



# Community & Environment

Estes Park | Fort Collins | Longmont | Loveland

Issue 7 | December 2013



**PLATTE RIVER**  
**POWER AUTHORITY**

# Vision, Mission and Values

## Vision

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

## Mission

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

## Values:

### 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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## 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. Over the past 40 years, this role has given us unique opportunities to fulfill our vision—*As a respected leader and responsible energy partner, improve the quality of life in our owner communities.*

Quality of life is strongly linked to the health of the environment. Opportunities to participate in outdoor activities abound and make our part of the world the preferred place to live for many people, including our own employees. Platte River's policies and practices therefore reflect an unwavering dedication to environmental stewardship. For example, we proactively invest in state-of-the-art air quality control systems and other improvements to our power operations when costs are commensurate with measurable environmental benefits. We also actively support conservation by helping customers pay for energy efficient improvements at their facilities and by following sustainable business practices such as recycling and ride sharing.

Future environmental benefits are likely to result from diversification of our generation resources. Platte River's Board of Directors and Management have begun evaluating the possibility of diversifying our portfolio while remaining the lowest cost wholesale electricity provider located in Colorado. This planning process began with public listening sessions to collect input from the citizens of the four owner communities. We will continue to seek public input as we evaluate options.

In addition to being a good steward of the environment, Platte River enhances quality of life by encouraging and facilitating community service on the part of employees and by providing limited financial support to local non-profit organizations. Each year, we help feed the hungry, educate young people on a variety of important life skills and provide other basic necessities to people in need. We appreciate the generosity of our employees and their willingness to contribute time, effort and money to benefit others.

I hope you will take time to read through this edition of Platte River's Community & Environment Report. In it, you will find specific examples of what we have been doing to make positive contributions to the quality of life in our communities.

**Jackie A. Sargent**

General Manager





Mountain waterfall

## Environmental Principles

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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 socioeconomic 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,
- Consider environmentally progressive technologies to meet future generation needs.

## Emissions Successfully Reduced at Rawhide

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The Colorado Utility Mercury Reduction Rule requires emissions monitoring and significant emission reductions from coal-fired power plants. A continuous mercury monitoring system and a state-of-the-art brominated powdered activated carbon injection system have been installed on Rawhide Unit 1 to meet the Rule's specified emission limits that became effective in 2012. Following successful operational tests, the mercury control system was fully operational in January 2012 and has successfully reduced mercury emissions to less than the limit of 0.0174 pounds per gigawatt-hour (lb/GWh) of electricity generated.

The U.S. Environmental Protection Agency (EPA) issued its final approval of the State of Colorado's Regional Haze Rule State Implementation Plan (SIP) on September 11, 2012. The SIP was published in the Federal Register on December 31, 2012, triggering implementation provisions. The Regional Haze SIP requires additional nitrogen oxide (NO<sub>x</sub>) emission reductions beyond those achieved to comply with a Platte River-initiated Voluntary Emissions Reduction Agreement (VERA) entered into with the Colorado Air Pollution Control Division (APCD) in 2005. During a five week maintenance project carried out in March

Rawhide Energy Station



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2012, elements of Rawhide's boiler combustion control equipment components and computer control systems were redesigned and enhanced to further reduce NO<sub>x</sub> emissions. These actions, along with subsequent boiler combustion tuning and control system optimization efforts, have lowered NO<sub>x</sub> emission rates by about 30 percent from the VERA limit, thus achieving the SIP's NO<sub>x</sub> reduction requirement.

The SIP also contains sulfur dioxide (SO<sub>2</sub>) emission reduction requirements for Rawhide. Recent improvements to SO<sub>2</sub> removal equipment have enhanced removal capability and allowed Unit 1 to achieve full compliance.

Platte River submitted formal documentation of compliance with SIP NO<sub>x</sub> and SO<sub>2</sub> emissions limits to the APCD on September 16, 2013.

## Environmental Stewardship

- Platte River is a charter member and Platinum Partner in the City of Fort Collins ClimateWise program.
- Platte River and Fort Collins Utilities were the first Colorado utilities to offer wind energy to customers.
- A photo-voltaic solar plant has been operated at Platte River's headquarters since 1987.
- Platte River has been a recipient of Larimer County's Environmental Stewardship Award and the Fort Collins Chamber of Commerce's Environmental Business Award for Resource Conservation.
- Rawhide Unit 1 was built with state-of-the-art environmental controls and improvements have been made over time as newer technologies have become available.
- Platte River has reduced Rawhide's sulfur dioxide, nitrogen oxides and particulate emissions to levels below those originally permitted.

