



**CHUGACH ELECTRIC ASSOCIATION, INC.  
ANCHORAGE, ALASKA**

**REGULAR BOARD OF DIRECTORS' MEETING**

**AGENDA**

Mark Wiggin, Chair  
Sisi Cooper, Vice Chair  
Rachel Morse, Treasurer  
Susanne Fleek-Green, Secretary

Bettina Chastain, Director  
Jim Nordlund, Director  
Dan Rogers, Director

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**May 28, 2025**

**4:00 p.m.**

**Chugach Board Room**

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- I. CALL TO ORDER (4:00 p.m.)
  - A. *Pledge of Allegiance*
  - B. *Roll Call*
  - C. *Safety Minute: Wildlife Safety (Boyette)*
  - D. *Electric Power Factoid: System Inertia Analogy (D. Highers)*
- II. APPROVAL OF THE AGENDA\* (4:10 p.m.)
- III. PERSONS TO BE HEARD (4:10 p.m.)
  - A. *Member Comments*
- IV. DIRECTOR REPORTS (4:20 p.m.)
  - A. *Alaska Power Association (APA) Report*
  - B. *Board Committee Reports (Audit & Finance, Operations & Governance)*
  - C. *Other Meeting Reports*
- V. CONSENT AGENDA\* (4:35 p.m.)
  - A. *Board Calendar*
    - 1. *Request for Excused Absence*
      - i. *May 21, 2025, Audit & Finance Committee Meeting – Fleek-Green*
  - B. *Training and Conferences*
    - 1. *Alaska Sustainable Energy Conference, June 3-5, 2025, Anchorage, AK*
    - 2. *RCA Tour of Bradley Lake and Beluga River, July 11, 2025*
    - 3. *NRECA Summer School for Directors, July 11-15, 2025, Colorado Springs, CO*
    - 4. *APA Annual Meeting, September 23-26, 2025, Cordova, AK*

\* *Denotes Action Items*

\*\* *Denotes Possible Action Items*

5/27/2025 9:09:30 AM



*C. Minutes*

*1. April 23, 2025, Regular Board of Directors' Meeting (Richey)*

*D. 2025 Operating Budget Revision*

*E. Director Expenses*

VI. CEO REPORTS AND CORRESPONDENCE (4:40 p.m.)

*A. Legislative Update (Baker) (4:40 p.m.)*

*B. Wildfire Mitigation (Laughlin/Hasquet) (4:55 p.m.)*

*C. RTO Update (Clarkson) (5:05 p.m.)*

*D. 2025 Sales Analysis (Clarkson/Szymoniak) (5:15 p.m.)*

*E. Renewable Projects Update (Lutchansky) (5:30 p.m.)*

*F. Board Policy Scheduled Tasks/Reports (Board/Staff) (5:50 p.m.)*

VII. UNFINISHED BUSINESS (none)

VIII. NEW BUSINESS (5:55 p.m.)

*A. Sullivan Unit 10 Major Overhaul\* (Laughlin/Ori) (5:55 p.m.)*

IX. DIRECTOR COMMENTS (6:10 p.m.)

X. EXECUTIVE SESSION\* (scheduled) (6:30 p.m.)

Recess (15 minutes)

*A. Collective Bargaining Negotiations (Menefee/Millen) (6:45 p.m.)*

*B. Gas Supply and Storage Update, Subject to NDA (Rudeck/Herrmann) (7:10 p.m.)*

*C. Chief Executive Officer Evaluation (Board) (7:25 p.m.)*

XI. NEW BUSINESS\* (none)

*A. Chief Executive Officer Evaluation\* (Board) (7:55 p.m.)*

XII. ADJOURNMENT\* (8:00 p.m.)

\* Denotes Action Items

\*\* Denotes Possible Action Items

# WILDLIFE SAFETY



Regular Board of Directors' Meeting  
May 28, 2025



# MOOSE SAFETY TIPS

- Never feed a wild moose. It is dangerous and against the law.
- Give moose plenty of room. Cow moose are extremely defensive of their young and will defend them by charging and kicking forward.
- If you stumble upon a moose:
  - If it hasn't detected you yet, keep it that way.
  - If it knows you are there, don't be aggressive. Talk slowly and move away.
  - If you think the moose is going to charge, run away or take cover behind something solid like a tree.

