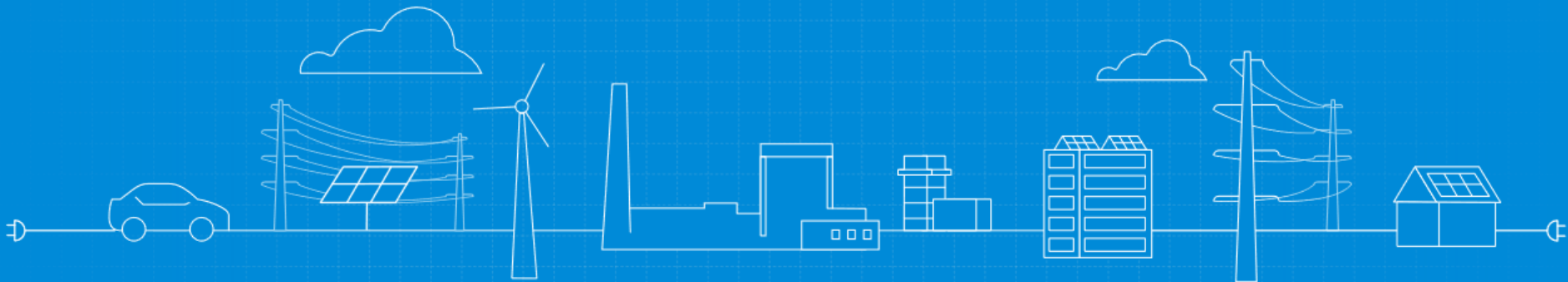




**Platte River**  
Power Authority

Estes Park • Fort Collins • Longmont • Loveland

# Charting **YOUR** energy future

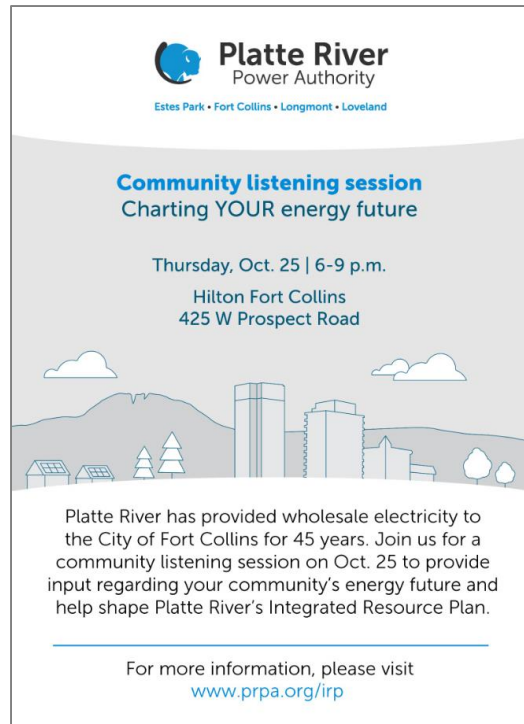


# Objective

Educate, engage and listen to the citizens of our four owner communities regarding Platte River's energy future.

- Provide history and information about Platte River Power Authority
- Share information about the integrated resource plan (IRP)
- Seek your input

# Community listening sessions



**Fort Collins**, October 25 from 6-9 p.m.  
Hilton Fort Collins

**Estes Park**, November 1 from 6-9 p.m.  
Estes Park Town Hall, council chambers

**Longmont**, November 5 from 6-9 p.m.  
Longmont Museum, Stewart Auditorium

**Loveland**, November 15 from 6-9 p.m.  
Embassy Suites, Canyon Maple C

# Agenda

## Presentation

- Jason Frisbie, general manager/CEO
  - About Platte River
- Andy Butcher, chief operating officer
  - Integrated resource planning process
- Brad Decker, resource planning manager
  - Integrated resource planning studies
- Alyssa Clemsen Roberts, chief strategy officer
  - Survey
  - Open for discussion and questions

