

AGENDA
LOVELAND CITY COUNCIL STUDY SESSION
TUESDAY, OCTOBER 27, 2015
CITY COUNCIL CHAMBERS
500 EAST THIRD STREET
LOVELAND, COLORADO

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STUDY SESSION 6:30 P.M. STUDY SESSION AGENDA

1. WATER AND POWER
PRPA CLEAN PLANT PROGRAM UPDATE

(presenters: Steve Adams and Jackie Sargent 60 min.)

This is an information only item. Jackie Sargent, General Manager and CEO of Platte River Power Authority (PRPA), will update the Council on PRPA's near and long-term resource management plans and provide an update on the Clean Power Plan and its long-term implications. PRPA's Resource Plan identifies a range of options to meet future environmental and regulatory impacts including the EPA Clean Power Plan. The budgetary impact of complying with these programs over the next 20 years or so will require annual rate increases in the range of 0.7% to 3%.

ADJOURN STUDY SESSION

SPECIAL MEETING - CITY MANAGER'S CONFERENCE ROOM

ROLL CALL:

2. HUMAN RESOURCES
MUNICIPAL JUDGE EVALUATION – POSSIBLE EXECUTIVE SESSION

(presenter: Julia Holland)

This is an administrative action to call an executive session for the purposes of conducting the Presiding Municipal Judge's six month evaluation.

ADJOURN



CITY OF LOVELAND
WATER & POWER DEPARTMENT
 200 North Wilson • Loveland, Colorado 80537
 (970) 962-3000 • FAX (970) 962-3400 • TDD (970) 962-2620

AGENDA ITEM: 1
MEETING DATE: 10/27/2015
TO: City Council
FROM: Steve Adams, Water and Power Department
PRESENTERS: Steve Adams, Director, Water and Power Department
 Jackie Sargent, General Manager, Platte River Power Authority

TITLE:
 PRPA Resource Plan Update

RECOMMENDED CITY COUNCIL ACTION:
 This is an informational item; no council action is required.

SUMMARY:
 Jackie Sargent, General Manager and CEO of Platte River Power Authority (PRPA), will update the Council on PRPA's near and long-term resource management plans and provide an update on the Clean Power Plan and its long-term implications.

BUDGET IMPACT:

- Positive
- Negative
- Neutral or negligible

PRPA's Resource Plan identifies a range of options to meet future environmental and regulatory impacts including the EPA Clean Power Plan. The budgetary impact of complying with these programs over the next 20 years or so will require annual rate increases in the range of 0.7% to 3%.

BACKGROUND:

Platte River Power Authority's Board has adopted the following statement as it relates to Resource Management: "Platte River Power Authority employs an adaptive strategy to cost-effectively maintain reliability, manage risks, and ensure regulatory compliance."

This presentation will highlight the resource management direction for the near term (2015-2020) and mid-term (2020-2030). A major variable in the mid-term is the Environmental Protection Agency's Clean Power Plan and how the State of Colorado will implement it. The final state plan could have a significant, long-term impact on wholesale rates. Note: this presentation will not cover PRPA's Integrated Resource Plan (IRP). PRPA last produced an IRP in 2012 and will develop its next 2016 and early 2017, with the document due for filing in June 2017.

The Loveland Utilities Commission has received presentations on the PRPA Resource Plan on December 17, 2014, and September 16, 2015.

REVIEWED BY CITY MANAGER:

William D. Casill

LIST OF ATTACHMENTS:

PowerPoint Presentation

Estes Park



Longmont



Fort Collins



Loveland



Resource Planning Update

Loveland City Council

October 27, 2015

Platte River Power Authority Governance



Wade Troxell
Mayor
City of Fort Collins

Reuben Bergsten
Director of Utilities
Town of Estes Park

Dennis Coombs
Mayor
City of Longmont

Bill Pinkham
Vice Chairman
Mayor
Town of Estes Park

Cecil Gutierrez
Secretary
Mayor
City of Loveland

Tom Roiniotis
Chairman of the Board
General Manager,
Longmont Power & Communications
City of Longmont

Gerry Horak
Mayor Pro Tem
City of Fort Collins

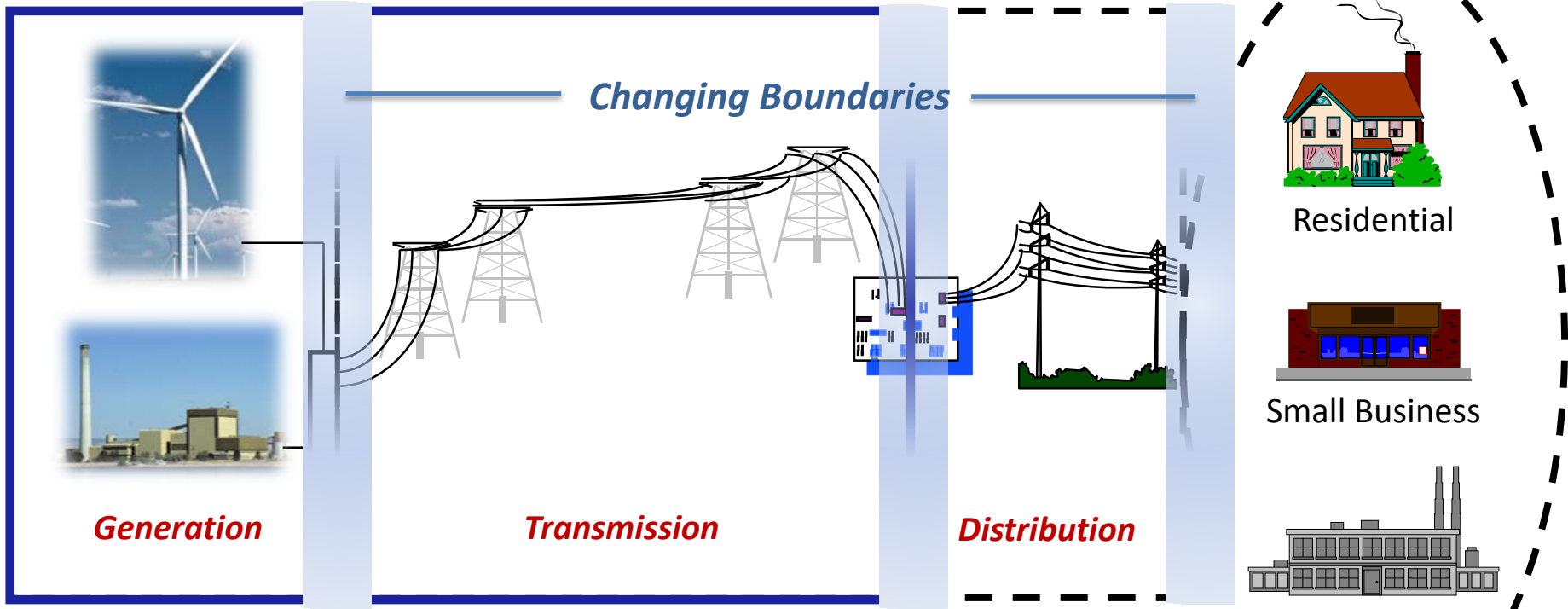
Steve Adams
Director, Water and Power
City of Loveland

Platte River Focus – Balance



Key Focus → *Balance the needs of all communities we serve*
→ *More the same than they are different*

Local Electric System Partnership



Generation

Transmission

Distribution

Changing Boundaries

Residential

Small Business

Large Business

Customers

Platte River Power Authority

- Not for profit
- Joint Ownership / Joint Action
- Municipal utility structure
- Local governance

