



Platte River
Power Authority

Estes Park • Fort Collins • Longmont • Loveland

Board of directors

Dec. 5, 2019



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2020 strategic budget

Agenda

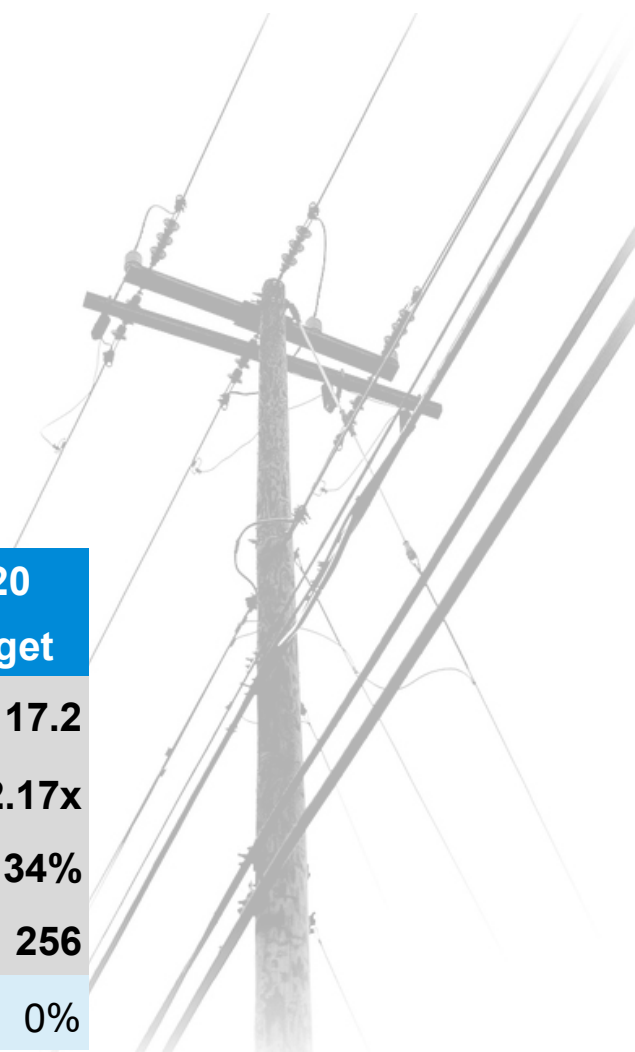
- Budget overview
- Adoption

Financial results

Budget results (\$ millions)	2020 budget
Total revenues	\$ 240.5
Total expenditures	\$ 278.3
Board contingency	\$ 26.0

Strategic financial plan indicators	Target minimums	2020 budget
Net income (\$ millions)	3% of projected operating expenses*	\$ 17.2
Fixed obligation charge coverage ratio	1.50x	2.17x
Debt ratio	< 50%	34%
Unrestricted days cash on hand	200	256
Rate increase		0%

* 3% of projected operating expenses for 2020 is \$5.7M.



Highlights – 2020 strategic budget

Core pillars

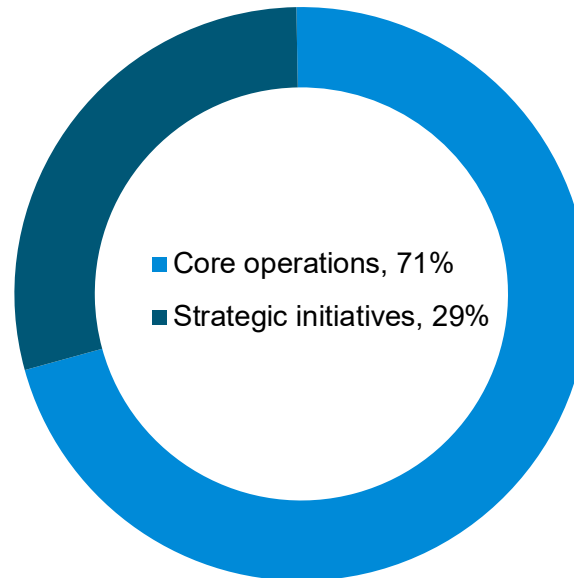
1. System reliability

2. Environmental responsibility

3. Financial sustainability

Operating expenses and capital additions: \$255.2 million

- **DER** (EE, DR, DER)
- **Public engagement & communications**
- **Resource planning** (new noncarbon resources, operational flexibility, DER strategy)
- **Infrastructure advancement** (debt financing)
- **Headquarters campus and Energy Engagement Center**