## Panelists

- Dave Smalley, Platte River deputy GM/CFO
- Reuben Bergsten, Estes Park director of utilities



# Jason Frisbie

General manager/CEO

# Platte River Power Authority

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



## 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.

## Our Values

Safety  
Operational Excellence  
Integrity  
Sustainability  
Customer Service  
Respect  
Innovation

# About Platte River Power Authority

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

**Began operations:** 1973

**General Manager:** Jason Frisbie

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

**The organization:** Platte River is a not-for-profit political subdivision of the State of Colorado

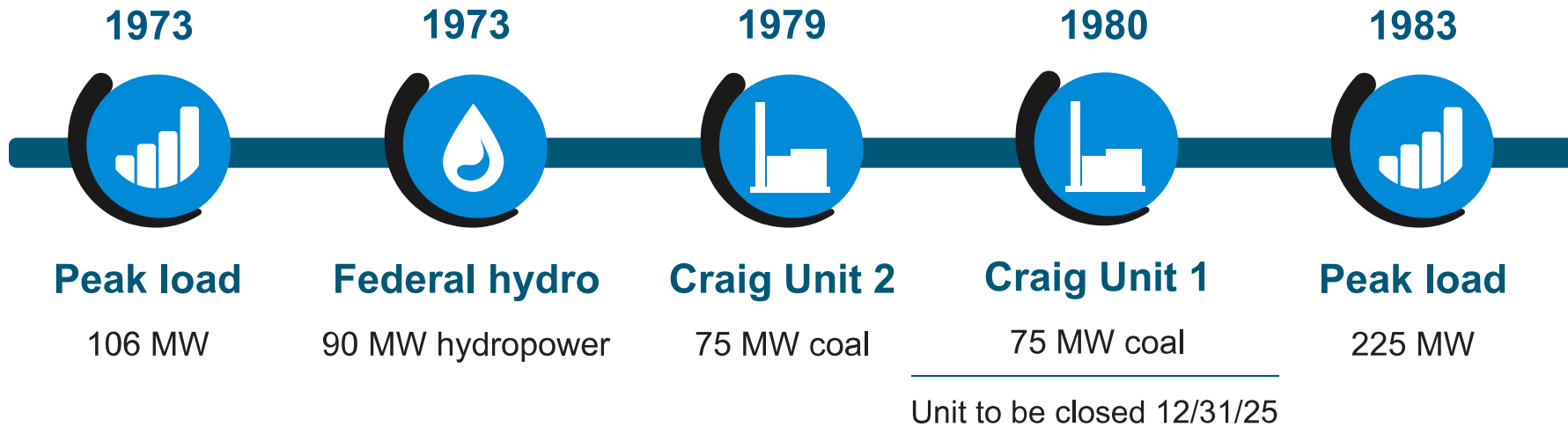
**Employees:** 252

**Peak municipal demand:** 690 MW on July 10, 2018

**Projected deliveries of energy (2018):** 4,176,000 MWh

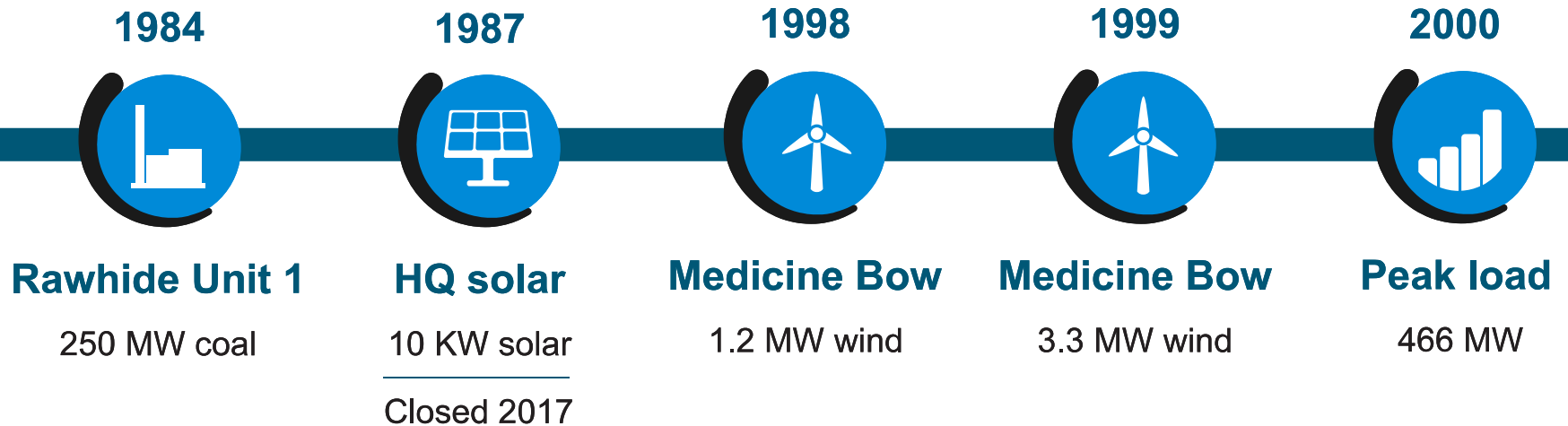
**Projected deliveries of energy to munis (2018):** 3,254,000 MWh

