive.

#### PREVENTING MARKET ABUSES

EPAct 2005 grants FERC expanded jurisdiction to address market manipulation, including authority over public power systems. In 2006, Platte River adopted a policy prohibiting market manipulation and implemented training and audit programs in pursuit of this policy. Subsequently, Platte River has conducted biannual audits; none of the audits have revealed any market manipulation activities.

#### SYSTEM RELIABILITY

In 2007, FERC approved enforceable reliability standards. Platte River is registered to perform ten functions, and the Municipalities are registered as distribution providers. Platte River has a well-established Reliability Compliance Program and promotes a culture of compliance. Platte River continues to assist the Municipalities with reliability compliance.

#### FEDERAL HYDROPOWER

Federal hydropower comprises a significant portion of the electricity delivered to the Municipalities. Platte River supports continued federal ownership and management of hydropower resources through regional Power Marketing Administrations (PMAs). Platte River supports the continued operation of the PMAs within the constraints set forth by Congress through authorizing legislation.

## LOCAL DECISION MAKING AUTHORITY OVER MUNICIPALLY OWNED UTILITIES

Platte River firmly believes that operating decisions affecting municipal utilities are best made at the local level. Federal or state legislation should not mandate actions or decisions regarding the operations of locally owned utilities.

#### COOPERATIVE PLANNING AND PARTICIPATION

Platte River supports cooperative planning and participation in joint generation resources and transmission infrastructure. Platte River is a member of the Colorado Coordinated Planning Group and the Foothills Planning Group, and has established a transmission planning process as part of its open access transmission tariff. Platte River has participated in recent CPUC transmission planning investigatory and rulemaking dockets as its interests dictate.

## MUNICIPAL ANNEXATION AND UTILITY SERVICE TERRITORY

Platte River believes that Colorado's Constitution and the existing state statutes regarding electric service provision in newly annexed areas are equitable to all parties. Any proposed changes will be closely scrutinized to ensure that equity is maintained for all parties.

#### MUNICIPAL PLANNING COORDINATION

One of the most significant issues addressed by the Board during the strategic planning retreat was the perception that "DNA" differentiates the four Municipalities. Outlooks on the future do vary among the Municipalities, but the Board provided consistent strategic direction regarding the need for greater collaboration and communication among the Municipalities facilitated by Platte River.

During 2013, meetings were held among the Municipal utility staffs and Platte River to consider the potential for integrating long-term municipal plans with Platte River's strategic planning. A brief summary of current planning activities within the Municipalities is provided below based on input provided by each of the Municipalities.









#### ESTES PARK

- ▶ The Town is cost sensitive, having higher costs relative to large municipalities. Rates are still lower than regional investor owned or rural electric utilities. Cost consciousness will impact future planning.
- Significant environmental advocacy exists within the Town and there is interest from utility staff in providing information regarding costs of renewable energy or other environmental initiatives.
- ▶ The current focus is toward capital investment. Other areas of focus include cost management, identifying risks/opportunities and prioritization.
- ▶ Some key initiatives currently underway or being considered include economic development, land use and water / energy planning part of an overall planning process.
- ▶ No official strategic plan exists at this time for the municipal utility.
- Estes Park may engage in a formal strategic planning process during 2014.

## MUNICIPAL PLANNING COORDINATION

#### FORT COLLINS

- ▶ The "City Plan" has been developed as a comprehensive overall City planning document. This includes a set of principles along with policies to consider key initiatives for the next 25 years of city planning. The past round of updating the City Plan was the first time utilities were included directly. Items include codes for energy efficiency, transportation (electrification), demand response, Smart Grid development, safety and security, reliability and other items.
- ▶ The Energy Policy sets metrics for reliability, efficiency (1.5% of load growth year after year goals met for the first time this year on a gross basis), demand reduction (5% by 2015 and 10% by 2020), renewable energy (meet Renewable Energy Standard) and encouragement to coordinate closely with Platte River on resource planning and other issues. The Energy Policy is being reviewed / updated this year.
- ▶ Utilities for the 21st Century A plan specifically for the Utilities department that seeks ways to sustain the utility for the long term (50 years +). It includes things like work force planning, triple bottom line evaluation of alternatives (economic, social and environmental) and a stakeholder initiative (to better communicate with customers and other stakeholders). The next iteration of strategic planning for Utilities for the 21st Century kicked off this year and will be completed in March of 2014. This is a broader planning effort incorporating all aspects of the Utilities operations. The revised plan is intended to inform the development of the 2015/2016 budget.
- ▶ 2009 IT Strategic Road Map A 10 year plan for IT development. This initiative ties to the Utilities Smart Grid efforts and other work involving information technologies. The IT strategic plan was updated in 2013 to account for the work that has been accomplished and to look forward for the next ten years.
- ▶ Climate Action Plan City Council approved plan that includes carbon reduction goals (20% below 2005 by 2020, 80% by 2050). This is also being reviewed / updated this year.
- ▶ Other plans include a Transportation Master Plan, Green Building Plan and Road to Zero Waste plan.

#### LONGMONT

- ▶ Focus on Longmont (developed in 2005) is a plan that sets direction at a City level. Five key categories / initiatives are included (Healthy Business Climate, Education, Enhance the Natural Environment, Revitalize Downtown and Community Identity).
- ▶ Longmont Power and Communications (LPC) has a tie to "healthy business climate" (low rates as an economic driver), "enhance the natural environment" (energy efficiency programs, etc.), and other areas (reliability). The focus on deliverables from LPC to this plan is currently providing reporting statistics no specific goals are set for LPC from the Focus on Longmont effort.
- ▶ City Manager Initiatives The new City Manager set up six city-wide groups (one of which is strategic planning). All groups have LPC representatives.

## MUNICIPAL PLANNING COORDINATION

LONGMONT

- ▶ Outage Management System upgrade LPC is in the middle of evaluating options and has some preferences. There may be some coordination opportunities with Loveland in this area.
- ▶ Broadband initiative staff active in the area of telecommunications planning.
- ▶ A Sustainability Plan was presented to City Council in the fall of 2011 (Utilities & Natural Resources worked together on this with RW Beck, now known as SAIC). City Council did not approve the plan and the Sustainability Coordinator was not refilled when this position was vacated.

#### LOVELAND

- ▶ The Utility Commission provides direction to management / staff and is engaged in planning efforts. City Council conducts an annual retreat for planning purposes.
- ▶ The City Manager has set initiatives in the areas of improved communication / coordination of city direction, conducting meetings with the management team (expanding to mid-management).
- ▶ Loveland has a general fund plan for setting financial priorities.
- A sustainability plan is being developed. The Public Works department is leading this effort with support from Water and Power.
- ▶ The City plans to develop an Energy Policy by 2015.
- ▶ City Council adopted the "Comprehensive Plan" (2005), which serves as a guide for aspects of Loveland's planning. It provides mission / vision statements and is mostly focused on land use planning. There are no direct utilities goals from this effort.
- ▶ Loveland has an Economic Development Strategic plan and Incentive Policy adopted in February 2012.
- ▶ Key planning items for Loveland include cost control, demand side management, demand response, renewable supply integration, new rate design / implementation for large customers, economic development, energy efficiency programs, workforce planning, leveraging new technologies, public outreach and addressing aging infrastructure.

Once additional staffing resources are available, Platte River will establish a formal strategic planning group to guide coordination / collaboration of planning going forward (among the Municipalities and Platte River staff). During 2014, key aspects of the Municipalities' strategic plans will be integrated into Platte River's 2015 Strategic Plan.



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#### NERC REQUIREMENTS

This document serves as Platte River Power Authority's official load forecast. Upon completion, the Planning Coordinator, the responsible entity that coordinates and integrates transmission facility and service plans, resource plans, and protection systems, will be notified. Additionally, the Load Serving Entity, which secures energy and transmission service (and related interconnection operations services) to serve the electrical demand and energy requirement of the end-use customers, is also notified. The demand data contained herein does not include any nonmember entities.

#### FORECAST METHODOLOGY

Platte River uses an econometric model to develop long-term energy forecasts and five-year average monthly load factors to develop demand forecasts. Econometric modeling uses multiple forecasts of independent variables, along with historical values for these variables to project the future growth of a dependent variable. Platte River's econometric model uses independent variable projections including population, employment, and weather to project demand and energy growth in the Owner Municipalities.

Population and employment forecasts were provided by Woods & Poole (W&P), an independent, economic forecasting firm. W&P's employment and population forecasts for Larimer County continue to decline from historical growth rates. While Platte River's Municipalities' populations grew at an annual average rate of 1.7% between 2001 and 2012; more recently, from 2008 to 2012, the population growth has decreased to an average annual rate of 1.4%. W&P projects an average annual population growth of 2.3% between 2014 and 2023. Historical population data for the four Municipalities is provided by the Colorado State Demography Office, a division of the Department of Local Affairs.

The future independent weather variables used are assumed to be for typical weather conditions; therefore the average conditions, beginning 2001 through present, were applied. Weather variability in any given year may be higher or lower than the historical average. Weather data incorporated into the model is supplied by Day Weather, Inc., which provides daily meteorological data specific to the City of Fort Collins. This weather data is deemed representative of the majority of Platte River's system. Energy forecasts are based on monthly Cooling Degree Days (CDD) values for summer and Heating Degree Days (HDD) values for winter. CDD and HDD were selected as the independent weather variables based on past recommendations by Utility Financial Solutions, a consulting firm that assisted with the development of the econometric model and past Official Load Forecasts.

#### 2014 FORECAST ADJUSTMENTS

During 2013, despite experiencing system growth, Platte River's energy growth did not achieve forecasted values and demand experienced large deviations from monthly forecasted loads. Monthly deviations may be attributed to multiple factors: weather variations from historical trends, demand side management programs in the Municipalities, and the continued economic recovery among, other factors. After many years of strong growth, the recession caused loads in 2009 and 2010 to decrease significantly relative to 2008. As loads began to recover with the economy, Platte River experienced a new system peak in 2011. Once again, in 2012, the

#### 2014 FORECAST ADJUSTMENTS

CONTINUED

all-time system peak was exceeded, with similar peaks in June and July. Although economic variables are incorporated into the econometric model, these variables, combined with historical loads, caused the model to project 2014 loads higher than would be predicted using only recent trends. This effect, combined with the continued economic recovery, resulted in a modification of the 2013 forecasting methodology. In order to reflect current economic conditions, load projections more consistent with recent system growth and econometric projections were combined to forecast 2014 demand and energy. For 2015 and beyond, the escalation rates generated by the econometric model were used to forecast system growth.

#### DEMAND SIDE MANAGEMENT

As demand side management (DSM) programs continue to evolve and grow, their impacts upon Platte River's Municipalities' loads have also grown. DSM includes Common Programs, which are funded and operated by Platte River, and offered to all the Municipalities. These Common Programs are focused on energy efficiency and do not include Direct Control Load Management as defined by NERC. In addition to Common Programs, each Municipality funds and operates DSM programs specific to their communities (referred to as Municipal Programs). Staffs from Platte River and the Municipalities have been working collaboratively to aggregate effects of DSM programs into system forecast planning – particularly those programs for which energy and demand savings have been tracked, evaluated, measured, and verified.

#### DIRECT CONTROL LOAD MANAGEMENT

Direct Control Load Management (DCLM) is DSM that is under direct control of a system operator. DCLM does not include interruptible load. Platte River currently has no DCLM forecasted for the ten-year planning horizon.

#### FORECAST DESCRIPTIONS

During the development of the Official Load Forecast, various scenarios are considered, producing multiple forecast results. Platte River uses four forecasts for planning and analysis purposes:

- ▶ Foundation Forecast
- Base Forecast
- ▶ Low Growth Forecast
- ▶ High Growth Forecast

All forecasts incorporate identical weather variables mentioned earlier in the *Forecast Methodology* section. Historical population and load data also remains the same in all cases.

#### **FOUNDATION FORECAST**

The Foundation Forecast is the first forecast generated and is used to create the Base forecast described below. Along with the standard independent variables mentioned above, this case incorporates the population growth rates provided by W&P, a 2.3% average growth rate from 2014 to 2023.