## Wind Purchase is a Step Toward Diversification of Future Energy Supply

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Platte River's Board of Directors and staff have begun an in-depth planning process that will support strategic thinking and the development of adaptive strategies for the future. The plan will be updated annually as detailed analyses of future scenarios are completed, new technologies evolve, and market opportunities develop.

Generation resources currently serving the four municipalities are comprised of coal, hydropower, wind and natural gas. Because of its reliance on coal resources, Platte River is faced with potentially significant financial, legislative and regulatory risks. Citizens have expressed interest in more renewable generation and innovative technologies that will help reduce the carbon footprint of Platte River's energy resources. Platte River is listening closely to discern customers' future resource preferences.

Platte River is committing staff and other resources to evaluate options to diversify

the future energy supply portfolio and reduce the carbon footprint while remaining the lowest cost wholesale power provider located in Colorado.

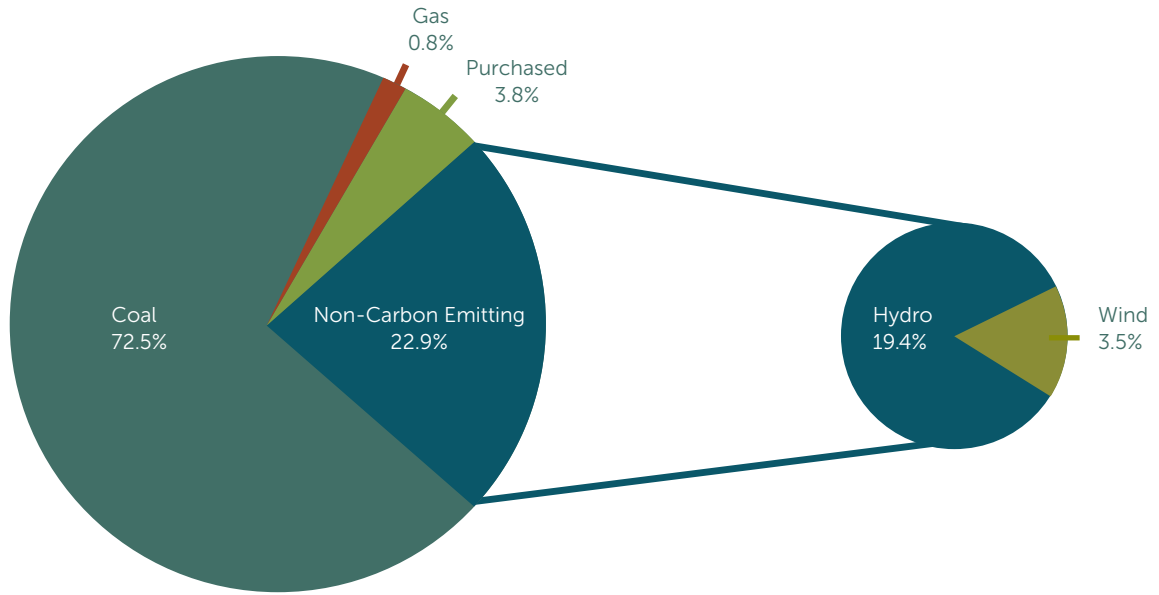
Platte River has contracted with an affiliate of Invenergy Wind LLC to purchase output from a new wind power generation facility to be constructed in Logan County, Colorado. The Spring Canyon II Energy Center will feature 18 wind turbines, with the capacity to generate up to 32.5 MW of power. Energy produced will be purchased by Platte River through a 25-year agreement. Spring Canyon II is expected to commence commercial operations as early as the fourth quarter of 2014.

Platte River estimates that the electricity produced annually at Spring Canyon II will provide approximately 3.5% of the power consumed in its four owner municipalities, thus doubling renewable resources.