## Moose Warning Signs

- Ears back
- Hair raised on back
- Grunting
- Stomping feet



# BEAR SAFETY TIPS

- Never approach bears. Every bear has a “personal space”. If you enter that space, the bear may become aggressive.
- Female bears are especially fierce defenders of their young and may respond aggressively if they perceive a threat to their cubs.
- Like humans, bears use trails and roads.
- Bears are always looking for food—never feed them, and secure all food, garbage, pet food, and smelly items to prevent attracting them.
- If you see a bear:
  - If it hasn't noticed you, back away quietly while keeping your eyes on it.
  - If the bear notices you stay calm, face the bear, stand your ground, make yourself look bigger by raising your arms, and prepare a deterrent if you have one.



## Bear Warning Signs

- Standing on hind legs (curiosity, not aggression)
- Huff, blow air, snap their jaws
- Swatting/Clapping paws on the ground or at a tree
- Bluff charge
- Flattened ears

# YTD SAFETY STATISTICS

Recordable Injuries			
Business Unit	2024	2024 APR YTD	2025 APR YTD
Line Operations	7	5	3
Power Generation	3	2	1
Office and Administrative	0	0	3
Total	10	7	7

Lost Time Injuries			
Business Unit	2024	2024 APR YTD	2025 APR YTD
Line Operations	5	3	2
Power Generation	1	0	0
Office and Administrative	0	0	2
Total	6	3	4

Rates and Lost Workdays			
	2024	2024 APR YTD	2025 APR YTD
OSHA Rate	2.42	5.34	5.13
DART Rate	1.70	3.05	5.13
Lost Time Rate	1.4598	2.29	2.93
Lost Workdays	344	117	214

**Recordable Injury:** Injury resulting in medical treatment, lost time, or restricted duty

**OSHA Rate:** Number of recordable injuries x 200,000/employee hours worked

**Lost Time Rate:** Number of lost time injuries X 200,000/employee hours worked

**Lost Workday:** A day a worker is absent from the workplace due to a work-related injury

**DART Rate:** Number of lost time and restricted duty injuries x 200,000/employee hours worked

# 2025 YTD INCIDENT REVIEW

Incident Description	Nonconformance with Safety Procedures or Work Practices	Work Type	Opportunity for Intervention
Slipped on ice while walking across flight pad to board helicopter, breaking bone in lower leg	Possible	Normal Task	Yes
Strained knee descending ladder	No	Normal Task	No
Fell on ice while stepping off stuck snow machine, resulting in sore lower back	No	Normal Task	No
Stepped on roofing nail, resulting in puncture wound to toe	No	Normal Task	No
Rolled ankle while on uneven ROW surface while cutting tree off power line	No	Normal Task	No
Vehicle hit by 3 <sup>rd</sup> party, resulting laceration to head from impact with airbag/vehicle visor	No	Normal Task	No
Slipped on ice while unloading supplies from vehicle, resulting in strained knee	Possible	Normal	Yes



# Electric Factoid

## *System Inertia Analogy*



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Regular Board of Directors' Meeting  
May 28, 2025