#### FORECAST DESCRIPTIONS

CONTINUED

#### **BASE FORECAST**

The Base forecast receives the primary focus and serves as Platte River's official forecast in base modeling scenarios used in rate setting and financial planning. Forecasted DSM savings for Common Programs, measured and verified by Platte River, are subtracted from the Foundation Forecast to produce the Base Forecast.

#### LOW GROWTH FORECAST

Along with the standard independent variables mentioned above, this case incorporates lower population growth rates than projected by W&P. A 1.0% annual population growth rate is used from 2014 to 2023. The Low Growth scenario includes DSM savings estimates for both Common Programs and Municipal Programs. DSM savings are subtracted from the resulting forecast to produce the Low Growth Forecast.

#### HIGH GROWTH FORECAST

The High Growth Forecast case includes the same independent variables as the Base and Low Growth cases but incorporates higher population growth rates than the W&P projections. A 2.5% annual population growth rate, the historical population growth rate between 1991 and 2012, is used from 2014 to 2023. DSM savings from Common Programs are also subtracted to produce the final High Growth Forecast. The annual peak demand produced by the High Growth Forecast – assumed to occur in July – additionally serves as the Transmission Planning Forecast.

#### 2014 FORECAST SUMMARIES

The following table summarizes the three primary scenarios: Base, Low Growth and High Growth forecast.

	AN	INUAL ENE	RGY	В	LLABLE PEA	KS	F	EAK DEMA	ND
Year	Base	Low	High	Base	Low	High	Base	Low	High
Teal	(GWh)	Growth	Growth	(MW)	Growth	Growth	(MW)	Growth	Growth**
2009	3,056			5,763			576		
2010	3,112			5,850			615		
2011	3,182			6,054			639		
2012	3,185			6,041			653		
2013	3,230			6,149			649		
2014	3,241	3,234	3,269	6,138	6,084	6,491	659	655	678
2015	3,290	3,266	3,333	6,203	6,116	6,617	669	660	692
2016	3,343	3,296	3,399	6,299	6,150	6,747	679	664	707
2017	3,400	3,326	3,467	6,404	6,184	6,881	691	668	723
2018	3,461	3,357	3,537	6,517	6,218	7,018	704	673	739
2019	3,523	3,388	3,609	6,631	6,253	7,160	718	677	755
2020	3,585	3,419	3,683	6,745	6,289	7,306	732	682	772
2021	3,648	3,451	3,759	6,860	6,325	7,456	746	686	789
2022	3,710	3,483	3,837	6,977	6,362	7,610	761	691	807
2023	3,773	3,515	3,918	7,091	6,400	7,769	774	696	825

<sup>\*</sup> For 2013, January - August actuals reported, September - December reflect 2013 Budget figures

<sup>\*\*</sup> The High Growth Peak Demand Forecast serves as the Transmission Planning Forecast

#### LOAD AND RESOURCES SUMMARY

Based on Platte River's current (Base) Ten-Year Load Forecast, the following are updated peak month loads and resource tables. The first table shows loads and resources with all sources available and the second table provides information on loads and resources with Platte River's largest generation source (Rawhide coal unit) out of service. According to the latest Integrated Resource Plan's criteria, the need for additional capacity will occur in approximately 2023.

		PEAK	<b>NONTH FO</b>	RECAST -	(MW)					
	2014	2015	2016	2017	2018	2019	2020	2021	2022	202
Loads										
<b>Foundation Forecast</b>	661	673	685	699	715	731	747	763	780	796
DSM <sup>(1)</sup>	(2)	(4)	(6)	(8)	(11)	(13)	(15)	(17)	(19)	(22
Municipal Loads (Base)	659	669	679	691	704	718	732	746	761	774
Capacity Sale	65	(3 <del>6</del> )	-	S. <del>=</del> 3	-	3#3	( <b>-</b> )	-		
Losses	14	15	15	15	15	16	16	16	17	17
Total Loads	738	684	694	706	719	734	748	762	778	791
Resources										
Rawhide	278	278	278	278	278	278	278	278	278	278
Craig	156	156	156	156	156	156	156	156	156	156
CRSP	60	60	60	60	60	60	60	60	60	60
LAP	30	30	30	30	30	30	30	30	30	30
Peaking	388	388	388	388	388	388	388	388	388	388
Total Resources	912	912	912	912	912	912	912	912	912	912
Surplus (Deficit)	174	228	218	206	193	178	164	150	134	121
Reserve Margin (2)	23.5%	33.4%	31.4%	29.2%	26.8%	24.3%	21.9%	19.6%	17.3%	15.3%

<sup>(1)</sup> DSM based on Common Programs measured and verified by Platte River.

<sup>(2)</sup> Reserve margin calculation excludes surplus sales and required reserves.

	RAWHIDE OUT OF SERVICE - PEAK MONTH FORECAST (MW)														
	2014	2015	2016	2017	2018	2019	2020	2021	2022	202					
Loads															
<b>Foundation Forecast</b>	661	673	685	699	715	731	747	763	780	796					
DSM (1)	(2)	(4)	(6)	(8)	(11)	(13)	(15)	(17)	(19)	(22					
Municipal Loads (Base)	659	669	679	691	704	718	732	746	761	774					
Capacity Sale	65	13 <b>6</b> 6	¥1	() <b>4</b> ()	×	9 <b>=</b> 3	:i=i	=	·	(40)					
Losses	14	15	15	15	15	16	16	16	17	17					
Total Loads	738	684	694	706	719	734	748	762	778	791					
Resources															
Rawhide	540	196	( <u>a</u>	( <b>*</b> )	=	7#9	1341	₩.	<b>a</b>	(2)					
Shaft Sharing	100	100	100	100	100	100	100	100	100	100					
Craig	156	156	156	156	156	156	156	156	156	156					
CRSP	60	60	60	60	60	60	60	60	60	60					
LAP	30	30	30	30	30	30	30	30	30	30					
Peaking	388	388	388	388	388	388	388	388	388	388					
WRP	46	46	46	46	46	46	46	46	46	46					
Total Resources	780	780	780	780	780	780	780	780	780	780					
Surplus (Deficit)	42	96	86	74	61	46	32	18	2	(11					

DSM based on Common Programs measured and verified by Platte River.

#### BASE FORECAST ANALYSIS

The following table summarizes the historical and forecasted loads; the values represent the Base Forecast.

	А	NNUAL EN	ERGY	BI	LLABLE PEA	KS		PEAK DEN	IAND
Year	Energy (GWh)	Annual Change	Five-Yr Avg. Change	Billable Peaks (MW)	Annual Change	Five-Yr Avg. Change	Peak (MW)	Annual Change	Five-Yr Avg Change
2009	3,056	-3.2%	1.2%	5,763	-2.5%	1.1%	576	-9.2%	0.0%
2010	3,112	1.8%	0.8%	5,850	1.5%	0.5%	615	6.8%	-0.1%
2011	3,182	2.3%	0.8%	6,054	3.5%	1.0%	639	4.0%	1.2%
2012	3,185	0.1%	0.2%	6,041	-0.2%	0.3%	653	2.1%	0.6%
2013	3,230	1.4%	0.5%	6,149	1.8%	0.8%	649	-0.6%	0.5%
2014	3,241	0.3%	1.2%	6,138	-0.2%	1.3%	659	1.6%	2.7%
2015	3,290	1.5%	1.1%	6,203	1.1%	1.2%	669	1.5%	1.7%
2016	3,343	1.6%	1.0%	6,299	1.5%	0.8%	679	1.5%	1.2%
2017	3,400	1.7%	1.3%	6,404	1.7%	1.2%	691	1.8%	1.1%
2018	3,461	1.8%	1.4%	6,517	1.8%	1.2%	704	1.9%	1.6%
2019	3,523	1.8%	1.7%	6,631	1.8%	1.6%	718	2.0%	1.7%
2020	3,585	1.8%	1.7%	6,745	1.7%	1.7%	732	1.9%	1.8%
2021	3,648	1.7%	1.8%	6,860	1.7%	1.7%	746	1.9%	1.9%
2022	3,710	1.7%	1.8%	6,977	1.7%	1.7%	761	2.0%	1.9%
2023	3,773	1.7%	1.7%	7,091	1.6%	1.7%	774	1.7%	1.9%

<sup>\*</sup> For 2013, January - August actuals reported, September - December reflect 2013 Budget figures

#### RENEWABLE ENERGY FORECAST

Platte River works jointly with the Municipalities to develop a forecast of wholesale renewable energy supply. Historically, all renewable energy from sources other than federal hydropower have been provided to the Municipalities through Tariff 7, which charges a premium for wholesale renewable energy supply based on the level of such supply requested by the individual Municipalities. As part of Platte River's strategic planning process, the Board of Directors approved additional renewable energy in 2013, to be provided to all of the Municipalities through Tariff 1, the standard rate for wholesale supply. Forecasting Municipal wholesale renewable energy requirements is driven by several factors:

- ▶ Renewable energy supply guidelines from the strategic planning process;
- ▶ The Colorado Renewable Energy Standard;
- Individual Municipal policies regarding renewable energy;
- Voluntary purchases by the Municipalities and their retail customers;
- Distributed renewable energy resources; and
- Availability and performance of existing wholesale resources.

#### RENEWABLE ENERGY FORECAST

CONTINUED

The following table provides a ten-year forecast of estimated output from renewable resources that currently exist or are under contract (Existing Resources) and shows deliveries requested to date by the Municipalities (Requested Deliveries).

WHOLESALE RENEWABLE ENERGY FORECAST (GWh)													
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023			
Existing Resources	139	226	214	214	214	199	199	199	199	199			
Requested Deliveries	116	133	134	134	134	135	135	136	137	137			

As indicated in the table, Existing Resources are anticipated to exceed Requested Deliveries throughout the ten year period shown. The expansion of existing resources shown in 2015 is due to addition of the 32 MW Spring Canyon II wind facility. All of the output from this site (currently estimated as 130,000 MWh annually) will be delivered to Platte River under a 25-year purchase agreement. Reductions over time are due to planned changes in renewable energy certificate purchases and due to the potential shut down of the Medicine Bow facility as it reaches its 20 year design life. Options may exist for expanding the life of the Medicine Bow plant. Any changes that are implemented will be included in future forecasts.

The renewable energy forecast does not include further renewable energy supplies that may come from the strategic planning process. The table also does not reflect accounting of deliveries for Tariff 7 vs. Tariff 1. Tariff 7 resources may diminish over time as the Medicine Bow Wind Project ages, possibly resulting in a future deficit of Tariff 7 resources relative to requests. Platte River and Municipality staff will work together during 2014 to bring the projected Tariff 7 supply and demand into alignment. The renewable energy forecast will be updated over time to reflect these factors and other changes that may occur. A more complete treatment of renewable energy forecasting is anticipated for the 2015 Strategic Plan.

Existing wholesale renewable energy resources (currently all wind sources) are not considered to provide firm capacity at time of system peak. These sources do not currently impact planning of new firm capacity additions, though they reduce the amount of energy delivered to the Municipalities from fossil fuel sources. Future wholesale renewable resources may provide both energy and system peak capacity and more detailed analysis of existing resources may influence future decisions regarding resource capacity value.

### SEASONAL FORECAST AND HISTORICAL ANALYSIS

The following table summarizes the seasonal energy forecasts along with historic figures. Per Tariff 1, the Summer Season begins June 1 and ends August 31 of every year. The Winter Season shall be the period January 1 through May 31, and September 1 through December 31.