**Estes Park
Fort Collins
Longmont
Loveland**

Existing Wholesale Generation Resources



Rawhide Coal



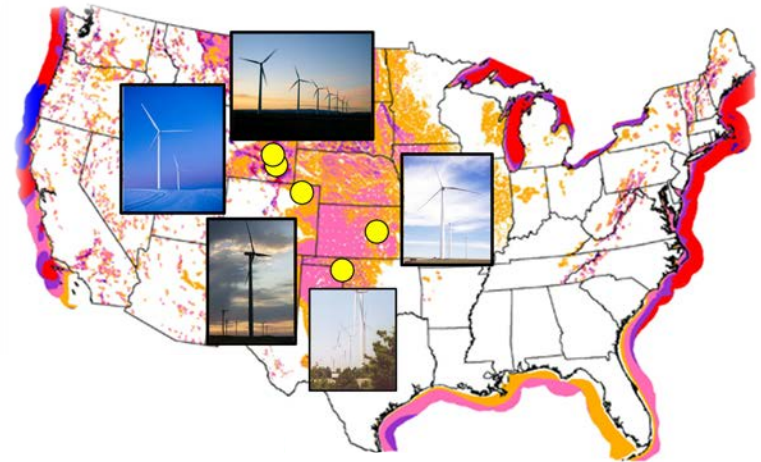
**Hydropower
(multiple sites)**



Craig Coal

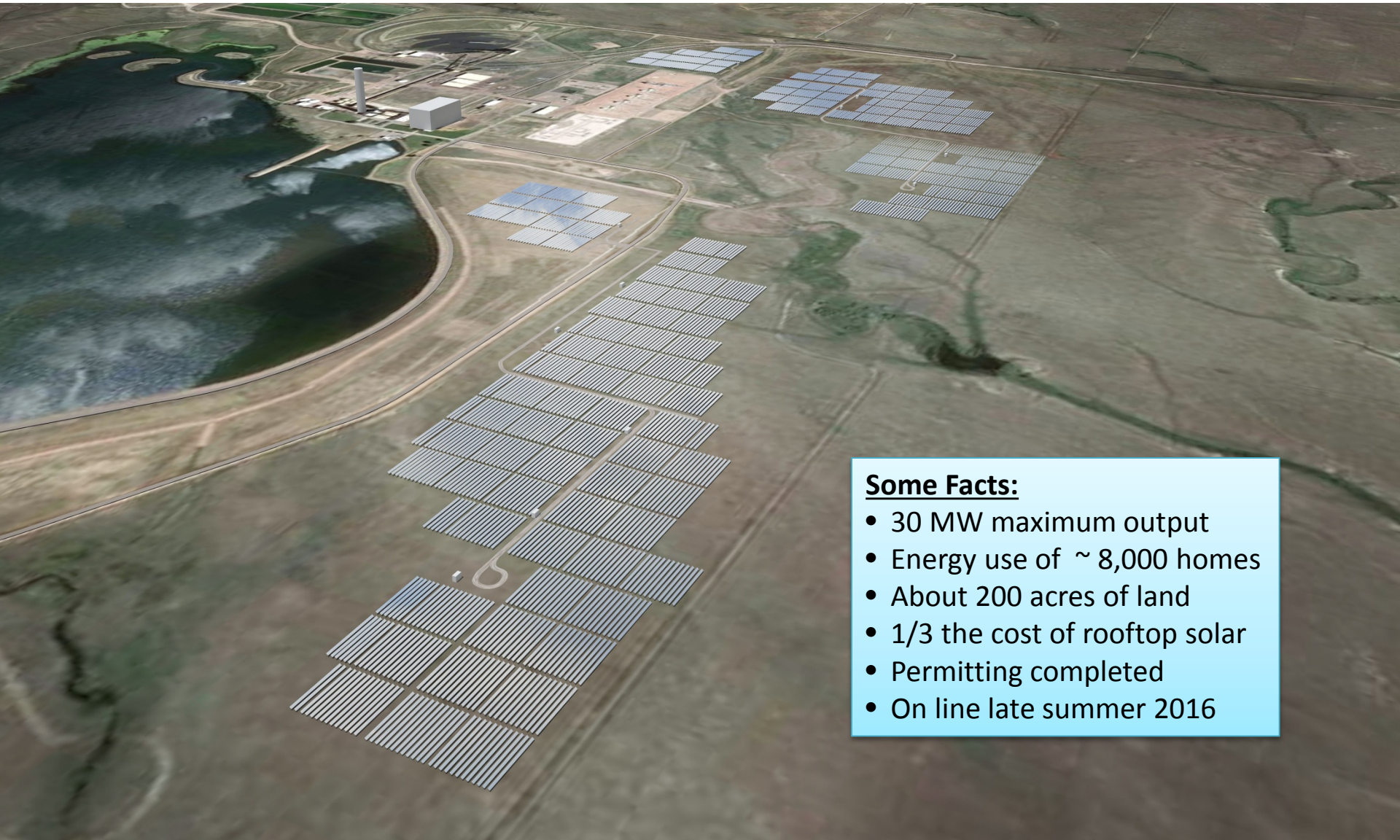


Rawhide Gas (simple cycle)



Wind (multiple sites)

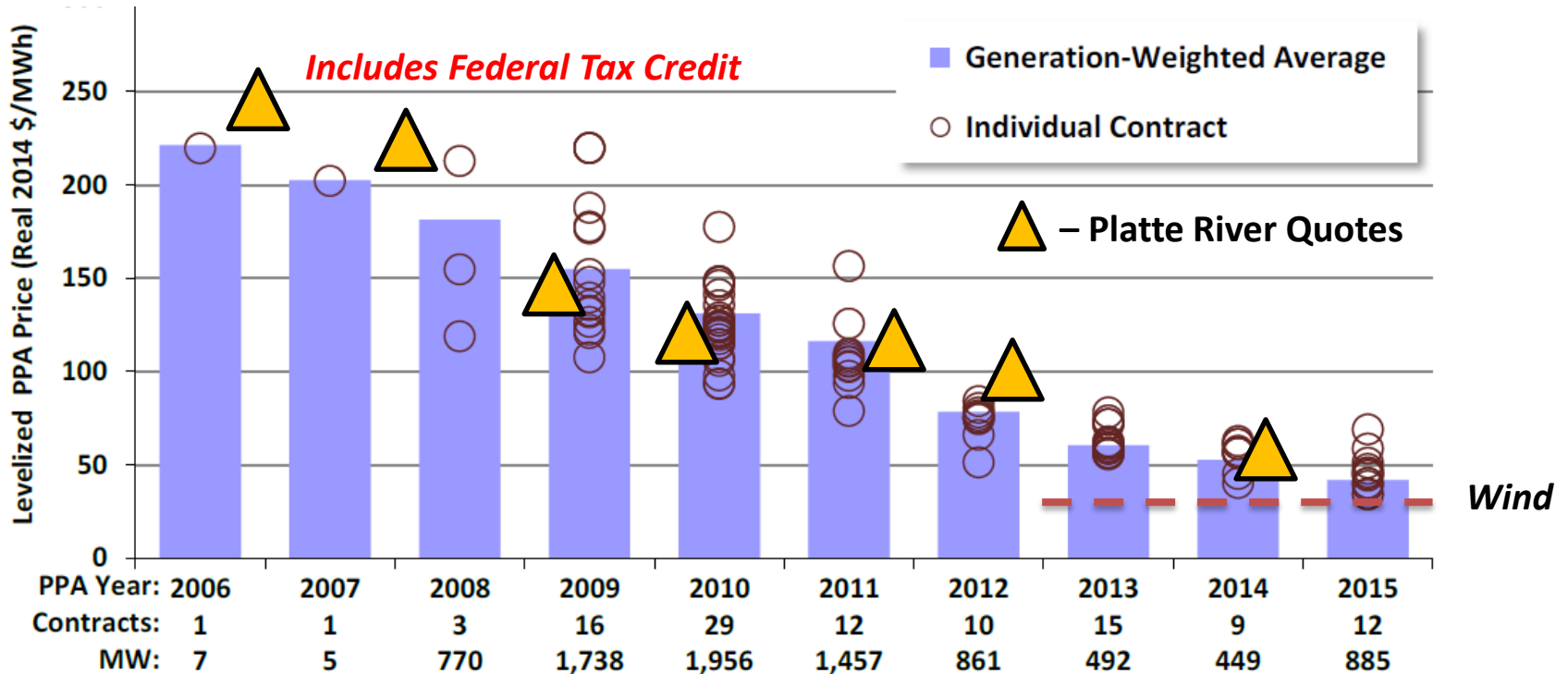
New Solar Resource – Rawhide Flats



Some Facts:

- 30 MW maximum output
- Energy use of ~ 8,000 homes
- About 200 acres of land
- 1/3 the cost of rooftop solar
- Permitting completed
- On line late summer 2016