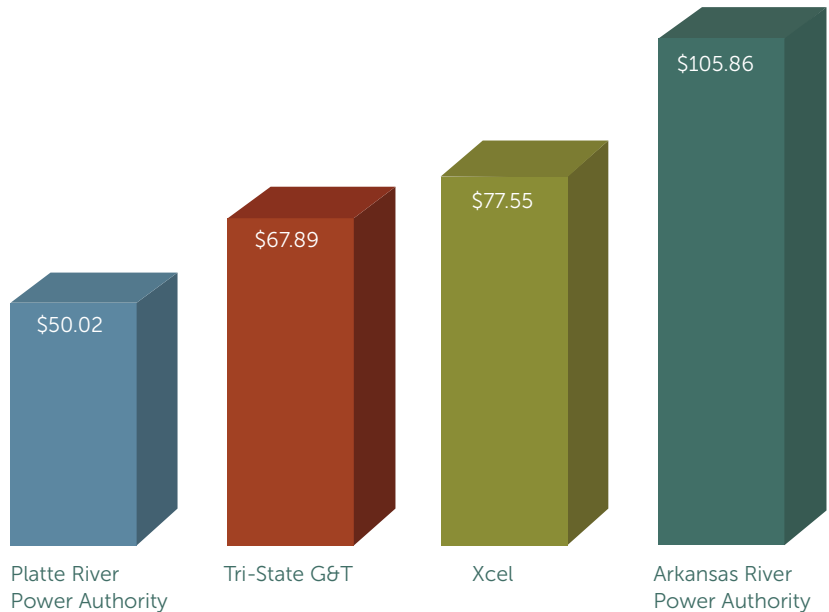




## 2012 Resource Mix - Energy Sold to Municipalities



Platte River Power Authority supplies safe, reliable, environmentally responsible, and competitively priced energy and services to its owner municipalities. Nearly one-fourth of the municipalities' electrical energy requirements are met from non-carbon emitting resources (hydropower and wind). Platte River's other generation resources are fueled by coal and natural gas.



2012 Average Wholesale Rates to Municipalities/Members (\$/MWh)

## Nature's Energy® Keeps Flowing

Platte River owns and operates the Medicine Bow Wind Project located near Medicine Bow, Wyoming and purchases a portion of the electricity produced at Duke Energy's Silver Sage Windpower Project located near Cheyenne, Wyoming.

Platte River has long-term contracts (through 2024) for the purchase of hydropower generated at dams located in Colorado, Arizona, Wyoming, Utah and Montana and supports regional renewable generation facilities through the purchase of Renewable Energy Certificates (RECs). RECs represent the title to environmental benefits associated with energy produced from a renewable energy generation facility, which are sold separately from the electricity commodity. RECs are combined with energy produced by Platte River's other resources to form a more affordable renewable energy product.

In total, 746 million kilowatt-hours of energy from non-carbon emitting sources, equivalent to the energy use of approximately 88,000 homes for a year, were delivered by Platte River to its owner communities in 2012 (the average household in Platte River's service territory used about 8,500 kilowatt-hours of electricity in 2012). As a result, approximately 421,000 metric tons of carbon dioxide (CO<sub>2</sub>) emissions were avoided.



Medicine Bow Wind Project



Glen Canyon Dam



Rawhide fly ash is used to make block for walls and other architectural features.



## Fly Ash is Recycled

Fly ash is a powdery material and the main byproduct of the coal combustion process at the Rawhide Energy Station. To avoid disposal costs and save natural resources, Platte River sells Rawhide fly ash to makers of architectural block. Block makers reduce their costs by substituting Rawhide fly ash for cement. Lower demand for cement reduces the

amount of CO<sub>2</sub> released into the atmosphere (approximately one ton of CO<sub>2</sub> is emitted during the production of one ton of cement). Fly ash is also sold for use in disposal of liquid drilling and industrial wastes.



## Birds and Bison Thrive at Rawhide

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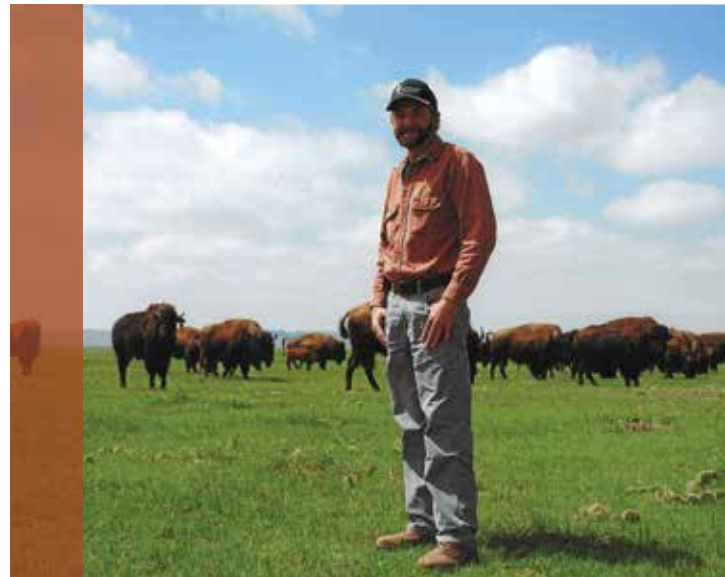
The Rawhide Energy Station has been a site for the Audubon Society's Christmas Bird Count for 27 years. Seventy-three species were observed—the most since 1988—during the latest count held on Dec. 31, 2012. Notable because of their rarity to the area were the Greater White-fronted Goose, Virginia Rail, Common Redpoll and Long-eared Owl. Additionally, the American White Pelican and Chihuahuan Raven were counted at Rawhide for the first time.