	SI	UMMER EN	ERGY	W	INTER ENER	GY		TOTAL EN	ERGY
Year	Energy (GWh)	Annual Change	Five-Yr Avg. Change	Energy (GWh)	Annual Change	Five-Yr Avg. Change	Energy (GWh)	Annual Change	Five-Yr Avg. Change
2009	805	-6.7%	1.3%	2,251	-1.9%	1.2%	3,056	-3.2%	1.2%
2010	860	6.8%	1.0%	2,252	0.1%	0.8%	3,112	1.8%	0.8%
2011	893	3.8%	0.8%	2,289	1.7%	0.9%	3,182	2.3%	0.8%
2012	919	2.9%	0.7%	2,267	-1.0%	0.0%	3,185	0.1%	0.2%
2013	885	-3.6%	0.5%	2,345	3.5%	0.4%	3,230	1.4%	0.5%
2014	912	3.1%	2.5%	2,329	-0.7%	0.7%	3,241	0.3%	1.2%
2015	926	1.5%	1.5%	2,364	1.5%	1.0%	3,290	1.5%	1.1%
2016	941	1.6%	1.1%	2,402	1.6%	1.0%	3,343	1.6%	1.0%
2017	957	1.7%	0.8%	2,443	1.7%	1.5%	3,400	1.7%	1.3%
2018	977	2.1%	2.0%	2,484	1.7%	1.2%	3,461	1.8%	1.4%
2019	997	2.1%	1.8%	2,526	1.7%	1.6%	3,523	1.8%	1.7%
2020	1,017	2.0%	1.9%	2,568	1.7%	1.7%	3,585	1.8%	1.7%
2021	1,038	2.0%	2.0%	2,610	1.6%	1.7%	3,648	1.7%	1.8%
2022	1,058	2.0%	2.0%	2,652	1.6%	1.7%	3,710	1.7%	1.8%
2023	1,079	2.0%	2.0%	2,693	1.6%	1.6%	3,773	1.7%	1.7%

<sup>\*</sup>For 2013, January - August actuals reported, September - December reflect 2013 Budget figures

Seasonal demand forecasts along with historic loads are displayed in the below table.

	SI	UMMER EN	ERGY	W	INTER ENER	GY		TOTAL EN	ERGY
Year	Energy (GWh)	Annual Change	Five-Yr Avg. Change	Energy (GWh)	Annual Change	Five-Yr Avg. Change	Energy (GWh)	Annual Change	Five-Yr Avg. Change
2009	805	-6.7%	1.3%	2,251	-1.9%	1.2%	3,056	-3.2%	1.2%
2010	860	6.8%	1.0%	2,252	0.1%	0.8%	3,112	1.8%	0.8%
2011	893	3.8%	0.8%	2,289	1.7%	0.9%	3,182	2.3%	0.8%
2012	919	2.9%	0.7%	2,267	-1.0%	0.0%	3,185	0.1%	0.2%
2013	885	-3.6%	0.5%	2,345	3.5%	0.4%	3,230	1.4%	0.5%
2014	912	3.1%	2.5%	2,329	-0.7%	0.7%	3,241	0.3%	1.2%
2015	926	1.5%	1.5%	2,364	1.5%	1.0%	3,290	1.5%	1.1%
2016	941	1.6%	1.1%	2,402	1.6%	1.0%	3,343	1.6%	1.0%
2017	957	1.7%	0.8%	2,443	1.7%	1.5%	3,400	1.7%	1.3%
2018	977	2.1%	2.0%	2,484	1.7%	1.2%	3,461	1.8%	1.4%
2019	997	2.1%	1.8%	2,526	1.7%	1.6%	3,523	1.8%	1.7%
2020	1,017	2.0%	1.9%	2,568	1.7%	1.7%	3,585	1.8%	1.7%
2021	1,038	2.0%	2.0%	2,610	1.6%	1.7%	3,648	1.7%	1.8%
2022	1,058	2.0%	2.0%	2,652	1.6%	1.7%	3,710	1.7%	1.8%
2023	1,079	2.0%	2.0%	2,693	1.6%	1.6%	3,773	1.7%	1.7%

<sup>\*</sup>For 2013, January - August actuals reported, September - December reflect 2013 Budget figures

#### HISTORICAL AND FORECASTED LOAD DETAILS

MONTHLY HISTORICAL AND FORECASTED LOAD DETAIL

					ENERG	Y (GWh)	- BASE FO	RECAST					
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Energy
2004	247	231	231	220	233	232	266	257	234	230	237	257	2,875
2005	254	224	240	224	237	250	298	273	245	237	238	268	2,986
2006	251	235	248	226	244	274	299	287	234	243	244	269	3,052
2007	278	242	245	235	242	264	315	307	251	246	245	278	3,147
2008	279	249	254	240	248	260	313	290	246	250	246	281	3,157
2009	269	234	247	237	241	246	283	277	248	249	244	282	3,056
2010	271	242	249	231	239	266	298	296	252	245	252	271	3,112
2011	275	250	251	236	243	261	315	317	252	250	253	281	3,182
2012	267	253	247	234	247	295	321	302	254	242	248	275	3,185
2013	276	245	256	243	248	278	303	304	262	260	260	296	3,230
2014	278	247	258	245	250	280	326	306	264	249	254	283	3,241
2015	282	251	262	249	254	284	331	311	268	253	258	287	3,290
2016	286	255	267	253	258	289	336	316	272	257	263	292	3,343
2017	291	259	271	257	262	294	342	321	277	261	267	297	3,400
2018	297	264	275	262	266	301	349	328	282	265	271	302	3,461
2019	302	269	279	266	270	307	356	334	286	270	275	308	3,523
2020	308	274	283	270	274	314	363	340	291	274	279	314	3,585
2021	314	279	287	275	278	322	370	347	296	278	283	319	3,648
2022	319	284	291	279	281	329	377	353	301	283	287	325	3,710
2023	325	289	295	284	285	336	384	359	306	287	291	331	3,773

<sup>\*</sup> For 2013, September - December energy reflect 2013 Budget figures

					D	EMAND (I	MW) - BA	SE FORECA	AST					
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Peak	Billable Peaks
2004	452	431	400	373	441	520	576	524	458	384	443	453	576	5,456
2005	459	428	402	386	476	537	618	550	503	407	447	497	618	5,712
2006	435	458	429	392	462	603	591	590	445	418	473	467	603	5,762
2007	478	478	442	396	425	611	635	614	529	410	446	482	635	5,946
2008	487	460	435	400	459	551	614	634	483	419	450	518	634	5,909
2009	490	434	410	404	474	536	576	559	499	432	436	512	576	5,763
2010	486	454	414	389	470	575	615	595	487	422	476	468	615	5,850
2011	487	513	450	388	405	573	639	612	586	455	440	505	639	6,054
2012	464	451	428	418	464	653	651	612	547	423	451	479	653	6,041
2013	481	448	438	429	460	639	649	624	538	447	471	527	649	6,149
2014	493	467	442	416	466	608	659	623	565	433	461	505	659	6,138
2015	500	474	448	421	472	617	669	631	553	438	468	512	669	6,203
2016	508	482	455	427	479	627	679	641	561	445	475	521	679	6,299
2017	517	490	462	434	487	637	691	652	570	452	483	529	691	6,404
2018	527	499	469	441	493	652	704	664	580	459	490	539	704	6,517
2019	536	508	476	448	500	666	718	677	590	466	497	549	718	6,631
2020	546	518	482	455	506	681	732	689	600	473	504	559	732	6,745
2021	556	527	489	462	513	696	746	702	610	480	511	569	746	6,860
2022	566	536	495	469	519	712	761	714	619	487	518	579	761	6,977
2023	576	545	502	475	526	727	774	727	629	495	525	589	774	7,091

<sup>\*</sup> For 2013, September - December demand reflect 2013 Budget figures

#### ANNUAL HISTORICAL AND FORECASTED LOAD DETAIL

		ENERG	GY (GWh)			BILLABLE	PEAKS (MW)		В	ASE FOREC	AST
Year	Foundation Forecast	Base	Low Growth	High Growth	Foundation Forecast	Base	Low Growth	High Growth	Load Factor	Energy Change	Peak Change
2004		2,875				5,456			56.8%	1.0%	0.7%
2005		2,986				5,712			55.2%	3.9%	4.7%
2006		3,052				5,762			57.8%	2.2%	0.9%
2007		3,147				5,946			56.6%	3.1%	3.2%
2008		3,157				5,909			56.7%	0.3%	-0.6%
2009		3,056				5,763			60.6%	-3.2%	-2.5%
2010		3,112				5,850			57.8%	1.8%	1.5%
2011		3,182				6,054			56.8%	2.3%	3.5%
2012		3,185				6,041			55.7%	0.1%	-0.2%
2013		3,230				6,149			56.8%	1.4%	1.8%
2014	3,252	3,241	3,234	3,269	6,162	6,138	6,084	6,491	56.1%	0.3%	-0.2%
2015	3,312	3,290	3,266	3,333	6,251	6,203	6,116	6,617	56.2%	1.5%	1.1%
2016	3,376	3,343	3,296	3,399	6,371	6,299	6,150	6,747	56.1%	1.6%	1.6%
2017	3,444	3,400	3,326	3,467	6,500	6,403	6,184	6,881	56.2%	1.7%	1.7%
2018	3,516	3,461	3,357	3,537	6,638	6,517	6,218	7,018	56.1%	1.8%	1.8%
2019	3,589	3,523	3,388	3,609	6,776	6,631	6,253	7,160	56.0%	1.8%	1.8%
2020	3,662	3,585	3,419	3,683	6,915	6,745	6,289	7,306	55.8%	1.8%	1.7%
2021	3,736	3,648	3,451	3,759	7,054	6,860	6,325	7,456	55.8%	1.7%	1.7%
2022	3,809	3,710	3,483	3,837	7,194	6,976	6,362	7,610	55.7%	1.7%	1.7%
2023	3,883	3,773	3,515	3,918	7,333	7,091	6,400	7,769	55.7%	1.7%	1.7%

<sup>\*</sup> For 2013, January - August actuals reported, September - December reflect 2013 Budget figures

#### JANUARY HISTORICAL AND FORECASTED LOAD DETAIL

		ENERG	GY (GWh)			PEAK DEN	MAND (MW)				AST
Year	Foundation Forecast	Base	Low Growth	High Growth	Foundation Forecast	Base	Low Growth	High Growth		Energy Change	Peak Change
2004		247				452			73.5%	4.4%	5.9%
2005		254				459			74.6%	3.0%	1.5%
2006		251				435			77.7%	-1.2%	-5.2%
2007		278			1.	478			78.2%	10.6%	9.9%
2008		279				487			77.0%	0.3%	1.8%
2009		269				490			73.6%	-3.6%	0.8%
2010		271				486			74.9%	0.9%	-0.8%
2011		275				487			75.8%	1.4%	0.2%
2012		267				464			77.2%	-2.9%	-4.7%
2013		276				481			77.1%	3.2%	3.5%
2014	279	278	275	280	495	493	491	511	75.7%	0.8%	2.6%
2015	284	282	280	286	504	500	493	522	75.7%	1.5%	1.5%
2016	289	286	282	292	513	508	496	532	75.8%	1.6%	1.6%
2017	295	291	285	298	524	517	499	543	75.8%	1.7%	1.7%
2018	302	297	288	304	535	527	502	555	75.8%	1.9%	1.9%
2019	308	302	291	310	547	536	505	566	75.8%	1.9%	1.9%
2020	315	308	293	317	559	546	508	578	75.8%	1.9%	1.8%
2021	321	314	296	324	570	556	511	591	75.8%	1.8%	1.8%
2022	328	319	299	331	582	566	515	603	75.8%	1.8%	1.8%
2023	334	325	302	338	593	576	518	616	75.8%	1.8%	1.7%

#### FEBRUARY HISTORICAL AND FORECASTED LOAD DETAIL

	ENERGY (GWh) Foundation					PEAK DEN	MAND (MW)		В	ASE FOREC	AST
Year	Foundation Forecast	Base	Low Growth	High Growth	Foundation Forecast	Base	Low Growth	High Growth	Load Factor	Energy Change	Peak Change
2004		231				431			77.1%	5.6%	0.2%
2005		224				428			77.7%	-3.3%	-0.7%
2006		235				458			76.3%	4.9%	6.8%
2007		242				478			75.3%	3.2%	4.5%
2008		249				460			77.8%	3.0%	-3.7%
2009		234				434			80.0%	-6.3%	-5.7%
2010		242				454			79.4%	3.7%	4.4%
2011		250				513		<u>"</u>	72.5%	3.2%	13.0%
2012		253				451			80.5%	1.3%	-11.9%
2013		245				448			81.4%	-3.2%	-0.8%
2014	248	247	246	249	469	467	465	511	78.6%	0.8%	4.4%
2015	252	251	249	254	478	474	467	521	78.7%	1.5%	1.5%
2016	257	255	251	259	487	482	470	532	76.0%	1.6%	1.6%
2017	263	259	253	265	497	490	473	543	78.7%	1.7%	1.7%
2018	268	264	256	270	508	499	475	554	78.8%	1.9%	1.9%
2019	274	269	258	276	519	508	478	566	78.8%	1.9%	1.8%
2020	280	274	261	281	530	518	481	578	76.1%	1.8%	1.8%
2021	286	279	263	287	541	527	484	590	78.8%	1.8%	1.8%
2022	292	284	265	294	552	536	487	602	78.8%	1.8%	1.8%
2023	297	289	268	300	563	545	490	615	78.9%	1.7%	1.7%