# Generation timeline

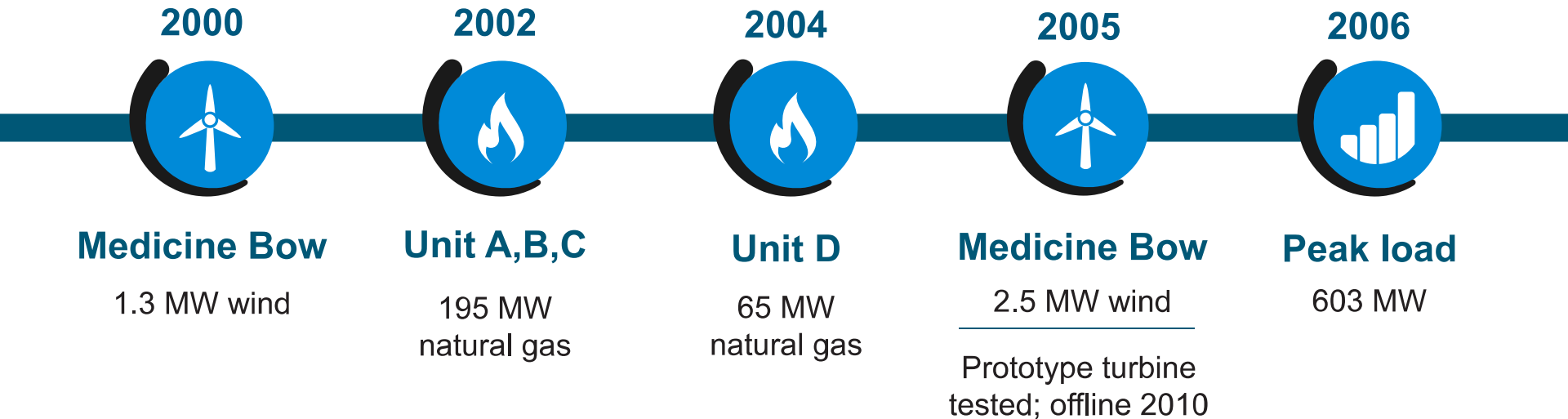




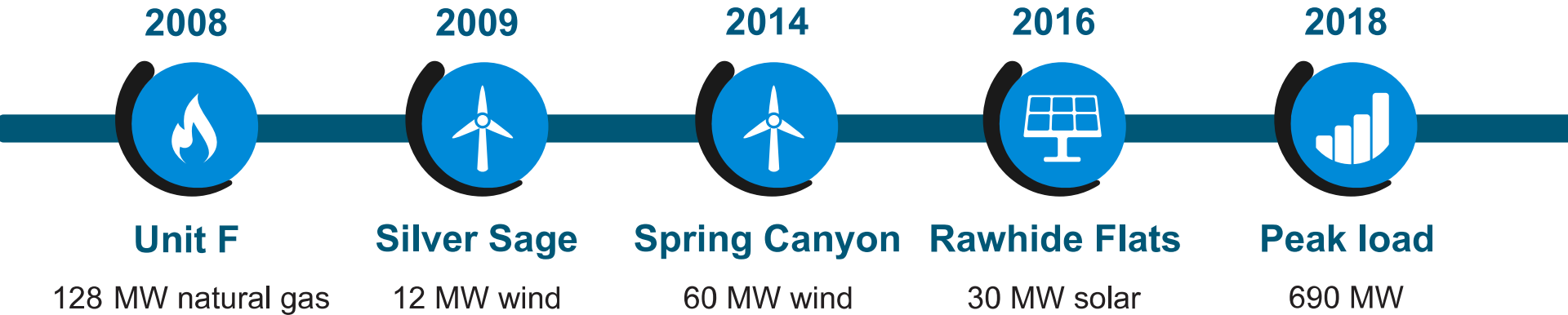
# Generation timeline



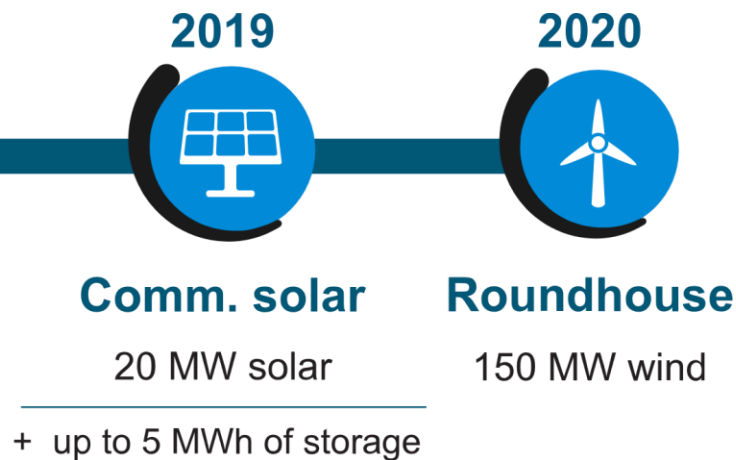
# Generation timeline



# Generation timeline



# Planned generation



# Current generation resources



**Rawhide  
Unit 1**  
Coal  
280 MW



**Rawhide Units  
A, B, C, D, F**  
Natural Gas  
388 MW