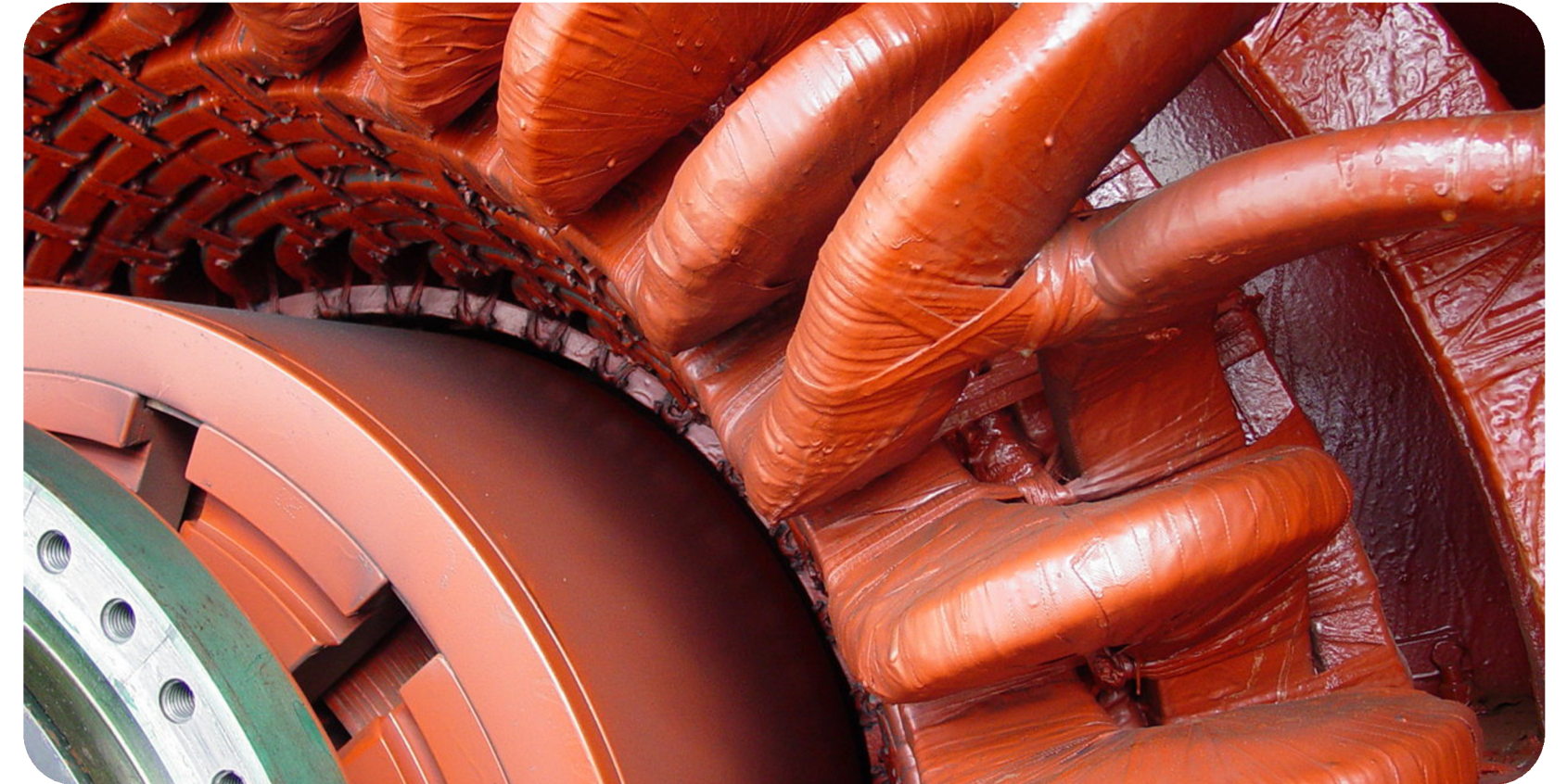






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How the grid keeps  
going through upset  
conditions



# System Inertia

Conventional generators have large, spinning mass which helps the system ride through trouble. New Grid Forming Inverters also promise to support the grid, but using power electronics instead of physics.







