



**BASIN ELECTRIC  
POWER COOPERATIVE**

A Touchstone Energy® Cooperative 

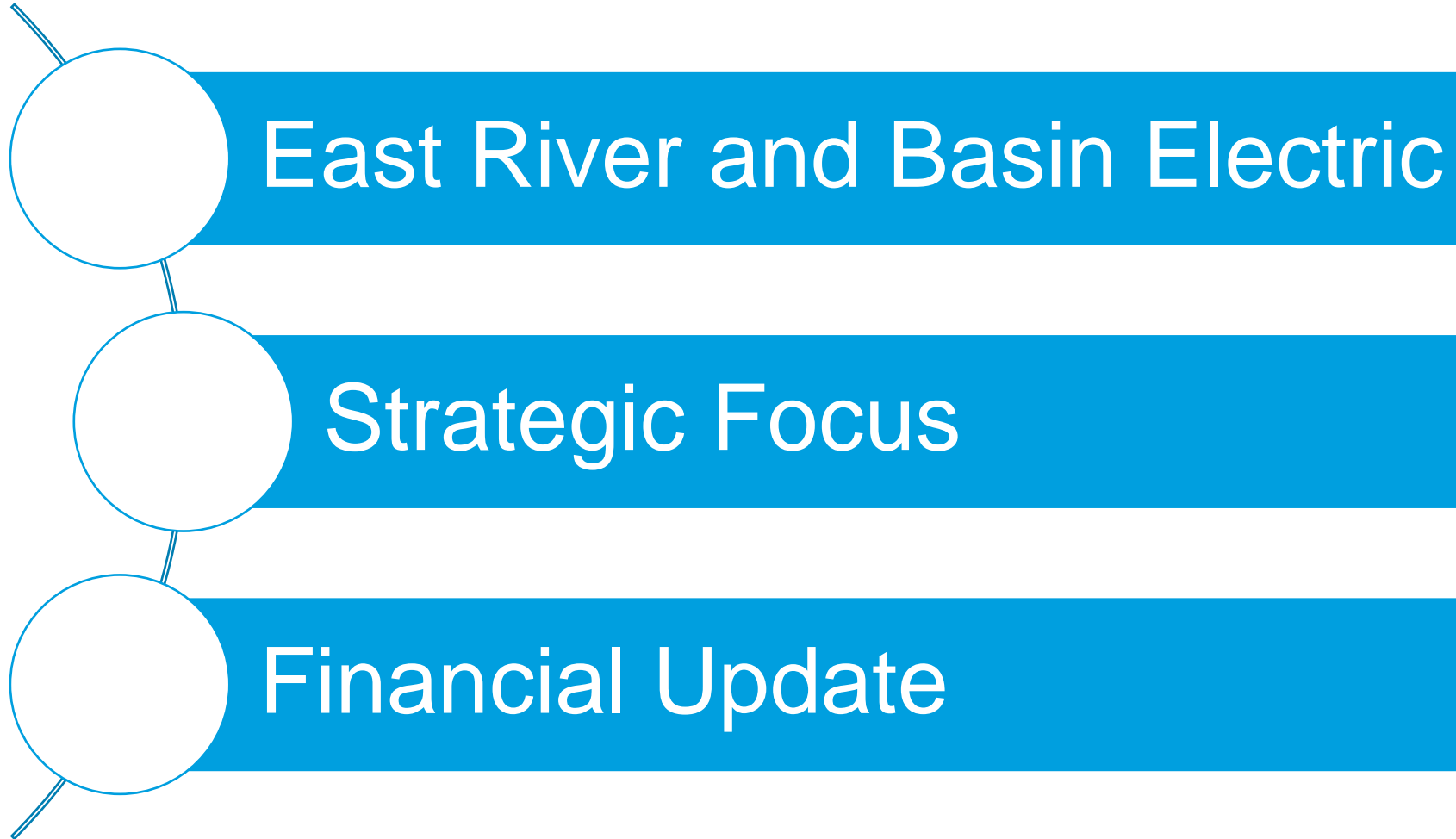
# 2024 East River Energize Forum

Todd Brickhouse

Chief Executive Officer and General Manager

[tbrickhouse@bepc.com](mailto:tbrickhouse@bepc.com) Direct 701-557-5330 or Cell 701-426-4547