**Rawhide  
Solar Flats**  
Solar  
30 MW



**Federal  
Hydropower**  
Hydropower  
90 MW



**Medicine Bow  
Wind Project**  
Wind  
6 MW



**Silver Sage  
Wind Project**  
Wind  
12 MW

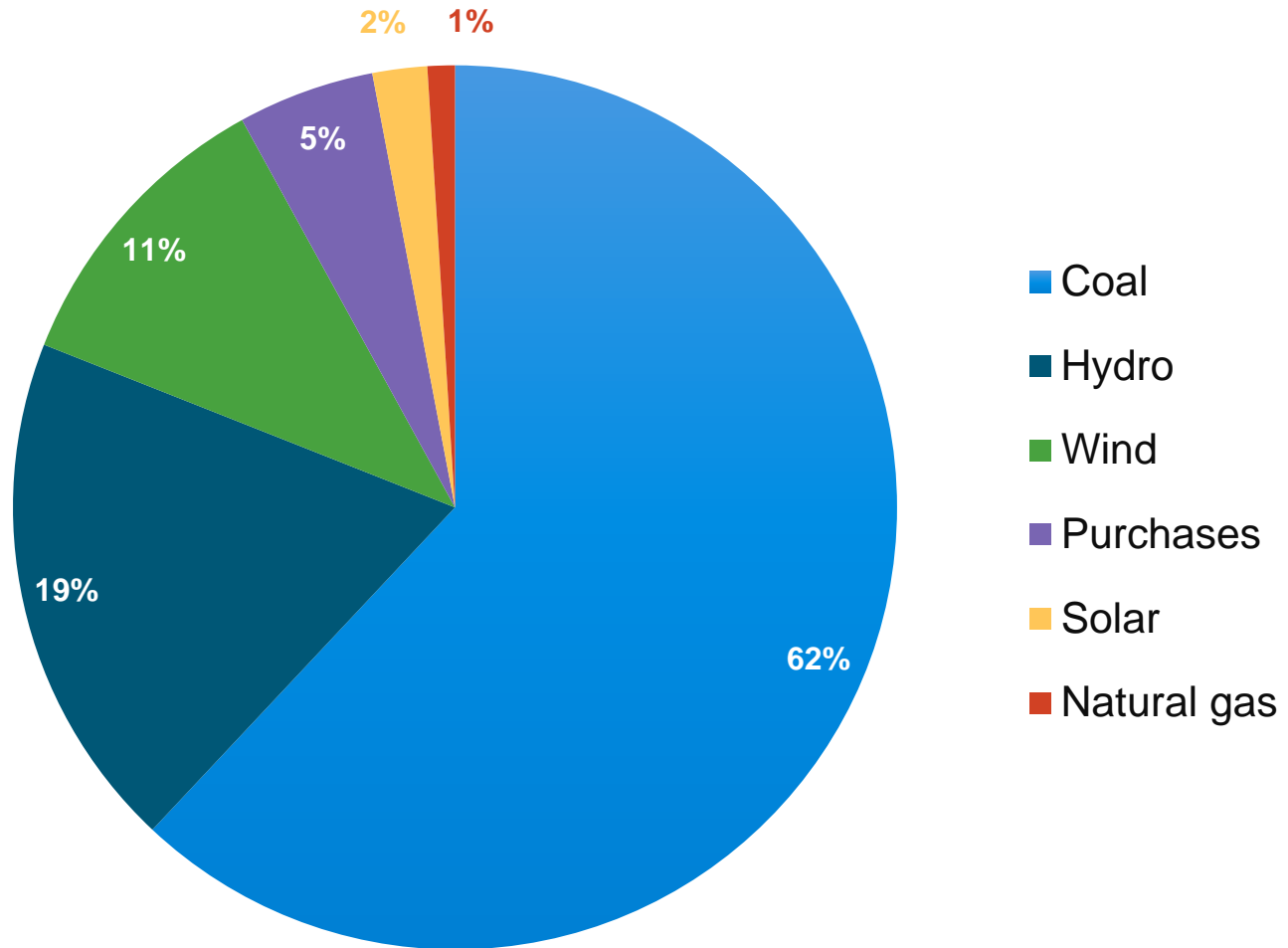


**Spring Canyon  
Wind Center**  
Wind  
60 MW



**Craig Units  
1 & 2**  
Coal  
154 MW

# 2018 projected deliveries



Approx. 32% non carbon