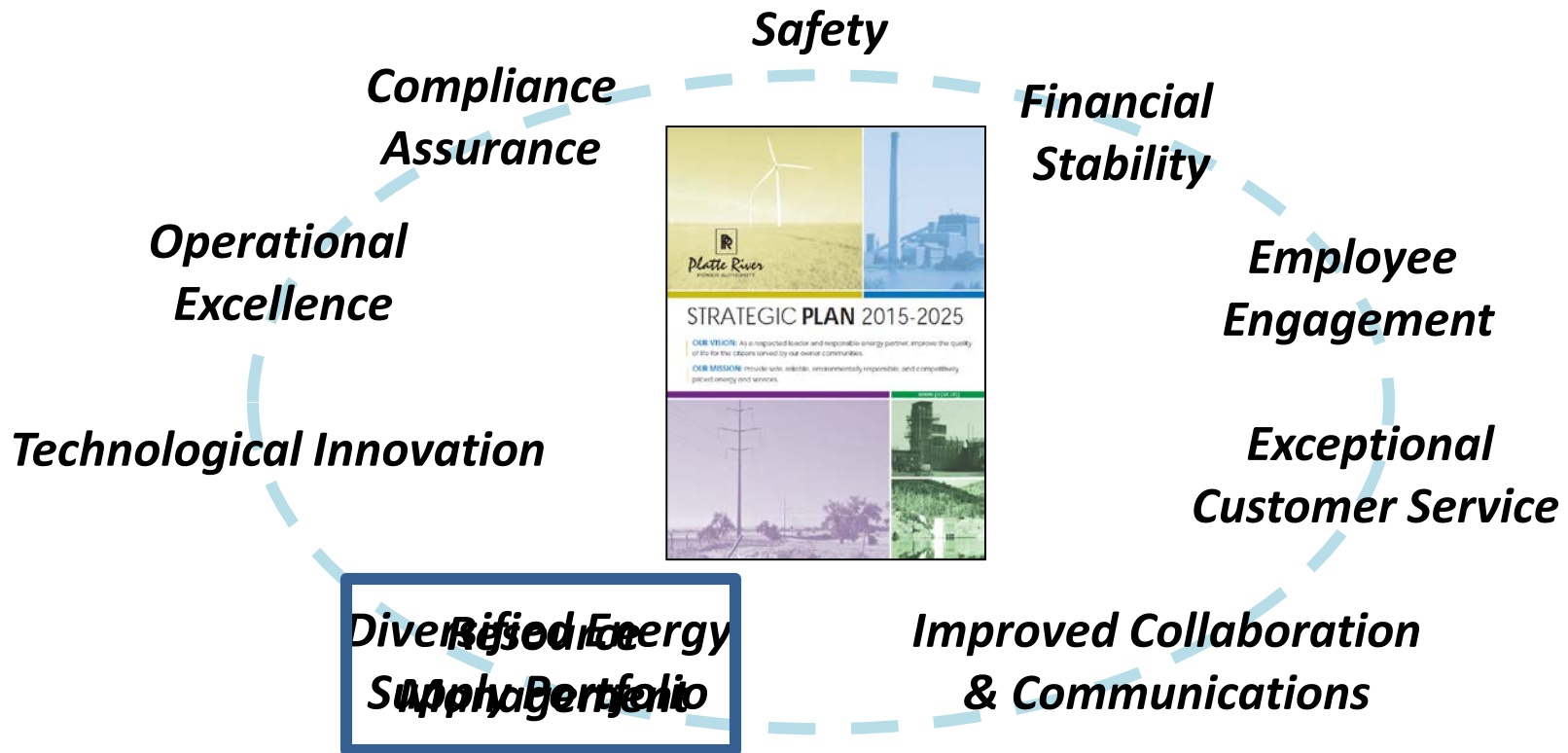
Renewable Cost Trends – Utility Scale



LBNL – Sep 2015

Utility-Scale Solar 2014: An Empirical Analysis of Project Cost, Performance, and Pricing Trends in the United States

Strategic Planning Initiatives



www.prpa.org

Resource Management Initiative

Platte River Power Authority employs an adaptive strategy to cost-effectively maintain reliability, manage risks, and ensure regulatory compliance

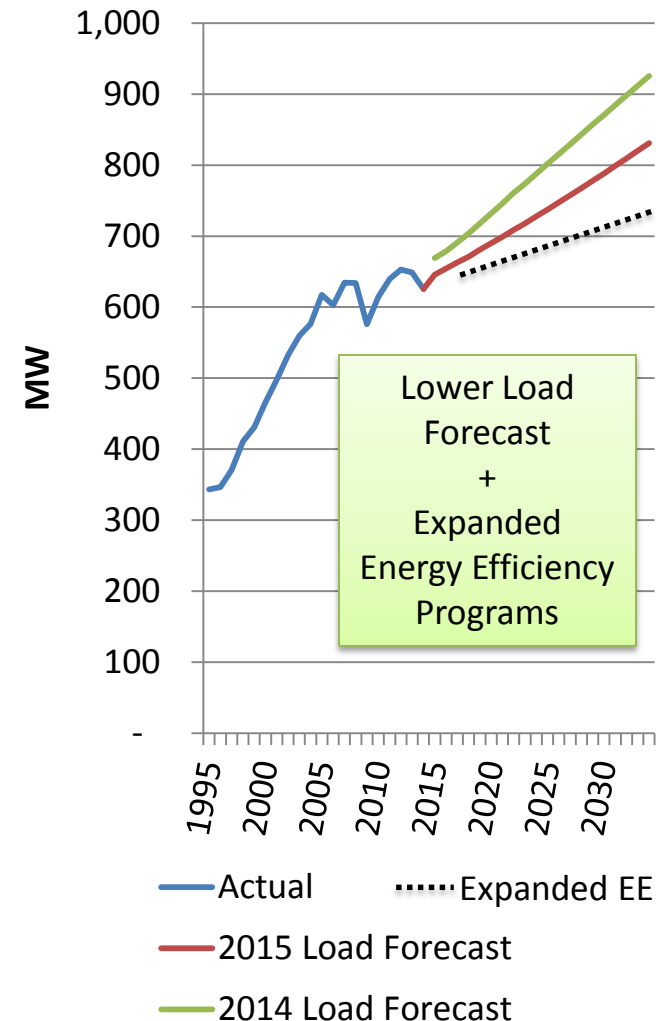
- **Adaptive** → many uncertainties – need to be flexible
- **Cost effective** → customers are price sensitive
- **Reliability** → non-negotiable – “gotta have it”
- **Risk management** → ongoing process / increasing
- **Compliance** → also non-negotiable – once defined

Resource Management Considerations

- We have time for new resource decisions
 - Great performance of existing resources
 - Surplus capacity and energy available
 - Colorado renewable energy standard met
 - Lower future capacity needs vs. historical
- Wide range of future options – (promising cost trends)
- Many uncertainties going forward (some beyond our control)



Clean Power Plan



Clean Power Plan – Final Rule



- EPA Rule (Federal)
- State Implementation (SIP)
– Colorado specific process
- ~ 25 to 40% reduction in CO₂
for Colorado (by 2030)
- Platte River specific
reduction uncertain
- State rules to be clear by
September 2018
- Interim reductions – 2022
- Final goals – 2030