## Grid Frequency Bathtub Analogy

### Normal Grid Conditions

Generation equals load for a stable system frequency

### Supply Reduction or Consumption Increase

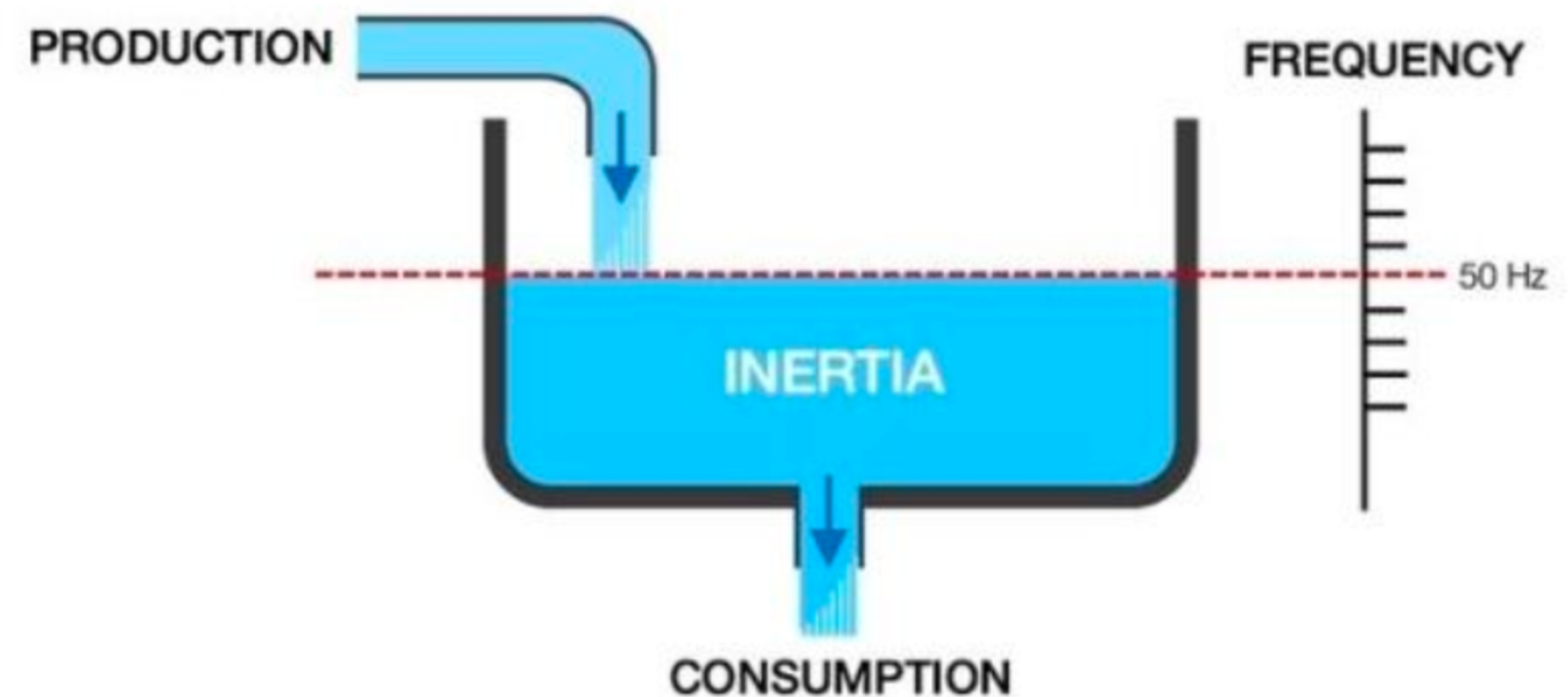
Frequency drops on loss of generation

### Supply Increase or Consumption Reduction

Frequency increases when outages occur

### High vs Low Inertia

Low inertia means the frequency changes quickly



*A special thanks to Quantified Carbon for producing these graphics*

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## Grid Frequency Bathtub Analogy