# Agenda

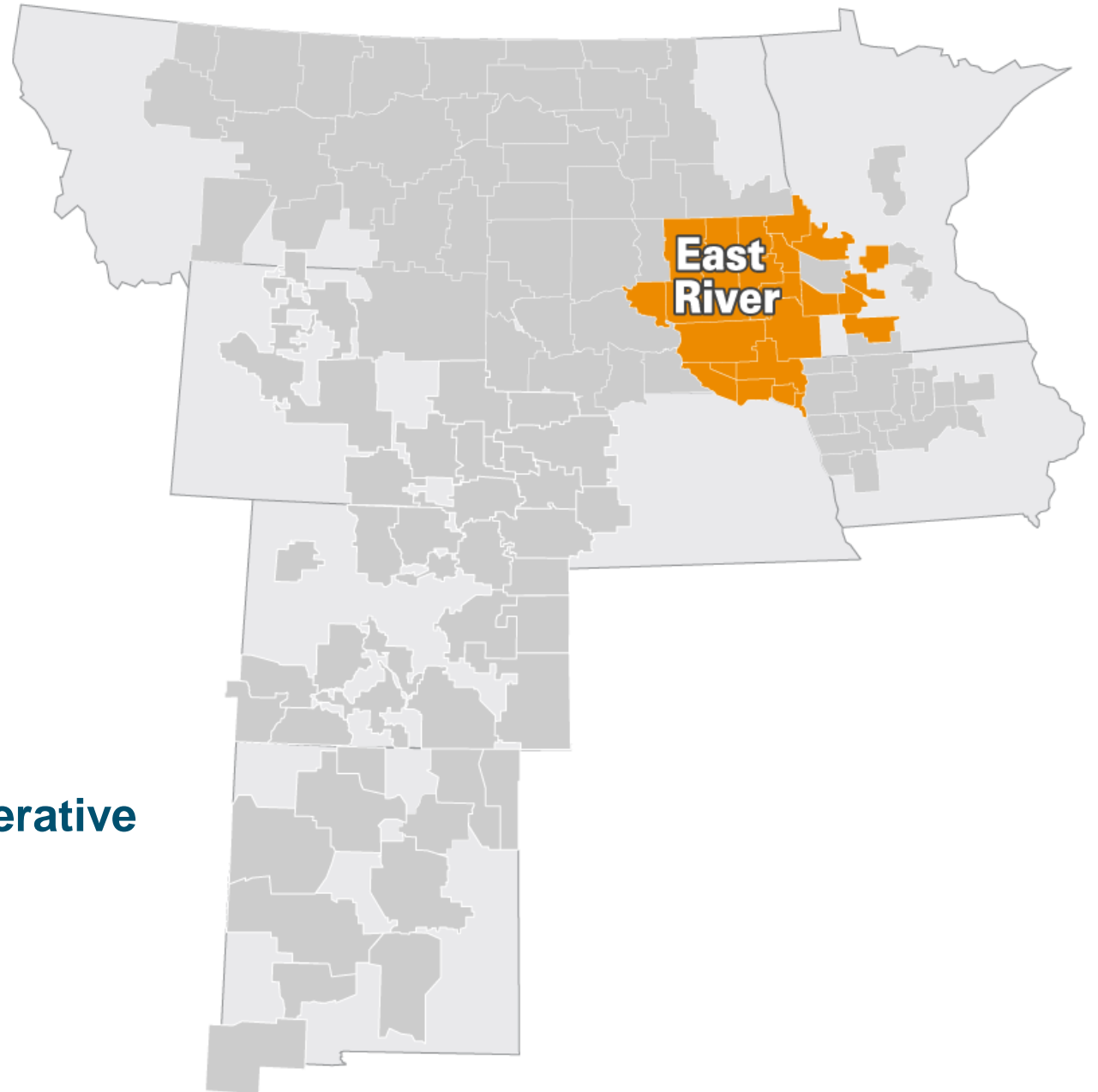




**Kermit Pearson**  
**DISTRICT 1**  
**East River**

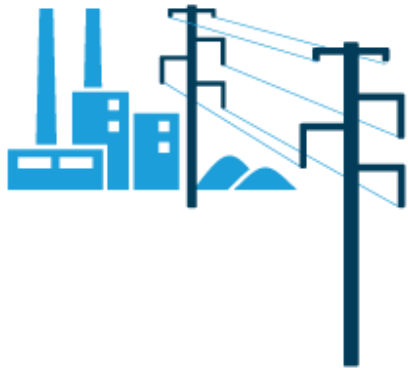


**Bob Sahr**  
**CEO/General Manager**  
**East River Electric Cooperative**



# Basin Electric Commitment to Community In South Dakota & Minnesota

Over  
**\$1 billion**



Investment  
to Serve

**55**  
employees



Nearly  
**\$12 million**  
annually



Taxes Paid

Over  
**\$1 million**  
since 2014



Charitable  
Contributions

# Basin Electric Snapshot

141 Members in 9 States

3 million consumer-owners

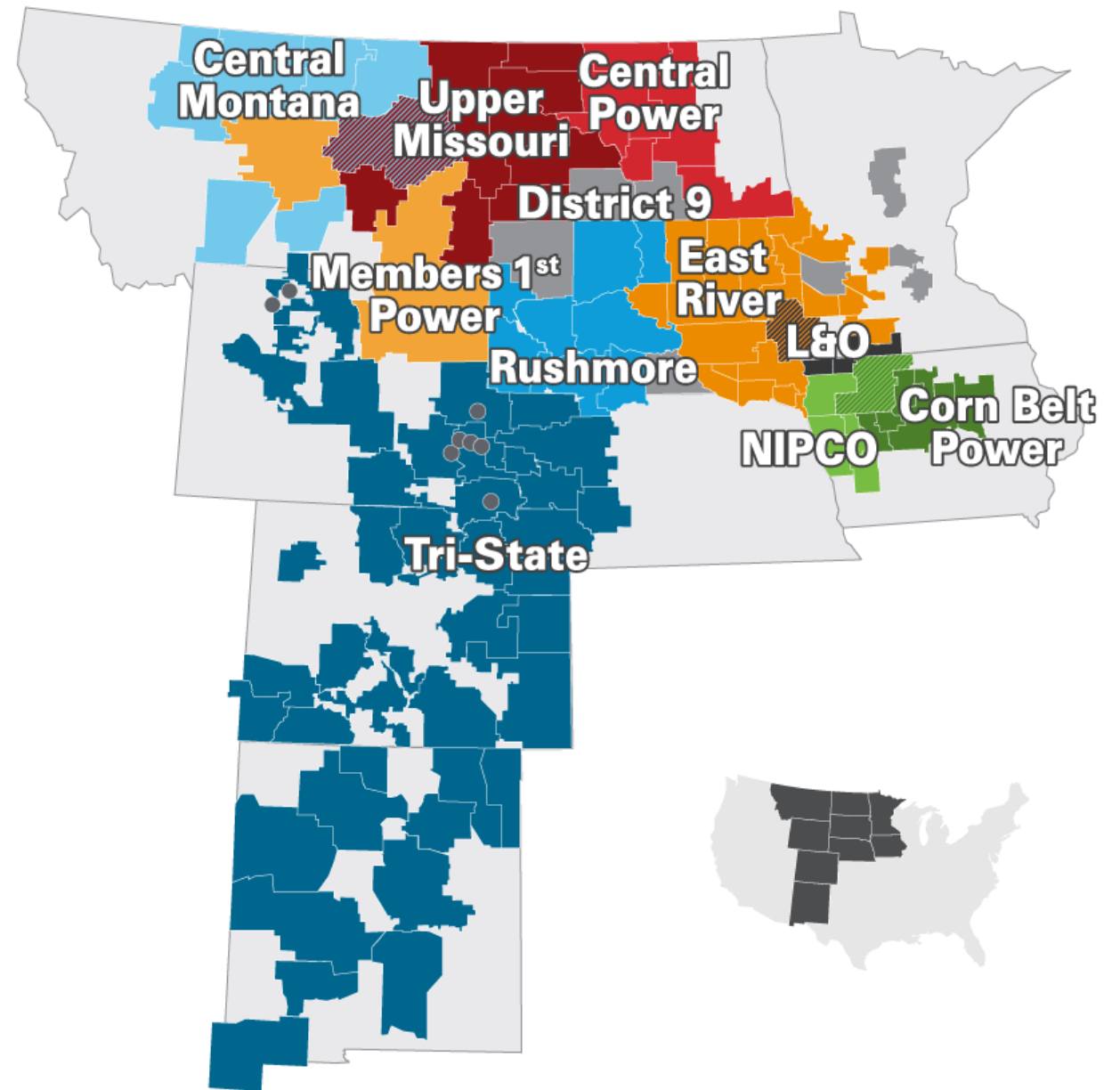
Over 7,000 megawatts  
of winter capability

Largest G&T in MWh sales and  
geographic territory served

2nd largest G&T by assets

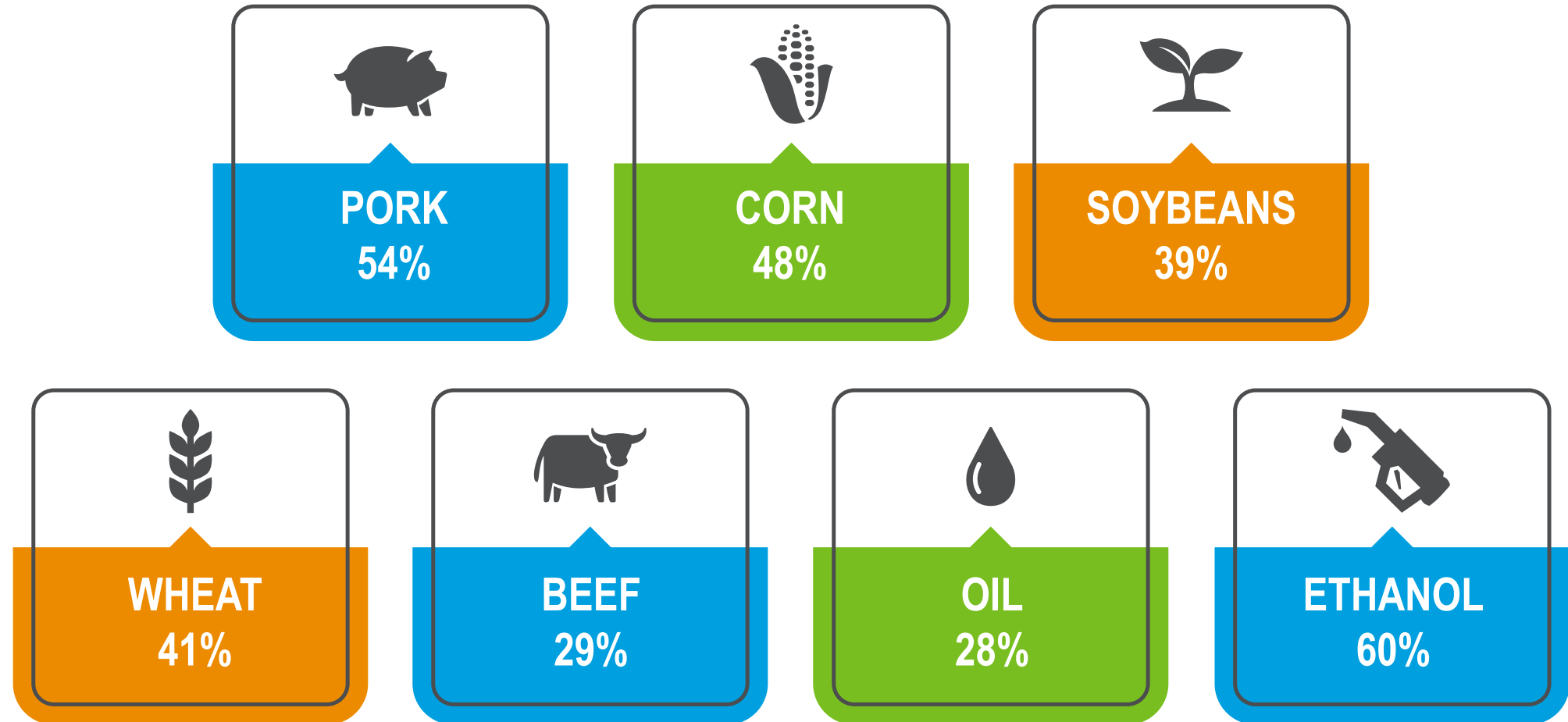
3rd largest G&T by Operating  
Revenue

January 2024 Peak Demand  
Record – 5,174 MW  
*\*\*Preliminary\*\**



# Feeding and Fueling the World

## Percentage of Total US Production



# Strategic Focus

# MISSION STATEMENT

We are a safe, environmentally responsible cooperative that provides reliable, affordable power, products, and services to sustain the quality of life for our member-owners across rural America.