# Planned generation resources

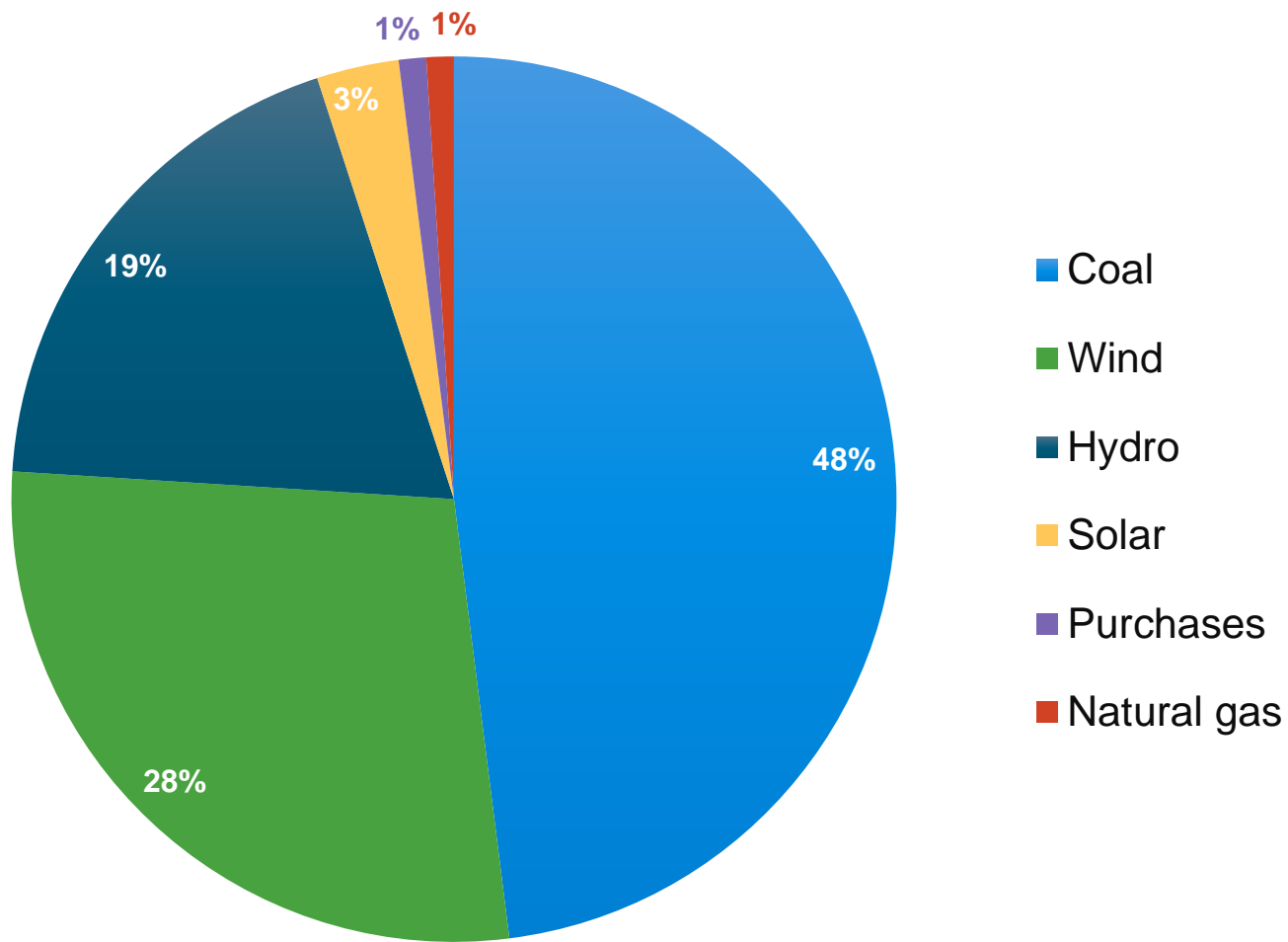


**Community Solar**  
Solar  
20 MW



**Roundhouse Renewable  
Energy Project**  
Wind  
150 MW

# 2021 projected deliveries



Approx. 50% non carbon



# Core pillars

Platte River is committed to:

- System reliability
- Financial sustainability
- Environmental responsibility



# Integrated resource planning process

Andy Butcher, chief operating officer

# What is an integrated resource plan (IRP)?

- Immediate and long term action plan to meet future energy goals
- Assists with preparing for industry changes including: technological progress, consumer preferences and regulatory mandates
- Required by Western Area Power Administration (WAPA) every 5 years
- Last submitted in 2016