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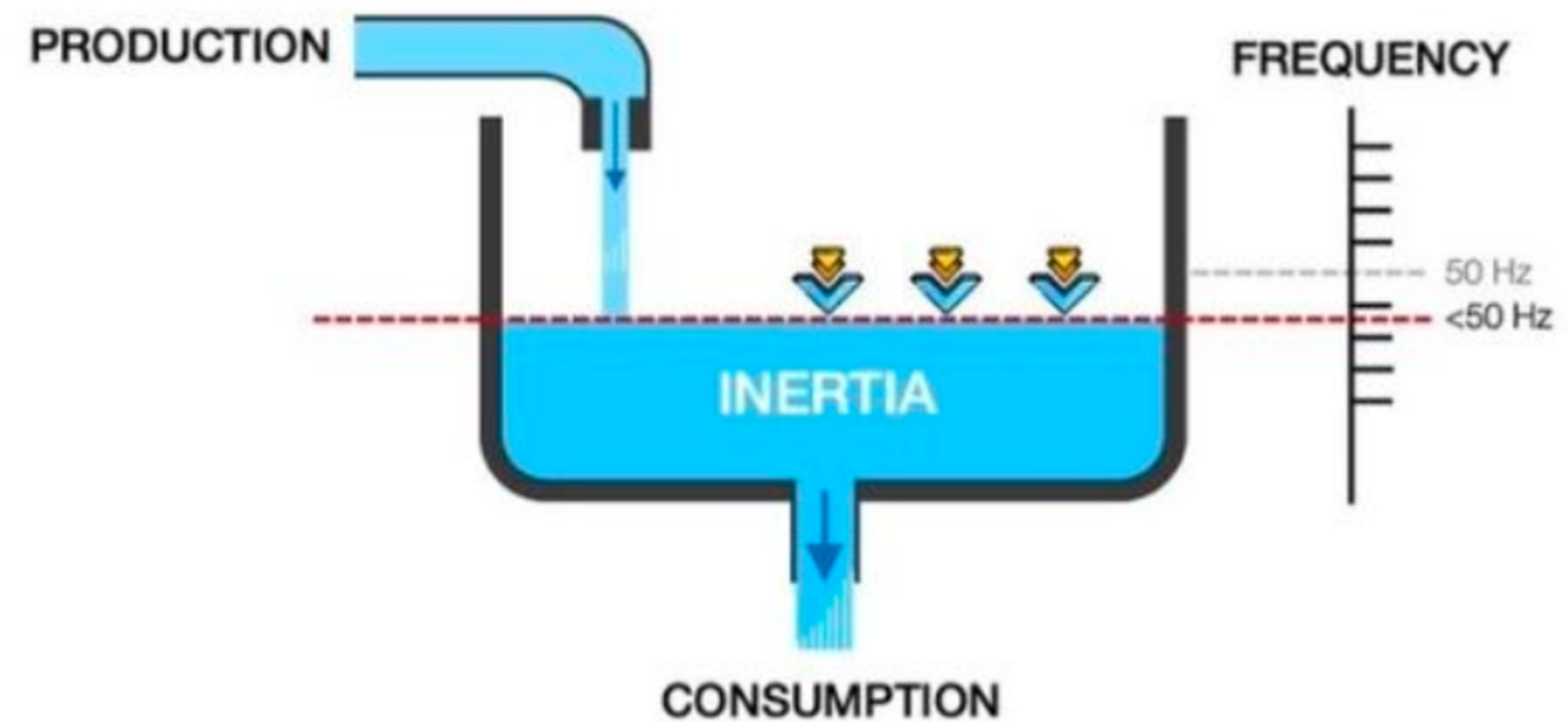
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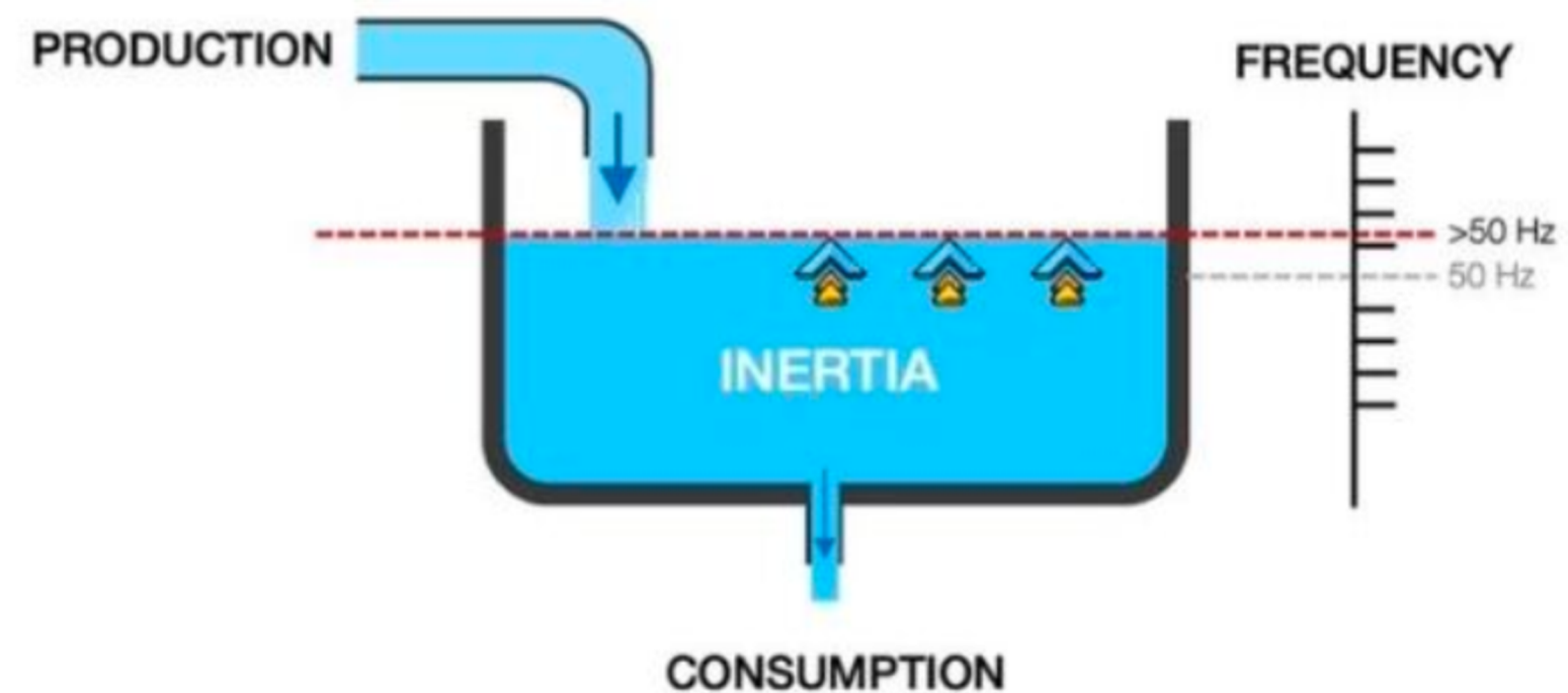