#### MARCH HISTORICAL AND FORECASTED LOAD DETAIL

		ENERG	GY (GWh)			PEAK DEN	MAND (MW)			ASE FOREC	AST
Year	Foundation Forecast	Base	Low Growth	High Growth	Foundation Forecast	Base	Low Growth	High Growth	Load Factor	Energy Change	Peak Change
2004		231			•	400			77.5%	2.2%	-3.7%
2005		240				402			80.2%	4.0%	0.5%
2006		248				429			77.7%	3.2%	6.7%
2007		245				442			74.4%	-1.3%	3.1%
2008		254				435			78.6%	4.0%	-1.6%
2009		247				410			81.0%	-3.0%	-5.8%
2010		249				414			81.0%	1.0%	1.1%
2011		251				450			74.8%	0.4%	8.8%
2012		247				428			77.5%	-1.6%	-5.0%
2013		256				438			78.6%	4.0%	2.4%
2014	259	258	258	261	444	442	439	468	78.6%	0.8%	0.9%
2015	264	262	260	265	452	448	441	475	78.7%	1.5%	1.4%
2016	269	267	262	269	461	455	442	483	78.8%	1.6%	1.5%
2017	275	271	264	273	470	462	444	490	78.8%	1.7%	1.6%
2018	280	275	266	278	478	469	445	498	78.9%	1.5%	1.4%
2019	285	279	268	282	487	476	447	506	78.9%	1.5%	1.4%
2020	290	283	270	287	495	482	448	514	79.0%	1.5%	1.4%
2021	295	287	272	292	504	489	450	523	79.0%	1.4%	1.4%
2022	300	291	274	297	513	495	452	532	79.0%	1.4%	1.4%
2023	305	295	276	302	521	502	453	541	79.1%	1.4%	1.3%

#### APRIL HISTORICAL AND FORECASTED LOAD DETAIL

	ENERGY (GWh) Foundation					PEAK DEN	MAND (MW)		E	BASE FOREC	AST
Year	Foundation Forecast	Base	Low Growth	High Growth	Foundation Forecast	Base	Low Growth	High Growth	Load Factor	Energy Change	Peak Change
2004		220				373			82.1%	4.2%	1.5%
2005		224				386			80.5%	1.6%	3.7%
2006		226				392			79.9%	0.8%	1.5%
2007		235				396		-	82.4%	4.1%	1.0%
2008		240				400			83.6%	2.4%	0.9%
2009		237				404			81.4%	-1.5%	1.1%
2010		231				389			82.5%	-2.3%	-3.7%
2011		236				388			84.5%	2.2%	-0.2%
2012		234				418			77.8%	-0.9%	7.7%
2013		243				429			78.9%	3.9%	2.5%
2014	246	245	245	247	418	416	413	441	82.0%	0.8%	-3.0%
2015	251	249	247	252	425	421	415	449	82.2%	1.5%	1.3%
2016	256	253	249	256	433	427	416	456	82.3%	1.6%	1.5%
2017	261	257	251	261	442	434	418	464	82.4%	1.7%	1.6%
2018	266	262	253	266	451	441	419	473	82.4%	1.7%	1.6%
2019	272	266	256	271	460	448	421	481	82.5%	1.7%	1.6%
2020	277	270	258	276	469	455	422	490	82.6%	1.6%	1.5%
2021	282	275	260	281	478	462	424	499	82.7%	1.6%	1.5%
2022	287	279	262	287	487	469	426	508	82.8%	1.6%	1.5%
2023	293	284	264	292	496	475	428	517	82.9%	1.6%	1.5%

#### MAY HISTORICAL AND FORECASTED LOAD DETAIL

		ENERG	GY (GWh)			PEAK DEN	MAND (MW)			ASE FOREC	AST
Year	Foundation Forecast	Base	Low Growth	High Growth	Foundation Forecast	Base	Low Growth	High Growth	Load Factor	Energy Change	Peak Change
2004		233				441			71.0%	3.6%	-5.6%
2005		237				476			66.8%	1.5%	8.0%
2006		244				462			70.9%	3.0%	-3.0%
2007		242				425			76.7%	-0.6%	-8.0%
2008		248				459			72.4%	2.1%	8.1%
2009		241		"		474			68.4%	-2.5%	3.2%
2010		239				470			68.3%	-1.0%	-0.9%
2011		243				405			80.4%	1.5%	-13.8%
2012		247				464			71.6%	1.9%	14.5%
2013		248				460			72.6%	0.4%	-0.9%
2014	251	250	250	252	468	466	463	496	72.2%	0.8%	1.3%
2015	256	254	252	256	476	472	464	503	72.4%	1.5%	1.3%
2016	261	258	254	260	485	479	465	511	72.4%	1.6%	1.5%
2017	266	262	255	264	495	487	467	518	72.5%	1.7%	1.6%
2018	271	266	257	268	504	493	468	526	72.6%	1.4%	1.4%
2019	276	270	259	273	513	500	469	534	72.6%	1.4%	1.3%
2020	280	274	261	277	522	506	471	543	72.7%	1.4%	1.3%
2021	285	278	263	282	530	513	472	551	72.8%	1.4%	1.3%
2022	290	281	265	286	539	519	474	560	72.8%	1.4%	1.3%
2023	295	285	267	291	548	526	475	569	72.9%	1.3%	1.3%

#### JUNE HISTORICAL AND FORECASTED LOAD DETAIL

		ENERG	Y (GWh)			PEAK DEN	MAND (MW)			ASE FOREC	AST
Year	Foundation Forecast	Base	Low Growth	High Growth	Foundation Forecast	Base	Low Growth	High Growth	Load Factor	Energy Change	Peak Change
2004		232				520			61.9%	3.8%	11.9%
2005		250				537			64.5%	7.7%	3.3%
2006		274				603			63.1%	9.8%	12.2%
2007		264				611			59.9%	-3.7%	1.4%
2008		260				551			65.7%	-1.2%	-9.9%
2009		246				536			63.6%	-5.7%	-2.6%
2010		266				575			64.3%	8.5%	7.2%
2011		261				573			63.4%	-1.9%	-0.4%
2012		295				653			62.8%	12.9%	14.0%
2013		278				639			60.4%	-5.8%	-2.1%
2014	281	280	280	283	611	608	605	625	63.9%	0.8%	-4.8%
2015	286	284	283	290	622	617	611	642	64.0%	1.5%	1.4%
2016	292	289	287	299	633	627	618	660	64.0%	1.6%	1.6%
2017	297	294	291	307	646	637	624	678	64.0%	1.7%	1.7%
2018	305	301	295	316	663	652	630	697	64.1%	2.3%	2.3%
2019	313	307	299	324	680	666	637	717	64.1%	2.3%	2.2%
2020	321	314	303	334	697	681	643	737	64.1%	2.3%	2.2%
2021	329	322	307	343	714	696	650	757	64.1%	2.3%	2.2%
2022	337	329	311	353	732	712	657	778	64.1%	2.2%	2.2%
2023	345	336	316	362	749	727	664	800	64.2%	2.2%	2.2%

#### JULY HISTORICAL AND FORECASTED LOAD DETAIL

	Foundation Foundation					PEAK DEN	MAND (MW)			ASE FORECA	AST
Year	Foundation Forecast	Base	Low Growth	High Growth	Foundation Forecast	Base	Low Growth	High Growth*	Load Factor	Energy Change	Peak Change
2004		266				576			62.0%	-8.5%	2.9%
2005		298				618			64.8%	12.0%	7.2%
2006		299				591			67.9%	0.3%	-4.3%
2007		315				635			66.8%	5.6%	7.4%
2008		313				614			68.5%	-0.9%	-3.3%
2009		283				576			66.0%	-9.5%	-6.1%
2010		298				615			65.1%	5.3%	6.8%
2011		315				639			66.1%	5.6%	4.0%
2012		321				651			66.3%	2.1%	1.8%
2013		303				649			62.8%	-5.6%	-0.3%
2014	327	326	325	328	661	659	655	678	66.4%	7.4%	1.6%
2015	332	331	328	336	673	669	660	692	66.4%	1.5%	1.5%
2016	339	336	331	343	685	679	664	707	66.5%	1.6%	1.5%
2017	345	342	335	351	699	691	668	723	66.4%	1.7%	1.8%
2018	353	349	338	358	715	704	673	739	66.6%	2.1%	1.9%
2019	361	356	341	367	731	718	677	755	66.6%	2.0%	2.0%
2020	369	363	345	375	747	732	682	772	66.6%	2.0%	1.9%
2021	377	370	348	383	763	746	686	789	66.6%	1.9%	1.9%
2022	385	377	351	392	780	761	691	807	66.6%	1.9%	2.0%
2023	393	384	355	401	796	774	696	825	66.7%	1.9%	1.7%

 $<sup>\</sup>boldsymbol{*}$  The High Growth Peak Demand Forecast serves as the Transmission Planning Forecast



#### AUGUST HISTORICAL AND FORECASTED LOAD DETAIL

		ENERG	GY (GWh)			PEAK DEN	MAND (MW)	Ī	В	ASE FOREC	AST
Year	Foundation Forecast	Base	Low Growth	High Growth	Foundation Forecast	Base	Low Growth	High Growth	Load Factor	Energy Change	Peak Change
2004		257				524			66.0%	-7.3%	-5.7%
2005		273				550			66.6%	6.1%	5.1%
2006		287				590			65.3%	5.1%	7.2%
2007		307				614			67.1%	6.9%	4.2%
2008		290				634			61.6%	-5.3%	3.2%
2009		277				559			66.5%	-4.7%	-11.7%
2010		296				595			66.8%	6.8%	6.3%
2011		317				612			69.5%	7.1%	3.0%
2012		302				612			66.4%	-4.5%	0.0%
2013		304				624			65.5%	0.5%	1.9%
2014	307	306	306	309	625	623	619	674	66.2%	0.8%	-0.2%
2015	313	311	309	315	636	631	623	688	66.2%	1.5%	1.4%
2016	319	316	312	322	648	641	626	703	66.3%	1.6%	1.6%
2017	325	321	315	329	660	652	630	717	66.3%	1.7%	1.7%
2018	332	328	317	336	675	664	634	732	66.3%	2.0%	1.9%
2019	340	334	320	343	690	677	638	748	66.3%	1.9%	1.9%
2020	347	340	323	350	705	689	642	764	66.4%	1.9%	1.8%
2021	354	347	327	358	719	702	646	780	66.4%	1.9%	1.8%
2022	361	353	330		734	714	650	797	66.4%	1.8%	1.8%
2023	369	359	333	374	749	727	654	815	66.4%	1.8%	1.8%

#### SEPTEMBER HISTORICAL AND FORECASTED LOAD DETAIL

	Foundation Rase Low Growth High Gr					PEAK DE	MAND (MW)		:	ASE FOREC	AST
Year	Foundation Forecast	Base	Low Growth	High Growth	Foundation Forecast	Base	Low Growth	High Growth	Load Factor	Energy Change	Peak Change
2004		234				458			71.0%	3.6%	-0.6%
2005		245				503			67.7%	4.7%	9.7%
2006		234				445			73.0%	-4.6%	-11.5%
2007		251				529			65.8%	7.1%	18.7%
2008		246				483			70.8%	-1.8%	-8.7%
2009		248				499			69.0%	0.8%	3.4%
2010		252				487			72.0%	1.7%	-2.5%
2011		252				586			59.8%	0.0%	20.4%
2012		254				547			64.4%	0.6%	-6.7%
2013		262				538			67.5%	3.1%	-1.5%
2014	265	264	263	266	567	565	542	618	64.8%	0.8%	5.0%
2015	269	268	266	271	557	553	544	629	67.3%	1.5%	-2.2%
2016	275	272	268	276	568	561	547	641	67.3%	1.6%	1.6%
2017	280	277	270	281	579	570	550	653	67.4%	1.7%	1.7%
2018	286	282	273	287	591	580	552	666	67.4%	1.8%	1.7%
2019	292	286	275	292	603	590	555	679	67.4%	1.7%	1.7%
2020	298	291	277	298	615	600	558	692	67.5%	1.7%	1.7%
2021	304	296	280	304	627	610	561	706	67.5%	1.7%	1.6%
2022	309	301	282	310	639	619	564	720	67.5%	1.7%	1.6%
2023	315	306	285	316	651	629	566	734	67.6%	1.6%	1.6%

<sup>\* 2013</sup> Energy & Demand are 2013 Budget figures.