Colorado State Implementation Plan Alternatives

Emission Standards
(Command and Control)
Rate-Based – lb/MWh

Emission Standards
Mass-Based – tons/yr

Emissions Tax

Single State Trading
Free Allowances

Single State Trading
Auction for Allowances

Multi-State Trading
Free Allowances

Multi-State Trading
Auction for Allowances

**Energy Efficiency
"Common Programs"
Since 2002**



**Efficiency
Works
Co-branding**

**Rawhide Flats
Solar – 2016
(30 MW)**



**Craig Unit 1
Exit Strategy**



Resource Changes

**Medicine Bow
Wind Pilot
First in Region
1998**



**Expansions
through 2004**

**Silver Sage – 2008
(12 MW)**



**108 MW
Total
Wind & Solar
(2016)**

**Spring Canyon – 2014
(32 MW + 28 MW)**



**Medicine Bow
Life Extension
(6 MW)**



**Distributed Resources
Collaboration**

2016 Budget Items:

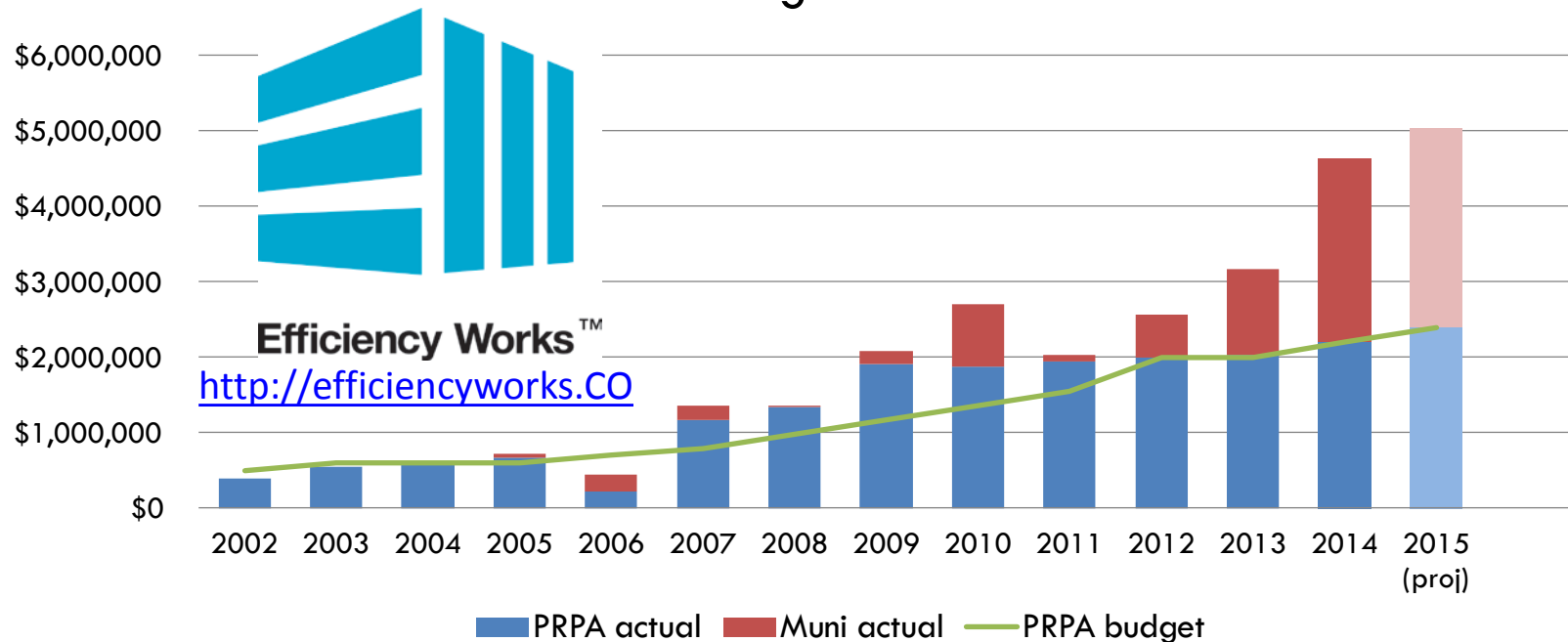
- Expanded Energy Efficiency
- Demand Response Pilot

2015/2016 Activities:

- Combined Heat & Power
- System Community Solar
- Loveland FEMA Solar
- Fort Collins Solar Programs
- DG Strategy Development

Energy Efficiency as a Resource

“Common” Program Investment

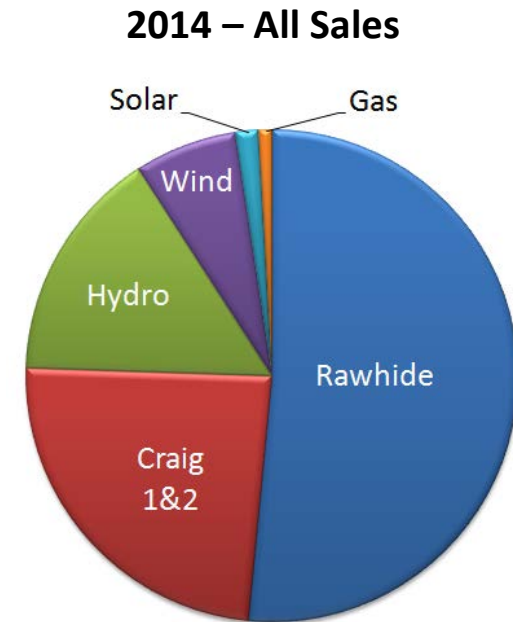


Cumulative Results (2002 – 2014)

- Utility investment ~ \$23 million
- About 4% system load reduction
- Customer perspective):
 - ✓ Invested ~ \$37 million
 - ✓ Saving ~ \$9 million/yr

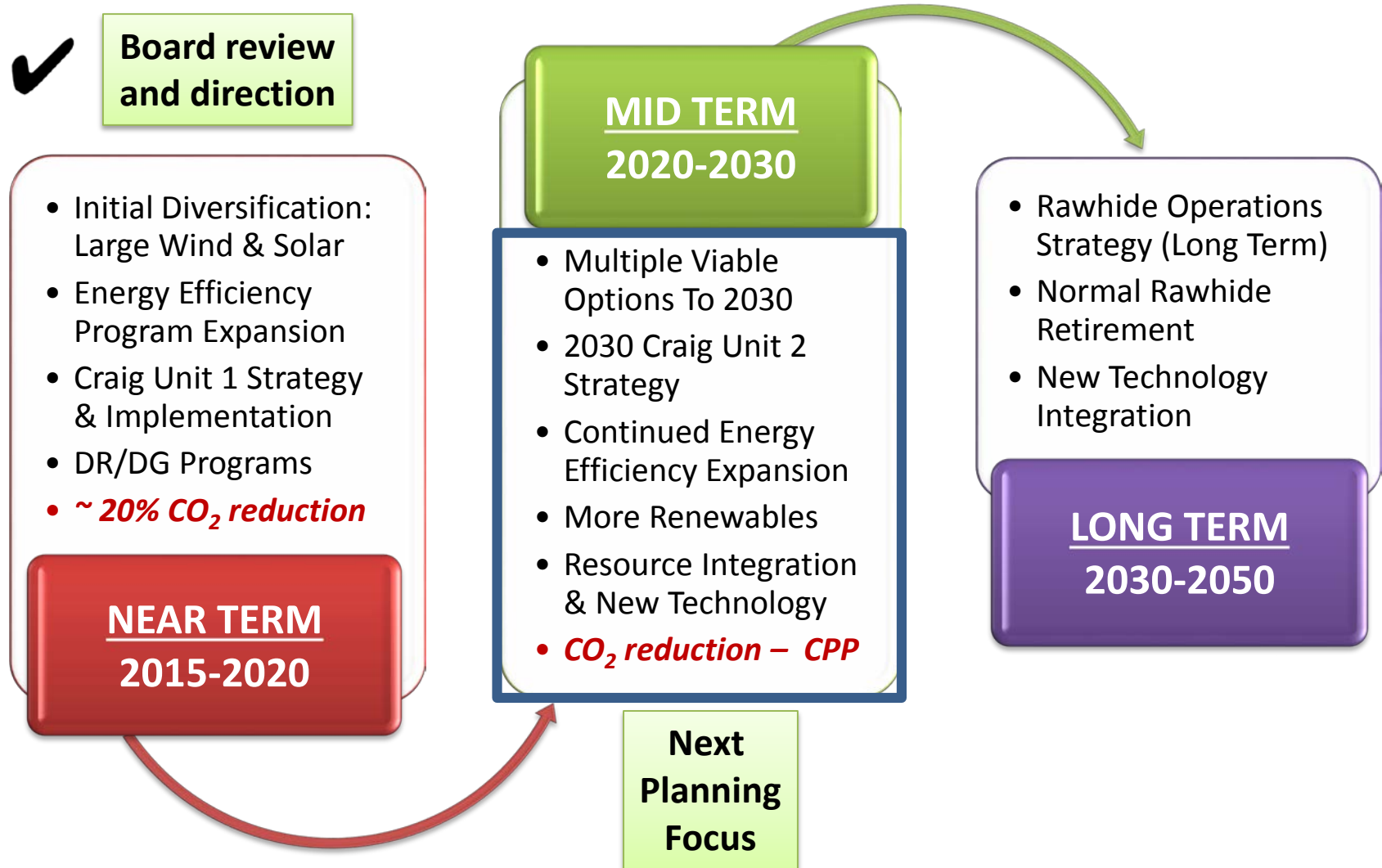
Why Exit Craig Unit 1?