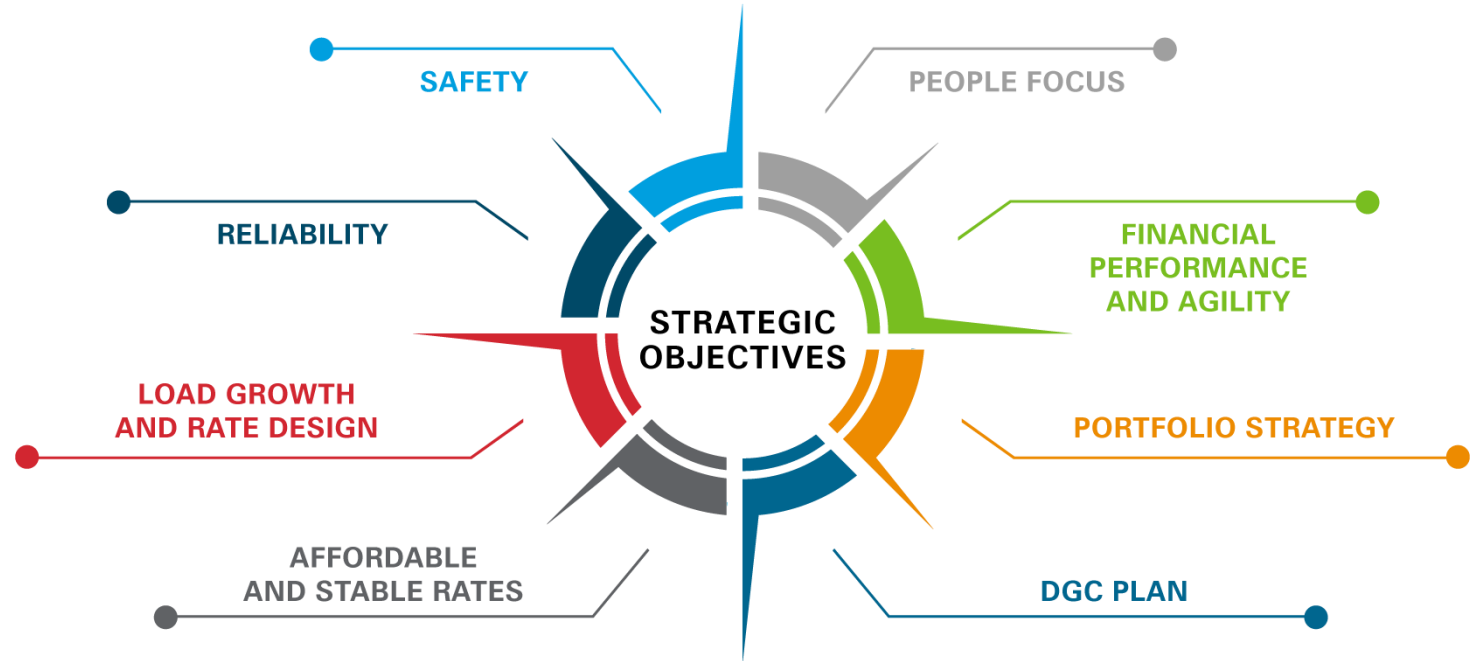


# Key Issues and Strategic Plan

## Key Issues

### 2020 Paulsen Survey of Basin Membership

1. Affordable Rates
2. Reliable Power
3. Resolving DGC
4. Strategic Plan
5. Expected Load Growth
6. Improving Communication
7. Transition from Coal
8. Increasing Renewables
9. Future Workforce
10. Long-Term Contracts



# 2023 Cooperative-wide Goals

Safety

Reliability

Affordability

# Strategic Objectives



# Strategic Focus: Affordability

# Key Issues and Strategic Plan: Affordable Rates

Rank	G&T	Member Revenue Per MWh		
		2021	2022	% Change
1	PNGC Power	39.12	40.11	2.5%
2	Deseret	45.02	47.04	4.5%
3	Associated	55.97	48.95	-12.5%
4	Sho-Me Power	51.45	51.03	-0.8%
5	Nebraska	52.66	51.06	-3.0%
6	Northeast Missouri	55.27	55.27	0.0%
7	Sunflower	66.84	55.36	-17.2%
8	M & A Electric	54.93	55.41	0.9%
9	Allegheny	56.50	56.20	-0.5%
10	Chugach	55.75	56.49	1.3%
11	KAMO	58.02	57.09	-1.6%
12	<b>Basin</b>	<b>59.97</b>	<b>57.65</b>	<b>-3.9%</b>
13	East River	60.00	57.90	-3.5%
14	Northwest Iowa	54.54	58.98	8.1%
15	Rushmore	58.52	60.10	2.7%
16	Central Power - ND	61.07	61.49	0.7%
17	Central Iowa	57.57	63.45	10.2%
18	Corn Belt	67.26	64.62	-3.9%
19	North Carolina	66.43	69.50	4.6%
20	Square Butte	55.83	69.84	25.1%
21	Western Farmers	67.07	71.47	6.6%
22	Central Electric - SC	69.61	72.77	4.5%
23	Tri-State	74.08	73.42	-0.9%
24	Golden Spread	72.88	74.11	1.7%
25	Minnkota	76.24	75.92	-0.4%

Associated and its members

Basin and its members

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15	Minnkota	76.24	75.92	-0.4%
16	Dairyland	71.59	76.10	6.3%
17	Arkansas	63.87	76.16	19.2%
18	Wolverine	66.23	76.29	15.2%
19	Oglethorpe	62.97	77.03	22.3%
20	Cooperative Energy	72.35	77.08	6.5%
21	Kansas Electric	76.93	77.77	1.1%
22	Southern Illinois	74.05	78.22	5.6%
23	East Texas	65.11	78.50	20.6%
24	Great River	76.89	78.68	2.3%
25	Wabash Valley	75.78	78.78	4.0%
26	PowerSouth	72.10	78.99	9.6%
27	Old Dominion	64.16	79.89	24.5%
28	Buckeye	75.72	80.24	6.0%
29	East Kentucky	68.02	84.32	24.0%
30	Arizona	64.91	86.77	33.7%
31	NTEC	86.50	86.80	0.3%
32	Rayburn	70.79	89.28	26.1%
33	Prairie Power	84.30	91.49	8.5%
34	Matanuska	202.48	207.24	2.4%
Average		70.36	75.58	7.7%

# Strategic Focus: DGC Plan

# DGC Plan

**Develop a DGC business plan to expand or divest to maximize value returned to the membership.**

## **Board Oversight – Metrics & Targets for Monitoring Progress**

- Develop the DGC business plan by June 30, 2023
  - Incorporate the 2024-2033 Financial Forecast into the business plan
- Complete a full analysis on key strategic opportunities by September 30, 2024
- Review and update infrastructure improvement plan by June 30 each year
  - Incorporate the infrastructure improvement plan into the Financial Forecast and Budget
- Develop a stakeholders communication plan by the end of 2023

## **Department Initiatives (Strategic Considerations)**

- 2024 Department Initiatives
  - 11 of 39 Department Initiatives support this Strategic Objective and the above Metrics & Targets