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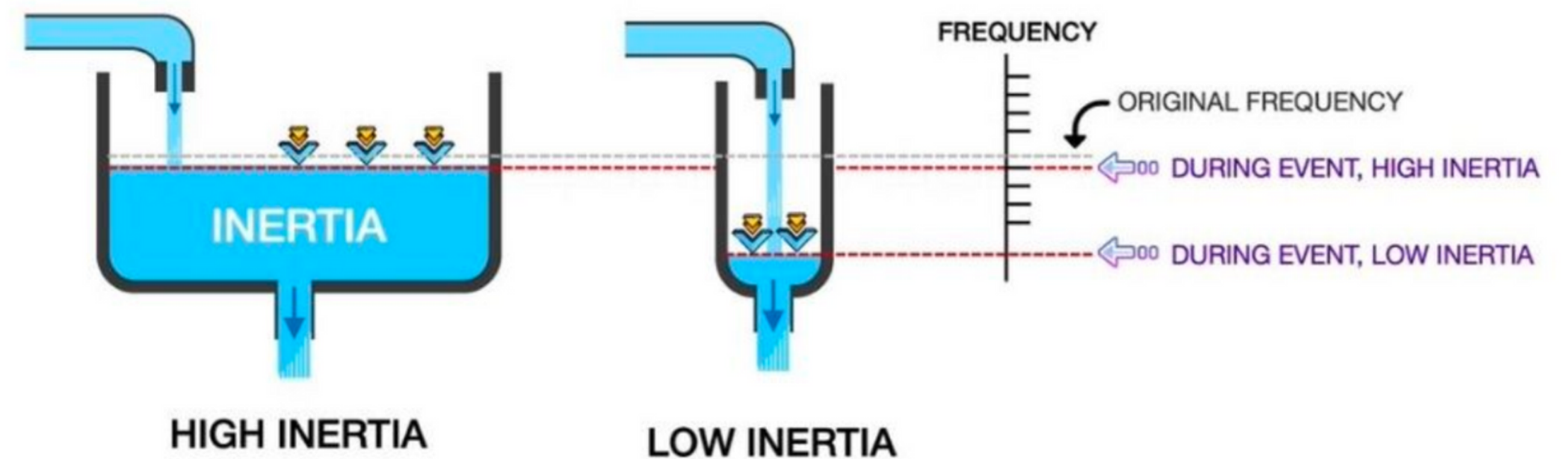
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### High vs Low Inertia