- Potential to avoid future costs
- Big enough to allow major CO₂ changes to mix
 - About one-fourth of all system energy
 - About one-third of coal energy
- Most of Craig output serves surplus sales
 - Sales to others (not Municipalities)
- Rawhide provides sufficient base load
 - Need more flexible resources
- Craig capacity is incremental – two units
- Coal supply contract flexibility
- Craig units significantly underperform Rawhide

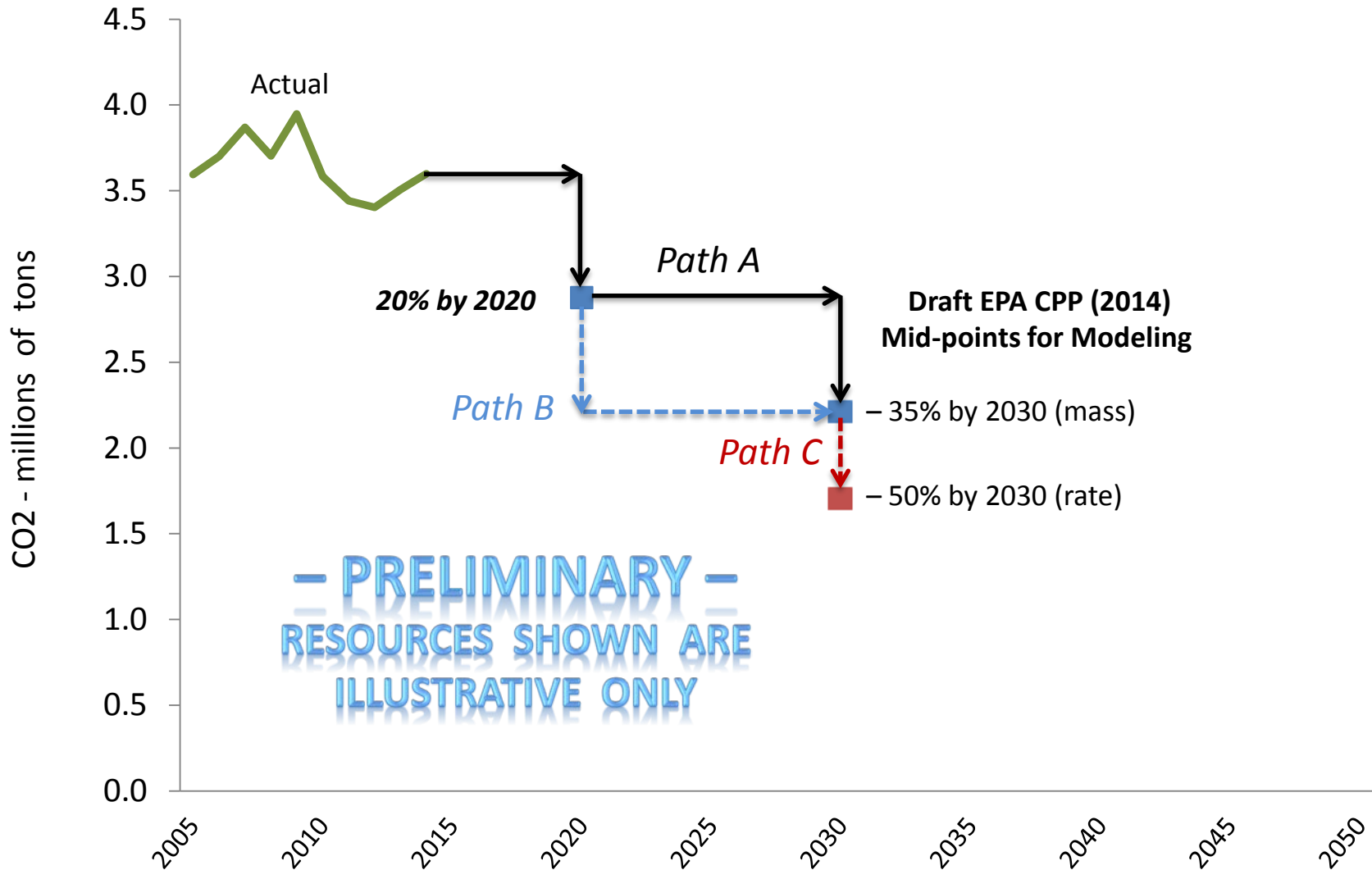


Other Craig Owners

Planning Timeframes

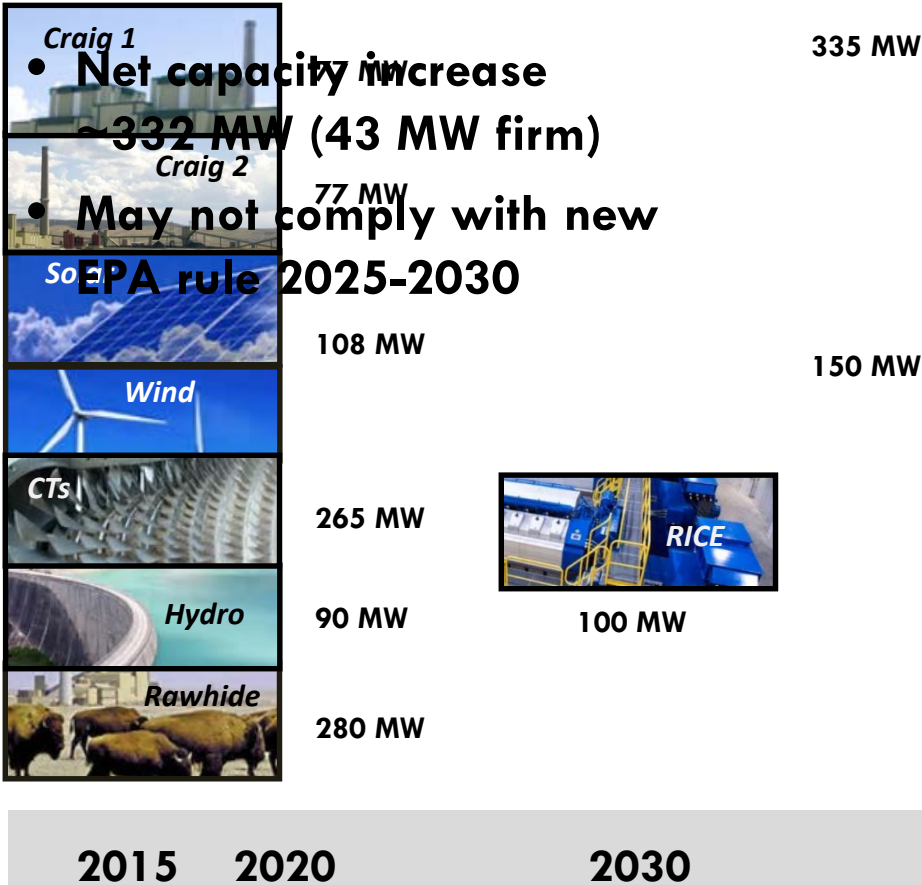


Modeling CO₂ Emission Paths

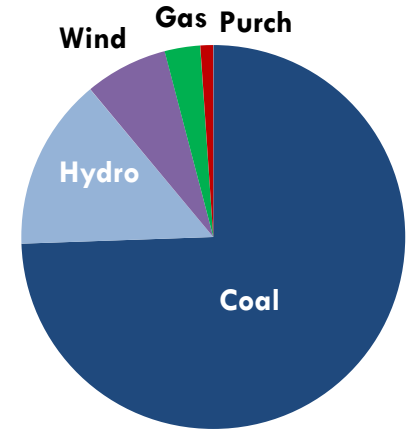


Path A – Resource Changes / Mix

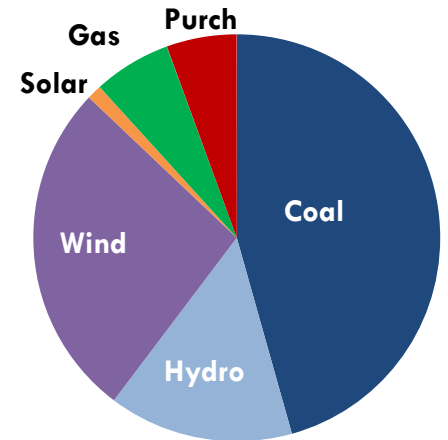
Energy Efficiency Programs



2015 Energy Mix



2035 Energy Mix



Path B – Resource Changes / Mix

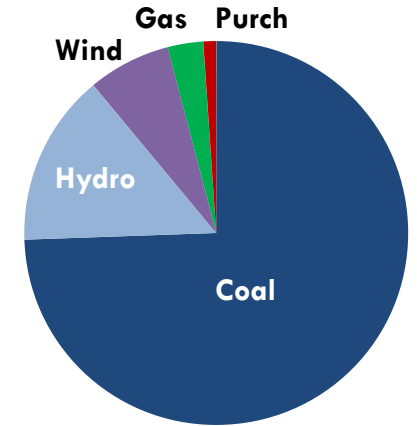
Energy Efficiency Programs