The Christmas Bird Count at Rawhide centers on Hamilton Reservoir. Hamilton is a man-made reservoir containing recycled water—treated effluent from a City of Fort Collins water treatment facility—used for cooling purposes at the power plant. Following its use within the plant, the water retains some of the heat extracted from the electricity generation process and is returned to the reservoir. As a result, the reservoir remains relatively warm and ice-free during the winter and thus provides a unique habitat that is highly attractive to waterbirds. The thousands of ducks and geese that winter there attract numbers of raptors, particularly Bald Eagles, making the reservoir an excellent location to view many species.

The acres surrounding Rawhide are home to two herds of American bison. Since the first animals were brought to the site in 1983, bison have served as Platte River's environmental ambassadors, demonstrating that wildlife can coexist in harmony with responsibly operated power generation facilities. Platte River employees in the Facilities Maintenance Department manage the herds. Over the years, Rawhide bison have won numerous awards and Platte River has become known as a leading producer of high-quality animals.



American White Pelican



Facilities employee with Rawhide Bison, Loveland Reporter-Herald

More information about the birds and bison at Rawhide can be found on Platte River's Website at [www.prpa.org/environment](http://www.prpa.org/environment).

## Energy Efficiency Programs for Customers Remain Popular

The customers of Platte River's owner municipal utilities have a demonstrated desire for services that help them save energy. Accordingly, Platte River actively partners with the utilities to offer a number of "common" energy efficiency programs to customers in all the municipalities, with coordination and some or all of the funding provided by Platte River. Through these programs, Platte River spends over \$2 million each year for projects that help customers reduce their annual electricity consumption by about 15 million kilowatt-hours—equivalent to the annual energy use of about 1,700 homes. The projects also lower the combined electric bills of participating customers by about \$1 million per year.

To help customers save even more energy, each of the four owner municipalities offers its own programs in addition to the "common" programs.

Platte River, Poudre Valley REA (PVREA), and **Northern Colorado ENERGY STAR® Homes** sponsor a nonprofit organization called Energy Select Contractors, Inc. **Energy Select Contractors, Inc.** has been approved by the EPA as a heating, ventilation and air conditioning (HVAC) Quality Installation Training and Oversight Organization (H-QUITO), an independent third-party organization that will provide the required training and oversight activities for HVAC contractors who wish to perform installations in new ENERGY STAR homes. Energy Select Contractors will serve as an H-QUITO in Platte River's four municipalities and in PVREA's territory for a 30-month period while the EPA seeks a longer-term, national solution to meet the training needs of HVAC contractors.



Tim O'Hara Photography



Energy efficient lighting projects

## Sustainability is a Priority

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A key component of Platte River's commitment to sustainability is its Sustainability Team, made up of individuals from throughout Platte River who look for ways to conserve resources, reduce waste and educate employees. Another is Platte River's continued membership and expanded participation in the Fort Collins ClimateWise program. ClimateWise provides a format for businesses to review sustainability practices, set goals and track those goals over time. Accomplishment of annual sustainability goals has allowed Platte River to maintain the highest level of ClimateWise partnership—Platinum.



## Community Service and Involvement Continues

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Platte River believes it has a responsibility to participate in efforts that enhance the well-being of citizens in its communities.

### Volunteering

Platte River encourages and facilitates community service and volunteer involvement on the part of employees. Platte River employees come together as volunteers twice a year to complete projects for local non-profit organizations. On National Make a Difference Day, volunteers enhanced the landscape around the Garbage Garage, a reuse/recycling education center located at the Larimer County Landfill, by refurbishing a picket fence, planting shrubs and laying mulch.