# Why an IRP now?

Much has changed since Platte River's last IRP

- Business changes
- Technology advancements
- Industry changes
- Added more renewable assets
- Increased community interest
- Owner communities' goals

# IRP objectives

- Evaluate a full range of resource paths, from current resource mix to 100% renewable energy
- Model the impact of additional renewable resources, distributed energy, conservation, energy storage and demand response potential
- Consider ways to reduce reliance on coal and/or defer the need for natural gas resources
- Conduct extensive outreach to gain community perspectives

# IRP process

1. Listen to public's long term expectations – through surveys, stakeholder meetings, city council meetings and multiple rounds of community listening sessions
2. Develop supporting studies
3. Operational and financial analysis of IRP portfolio types (modeling matrix)
4. Present to board for approval
5. Submit to WAPA for approval
6. Plan adopted

# IRP timeline

2018



## Summer 2018

Coordination with WAPA

Contracting for third-party  
consulting services



## Fall 2018

Community listening  
sessions



## Winter 2018

Gathering of inputs for  
2020 IRP modeling

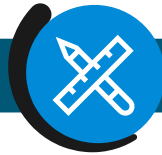


**Platte River**  
Power Authority

The Energy We Live By™

# IRP timeline

2019



## Summer/Fall 2019

Research and generation  
portfolio analysis

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Community input



## Winter 2019

Rate impact analysis



# IRP timeline

2020



**Spring 2020**

**Board and internal review**



**Summer 2020**

**Community presentations**

**Filing with WAPA**



# Integrated resource planning studies

Brad Decker, resource planning manager

# Market analysis

Primary inputs for resource modeling – to be completed by Pace Global

- Regional market power prices
- Regional market fuel prices
- Projections for the future carbon costs
- Costs for future generation resources

# Generation and technology review

A high-level look at potential resource and technology options for the IRP – to be completed by Pace Global

- Evaluates resource and technology options based on cost, performance and commercial viability
- Reviews Platte River's existing resource portfolio

# Coal cycling study

Primary source of resource modeling inputs – to be completed by Burns & McDonnell

- Evaluates the cost and performance impacts on coal plants from increasing amounts of renewable generation
- Determines fixed and variable cost impacts arising from higher renewables
- Identifies impacts on plant reliability and efficiency

# Resource adequacy study

Analyzes changes to Platte River's future resource needs – to be completed by Burns & McDonnell

- Evaluate system reliability and reserve margin requirements
- Aurora models will analyze energy needs during emergency, contingency and curtailment events

# Efficiency and demand side management potential

Evaluates potential for demand side management (DSM) and distributed technologies – to be completed by HDR

- Study the potential across different customer groups
- Review a range of avoided resource costs
- Focus on distributed technologies
  - Distributed generation and storage
  - Electric vehicles
  - Energy efficiency

# Thermal resources cost study

Provides primary inputs for modeling natural gas resource options - to be completed by HDR

- Performance, operating costs, construction costs and emission estimates for various natural gas generation types



# Energy storage analysis

- Evaluate cost and performance for a variety of energy storage options – to be completed by HDR
  - Batteries
  - Pumped hydro
  - Compressed air

# Regional economic analysis

Evaluation of impacts to regional economy from potential changes in electricity rates – to be completed by Colorado State University

- Unemployment
- Wages
- Regional production – dollar value of goods and services
- Consumer prices

# Generation technology life cycle study

Determine environmental impacts of future energy resources; this study will be submitted for academic peer review – to be completed by Colorado State University

- Greenhouse gas emissions
- Landfill impacts
- Use of natural resources



# Survey

Alyssa Clemesen Roberts, chief strategy officer

# Summary, next steps

- Just getting started
- Long, complex process
- Community engagement will continue through the resource planning process
- Survey – and your input

# Open forum

questions and comments