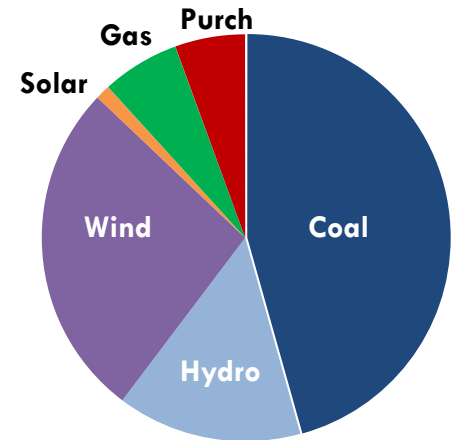
- Net capacity increase ~ 332 MW (43 MW firm), same as Path A
- More aggressive than CPP (2020-2025)
- 35% CO₂ reduction by 2030

2015 2020 2030 2035

2015 Energy Mix

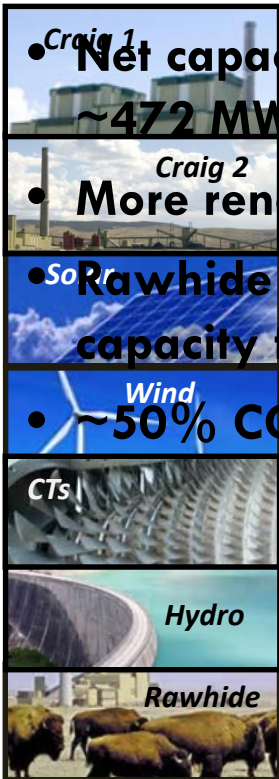
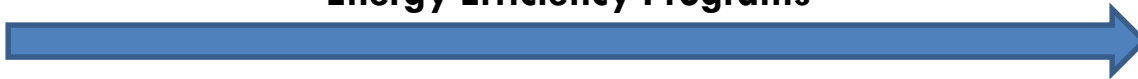


2035 Energy Mix



Path C – Resource Changes / Mix

Energy Efficiency Programs



• **Net capacity increase**

~472 MW (78 MW firm)

• **More renewable sources**

• **Rawhide operates at lower capacity factor for 2030 +**

• **~50% CO₂ reduction by 2030**

475 MW

150 MW

265 MW

90 MW

280 MW



100 MW

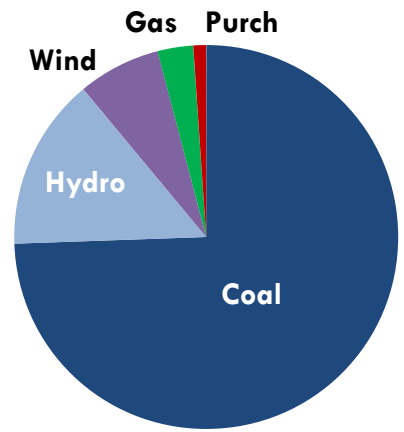
2015

2020

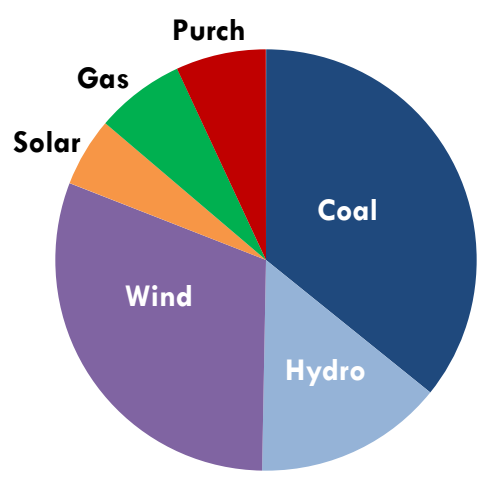
2030

2035

2015 Energy Mix



2035 Energy Mix

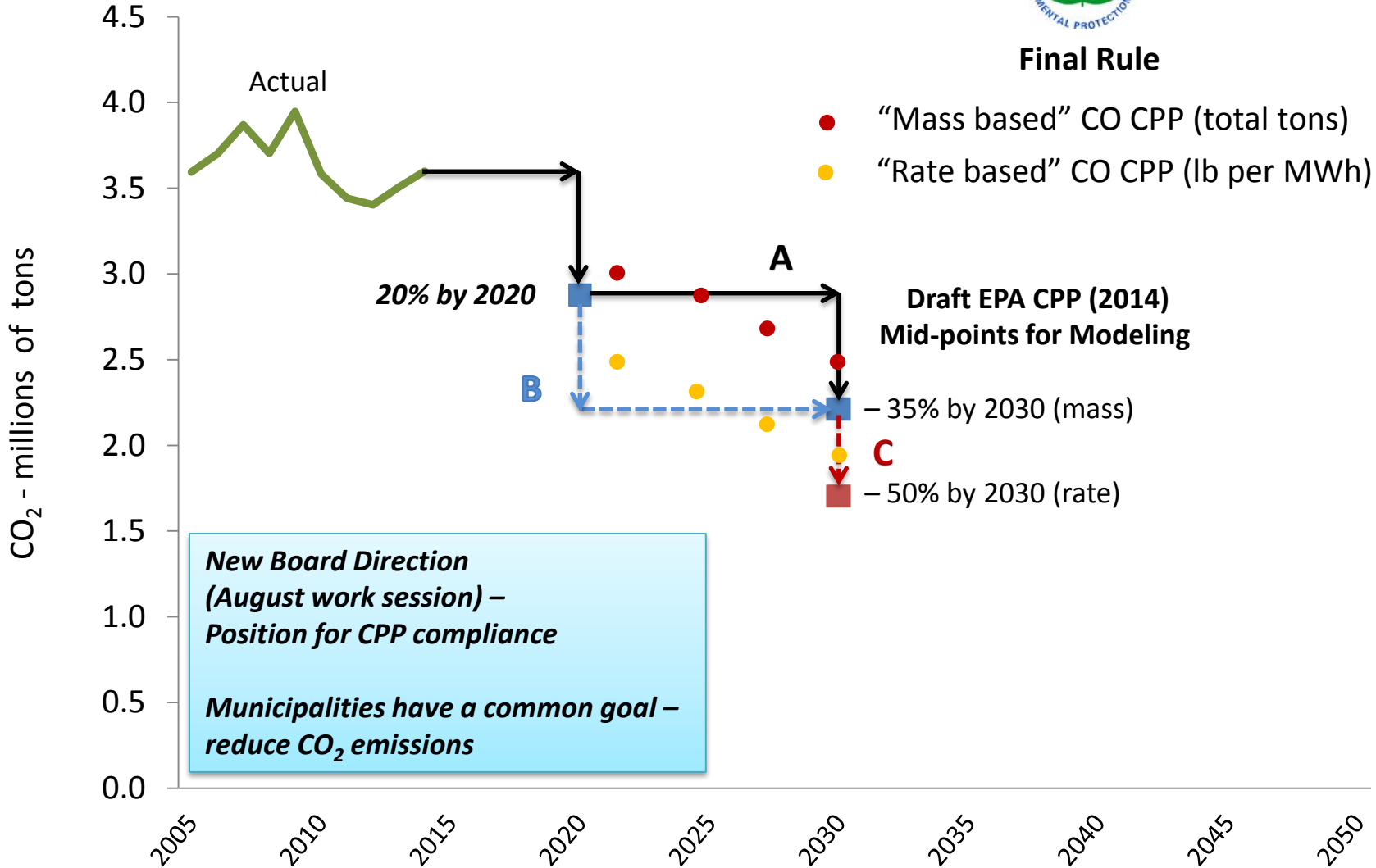


Modeling CO₂ Emission Paths



Final Rule

- "Mass based" CO CPP (total tons)
- "Rate based" CO CPP (lb per MWh)