Low inertia means the frequency changes quickly





How do we compare?

Lower  
48



Alaska's Railbelt

# May 2025

May 2025							June 2025						
Su	Mo	Tu	We	Th	Fr	Sa	Su	Mo	Tu	We	Th	Fr	Sa
4	5	6	7	8	9	10	1	2	3	4	5	6	7
11	12	13	14	15	16	17	8	9	10	11	12	13	14
18	19	20	21	22	23	24	15	16	17	18	19	20	21
25	26	27	28	29	30	31	22	23	24	25	26	27	28
							29	30					

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
Apr 27	28	29	30	May 1	2	3
4	5	6	7	8	9	10
11	12	13	14 3:00pm FW: Audit & Finance Packet Review (Microsoft Teams Meeting) - Sandra Cacy	15	16	17
18	19 NWPPA Annual Meeting (Morse) - CCBOD	20	21 4:00pm Audit & Finance Committee Meeting (Board Room CR) - Stephanie Huddell	22	23 8:00am Regular Board of Directors' Meeting - Packet Review (Chugach Board Room) - Stephanie Huddell	24
25	26 Memorial Day	27	28 4:00pm Regular Board of Directors Meeting (Board Room CR) - Stephanie Huddell	29	30 1:00pm Chugach Member Appreciation Event, Annual Meeting, and Regular Board of Directors Meeting	31

**CHUGACH ELECTRIC ASSOCIATION, INC.**  
**Anchorage, Alaska**

***Request for Excused Absence***

Chugach Electric Association, Inc. Bylaws, in Article V, Section 4. Director Attendance provide:  
(d) "... an absence shall not be counted if it is excused by a vote of a majority of the members of the board not requesting the excuse at the next regular or special board meeting. However, no more than four absences per director may be excused by the board in any director year" (i.e., from the date of the annual meeting to the day before the annual meeting in the following year).

***Request for Excused Absence:***

Director Name: Susann Fleek-Green

Date of Meeting (you are requesting an excused absence for): May 21,2025

Type of Meeting (you are requesting an excused absence for): Audit & Finance Committee Meeting

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Request Taken by: Stephanie Huddell Date: May 28, 2025

***Action by the Board:***

The request for an excused absence was voted on by the board at the Regular or Special Board meeting following the absence.

Date of Board Meeting (excused absence was considered): 05 28 25

Excused Absence Granted:    Yes    No

By: \_\_\_\_\_ Date: \_\_\_\_\_

***File this form with the approved meeting minutes***

**CHUGACH ELECTRIC ASSOCIATION, INC.**  
**Anchorage, Alaska**

**Wednesday, April 23, 2025**

**REGULAR BOARD OF DIRECTORS' MEETING**

Recording Secretary: Buddi Richey

**I. CALL TO ORDER**

Chair Wiggin called the Regular Board of Directors' Meeting to order at 4:02 p.m. in the boardroom of Chugach Electric Association, Inc., 5601 Electron Drive, Anchorage, Alaska.

*A. Pledge of Allegiance*

Chair Wiggin lead the Board in the Pledge of Allegiance.