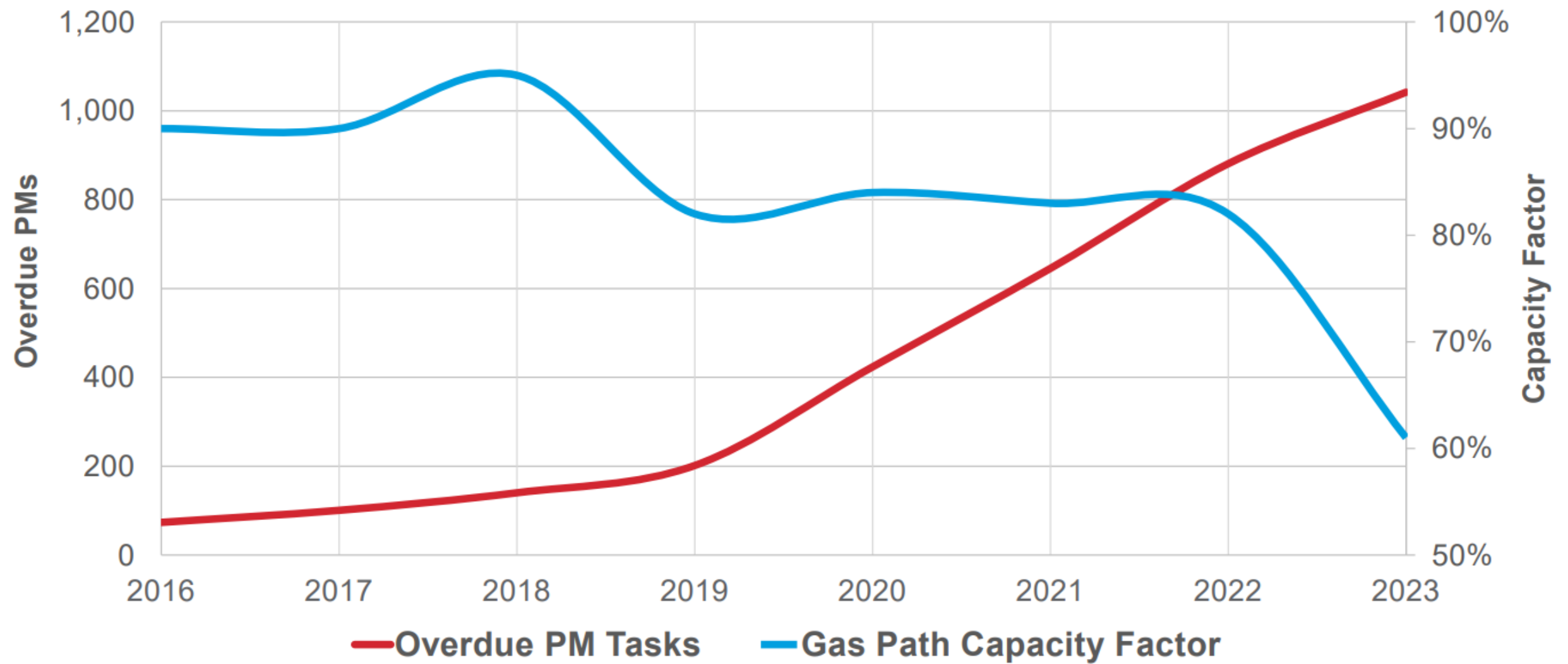
# DGC Headcount

	Maintenance		Operations		Total*
	Total Employees	Average Tenure	Total Employees	Average Tenure	
2017	292	14	368	12	660
2018	275	14	365	12	640
2019	213	13	326	11	539
2020	197	14	327	12	524
2021	197	15	331	11	528
2022	192	14	323	10	515
2023	200	11	317	9	517
2024 Approved	214		329		543

*\*Totals only include Maintenance and Operations Staff*



# Overdue Preventive Maintenance & Gas Path Capacity Factor



# Carbon Sequestration Project

- Since 2000, DGC transported CO<sub>2</sub> produced from operations at the plant via pipeline to customers in Canada to be used in enhanced oil recovery
  - To date DGC has captured over 44 million metric tons
- Starting in Q1 2024 DGC is expected to capture additional CO<sub>2</sub> and permanently store it in six underground wells located near the plant

45Q

Carbon sequestration tax credit (Title 26, US Tax Code)

IRA

Enhances 45Q tax credit per sequestered ton



# CO<sub>2</sub> Sequestration Magnitude

- By 2028, the CO<sub>2</sub> sequestration project is projected to capture and store 2.26 million metric tons per year of carbon.
- The project will sequester approximately 15% of South Dakota's population emissions.

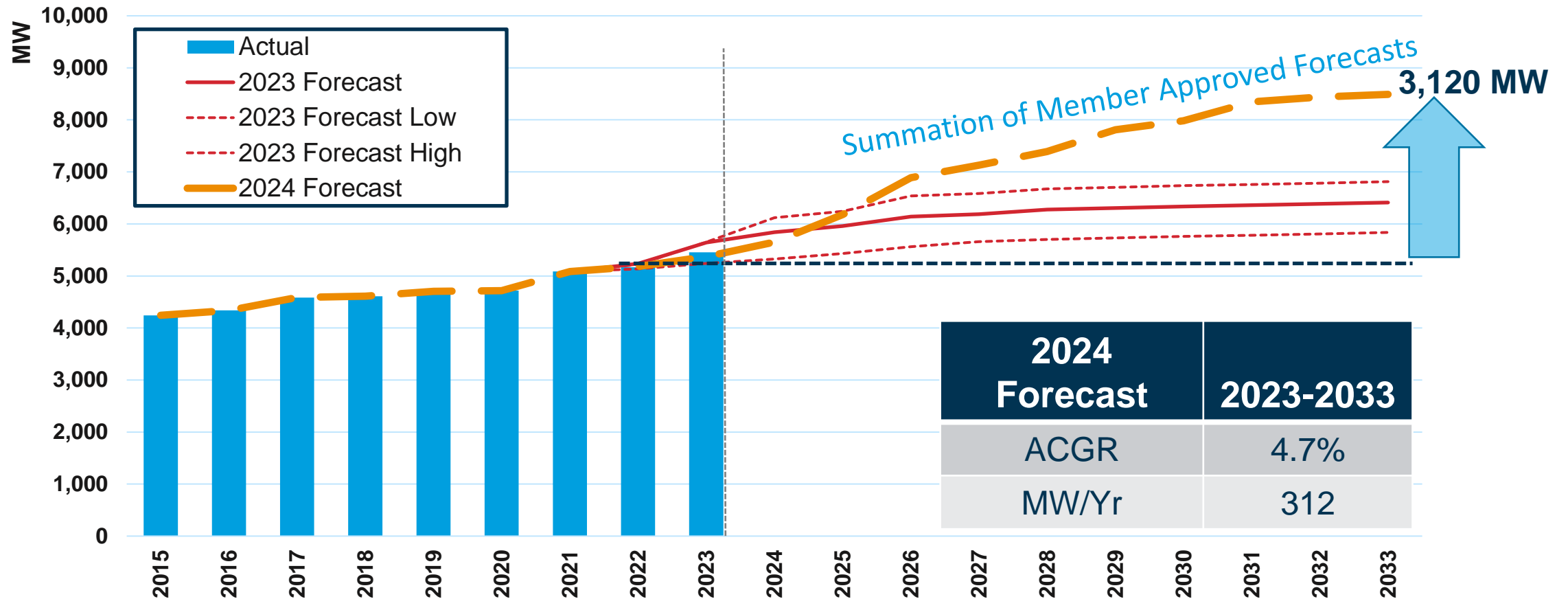
*Based on emissions data and estimates from EPA and UCAR for 2022*