#### OCTOBER HISTORICAL AND FORECASTED LOAD DETAIL

		ENERG	GY (GWh)			PEAK DEN	MAND (MW)		113	ASE FOREC	AST
Year	Foundation Forecast	Base	Low Growth	High Growth	Foundation Forecast	Base	Low Growth	High Growth	Load Factor	Energy Change	Peak Change
2004		230				384			80.5%	0.0%	-5.4%
2005		237				407			78.2%	2.9%	5.9%
2006		243				418			78.1%	2.5%	2.6%
2007		246				410			80.5%	1.2%	-1.8%
2008		250				419			80.1%	1.8%	2.3%
2009		249				432			77.7%	-0.2%	2.9%
2010		245				422			78.0%	-1.8%	-2.3%
2011		250				455			74.0%	2.2%	7.8%
2012		242				423			77.0%	-3.2%	-7.0%
2013		260				447			78.0%	7.2%	5.7%
2014	250	249	249	251	435	433	430	456	77.3%	-4.1%	-3.2%
2015	255	253	251	256	442	438	432	464	77.5%	1.5%	1.3%
2016	260	257	253	261	451	445	434	473	77.6%	1.6%	1.5%
2017	265	261	256	266	460	452	437	482	77.6%	1.7%	1.6%
2018	270	265	258	271	469	459	439	491	77.7%	1.6%	1.5%
2019	275	270	261	276	478	466	441	500	77.8%	1.6%	1.5%
2020	280	274	264	282	487	473	444	510	77.8%	1.6%	1.5%
2021	286	278	266	288	496	480	446	520	77.9%	1.6%	1.5%
2022	291	283	269	294	506	487	449	530	78.0%	1.6%	1.5%
2023	296	287	271	300	515	495	451	541	78.0%	1.6%	1.5%

<sup>\* 2013</sup> Energy & Demand are 2013 Budget figures.

#### NOVEMBER HISTORICAL AND FORECASTED LOAD DETAIL

	ENERGY (GWh)					PEAK DEN	MAND (MW)		43	BASE FOREC	AST
Year	Foundation Forecast	Base	Low Growth	High Growth	Foundation Forecast	Base	Low Growth	High Growth	Load Factor	Energy Change	Peak Change
2004		237			0	443			74.4%	2.8%	8.0%
2005		238				447			73.9%	0.3%	1.0%
2006		244				473			71.8%	2.8%	5.7%
2007		245				446			76.2%	0.2%	-5.6%
2008		246				450			76.0%	0.5%	0.7%
2009		244		-17		436			77.8%	-0.8%	-3.1%
2010		252				476			73.5%	3.0%	9.2%
2011		253				440			79.7%	0.4%	-7.4%
2012		248				451			76.2%	-2.0%	2.4%
2013		260	1			471			76.6%	4.9%	4.4%
2014	255	254	254	257	463	461	459	485	76.7%	-2.0%	-2.1%
2015	260	258	256	261	471	468	460	493	76.7%	1.5%	1.4%
2016	265	263	258	265	481	475	462	500	76.8%	1.6%	1.6%
2017	271	267	260	269	490	483	464	508	76.8%	1.7%	1.7%
2018	276	271	262	274	499	490	465	517	76.9%	1.5%	1.5%
2019	281	275	264	278	508	497	467	525	76.9%	1.5%	1.5%
2020	286	279	266	283	517	504	469	534	76.9%	1.5%	1.4%
2021	291	283	268	288	526	511	471	543	77.0%	1.5%	1.4%
2022	295	287	270	293	535	518	472	552	77.0%	1.4%	1.4%
2023	300	291	272	298	544	525	474	562	77.0%	1.4%	1.4%

<sup>\* 2013</sup> Energy & Demand are 2013 Budget figures.



#### DECEMBER HISTORICAL AND FORECASTED LOAD DETAIL

	Foundation Proceedings of the Unit Control of					PEAK DEN	MAND (MW)		Į.	ASE FOREC	AST
Year	Foundation Forecast	Base	Low Growth	High Growth	Foundation Forecast	Base	Low Growth	High Growth	Load Factor	Energy Change	Peak Change
2004		257				453			76.1%	2.6%	0.4%
2005		268				497			72.3%	4.3%	9.8%
2006		269				467			77.2%	0.3%	-6.0%
2007		278				482			77.7%	3.7%	3.0%
2008		281				518			72.8%	0.8%	7.6%
2009		282				512			74.0%	0.5%	-1.1%
2010		271				468			77.7%	-4.1%	-8.6%
2011		281				505			74.7%	3.7%	7.8%
2012		275				479			77.3%	-1.9%	-5.1%
2013		296				527			75.4%	7.4%	10.1%
2014	284	283	282	285	507	505	502	527	75.3%	-4.3%	-4.2%
2015	289	287	285	291	516	512	505	538	75.3%	1.5%	1.5%
2016	295	292	288	297	526	521	508	548	75.3%	1.6%	1.6%
2017	300	297	290	303	536	529	511	560	75.3%	1.7%	1.7%
2018	307	302	293	309	548	539	514	571	75.3%	1.9%	1.9%
2019	314	308	296	316	560	549	517	583	75.4%	1.9%	1.9%
2020	320	314	298	322	572	559	521	595	75.4%	1.8%	1.8%
2021	327	319	301	329	583	569	524	608	75.4%	1.8%	1.8%
2022	333	325	304	336	595	579	527	621	75.4%	1.8%	1.8%
2023	340	331	307	344	607	589	530	634	75.4%	1.7%	1.7%

<sup>\* 2013</sup> Energy & Demand are 2013 Budget figures.

The Risk Management Plan is a summary of Platte River's proactive efforts to identify, evaluate, rank, and mitigate risks significant to Platte River which could negatively impact electric supply, finances, reputation, and safety requirements. The Risk Management Plan is included in Platte River's Strategic Plan summarizing Identified Risks and risk mitigation strategies. Platte River's risk management process provides the framework to identify and assess specific risks by soliciting staff input and following an assessment and documentation process.

Identified Risks are evaluated through a risk assessment process coordinated by the Chief Financial and Risk Officer, Financial Planning staff, and a Risk Oversight Committee (ROC) consisting of the General Manager and senior management. The ROC identifies subject matter experts throughout Platte River to provide expertise and information regarding each Identified Risk and to alert the ROC of additional risks. As risks are identified, Platte River data, industry data, staff and management experience, and evaluation tools are utilized as a component of a detailed review process to assess the Magnitude and Probability. Magnitude and Probability ranks are assigned by the ROC based on specific criteria (see Risk Definitions, Table 1 and Table 2); higher rated risks are prioritized for the development and implementation of mitigation strategies when possible.

Mitigation strategies include, but are not limited to insurance coverage, financial and physical contracts, operational business practices, and monitoring processes. All Identified Risks and the effectiveness of mitigation strategies are reassessed by the ROC as scheduled and prioritized for action if warranted. Assessment documentation and supporting analysis is maintained by Financial Planning staff and reviewed by the ROC.

All Identified Risks are listed in Table 3, the Risk Inventory. Risks included in the Risk Inventory, assessments, and supporting documentation are approved by the Chief Financial and Risk Officer.

### RISK DEFINITIONS

Platte River's identified risks are analyzed and assigned a Magnitude and Probability classification as defined in Table 1 and Table 2 respectively.

#### **TABLE 1: Magnitude**

Magnitude Rank	Electric Supply	Safety	Financial	Reputation and Interests
HIGH	Loss of supply to an	Loss of life or	Significant impact	Significant long-term
	entire city	serious bodily injury	>\$10 million	damage
MEDIUM	Loss of supply to	Bodily injury	Limited impact	Short-term damage
	part of a city		\$5 - \$10 million	
LOW	Momentary loss to a	No injury	Modest impact	No appreciable
	city substation		<\$5 million	damage

#### **TABLE 2: Probability**

Magnitude Rank	Probability Rank Definition	Probability Rank Definition	
HIGH	The identified Risk is likely to occur within five (5) years.		
MEDIUM	The identified Risk could occur within five (5) years and should be anticipated.		
LOW	The identified Risk is unlikely to occur within five (5) years.		
IDENTIFIED RISK	Risks identified as significant to Platte River vimpact electric supply, finances, reputation, a		
MAGNITUDE	The impact of an Identified Risk occurring. Radetailed in Table 1.	anking classifications are	
PROBABILITY	The likelihood of an Identified Risk occurring time period. Ranking classifications are detail	•	
RISK OVERSIGHT COI	MITTEE ROC; a committee consisting of the General management, charged with managing Platte R the Risk Management Plan.	· ·	
RISK MANAGEMENT F	AN A document included as an integral part of Plan summarizing Platte River's Identified Risstrategies.	•	
RISK INVENTORY	A table within the Risk Management Plan that Risks' Magnitude, Probability, and risk mitigat		

#### RISKS & MITIGATION STRATEGIES

#### **TABLE 3: Risk Inventory, Five-Year Planning Horizon**

Identified Risk	Magnitude	Probability	Page No.
Defined Benefit Plan Investment Under-Performance	High	High	B-4
Mandated Renewable Energy Standard	Medium	High	B-4
3. Damage by Outside Contractor Employees	High	Medium	B-4
4. New Mandated Emission Reductions	High	Medium	B-5
5. Business Cyber Security System Intrusions	Medium	Medium	B-5
6. Coal Expense Volatility	Medium	Medium	B-5
7. Interest Rate Changes	Medium	Medium	B-5
8. Physical Security Systems Affecting Reliability or Human Life	Medium	Medium	B-5
9. Sustained Market Price Reductions (Wholesale Electricity)	Medium	Medium	B-6
10. Credit Risk	High	Low	B-6
11. Cyber Security - Generation Combustion Turbines	High	Low	B-6
12. Cyber Security - Generation Unit 1 and Gas Yard Balance of Plant	t High	Low	B-6
13. Cyber Security - System Operations	High	Low	B-6
14. Environmental Violations	High	Low	B-7
15. Extended Baseload Forced Outage: Rawhide	High	Low	B-7
16. Increases To Capital Expenditures	High	Low	B-7
17. Interruption of Coal Supply (Fuel and Rail, Trapper Mine)	High	Low	B-7
18. Interruption of Water Supply for Rawhide Generation	High	Low	B-7
19. Increased Turnover of Employees (Knowledge Loss)	Low	High	B-8
20. Corporate Conduct	Medium	Low	B-8
21. Elimination of Tax Exempt Status of Newly Issued Power			
Revenue Bonds	Medium	Low	B-8
22. Financial Internal Controls	Medium	Low	B-8
23. Increased Regulation of Coal Combustion Residuals	Medium	Low	B-8
24. Interruption of Natural Gas Supply (Fuel and Pipe)	Medium	Low	B-9
25. Electric Facility Siting Constraints	Low	Medium	B-9
26. Employee Errors That Result in Loss of Electric Service	Low	Medium	B-9
27. Extended Baseload Forced Outage: Craig	Low	Medium	B-9
28. FERC/NERC Regulatory Compliance Violation	Low	Medium	B-9
29. General Liability	Low	Medium	B-10
30. Increase Natural Gas Prices	Low	Medium	B-10

#### RISKS & MITIGATION STRATEGIES

#### TABLE 3: Risk Inventory, Five-Year Planning Horizon

CONTINUED

Identified Risk	Magnitude	Probability	Page No.
31. Increased Federal Oversight	Low	Medium	B-10
32. Reduction or Modification of Federal Hydroelectric Resources	Low	Medium	B-10
33. Increased State Oversight	Low	Low	B-10
34. Loss of Communication Systems (Phone, Fiber, Etc.)	Low	Low	B-11
35. Misalignment of Capacity Resources and System Loads	Low	Low	B-11
36. Physical Property Loss	Low	Low	B-11
37. Transmission Interruption	Low	Low	B-11
38. Wholesale Electric Market Manipulation	Low	Low	B-11

Mitigation strategies are discussed below for each Identified Risk. Each mitigation strategy requires the ROC's attention and follow-up to evaluate alternative courses of action.