Volunteers from Platte River worked on five Saturdays to help establish a 15,000 square foot community garden on the grounds of Redeemer Lutheran Church in Fort Collins. Activities performed by the volunteers included building up planting areas with a blend of soil and compost, installing an irrigation system, constructing crushed stone paths and planting vegetables. Produce from the new garden goes to the Food Bank for Larimer County.

Employees regularly collect trash and debris as part of *Adopt-a-Trail* activities along the Power Trail, a segment of Fort Collins' network of recreation trails. Platte River donated land for the Power Trail in 1997.

The Emergency Response Team (ERT) at the Rawhide Energy Station is made up of specially trained employees who volunteer to provide a first response to fires, hazardous material spills and medical emergencies at the power plant. Through mutual aid agreements with other fire departments and agencies, the ERT also provides emergency services to persons residing near Rawhide and passing through the area on I-25. Members of the ERT were among the first to respond when nine farm workers were struck by lightning on July 19, 2013.





## Giving

Platte River employees repeatedly demonstrate their generosity through giving activities that benefit people in need. During the most recent campaign to raise funds for the United Way of Larimer County, employees voluntarily contributed an all-time high of over \$50,000 through one-time donations and payroll deductions.

The Food Bank for Larimer County's Corporate Food Fight is a friendly competition among local organizations

to see who can raise the most money for the Food Bank. In 2013, Platte River employees donated \$3,640 that was leveraged by the Food Bank to provide families in need with enough food for approximately 14,500 nutritious meals.

Platte River's headquarters and the Rawhide Energy Station are regular stops for the mobile lab from the Garth Englund Blood Center, at which employees donate about 100 units—12.5 gallons—of blood per year.

ERT, Dawn Madura/Fort Collins Coloradoan

Creating a community garden

Power Trail cleanup





Arbor Day in Estes Park



Mobile blood lab at Rawhide

## Supporting Worthy Causes

Platte River sponsors community events and provides limited financial support to local non-profit groups benefitting youth, the environment and the economy.

Two of the youth-oriented programs supported by Platte River are “The Power Hour” where one-on-one help with homework is provided at the Fort Collins and Loveland Boys & Girls Clubs, and Loveland High School’s Geometry in Construction Program in which students gain deep knowledge of geometry concepts by applying them during construction of a single family home.

Bike-to-Work Day is an annual event held throughout the United States and Canada promoting the bicycle as an environmentally friendly option for commuting to work. Platte River has participated in Fort Collins’ annual Bike-to-Work Day since 1994.

In June 2013, Platte River hosted a breakfast station at its headquarters where about 230 bicycle riders stopped for refreshments.

Each year, Platte River provides funds to its owner communities for trees planted in parks, at schools, and other public places.

Platte River maintains memberships in owner communities’ chambers of commerce, helps sponsor chamber meetings and provides energy efficiency services to chamber members. Additionally, Platte River has made annual financial contributions in support of its communities’ economic development efforts since 1982.



## Community Involvement

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- Platte River encourages and facilitates community service and employee involvement in addition to providing financial support for local groups.
- Each year, Platte River encourages its employees to support The United Way through payroll deduction as well as to participate in food drives, toy collections and other charitable activities.
- Platte River and its employees participate each year in National Make a Difference Day and National Volunteer Week projects to assist non-profit organizations in the communities.
- Platte River makes limited financial contributions to non-profit organizations that serve the communities by assisting youth, nurturing the environment and promoting local businesses and economic vitality.





## Soliciting Community Input

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Platte River takes into account the desires of community members when making decisions that will affect future electricity supply. As a first step in a strategic and resource planning process, Platte River held a listening session in each of the four owner municipalities during May 2013. Following a presentation by Platte River's Strategic Planning & Customer Service Director, attendees were asked to comment on their preferences for future generation resources and the importance of the price they pay for electricity. Members of the public who were unable to attend a session could view the materials presented at the sessions on Platte River's website and submit comments by letter, text message or email. A report on the listening sessions that included a summary of all public comments was given to Platte River's Board of Directors at a special strategic planning meeting held in July.



Community listening sessions





Platte River's headquarters

## Governance

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Platte River is governed by an eight-person Board of Directors uniquely designed to bring relevant expertise to the decision-making process.

The Board includes the mayor (or a designee of the mayor) from each of the owner municipalities. The other four directors are appointed to four-year staggered terms by the governing

bodies of the owner municipalities. Typically, these four board members are the utility directors for the owner municipalities. They bring technical and business backgrounds relevant to the utility industry, whereas the mayors bring local policy perspectives from their respective communities.