# Strategic Focus: Load Growth and Rate Design

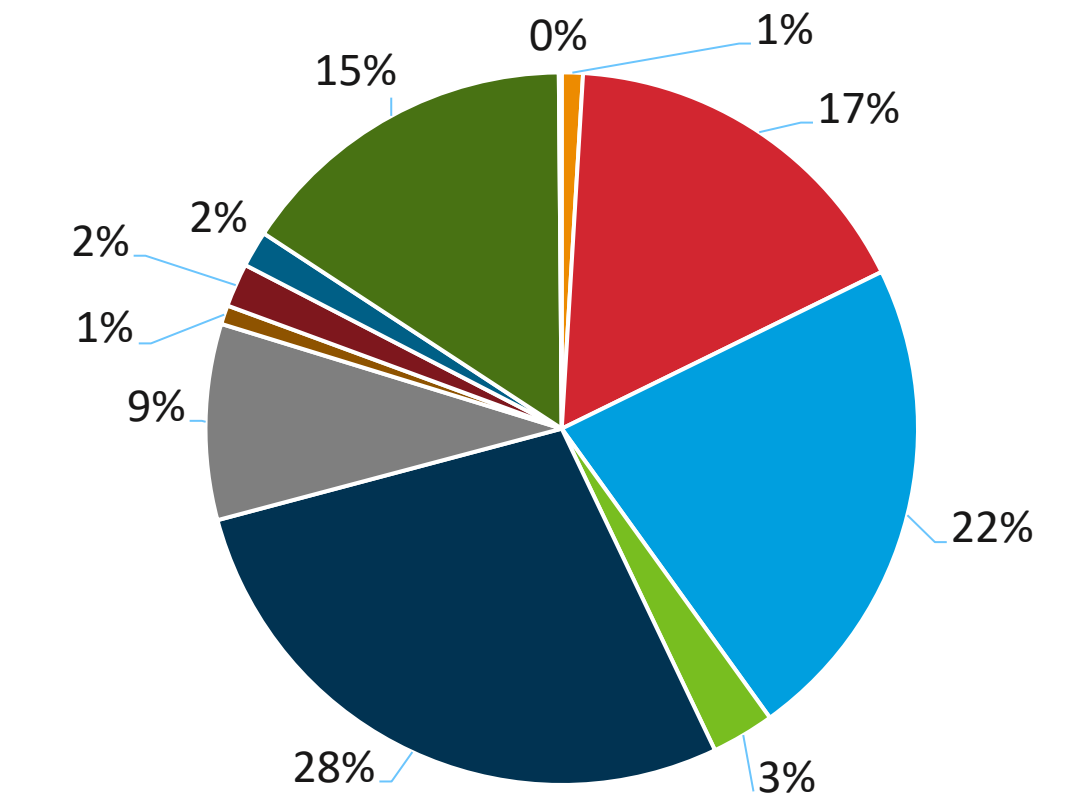


# Total Member Summer Peak Demands

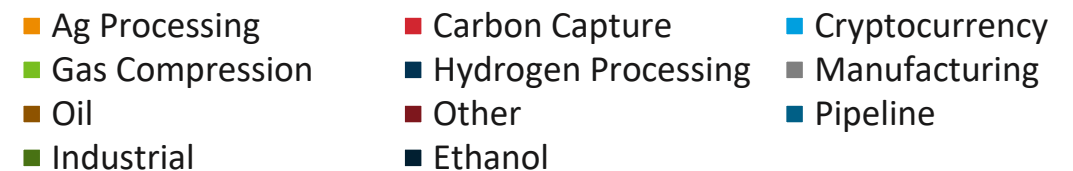


# Load Growth Pipeline

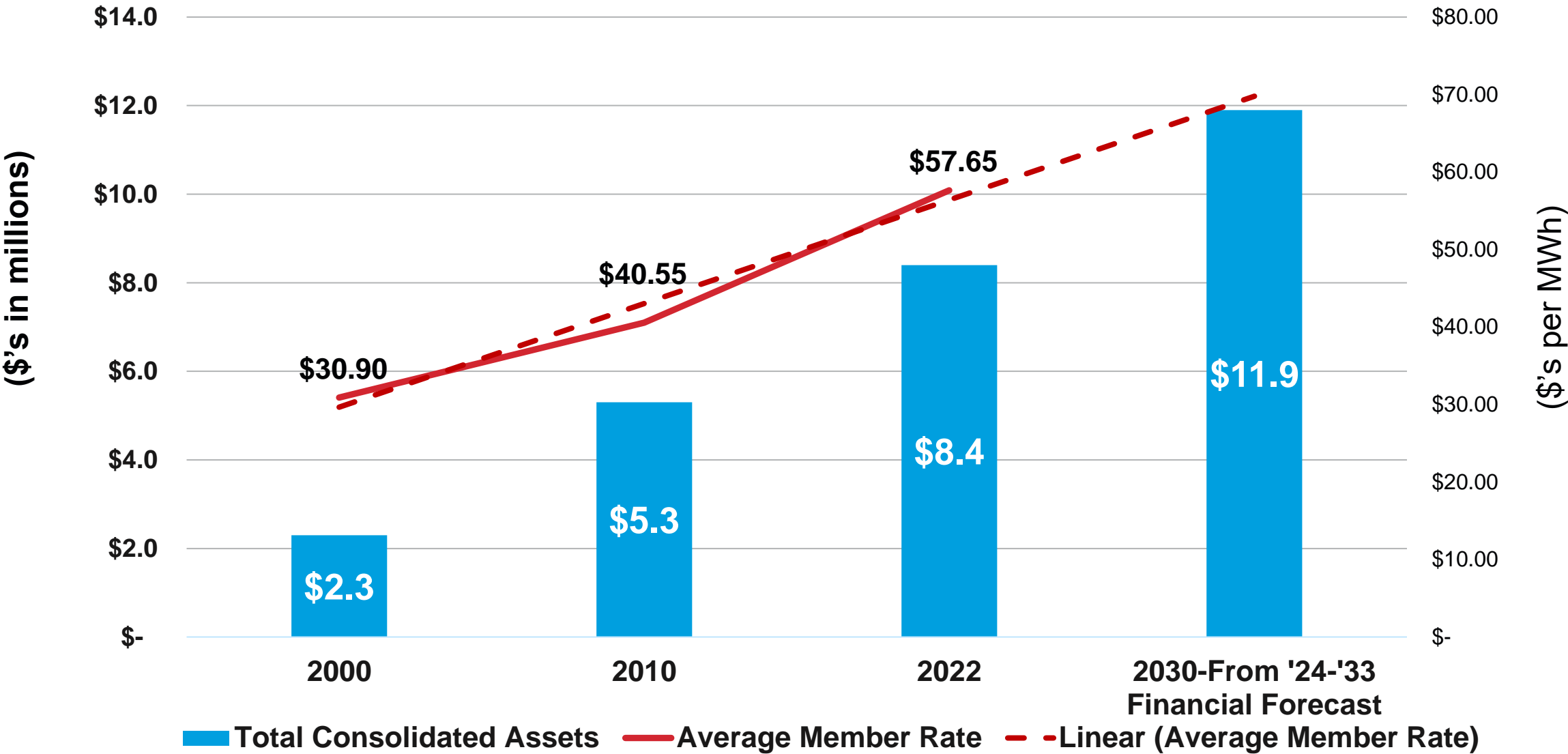
Category	2024 LF (MW)	2023 LF (MW)	Diff (MW)
Ag Processing	73	54	19
CO2 Capture	1,281	256	1,025
Cryptocurrency	1,703	2,187	-484
Gas Compression	218	146	72
Hydrogen Processing	2,132	1,510	622
Manufacturing	678	378	300
Oil Related	66	56	10
Other	151	66	85
Pipeline	125	65	60
Industrial	1,193	645	548
Ethanol - Self Gen	-10	-10	0
<b>Grand Total</b>	<b>7,608</b>	<b>5,353</b>	<b>2,255</b>
<b>Included in Base Forecast</b>	<b>3,548</b>	<b>688</b>	<b>2,860</b>