#### 1.) <u>Defined Benefit Plan Investment Under-Performance</u>

Magnitude: High Probability: High

#### Mitigation:

- ▶ The Defined Benefit Plan was closed for employees hired on or after September 1, 2010, and a Defined Contribution Plan was created for new employees.
- ▶ Reinstate the lump sum distribution option which reduces the risk of obtaining the Plan's assumed rate of return on assets.

#### 2.) Mandated Renewable Energy Standard

Magnitude: Medium Probability: High

#### Mitigation:

- ▶ Evaluate costs and benefits of renewable energy in the context of risk associated with CO₂ charges. Integration of additional renewable resources may be prudent, particularly if renewable source costs decline.
- ▶ Staff will work with legislators to encourage respect of local control during the state legislative process and to educate elected officials on the steps taken by municipal utilities to diversify energy portfolios.
- Municipal utilities affected by the current renewable energy standards are allowed to create a renewable energy program substantially similar to the state mandate. Staff will work with the Municipalities to implement the present mandates to position Platte River and the Municipalities for the possibility of expanded mandates.

#### 3.) Damage by Outside Contractor Employees

Magnitude: High Probability: Medium

- Contractor qualifications are thoroughly evaluated during the selection process.
- ▶ Project managers provide oversight as work progresses. When appropriate, a surety bond, or other form of financial security, is obtained prior to the commencement of work.

#### 4.) New Mandated Emission Reductions

Magnitude: High Probability: Medium

#### Mitigation:

- Supply side mitigation options include reduced coal generation through scheduling changes, capacity reductions or retirements, installing combined cycle gas turbine units, fuel switching (coal to gas) and increasing use of renewable energy sources.
- ▶ Demand side mitigation options include increased energy efficiency, addition of distributed generation having relatively lower emission rates, combined heat and power applications (cogeneration and district heating) and fuel switching.
- Working with the Municipalities, other emission reduction opportunities may be considered: transportation (e.g. electric vehicles), waste to energy applications, vegetation management, and new/innovative technology applications.

#### 5.) <u>Business Cyber Security System Intrusions</u>

Magnitude: Medium Probability: Medium

#### Mitigation:

- Security firewalls and current monitoring systems effectively guard against typical or historical intrusion attempts.
- Continued assessments of IT system security standards are planned to ensure appropriate measures are in place, and to identify necessary future actions.
- As technology evolves, additional updates are evaluated.

#### 6.) <u>Coal Expense Volatility</u>

Magnitude: Medium Probability: Medium

#### Mitigation:

- Continue to monitor coal markets for future opportunities to remove price volatility and fix forward pricing.
- Continue negotiations of the Rawhide rail contract renewal.

#### 7.) Interest Rate Changes

Magnitude: Medium Probability: Medium

#### Mitigation:

- Continue a laddered maturity investment strategy based on cash flow projections.
- Laddered maturities spread interest rate risk over time reducing interest rate volatility. Staff will analyze various debt options to help mitigate potential rising rates.

#### 8.) Physical Security Systems Affecting Reliability or Human Life

Magnitude: Medium Probability: Medium

- A Security Assessment team was established to develop a security policy. The team identified security gaps and deficiencies, along with recommended industry best practices for solutions.
- Projects to enhance physical security are either progressing, in planning stages, or budgeted for future years.



#### 9.) Sustained Market Price Reductions (Wholesale Electricity)

Magnitude: Medium Probability: Medium

#### Mitigation:

- ▶ The Energy Risk Management Committee (ERMC) evaluates market prices and alternative sales arrangements to enhance surplus sale revenues.
- Continue negotiations with regional suppliers for medium term, day ahead and real time surplus energy sales.
- ▶ Continue sales strategies that optimize the use of lower cost baseload generation in the spring, fall, and winter and avoid contracted sales in the summer when margins are lower.

#### 10.) Credit Risk

Magnitude: High Probability: Low

#### Mitigation:

- ▶ Platte River diversifies its portfolio by purchasing different types of securities allowed under State Statute: agency debt, treasury notes, investment pools, bank deposits and money market accounts. Within direct purchase agency debt, Platte River limits its exposure to each individual agency to less than 20% (subject to review by the Chief Financial and Risk Officer).
- Continue to maintain a diversified investment portfolio.
- Continue to monitor the Federal Housing Finance Agency reports to ensure the counterparties remain stable.

#### 11.) <u>Cyber Security – Generation Combustion Turbines</u>

Magnitude: High Probability: Low

#### Mitigation:

- Multiple layers of cyber-security protection exist, along with built-in redundant, independent protections. These measures prevent total system failures, and are independent of the turbine control system, therefore not subject to cyber security threats.
- ▶ The presence of five smaller, independent generation units mitigates the impact versus possessing all peaking capacity on a single unit. Additionally, control of the combustion turbines is not completely dependent on network communication because each unit can be independently controlled locally at the machine.

#### 12.) Cyber Security – Generation Unit 1 and Gas Yard Balance of Plant

Magnitude: High Probability: Low

#### Mitigation:

- Continue assessing security needs, and implement the immediate and intermediate term measures that have been identified.
- Strategies to further improve network security have been identified and will be implemented.

#### 13.) <u>Cyber Security – System Operations</u>

Magnitude: High Probability: Low

#### Mitigation:

Continued process and internal controls improvement, capital investment, employee training, and proper staffing will provide the foundation and resources necessary to adapt to ever changing technology, vulnerabilities, threats, and regulatory requirements specific to SCADA systems.

#### 14.) Environmental Violations

Magnitude: High Probability: Low

Mitigation:

Continue training staff to ensure environmental compliance. Training programs are enhanced as regulations and other requirements evolve.

#### 15.) Extended Baseload Forced Outage: Rawhide

Magnitude: High Probability: Low

Mitigation:

- Platte River has built excess capacity with the installation of five natural gas combustion turbines to not only meet peak summer demands, but to ensure electric supply during outages.
- The forced outage assistance agreement with Tri-State Generation & Transmission, whic provides 100 MW of replacement power for up to one continuous week, lessens the exposure to purchase power and natural gas markets in the event of a Rawhide Unit 1 forced outag Extension of this agreement and expanding similar agreements to other units will be evaluated.
- Continue excellent maintenance practices including, but not limited to, regular inspections, planned outages, and operating standards.
- Strategic Planning efforts are underway to analyze and plan future capacity expansion plans. Planning tools will also provide additional metrics on loss of load to better evaluate outage risk.

#### 16.) <u>Increases to Capital Expenditures</u>

Magnitude: High Probability: Low

Mitigation:

- Capital funds are budgeted annually.
- Capital expenditures are prioritized to cover higher risk projects.
- Budget contingency is available for capital expenditures not included in the budget.
- ▶ Standard accounting practices spreads the impact of capital expenditures over years of service.

#### 17.) Interruption of Coal Supply (Fuel and Rail, Trapper Mine)

Magnitude: High Probability: Low

Mitigation:

- Continue to seek long-term coal supply and rail contracts.
- Maintain strong relationships with coal and rail providers.
- Continue representation on the Trapper Mine Board of Directors, as well as the Fuel Buyers Team for Craig Station to guide and direct future fuel supply decisions.
- Maintain a minimum of 60 days of stockpile inventory at both Rawhide and Craig.

#### 18.) <u>Interruption of Water Supply for Rawhide Generation</u>

Magnitude: High Probability: Low

- Continue participation in the Windy Gap Firming Project.
- Research alternative water supplies needed for Rawhide coal unit operations.
- ▶ Evaluate water supply infrastructure, and research options for redundancy and/or maintenance and replacement opportunities.



#### 19.) <u>Increased Turnover of Employees (knowledge loss)</u>

Magnitude: Low Probability: High

#### Mitigation:

- Workforce development to build expanded knowledge base within the organization.
- Strengthening the recruiting and selection process.
- Organizational structure alignment to support cross training.
- Implementation of succession planning strategies.

#### 20.) Corporate Conduct

Magnitude: Medium Probability: Low

#### Mitigation:

- Expand the ethics policy section of the Employee Handbook.
- Provide workforce training on ethics guidelines for public employees.
- Implement a compliance hotline for reporting potential violations.

#### 21.) <u>Elimination of Tax Exempt Status of Newly Issued Power Revenue Bonds</u>

Magnitude: Medium Probability: Low

#### Mitigation:

- Analyze various debt options which may be used in the event that tax exempt financing is eliminated.
- Continue to support APPA and LPPC in their efforts to ensure the continuance of tax-exempt financing.

#### 22.) <u>Financial Internal Controls</u>

Magnitude: Medium Probability: Low

#### Mitigation:

- The formation of the Internal Audit Committee prioritized the internal audit program.
- ▶ The committee reviews internal controls and processes, and verifies there is no management override of controls.

#### 23.) <u>Increased Regulation of Coal Combustion Residuals</u>

Magnitude: Medium Probability: Low

- Continue monitoring the federal Coal Combustion Residuals (CCR) rulemaking and participating through various trade associations.
- Continue participating in all stakeholder meetings and public process coordinated by Colorado Department of Public Health and Environment concerning state regulations affecting CCR management.
- Groundwater monitoring wells at Rawhide detect problems early, establish baseline conditions, and track natural variations.

#### 24.) Interruption of Natural Gas Supply (Fuel and Pipe)

Magnitude: Medium Probability: Low

#### Mitigation:

- Continue regular inspection and maintenance of natural gas pipeline infrastructure, including the CIG interconnects, to ensure reliability.
- ▶ Ensure scheduling staff is familiar with scheduling procedures on CIG's pipeline as an alternate source.
- Monitor potential alternative supply sources.
- Support expanded risk evaluation for potential new combined cycle gas generation.

#### 25.) Electric Facility Siting Constraints

Magnitude: Low Probability: Medium

#### Mitigation:

Proper project planning and communication can mitigate environmental issues.

#### 26.) Employee Errors That Result in Loss of Electric Service

Magnitude: Low Probability: Medium

#### Mitigation:

- ▶ Job training focused on the acquisition and maintenance of skills through updating apprenticeship step progression requirements, regular refresher training on specialized processes or activities, and documenting processes.
- Building in time to review job hazards prior to beginning work will minimize the potential for errors.

#### 27.) Extended Baseload Forced Outage: Craig

Magnitude: Low Probability: Medium

#### Mitigation:

- Platte River has built excess capacity with the installation of five natural gas combustion turbines not only to meet peak summer demands, but also to ensure electric supply during outages.
- Continue representation on the Yampa Engineering and Operating Committee and the Yampa Coordinating Committee, to ensure/influence best business practices.
- Strategic Planning efforts are underway to analyze and plan future capacity expansion plans.

#### 28.) FERC/NERC Regulatory Compliance Violation

Magnitude: Low Probability: Medium

- ▶ Clear and ongoing communication from the General Manager that a culture of high ethics and reliability compliance is expected.
- Allocation of appropriate financial support, personnel and resources.
- A well documented and widely disseminated Reliability Compliance Program is reviewed and modified.
- Manage and operate the internal Reliability Compliance Program independently of areas responsible for complying with Reliability Standards.
- Mandatory education and training for all relevant employees on compliance responsibilities and risks.
- Internal compliance monitoring processes.



#### 29.) **General Liability**

Magnitude: Low Probability: Medium

Mitigation:

- With the assistance of insurance brokers, appropriate insurance policies with adequate limits are maintained.
- Policy terms and limits to ensure appropriate coverage are regularly assessed.
- Clear and ongoing communication from the General Manager that a culture of high safety standards is expected.
- Continue to maintain industry recommended business policies and procedures.