- **Baseload and peaking generation, transmission**
- **PPAs for existing renewable resources & hydropower**
- **Predictive maintenance**
- **Proactive capital investments**

- **New rate structure and no rate increase to owner communities**
- **New long-term contract sales for resale**

2020 budget: \$304M

Questions



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Board of directors executive session

Dec. 5, 2019



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Solar RFP

Solar RFP responses

- Fifteen companies submitted bids
- Many submitted multiple proposals
- Held discussions with the seven top bidders
- Performed a 3D review of bids
 - Price
 - Buildability
 - Technical strength



Dimension 1 – bid prices

50 MW - 150 MW project sizes between 15-25 year terms

Less than \$28/MWh	\$29-\$32/MWh	\$33-\$37/MWh
11	10	1

- One 8 MW distributed solar bid was submitted at over \$50/MWh
- Projects proposed in Weld County were less expensive than those in other locations



Dimension 2 – buildability criteria

- Progress on land lease
- Bidder's understanding of complexity and challenges of permitting process
- Number of neighbors bordering the proposed property
- Project location and transmission interconnection challenges
- Likelihood of getting permits in a timely manner



Dimension 2 – buildability ranking

	Bidders						
	A	B	C	D ₁	E	D ₂	F
Location (county)	Weld, Colo.	Weld, Colo.	Weld, Colo.	Weld, Colo.	Weld, Colo.	Laramie, Wyo.	Larimer, Colo.
Minimum # of neighbors bordering project (including interconnection)	10	Over 20	14	8	8	2	Over 24
Land lease option for proposed site	✓	✓	✓ +	✓	✓	✓	✓
Understanding of the complexity of acquiring necessary permits	✓	✓ -	✓ +	✓	✓	✓	✓
Improves Platte River's resource diversification	✓ +	✓ +	✓ +	✓ +	✓ +	✓ -	✓ -
Likelihood of obtaining all project permits in a timely manner	Medium	Low	Medium	Medium	Medium	High	High
Constructability, ranked Highest: 1 Lowest: 7	4	7	3	6	5	1	2

Dimension 3 – technical criteria

- Overall technical specifications and details provided in the bid
- Quality and make of the proposed equipment
 - Modules
 - Trackers
- Project management and procurement plan



Dimension 3 – technical ranking

	Bidders						
	A	B	C	D ₁	E	D ₂	F
Location (county)	Weld, Colo.	Weld, Colo.	Weld, Colo.	Weld, Colo.	Weld, Colo.	Laramie, Wyo.	Larimer, Colo.
Overall technical merit/modeled solar generation	✓ +	✓	✓	✓ -	✓ +	✓ -	✓ +
Quality/make of proposed equipment	✓ +	✓	✓ +	✓	✓ -	✓	✓
Project management and procurement plans	✓ +	✓	✓ +	✓ +	✓	✓ +	✓ +
Technical ranking Highest: 1 Lowest: 4	1	4	2	4	4	4	3

Considerations

- Permitting risk in Weld County
- Risk of interconnection with Ault Substation
- Which projects we should continue to evaluate
- Whether Platte River should build, own and operate the interconnection facilities
- Preference of a 15 year term over a 20 year term



Recommendations

- Prefer a 15 year term
- Platte River should own the substation that interconnects with our transmission system
- Continue to negotiate with top two bidders who've proposed locations in Weld County



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Energy imbalance market update

Dec. 5, 2019

Agenda

- What is an energy imbalance market (EIM)?
 - Key aspects of an EIM
 - Differences between the Joint Dispatch Agreement (JDA), an EIM and a full energy market (FEM)
- Overview of various EIM options
 - Joint Dispatch Agreement – existing arrangement
 - Western Energy Imbalance Market-WEIM (CA)
 - Western Energy Imbalance Service-WEIS (SPP)
- Current utility preferences
- Next steps



What is an EIM?