**2024 Load Forecast**



# Basin Electric Growth



# Generation Cost of Growth Calculation

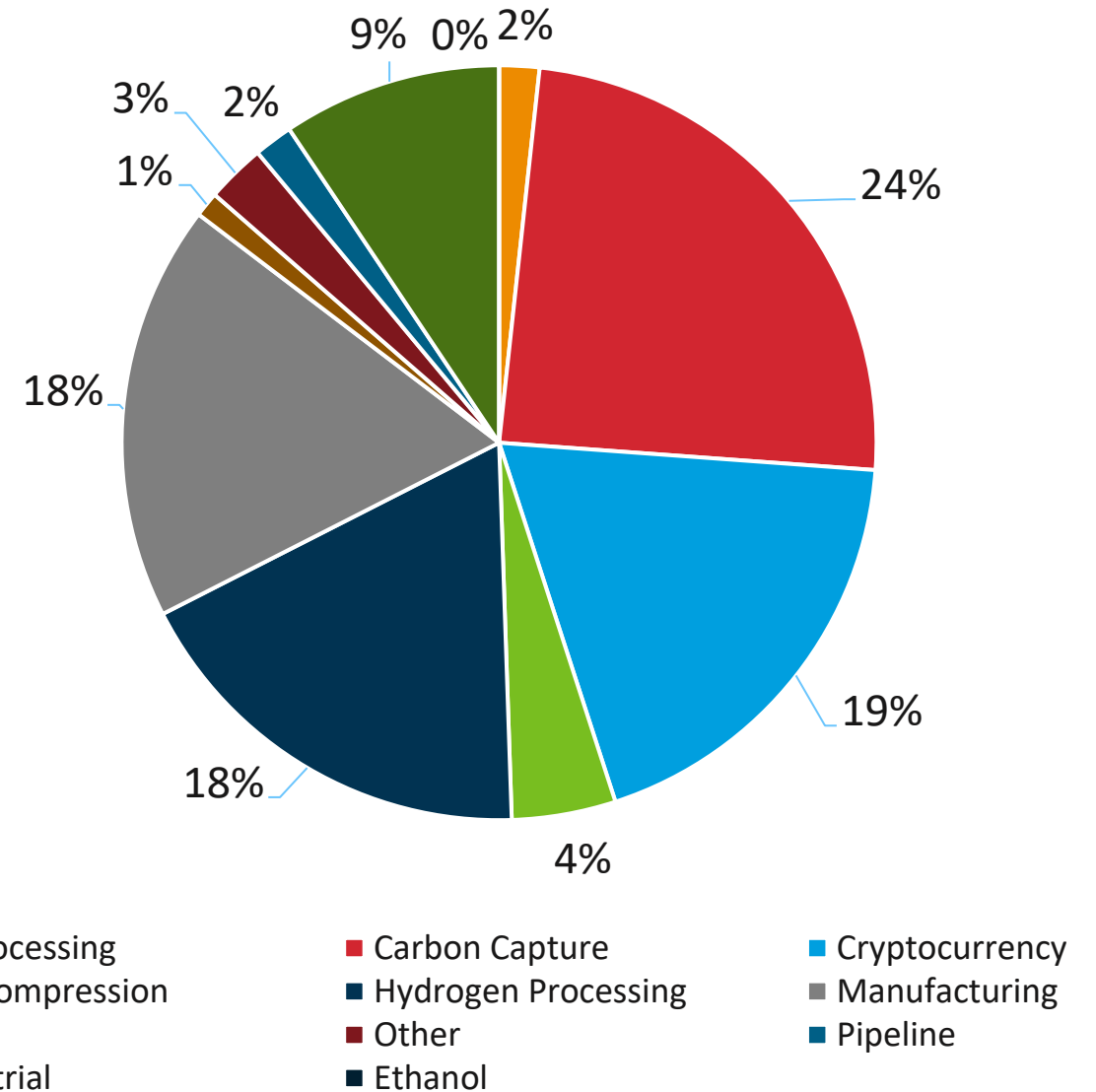
Load Growth (MW) (2023→2033)	3,120 MW
Losses (4%)	+ 125 MW
Planning Reserves (15%)	+ 485 MW
Total Requirements (MW)	3,730 MW
Installed Cost (\$/kW)	X \$1,700/kW
<b>Total Capital Cost (\$)</b>	<b>\$6.3 Billion</b>
Equity	X 25%
Years	÷ 10 Years
<b>Impact to Margin</b>	<b>\$160 Million</b>



# Load Growth Pipeline

## Included in 2024 Member Approved Forecast

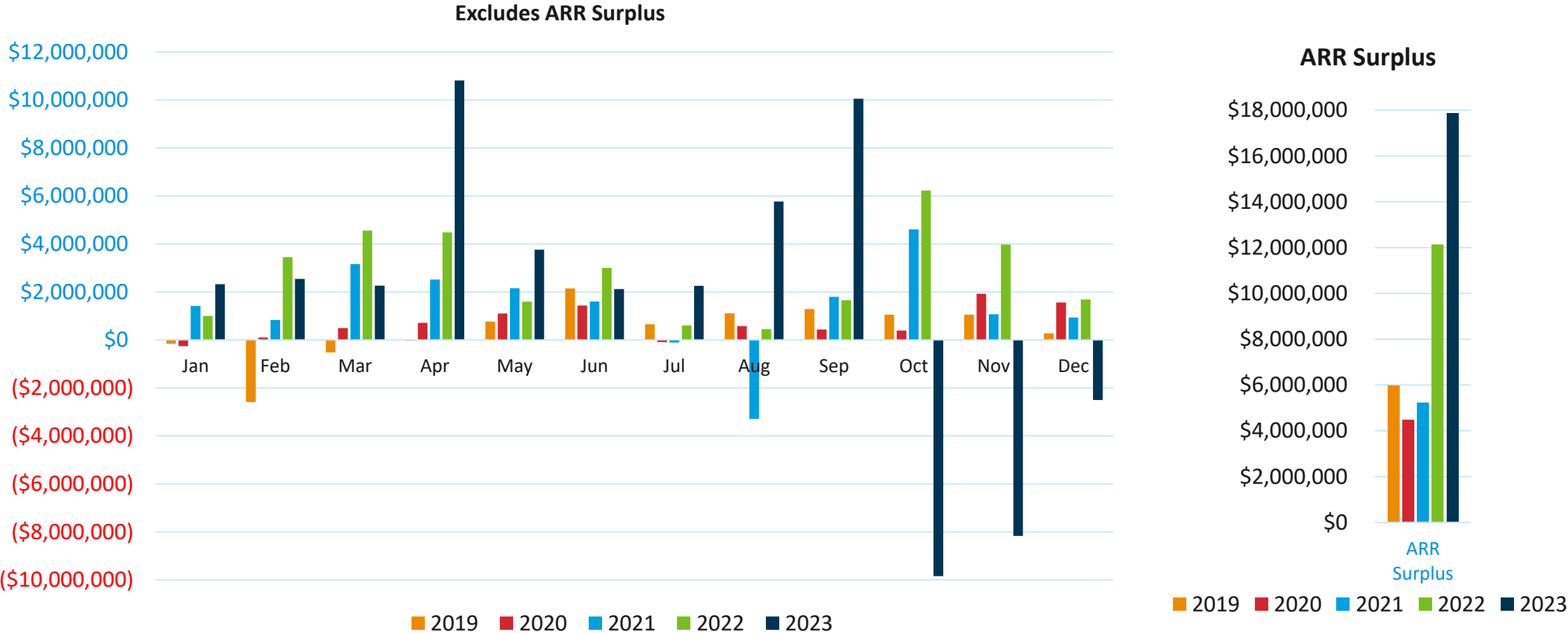
Category	MW Load
Ag Processing	61
CO2 Capture	867
Cryptocurrency	669
Gas Compression	158
Hydrogen Processing	640
Manufacturing	633
Oil Related	38
Other	90
Pipeline	59
Industrial	333
Ethanol - Self Gen	0
<b>Grand Total</b>	<b>3,548</b>