Modeling Wholesale Rates – Many Variables

CO₂ REDUCTION

25% → 50%



TIMING

2020 → 2030



RESOURCE MIX

EE/DSM	Coal	Gas
Wind	Solar	Others

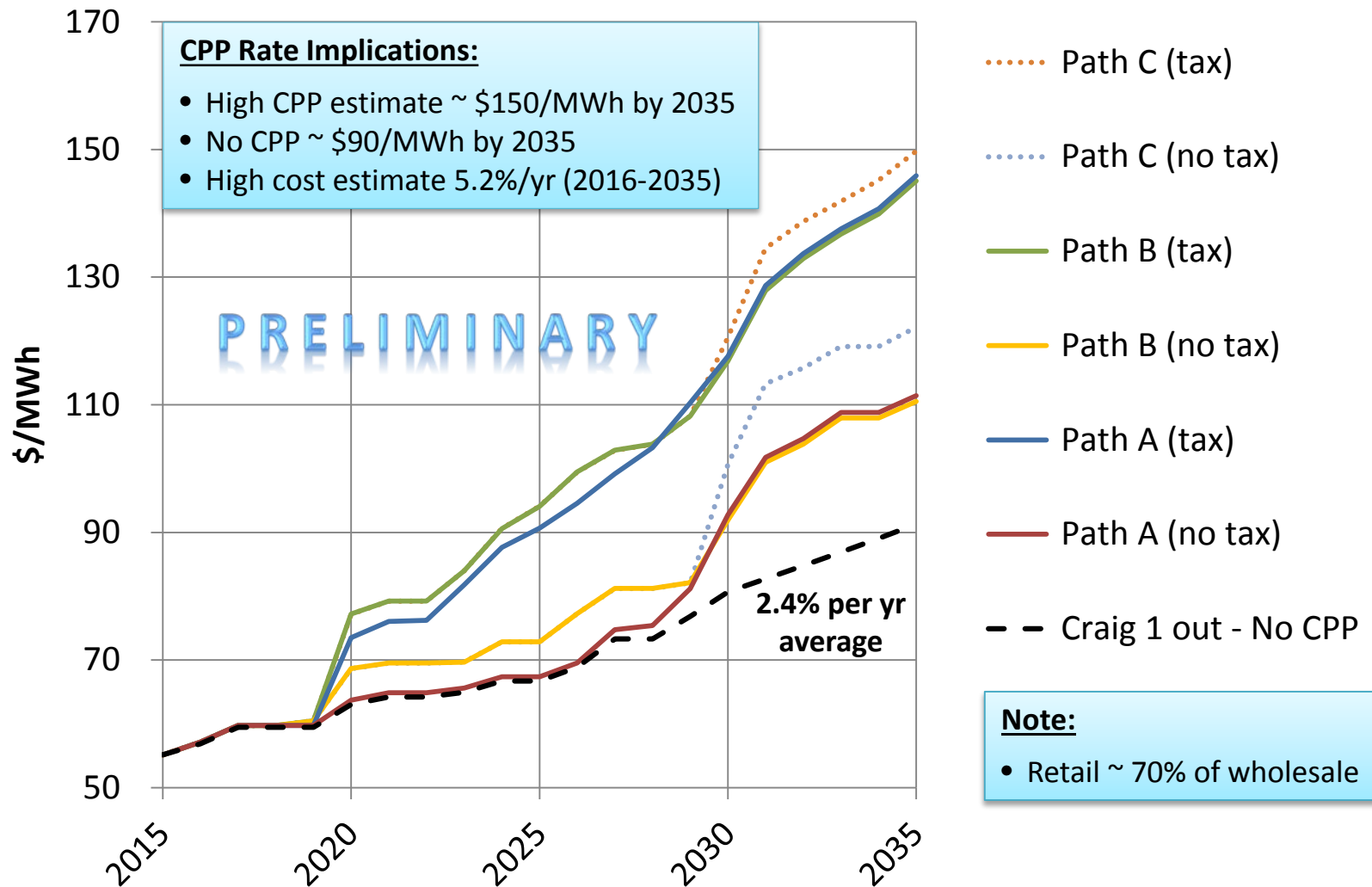
IMPLEMENTATION MECHANISM

	Tax	
Command & Control		Cap & Trade

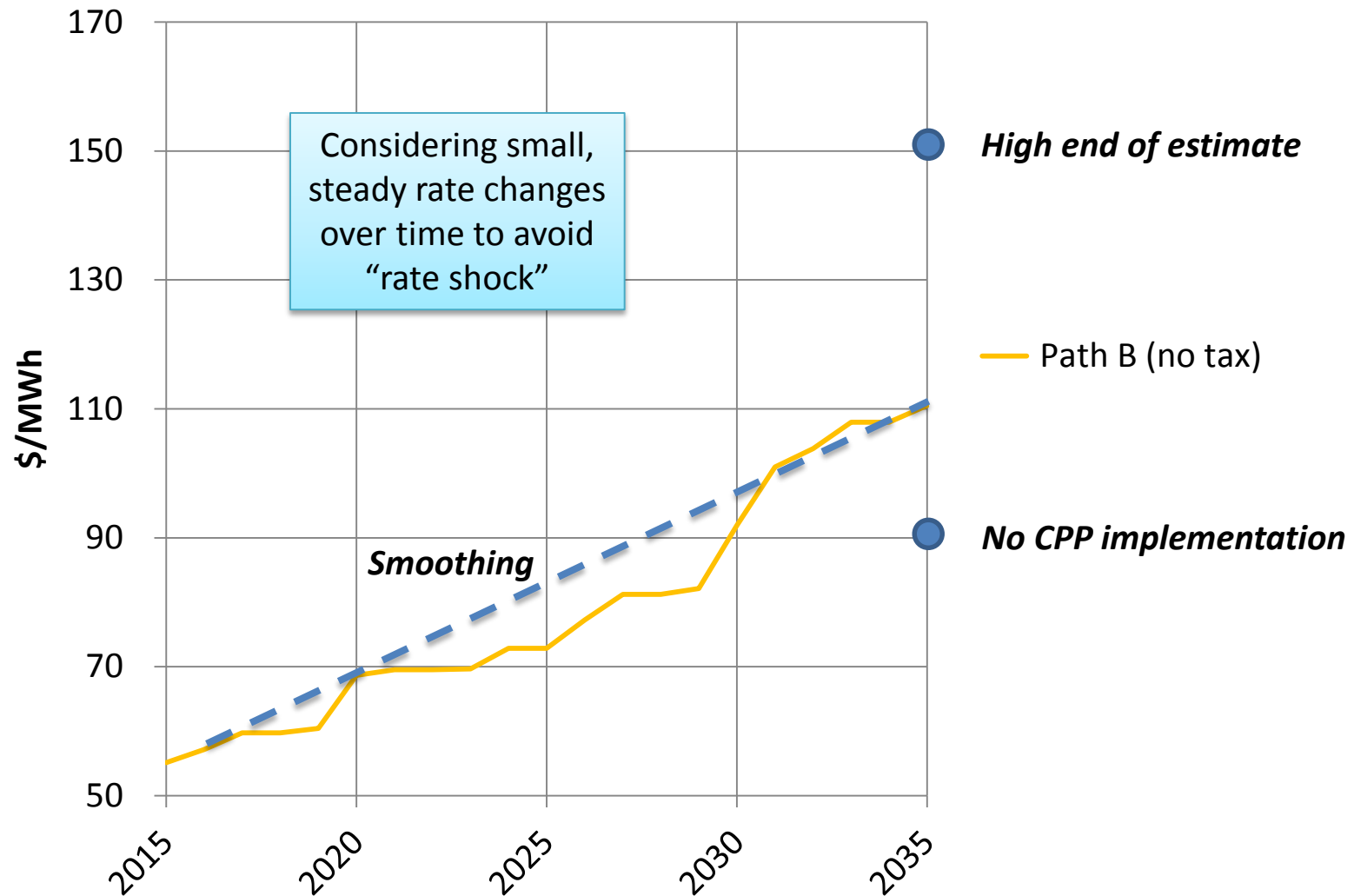
INPUT ASSUMPTIONS

Loads	Fuels	Market
Financing	Trending	Others

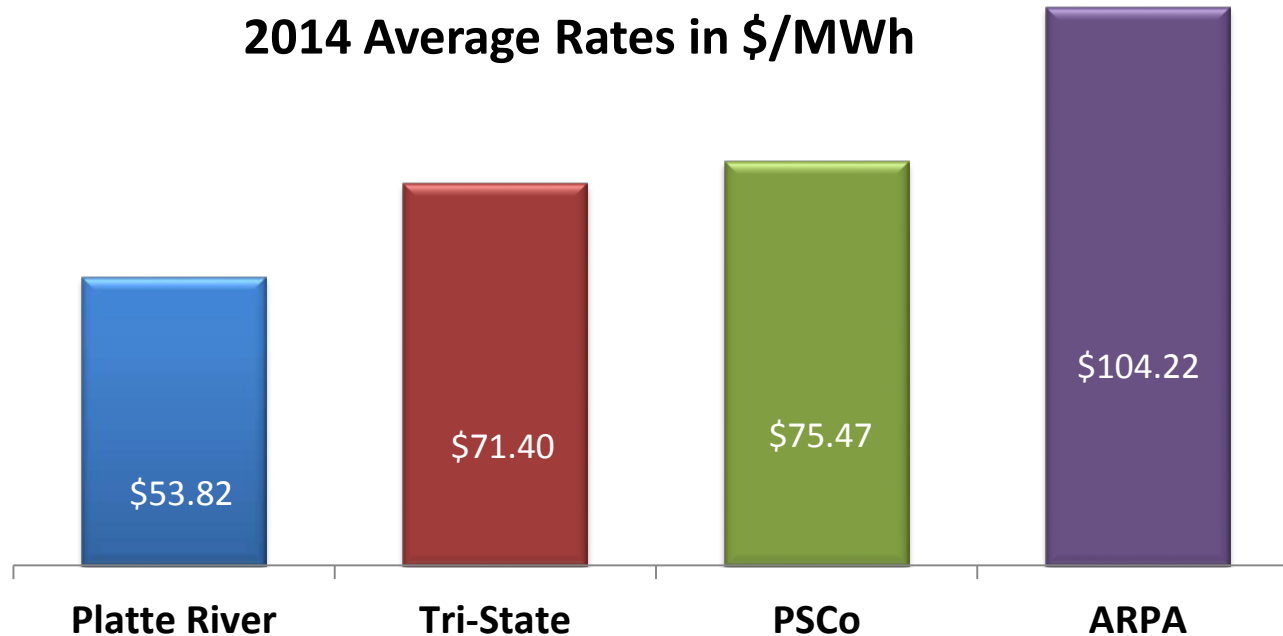
Modeling – Wholesale Rate Examples



Wholesale Rates – Smoothing Rate Impacts



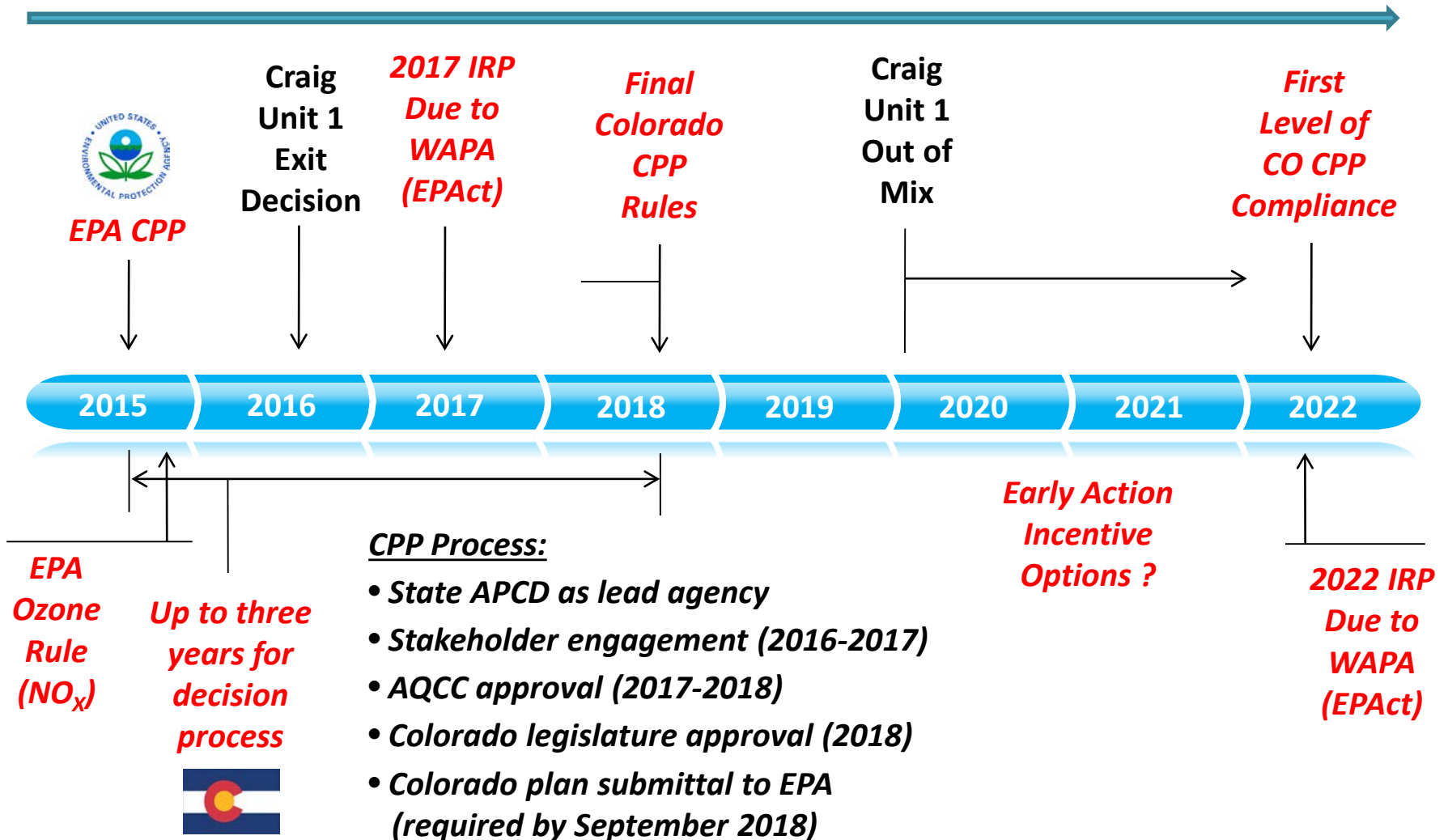
Wholesale Rates – Colorado Suppliers



- Next closest supplier (Tri-State) was 33% higher in 2014
- For the last 10 years, others have risen faster than Platte River
- Platte River may rise faster in the future due to high coal in mix (depends on CPP implementation in Colorado)

Planning Timeline

Energy Efficiency & DR/DG Programs





Questions & Discussion



CITY OF LOVELAND
HUMAN RESOURCES DEPARTMENT
 Civic Center • 500 East Third • Loveland, Colorado 80537
 (970) 962-2371 • FAX (970) 962-2919 • TDD (970) 962-2620

AGENDA ITEM: 2
MEETING DATE: 10/27/2015
TO: City Council
FROM: Julia Holland, Human Resources
PRESENTER: Julia Holland, HR Director

TITLE:

A Motion To Conduct An Executive Session For The Purposes Of The Presiding Municipal Judge's Six Month Evaluation. Council Waives The Requirement Of Notice Of The Meeting Delivery To Their Homes.

RECOMMENDED CITY COUNCIL ACTION:

Adopt the motion

OPTIONS:

1. Adopt the action as recommended
2. Deny the action
3. Adopt a modified action (specify in the motion)

BUDGET IMPACT:

- Positive
 Negative
 Neutral or negligible

SUMMARY:

This is an administrative action to call an executive session for the purposes of conducting the Presiding Municipal Judge's six month evaluation.

BACKGROUND:

This is an administrative action to conduct an executive session on October 27, 2015, in the City Manager's Conference Room for the purposes of conducting and completing the six month evaluation for the Presiding Municipal Judge.

REVIEWED BY CITY MANAGER:

William A. Cahill

LIST OF ATTACHMENTS:

None