#### 30.) Increase Natural Gas Price

Magnitude: Low Probability: Medium

Mitigation:

- In 2013 staff completed the necessary actions to become compliant with Commodity Futures
  Trading Commission (CFTC) regulations resulting from the Dodd-Frank Act. As a result, hedging
  activities have resumed in accordance with current hedging guidelines to mitigate upward price risk.
- The ERMC will continue to evaluate and enter natural gas hedging contracts for summer seasons to mitigate price risk volatility. The ERMC will also evaluate the effectiveness of, and update as necessary, natural gas hedging strategies.
- Continue regular updates of natural gas requirements and price projections.
- Reanalyze in the context of adding combined cycle gas generation in the future.

#### 31.) Increased Federal Oversight

Magnitude: Low Probability: Medium

Mitigation:

- Continue to actively monitor changes to the legislative and regulatory landscape. When necessary, communicate Platte River's positions to legislators and regulators.
- Remain an active member of coalitions that monitor and participate in the legislative and regulatory process.

#### 32.) Reduction or Modification of Federal Hydroelectric Resources

Magnitude: Low Probability: Medium

Mitigation:

- Work with federal power customer groups such as the Loveland Area Customers Association and the Colorado River Energy Delivery Association to ensure early notification of delivery reductions or modifications.
- Fully utilize WAPA transmission to reach alternative wholesale energy supplies in the event of reductions from federal hydropower sources.

#### 33.) <u>Increased State Oversight</u>

Magnitude: Low Probability: Low

- Continue to actively monitor changes to the legislative and regulatory landscape. When necessary communicate Platte River's positions to legislators and regulators.
- Remain an active member of coalitions that monitor and participate in the legislative and regulatory process.

#### 34.) Loss of Communication Systems (Phone, Fiber, Etc.)

Magnitude: Low Probability: Low

Mitigation:

Continue maintenance and operation of the redundant communication network and perform necessary upgrades to ensure reliability.

#### 35.) <u>Misalignment of Capacity Resources and System Loads</u>

Magnitude: Low Probability: Low

#### Mitigation:

- ▶ The load forecast is annually updated to include recent load trends, energy efficiency efforts, weather conditions, and population and economic projections. The load forecast can be enhanced by including end-use forecasting.
- Continue active involvement in municipal energy efficiency and load management planning efforts.
- Strategic Planning efforts are underway to analyze future capacity expansion plans. Planning tools will also provide additional metrics on loss of load probability and system constraints.
- Capacity sales are reviewed by the ERMC to ensure sales are maximized but not overextended to the degree native loads are jeopardized.

#### 36.) Physical Property Loss

Magnitude: Low Probability: Low

#### Mitigation:

- Continue excellent maintenance standards to avoid mechanical failures, and maintain training and education programs for safe operating procedures.
- As replacement costs continue to rise, conduct Maximum Foreseeable Loss (MFL) analysis annually as the MFL approaches the policy limit.

#### 37.) <u>Transmission Interruption</u>

Magnitude: Low Probability: Low

#### Mitigation:

- Review the emergency plan and consider maintaining inventory of temporary transmission equipment to bypass emergency out-of-service sections of the transmission system.
- Consider assisting owner Municipalities in the risk evaluation of their distribution system.

#### 38.) Wholesale Electric Market Manipulation

Magnitude: Low Probability: Low

- Continue bi-annual internal audits to ensure manipulative activity is not occurring.
- Continue annual staff training.



### APPENDIX C STRATEGIC FINANCIAL PLAN

Platte River's Strategic Financial Plan (SFP) is designed to provide long-term financial stability by generating adequate cash flows, maintaining access to low cost capital, providing stable and competitive wholesale rates and effectively managing financial risk. The Board of Directors reviews the SFP policies, goals, and financial projections at least annually.

#### RATE REQUIREMENTS

Under Colorado law, Platte River's Board of Directors has the exclusive authority to establish electric rates. The Power Supply Agreements with the Municipalities require the Board to review rates at least once each calendar year.

The Power Supply Agreements with the Municipalities and the General Power Bond Resolution contain specific provisions governing Platte River's rate setting. The Power Supply Agreements require that rates be sufficient to cover all operating and maintenance expenses, purchase power costs, debt service expenses, and provide for the establishment of reasonable reserves and adequate earnings margins so that Platte River may obtain favorable debt financing. The General Power Bond Resolution requires that rates be sufficient to generate net revenues sufficient to cover debt service expense at a minimum 1.10 times.

#### POLICIES AND GOALS

- ▶ Generate Minimum Debt Service Coverage of 1.50 times;
- Generate Minimum Net Income Equal to \$6 Million;
- Target Minimum 200 Unrestricted Days Cash on Hand;
- Maintain \$20 Million in Rate Stabilization Fund;
- ▶ Target Debt to Capitalization Ratio Less than 50%;
- Maintain Access to Low Cost Capital and Favorable Credit Ratings;
- Provide Stable and Competitive Wholesale Rates;
- Maintain Bond Required Reserves;
- Prudently Manage and Invest Reserves;
- ▶ Variable Rate Debt Managed In Accordance With Interest Rate Risk Management Policy;
- Manage Financial Risk.

The above policies and goals are interrelated. By achieving the minimum target for debt service coverage of 1.50 times, the net income target of \$6 million, and the minimum 200 days unrestricted cash on hand, Platte River should generate adequate cash flows to meet liquidity targets, exceed its debt to capitalization goal and maintain access to low cost capital. Each policy and goal is discussed in more detail on the next pages.

## APPENDIX C STRATEGIC FINANCIAL PLAN

#### GENERATE MINIMUM DEBT SERVICE COVERAGE OF 1.50 TIMES.

While the legal requirements for debt service coverage is 1.10 times, coverage at this level does not generate adequate cash flows, increases future debt issuance, and significantly impacts Platte River's credit rating, which increases the cost of future financings. Target debt service coverage of 1.50 times provides sufficient annual cash flows to partially fund future capital additions as well as maintain favorable credit ratings.

#### GENERATE MINIMUM NET INCOME OF \$6 MILLION.

Power Supply Agreements with the Municipalities require Platte River to earn an adequate earnings margin to obtain revenue bond financing on favorable terms. A target minimum of \$6 million net income is a sufficient earnings margin to ensure cash balances are maintained, liquidity requirements are met, and financial flexibility remains available.

#### TARGET MINIMUM DAYS UNRESTRICTED CASH ON HAND.

A minimum 200 days unrestricted cash on hand target ensures adequate cash is generated and maintained, thus ensuring Platte River's financial flexibility, strength, and liquidity. Included in the days unrestricted cash on hand target is a Rate Stabilization Fund target of \$20 million. The Rate Stabilization Fund's purpose is to lessen or eliminate the rate impact due to an unforeseen event that impacts Platte River's ability to meet the minimum legal debt service coverage requirement.

#### TARGET DEBT TO CAPITALIZATION LESS THAN 50%.

A debt to capitalization ratio less than 50% provides Platte River with a strong balance sheet and reduces the risk of becoming over leveraged in the debt market.

#### MAINTAIN ACCESS TO LOW COST CAPITAL AND FAVORABLE CREDIT RATINGS.

Interest rates between various credit ratings can fluctuate significantly depending on market conditions. Maintaining a strong credit rating provides access to low cost capital and favorable financing terms, resulting in lower overall debt service expense.

#### PROVIDE STABLE AND COMPETITIVE WHOLESALE RATES.

Rate projections are developed and reviewed by the Board at least annually. If possible, projected rates modifications required to meet SFP criteria will be spread over multiple years to provide more stable rates from year to year. Retail rate comparisons with other utilities in the region are used to measure the competitiveness of wholesale rates charged to the Municipalities.

#### MAINTAIN BOND REQUIRED RESERVES.

The General Power Bond Resolution requires a Reserve and Contingency Fund be maintained at a minimum of 2% of net plant. Bond service and bond reserve funds are maintained as required.



## APPENDIX C STRATEGIC FINANCIAL PLAN

#### PRUDENTLY MANAGE AND INVEST RESERVES.

Platte River's investments will be managed in accordance with Platte River's Investment Policy. The primary objectives of the investment activities shall be safety, liquidity, and yield while achieving market returns comparable to benchmark performance.

### VARIABLE RATE DEBT MANAGED IN ACCORDANCE WITH INTEREST RATE RISK MANAGEMENT POLICY.

The Board-approved Interest Rate Risk Management policy has established guidelines to govern variable rate debt.

#### MANAGE FINANCIAL RISK.

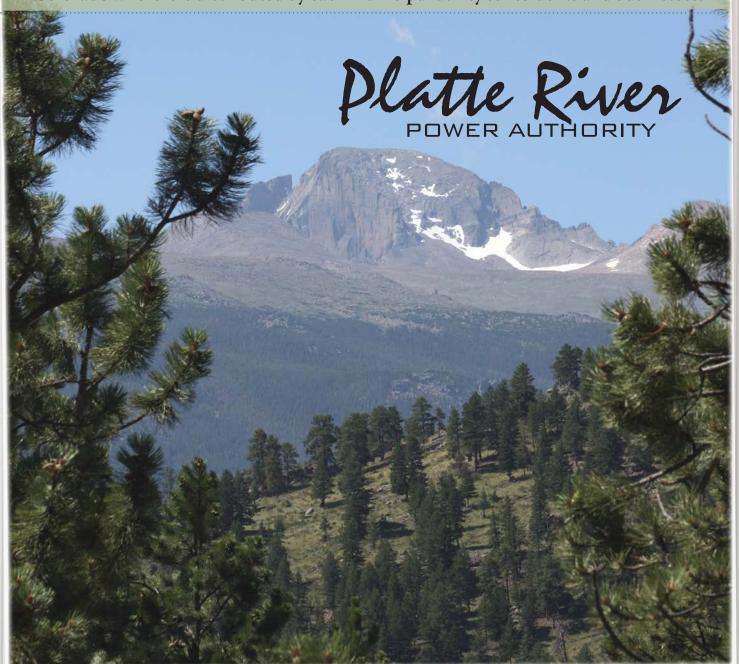
Platte River's financial risks will be managed in accordance with, but not limited to, the following Board approved documents: Energy Risk Management Policy, General Power Bond Resolution, Interest Rate Risk Management Policy, and Power Supply Agreements. The Energy Risk Management Committee and the Risk Oversight Committee are charged with managing Platte River's business risks.