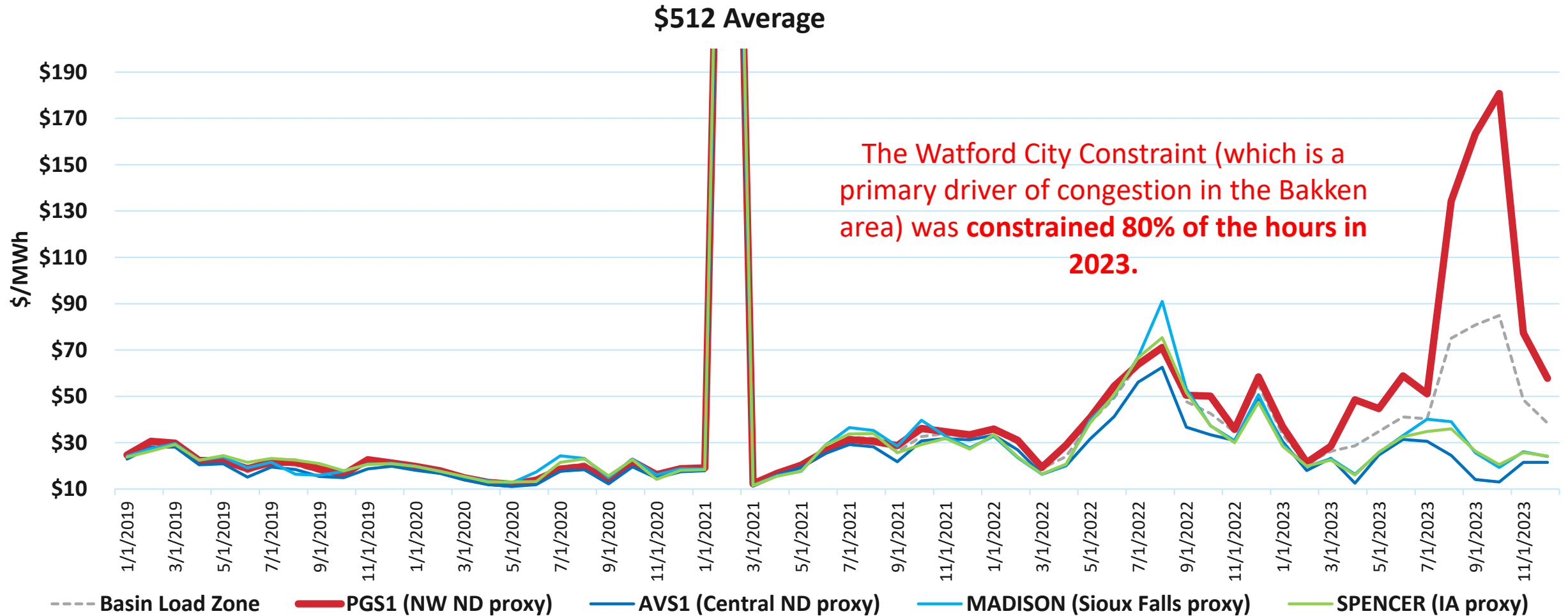
# Sorting Through Growth

- Members can add load faster than Basin can build generation
  - Poses unique challenges with ultra-large loads or multiple large loads
- Crypto and Large Load rates designed to mitigate risk and address load growth
  - Insulate Class A rate
  - More certainty around large loads before building resources
  - Allow crypto loads to react to market price signals
- Limitations of Crypto and Large Load rates:
  - Market passthrough: alleviates Basin's immediate need to build, but this shifts the demand curve without increasing supply (Econ 101)
  - Someone is ultimately responsible for reliability
  - Congestion
  - Risk of SPP rule changes related to demand response loads