- Leverages geographical diversity of loads and resources in a larger market footprint
- Coordinates real-time interchange schedules to balance generation and load in order to create economic value
- Maximizes the use of transmission capacity made available by transmission owners
- Utilities retain control over their generation and transmission assets



Differences between JDA, EIM and FEM

	JDA (existing)	EIM	FEM
Hourly energy market	Yes	Yes	Yes
Day-ahead market	No	No	Yes
Ancillary services	N/A	Limited	Optimized FEM is BA
Transmission capacity available to market	All OASIS posted	Transmission owner's decision	All
Generation offers into market	Voluntary	Voluntary	Must sell



Joint Dispatch Agreement

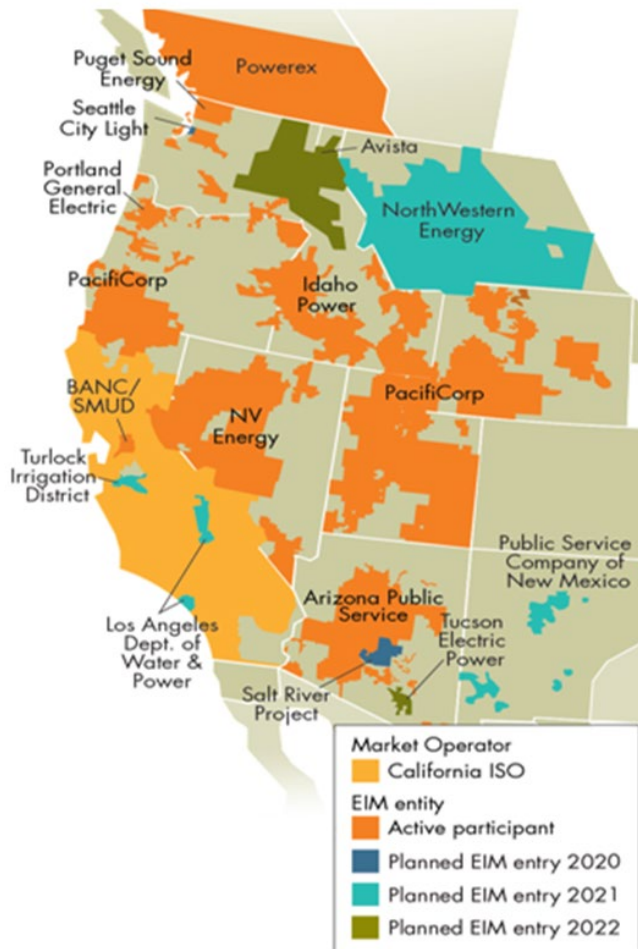


How it works

- Small-scale EIM
- Three entities participating, with fourth to participate soon
- Xcel serves as the market operator and dispatches generation economically based upon generator cost



WEIM



How it works

- Leverages geographical diversity of loads and resources in a larger market footprint
- Automated dispatch minimizes cost, facilitates renewables, resolves imbalance and avoids congestion
- Greater operational visibility enhances reliability
- Low-cost, low risk, no exit fees, voluntary market



WEIS

- SPP is currently operating a FEM in the eastern interconnect
- SPP is willing to provide an energy imbalance service in the west, if sufficient interest exists
- SPP has made a proposal, although much uncertainty exists
 - SPP currently does not operate an imbalance market
 - Systems necessary to operate this market need to be developed
 - Tri-State, WAPA and Basin have committed to participate in SPP WEIS



Key differences between energy imbalance markets

Market features	JDA (existing)	WEIM		WEIS
Generation offers	Out of pocket cost-based offers for generators	Market based offers for generators with CA market monitor oversight		Market based offers for generators with SPP market monitor oversight
Unit commitment	Each entity responsible to commit generation to meet load and other obligations	Commit and decommit resources up to 4 hours ahead to optimize use of system		Each entity responsible to commit generation to meet load and other obligations
Transmission service	No cost non-firm transmission	No cost non-firm transmission		No cost non-firm transmission
Implementation costs	\$500,000	JDA	MWTG	\$6 M (est.)
		\$1.5 M (est.)	\$2.5 M (est.)	
Ongoing administration costs	\$650,000 (est.)	\$1.3 M/year (est.)	\$2.0 M/year (est.)	\$5 M/year (est.)