# APPENDIX D ACRONYM DEFINITIONS

BART. Best Available Retrofit Technology BNSF. Burlington Northern Santa Fe Railway CAMR. Clean Air Mercury Rule CCR. Coal Combustion Residuals CDPHE. Colorado Department of Public Health and Environment CO2. Carbon Dioxide CPUC. Colorado Public Utilities Commission CRSP. Colorado River Storage Project CT. Combustion Turbine DG. Distributed Generation DSM. Demand Side Management EMS. Environmental Management System EPA. Environmental Protection Agency EPAct 2005. The Energy Policy Act of 2005 ERMC. Energy Risk Management Committee ERMP Energy Risk Management Policy FERC. Federal Energy Regulatory Commission GHG. Greenhouse Gases GWh. Gigawatt Hour Hg. Mercury IRP. Integrated Resource Plan kV kilovolt LAP. Loveland Area Projects MATS. Mercury and Air Toxics Standard MBWP Medicine Bow Wind Project MW. Megawatt MWh. Megawatt Hour NERC. North American Electric Reliability Corporation NOX. Nitrogen Oxides O&M. Operations and Maintenance PSCo CAE. Public Service Company Capacity and Energy Sale PSD. Prevention of Significant Deterioration PV. Photovoltaic REPI Renewable Energy Production Incentive RES. Renewable Energy Standard RHR. Regional Haze Rule RMRG. Rocky Mountain Reserve Group ROC. Risk Oversight Committee SFP. Strategic Financial Plan SIP. State Implementation Plan SO2. Sulfur Dioxide TTI-State Generation and Transmission Association, Inc. WESTERN. Western Area Power Administration		DEFINITIONS
CAMR Clean Air Mercury Rule CCR Coal Combustion Residuals CDPHE Colorado Department of Public Health and Environment CO2 Carbon Dioxide CPUC Colorado Public Utilities Commission CRSP Colorado River Storage Project CT Combustion Turbine DG Distributed Generation DSM Demand Side Management EMS Environmental Management System EPA Environmental Management System EPA Environmental Protection Agency EPAct 2005 The Energy Policy Act of 2005 ERMC Energy Risk Management Committee ERMP Energy Risk Management Policy FERC Federal Energy Regulatory Commission GHG Greenhouse Gases GWh Gigawatt Hour Hg Mercury IRP Integrated Resource Plan kV kilovolt LAP Loveland Area Projects MATS Mercury and Air Toxics Standard MBWP Medicine Bow Wind Project MW Megawatt MWh Megawatt Hour NERC North American Electric Reliability Corporation NOx Nitrogen Oxides 0&M Operations and Maintenance PSCo CAE Public Service Company Capacity and Energy Sale PSD Prevention of Significant Deterioration PV Photovoltaic REPI Renewable Energy Production Incentive RES Renewable Energy Standard RHR Regional Haze Rule RMRG Rocky Mountain Reserve Group ROC Risk Oversight Committee SFP Strategic Financial Plan SIP State Implementation Plan SO2 Sulfur Dioxide TRI-STATE Tri-State Generation and Transmission Association, Inc. WESTERN Western Area Power Administration	BART	Best Available Retrofit Technology
CCR Coal Combustion Residuals CDPHE Colorado Department of Public Health and Environment CO2 Carbon Dioxide CPUC Colorado Public Utilities Commission CRSP. Colorado River Storage Project CT. Combustion Turbine DG Distributed Generation DSM Demand Side Management EMS Environmental Management System EPA. Environmental Protection Agency EPAct 2005. The Energy Policy Act of 2005 ERMC Energy Risk Management Committee ERMP Energy Risk Management Policy FERC. Federal Energy Regulatory Commission GHG Greenhouse Gases GWh Gigawatt Hour Hg Mercury IRP Integrated Resource Plan kV kilovolt LAP Loveland Area Projects MMTS Mercury and Air Toxics Standard MBWP Medicine Bow Wind Project MW Megawatt MWh Megawatt Hour NERC North American Electric Reliability Corporation NOX Nitrogen Oxides O&M Operations and Maintenance PSCo CAE Public Service Company Capacity and Energy Sale PSD Prevention of Significant Deterioration PV Photovoltaic REPI Renewable Energy Production Incentive RES Renewable Energy Standard RHR Regional Haze Rule RMRG Rocky Mountain Reserve Group ROC Risk Oversight Committee SFP Strategic Financial Plan SIP State Implementation Plan SO <sub>2</sub> Sulfur Dioxide TRI-STATE Tri-State Generation and Transmission Association, Inc. WESTERN Western Area Power Administration WECC Western Electricity Coordinating Council	BNSF	Burlington Northern Santa Fe Railway
CDPHE Colorado Department of Public Health and Environment CO2	CAMR	Clean Air Mercury Rule
CO2	CCR	Coal Combustion Residuals
CPUC	CDPHE	Colorado Department of Public Health and Environment
CRSP	CO <sub>2</sub>	Carbon Dioxide
CT	CPUC	Colorado Public Utilities Commission
DG	CRSP	Colorado River Storage Project
DSM	CT	Combustion Turbine
EMS	DG	Distributed Generation
EPA	DSM	Demand Side Management
EPAct 2005. The Energy Policy Act of 2005 ERMC Energy Risk Management Committee ERMP Energy Risk Management Policy FERC Federal Energy Regulatory Commission GHG Greenhouse Gases GWh Gigawatt Hour Hg Mercury IRP Integrated Resource Plan kV kilovolt LAP Loveland Area Projects MATS Mercury and Air Toxics Standard MBWP Medicine Bow Wind Project MW Megawatt MWh Megawatt Hour NERC North American Electric Reliability Corporation NOX Nitrogen Oxides O&M Operations and Maintenance PSCo CAE Public Service Company Capacity and Energy Sale PSD Prevention of Significant Deterioration PV Photovoltaic REPI Renewable Energy Production Incentive RES Renewable Energy Standard RHR Regional Haze Rule RMRG Rocky Mountain Reserve Group ROC Risk Oversight Committee SFP Strategic Financial Plan SIP State Implementation Plan SO2 Sulfur Dioxide TRI-STATE Tri-State Generation and Transmission Association, Inc. WESTERN Western Electricity Coordinating Council	EMS	Environmental Management System
ERMC Energy Risk Management Committee ERMP Energy Risk Management Policy FERC Federal Energy Regulatory Commission GHG Greenhouse Gases GWh Gigawatt Hour Hg Mercury IRP Integrated Resource Plan kV kilovolt LAP Loveland Area Projects MATS Mercury and Air Toxics Standard MBWP Medicine Bow Wind Project MW Megawatt MWh Megawatt Hour NERC North American Electric Reliability Corporation NOx Nitrogen Oxides O&M Operations and Maintenance PSCo CAE Public Service Company Capacity and Energy Sale PSD Prevention of Significant Deterioration PV Photovoltaic REPI Renewable Energy Production Incentive RES Renewable Energy Standard RHR Regional Haze Rule RMRG Rocky Mountain Reserve Group ROC Risk Oversight Committee SFP Strategic Financial Plan SIP State Implementation Plan SO2 Sulfur Dioxide TRI-STATE Tri-State Generation and Transmission Association, Inc. WESTERN Western Area Power Administration WECC Western Electricity Coordinating Council	EPA	Environmental Protection Agency
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GHG Greenhouse Gases GWh Gigawatt Hour Hg Mercury IRP Integrated Resource Plan kV kilovolt LAP Loveland Area Projects MATS Mercury and Air Toxics Standard MBWP Medicine Bow Wind Project MW Megawatt MWh Megawatt Hour NERC North American Electric Reliability Corporation NOX Nitrogen Oxides O&M Operations and Maintenance PSCo CAE Public Service Company Capacity and Energy Sale PSD Prevention of Significant Deterioration PV Photovoltaic REPI Renewable Energy Production Incentive RES Renewable Energy Standard RHR Regional Haze Rule RMRG Rocky Mountain Reserve Group ROC Risk Oversight Committee SFP Strategic Financial Plan SIP State Implementation Plan SO2 Sulfur Dioxide TRI-STATE Tri-State Generation and Transmission Association, Inc. WESTERN Western Area Power Administration WECC Western Electricity Coordinating Council	FERC	Federal Energy Regulatory Commission
Hg       Mercury         IRP       Integrated Resource Plan         kV       kilovolt         LAP       Loveland Area Projects         MATS       Mercury and Air Toxics Standard         MBWP       Medicine Bow Wind Project         MW       Megawatt         MWh       Megawatt Hour         NERC       North American Electric Reliability Corporation         NOx       Nitrogen Oxides         O&M       Operations and Maintenance         PSCo CAE       Public Service Company Capacity and Energy Sale         PSD       Prevention of Significant Deterioration         PV       Photovoltaic REPI Renewable Energy Production Incentive         RES       Renewable Energy Standard         RHR       Regional Haze Rule         RMRG       Rocky Mountain Reserve Group         ROC       Risk Oversight Committee         SFP       Strategic Financial Plan         SIP       State Implementation Plan         SO2       Sulfur Dioxide         TRI-STATE       Tri-State Generation and Transmission Association, Inc.         WESTERN       Western Area Power Administration         WECC       Western Electricity Coordinating Council		
Hg       Mercury         IRP       Integrated Resource Plan         kV       kilovolt         LAP       Loveland Area Projects         MATS       Mercury and Air Toxics Standard         MBWP       Medicine Bow Wind Project         MW       Megawatt         MWh       Megawatt Hour         NERC       North American Electric Reliability Corporation         NOx       Nitrogen Oxides         O&M       Operations and Maintenance         PSCo CAE       Public Service Company Capacity and Energy Sale         PSD       Prevention of Significant Deterioration         PV       Photovoltaic REPI Renewable Energy Production Incentive         RES       Renewable Energy Standard         RHR       Regional Haze Rule         RMRG       Rocky Mountain Reserve Group         ROC       Risk Oversight Committee         SFP       Strategic Financial Plan         SIP       State Implementation Plan         SO2       Sulfur Dioxide         TRI-STATE       Tri-State Generation and Transmission Association, Inc.         WESTERN       Western Area Power Administration         WECC       Western Electricity Coordinating Council	GWh	Gigawatt Hour
IRP		
kV kilovolt  LAP Loveland Area Projects  MATS Mercury and Air Toxics Standard  MBWP Medicine Bow Wind Project  MW Megawatt  MWh Megawatt Hour  NERC North American Electric Reliability Corporation  NOx Nitrogen Oxides  O&M Operations and Maintenance  PSCo CAE Public Service Company Capacity and Energy Sale  PSD Prevention of Significant Deterioration  PV Photovoltaic REPI Renewable Energy Production Incentive  RES Renewable Energy Standard  RHR Regional Haze Rule  RMRG Rocky Mountain Reserve Group  ROC Risk Oversight Committee  SFP Strategic Financial Plan  SIP State Implementation Plan  SO <sub>2</sub> Sulfur Dioxide  TRI-STATE Tri-State Generation and Transmission Association, Inc.  WESTERN Western Area Power Administration  WECC Western Electricity Coordinating Council	•	•
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MW Megawatt Hour  NERC North American Electric Reliability Corporation  NOx Nitrogen Oxides  O&M Operations and Maintenance  PSCo CAE Public Service Company Capacity and Energy Sale  PSD Prevention of Significant Deterioration  PV Photovoltaic REPI Renewable Energy Production Incentive  RES Renewable Energy Standard  RHR Regional Haze Rule  RMRG Rocky Mountain Reserve Group  ROC Risk Oversight Committee  SFP Strategic Financial Plan  SIP State Implementation Plan  SO <sub>2</sub> Sulfur Dioxide  TRI-STATE Tri-State Generation and Transmission Association, Inc.  WESTERN Western Area Power Administration  WECC Western Electricity Coordinating Council	MBWP	Medicine Bow Wind Project
NERC		•
NERC	MWh	Megawatt Hour
O&M		-
PSCo CAE Public Service Company Capacity and Energy Sale PSD Prevention of Significant Deterioration PV Photovoltaic REPI Renewable Energy Production Incentive RES Renewable Energy Standard RHR Regional Haze Rule RMRG Rocky Mountain Reserve Group ROC Risk Oversight Committee SFP Strategic Financial Plan SIP State Implementation Plan SO <sub>2</sub> Sulfur Dioxide TRI-STATE Tri-State Generation and Transmission Association, Inc. WESTERN Western Area Power Administration WECC Western Electricity Coordinating Council	NOx	Nitrogen Oxides
PSD Prevention of Significant Deterioration  PV Photovoltaic REPI Renewable Energy Production Incentive  RES Renewable Energy Standard  RHR Regional Haze Rule  RMRG Rocky Mountain Reserve Group  ROC Risk Oversight Committee  SFP Strategic Financial Plan  SIP State Implementation Plan  SO <sub>2</sub> Sulfur Dioxide  TRI-STATE Tri-State Generation and Transmission Association, Inc.  WESTERN Western Area Power Administration  WECC Western Electricity Coordinating Council	O&M	Operations and Maintenance
PSD Prevention of Significant Deterioration  PV Photovoltaic REPI Renewable Energy Production Incentive  RES Renewable Energy Standard  RHR Regional Haze Rule  RMRG Rocky Mountain Reserve Group  ROC Risk Oversight Committee  SFP Strategic Financial Plan  SIP State Implementation Plan  SO <sub>2</sub> Sulfur Dioxide  TRI-STATE Tri-State Generation and Transmission Association, Inc.  WESTERN Western Area Power Administration  WECC Western Electricity Coordinating Council	PSCo CAE	Public Service Company Capacity and Energy Sale
RES		
RES	PV	Photovoltaic REPI Renewable Energy Production Incentive
RHR		
ROC		
SFP	RMRG	Rocky Mountain Reserve Group
SFP	ROC	Risk Oversight Committee
SIP		
SO <sub>2</sub>		
TRI-STATE Tri-State Generation and Transmission Association, Inc.  WESTERN Western Area Power Administration  WECC Western Electricity Coordinating Council		•
WESTERNWestern Area Power Administration WECCWestern Electricity Coordinating Council		
WECCWestern Electricity Coordinating Council		



Platte River Power Authority is a not-for-profit utility that generates and delivers safe, reliable, environmentally responsible and competitively priced energy and services to its owner communities of Estes Park, Fort Collins, Longmont and Loveland, Colorado where it is distributed by each municipal utility to residents and businesses.













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