# Monthly Net Congestion Margin 2019-2023



# Basin Electric Load Zone Price by “Area” Monthly Average Day Ahead LMP

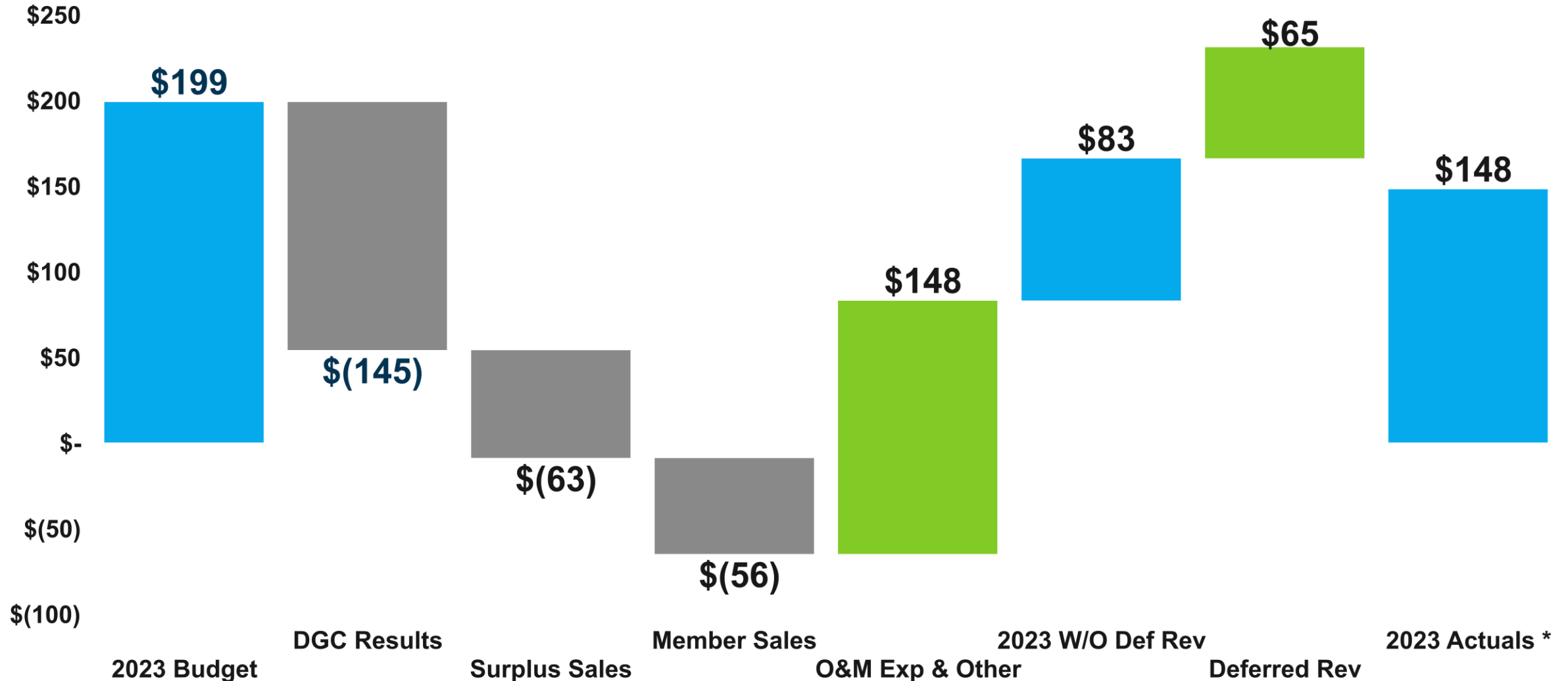


# Financial Update

# 2023 Basin Electric Consolidated Margin

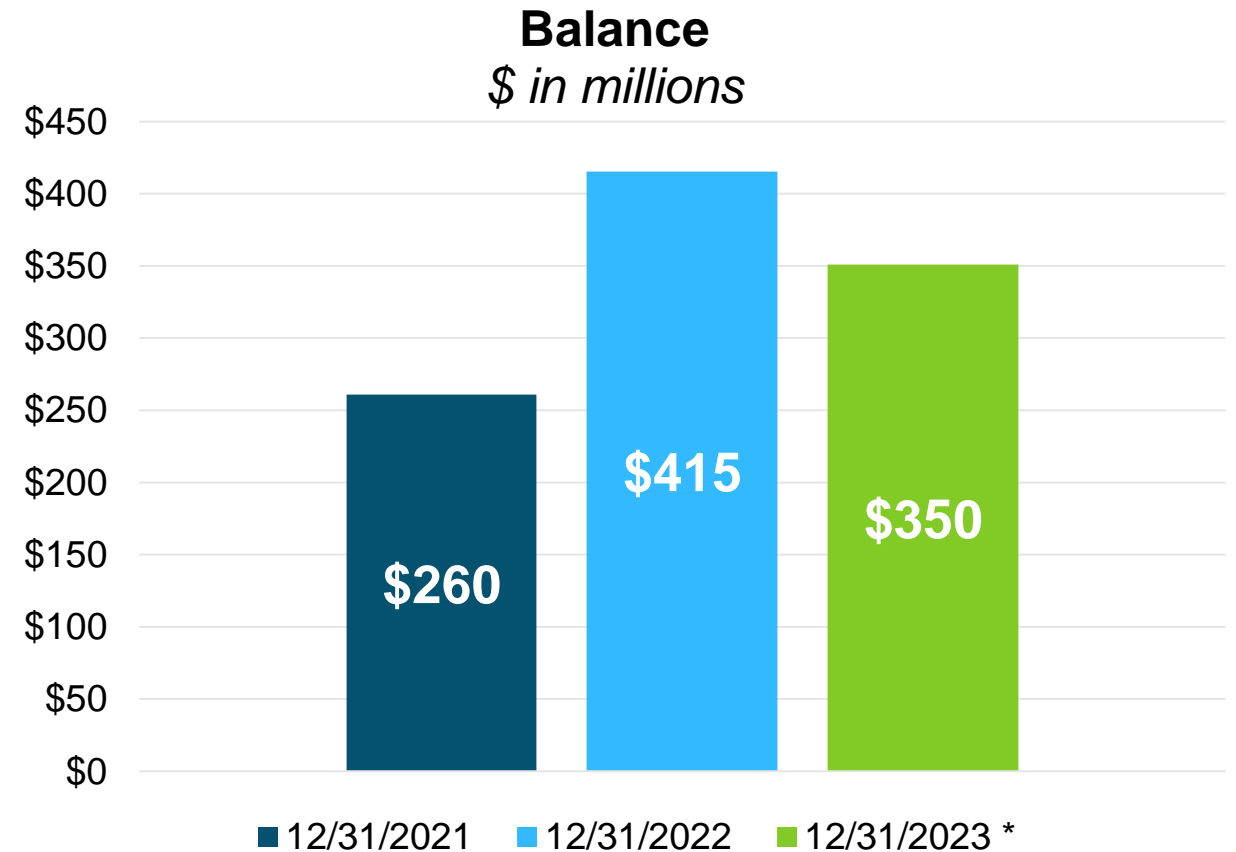
*\* Unaudited & Preliminary*

(\$'s in millions)



# Rate Stability Fund

- Established to absorb cost shocks.
- Intended to avoid unexpected rate increases.
- Bylaws allow for up to a total of \$415 million.



\* Unaudited & Preliminary

# 2024 Budget Consolidated Net Income

(\$'s in millions)

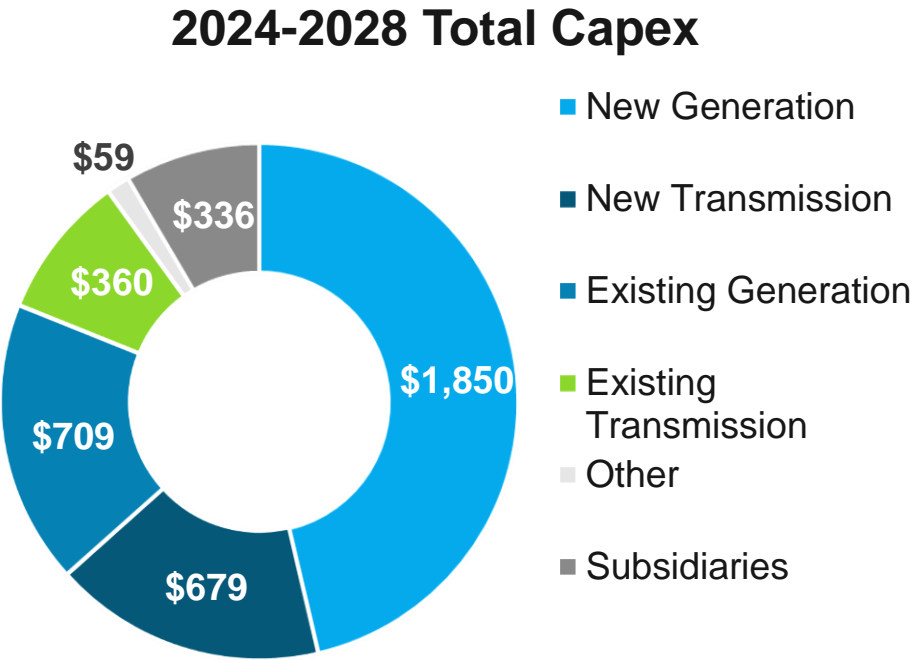
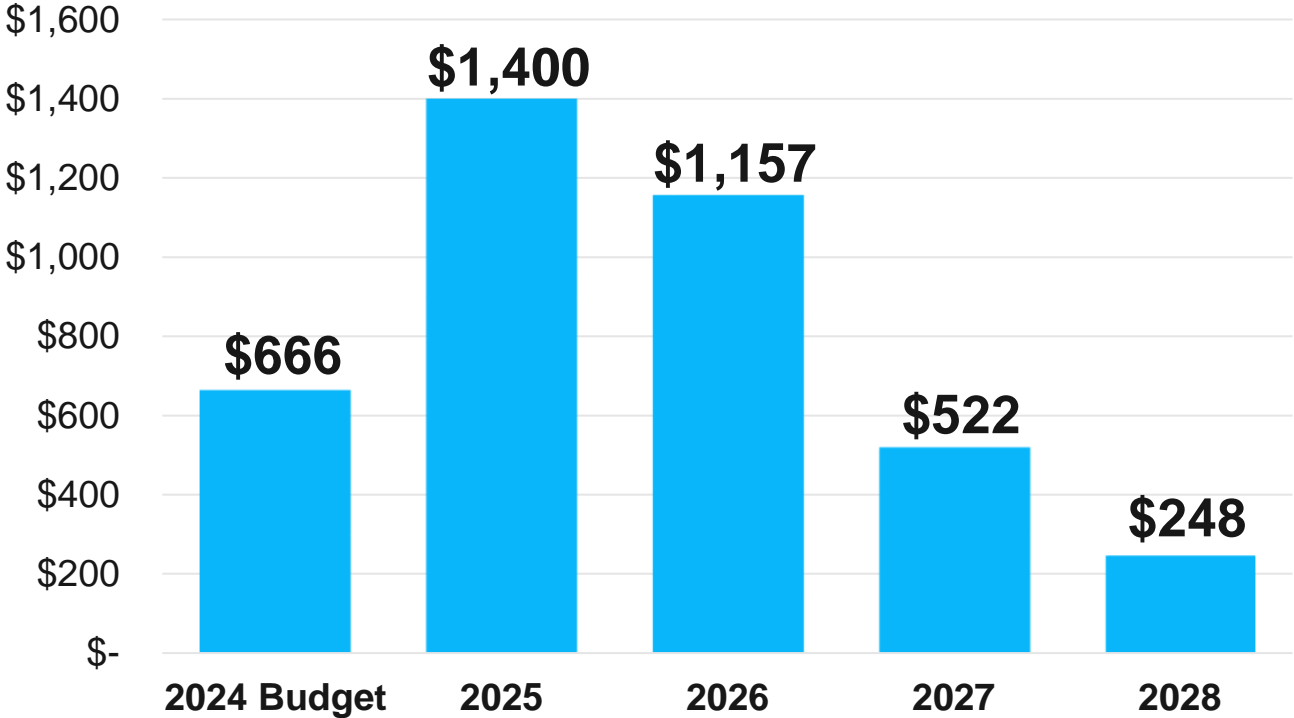
	2024 Budget
Basin Electric*	\$ 87
Dakota Gasification	16
Dakota Coal	4
<b>Consolidated Net Income</b>	<b>\$ 107</b>
Recognition of Deferred Revenue	\$ 45
<b>Consolidated Net Income (after recognition of deferred revenue)</b>	<b>\$ 152</b>

\*Includes consolidated eliminations related to gain/loss on investment in DGC.



# Consolidated Capital Expenditure Forecast

(\$'s in millions)



# Thank You