## Glossary

**Activated Carbon:** Carbon that has been processed to make it extremely porous so it has a very large surface area available for chemical reactions.

**Brominated Powdered Activated Carbon:** A powdered form of activated carbon that has been treated with the chemical element bromine to enhance the reactive properties of the material (see Activated Carbon).

**Carbon Dioxide (CO<sub>2</sub>):** A greenhouse gas that is a by-product of combustion (see Greenhouse Gas).

**Gigawatt-hour (GWh):** One billion watt-hours (see Watt-hour).

**Greenhouse Gas (GHG):** A gaseous component of the atmosphere that traps some of the heat coming from the sun near the Earth's surface. Greenhouse gases include water vapor, carbon dioxide, methane, nitrous oxide, and chlorofluorocarbons.

**Hydropower:** Electricity generated using the energy of moving water.

**Kilowatt (kW):** One thousand watts (see Watt).

**Kilowatt-hour (kWh):** One thousand watt-hours (see Watt-hour).

**Megawatt (MW):** One million watts (see Watt).

**Mercury:** A chemical element that can be deposited into bodies of water by natural sources such as soil and rock erosion, volcanoes and forest fires, and by human activities such as mining, manufacturing and coal burning. Mercury contained in certain types of fish is a health concern for pregnant women and children.

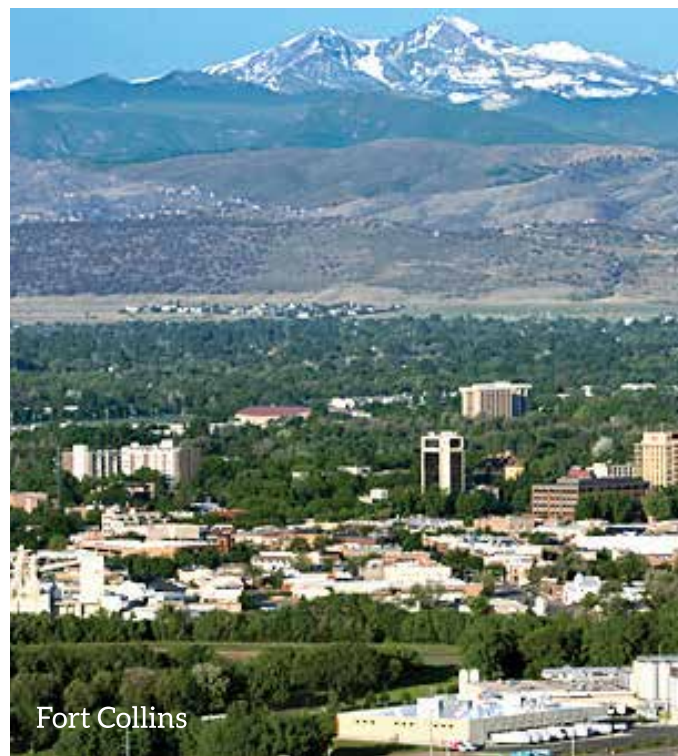
**Metric Ton:** One thousand kilograms (2,205 pounds).

**Nitrogen Oxides (NO<sub>x</sub>):** A byproduct of combustion. If not handled properly, NO<sub>x</sub> can combine with water, oxygen and other chemicals in the atmosphere to create haze and ozone.

**Sulfur Dioxide (SO<sub>2</sub>):** A byproduct of combustion. If not handled properly, SO<sub>2</sub> can combine with water, oxygen and other chemicals in the atmosphere to create acid rain.

**Watt:** A unit of electric power.

**Watt-hour:** The amount of energy used in one hour by a device requiring one watt of electricity for operation (see Watt).





## Platte River at a Glance

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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 they are distributed by each municipal utility to residents and businesses.

**Headquarters:** Fort Collins, Colorado

**Began Operations:** 1973

**General Manager:** Jacqueline Sargent

**Governance:** Platte River is governed by an eight-member Board of Directors comprised of each mayor or designee and a person appointed by each municipality's governing body.

**The Organization:** Platte River is a not-for-profit and tax-exempt political subdivision of the State of Colorado.

**Number of Employees:** About 220

**Peak Municipal Demand:** 653 MW on June 25, 2012

County road near the Rawhide Energy Station

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www.prpa.org |  /PlatteRiverPower