- JDA is currently conducting a Brattle study to determine the value of each option

Current utility preferences in the western interconnect

WEIM (77% of the utilities within the western interconnect)

WEIS (4% of the utilities within the western interconnect)

- Western Area Power Administration
- Basin Electric
- Tri-State Generation & Transmission

JDA (5% of the utilities within the western interconnect)

The joint dispatch group (Platte River, Black Hills, Xcel and Colorado Springs Utilities) are currently evaluating study results and have yet to make a decision on an EIM



Next steps

- Finalize and develop a plan for participating in an EIM with other members of JDA, as appropriate
- Open a dialog with Colorado regulators and other interested stakeholders
- Participate in Colorado Public Service Commission proceedings advocating for a single energy market in Colorado



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Legislative update

Local government engagement



Legislative visits



2019 interim

Energy Legislation Review Interim Study Committee

- Rep. Chris Hansen (D), Chair
- Sen. Stephen Fenberg (D)
- Rep. Dominique Jackson (D)
- Sen. Ray Scott (R)
- Rep. Perry Will (R)
- Sen. Mike Foote (D), Vice Chair
- Rep. Stephen Humphrey (R)
- Rep. Sonya Jaquez Lewis (D)
- Sen. Jack Tate (R)
- Sen. Faith Winter (D)



Interim committee bills

Bills recommended to legislative council

Bill A – Valuation of energy storage equipment

Bill B – Statewide biodiesel blend requirement for diesel sales

Bill C – Transmit renewable energy conservation easements



Seventy-second general assembly

Key dates

Deadline for Legislative Council meeting to approve interim committee bills - Nov. 15, 2019

Deadline for legislators to submit first three "early" bill requests - Dec. 2

Deadline for first bill to be filed for introduction (House and Senate) - Jan. 3, 2020

Second regular session convenes - Jan. 8

Bill request deadline for last two or "regular" bill requests (House and Senate) - Jan. 14

Final passage deadline for House and Senate bills in the First House - Feb. 26

House and Senate Committees reporting deadline for second house bills - Mar. 20

Final passage deadline for House bills in the Senate - Mar. 30

Final passage deadline for Senate bills in the House - Apr. 6

100th day of session - Apr. 16

Adjournment sine die - May 6



2019 legislative activity

HB 19-1261

Climate action plan to reduce pollution

SB 19-96

Collect long-term climate change data

SB 19-236

Sunset Public Utilities Commission

HB 19-1314

Just transition from coal-based electrical energy economy



DC visits

Dec. 2 – 4, 2019

Colorado Springs Utilities and Platte River

Feb. 23 – 27, 2020

APPA legislative rally



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October operational results

Category	October variance		YTD variance	
Municipal demand	4.5%	●	(2.3%)	■
Municipal energy	1.4%	◆	(1.0%)	◆
Baseload generation	(10.2%)	■	(10.7%)	■
Wind generation	7.9%	●	(4.8%)	■
Solar generation	7.4%	●	(4.2%)	■
Surplus sales volume	(0.9%)	◆	(9.5%)	■
Surplus sales price	5.8%	●	28.3%	●
Dispatch cost	(4.8%)	●	(1.1%)	◆

Variance key: Favorable: ● >2% | Near budget: ◆ +/- 2% | Unfavorable: ■ <-2%





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Financial summary

Category	October variance from budget (\$ in millions)	Year to date variance from budget (\$ in millions)
Net income	\$1.5 ●	\$11.9 ●
Fixed obligation charge coverage	1.07x ●	.72x ●
Revenues	\$0.5 ●	\$1.3 ◆
Operating expenses	\$0.6 ●	\$8.5 ●
Capital additions	(\$0.3) ■	\$8.1 ●

> 2% ● Favorable | 2% to -2% ◆ At or near budget | < -2% ■ Unfavorable



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