*B. Roll Call*

*Board Members Present:*

Mark Wiggin, Chair

Sisi Cooper, Vice Chair – *via teleconference*

Susanne Fleek-Green, Secretary

Rachel Morse, Treasurer, *arrived at 4:16 p.m.*

Bettina Chastain, Director – *via teleconference*

Dan Rogers, Director – *via teleconference*

Jim Nordlund, Director – *via teleconference*

*Guests and Staff Attendance Present:*

Arthur Miller

Josh Travis

Jim Torgensen, Consultant

Matt Clarkson

Daniel Herrmann

Crystal Enkvist, APA

Andrew Laughlin

Eric Boyette

Bart Armfield, Consultant

Allan Rudeck

Kate Ayers

Steve Gerlek, Consultant

Trish Baker

Paul Millwood

Bernie Smith, Member

Julie Hasquet

Nick Szymoniak

David Brailey, Member

Mike Miller

David Caye

Katherine Jernstrom,

Ander Knudsen

Mark Henspeter

Member

Dusty Menefee

Lovette Kowach

Angela Kuest, HDR

Katie Millen

Adam Lutchansky

Kurt Egelhofer, Member

Taylor Asher

Matt Perkins, AER

*Via Teleconference:*

Sephanie Huddell

Whitney Wilkson

George Donart, Member

Amanda Mankel

Brian Kassof, Member

Alan Smith, Member

Heather Slocum

Alex Petkanas, Member

Gary Newman, Non-

Stevie Frakes

Mitch Roth, Member

member

*C. Safety Minute*

Eric Boyette, Senior Manager of HSE, presented the *Safety Minute: Importance of Rest and Breaks*, including the year-to-date safety information and responded to questions from the Board.



*D. Electric Power Factoid*

Trish Baker, Senior Manager, Government Affairs, presented the *Electric Power Factoid: Net Metering*, and responded to questions from the Board.

**II. APPROVAL OF AGENDA**

Director Fleek-Green moved, and Director Chastain seconded the motion to approve the agenda. The motion passed unanimously.

*Director Morse was not present at the time of the vote.*

**III. PERSONS TO BE HEARD**

*A. Member Comments*

- 1. Mitch Roth, Member, commented on the start of Community Solar program and encouraged the Board to continue working with Legislature.*
- 2. George Donart, Member, commented on RPS.*
- 3. Alex Petkanas, Member, commented on Legislative RPS and Renewables/*
- 4. David Brailey, Member, commented on RPS, Power Purchase Agreements.*
- 5. Bernie Smith, Member, commented on HB 153, AEA and utilities should make comments, praise, MAC Meeting and Community Solar Presentation, and renewables, and commented about the morning RCA meeting and regulation.*

*Director Morse joined at 4:16 p.m.*

**IV. DIRECTOR REPORTS**

*A. Alaska Power Association (APA) Report*

Crystal Enkvist, Executive Director & Executive Vice President, Alaska Power Association, provided an update on APA activities, and upcoming events and responded to questions from the Board.

*B. Board Committee Reports (Audit & Finance, Operations & Governance)*

Director Morse reported on the April 2, 2025, Audit & Finance Committee Meeting and that the next meeting will be held May 21, 2025.

Director Nordlund and Director Rogers reported on the April 9, 2025, Operations Committee Meeting and that the next meeting will be held on July 7, 2025.

*C. Other Meeting Reports*

Director Fleek-Green reported on the April 9, 2025 MAC Committee Meeting

**V. CONSENT AGENDA**

*A. Board Calendar*

- 1. Request for Excused Absence - Nordlund - Audit Finance Committee Meeting – April 2, 2025*

*B. Training and Conferences*

- 1. NWPPA Annual Membership Meeting May 19-22, 2025, Santa Rosa, CA*
- 2. Alaska Sustainable Energy Conference, June 3-5, 2025, Anchorage, AK*
- 3. NRECA Summer School for Directors, July 11-15, 2025, Colorado Springs, CO*
- 4. APA Annual Meeting, September 23-26, 2025, Cordova, AK*

- C. *Minutes*
  - 1. *March 26, 2025, Regular Board of Directors' Meeting (Slocum)*
- D. *2030 Renewable Energy and Integration Projects*
- E. *Director Expenses*

Director Morse moved, and Director Fleek-Green seconded the motion to approve the consent agenda. The motion passed unanimously.

## **VI. CEO REPORTS AND CORRESPONDENCE**

- A. *BRU Performance Report March 2025*  
Bartt Armfield, Consultant, presented the BRU performance Report for March 2025 and answered questions from the Board
- B. *January and February 2025 Financials and Variance Reports (Millwood)*  
Paul Millwood, VP Finance & Accounting, presented the BRU Quarterly Investment Fund Review and answered questions from the Board.
- C. *Legislative Update/Renewable Portfolio Standard (Baker)*  
Trish Baker, Sr. Manager, Government and Business Affairs, presented a legislative and policy update and answered questions from the Board
- D. *Board Policy Scheduled Tasks/Reports (Board/Staff)*  
Arthur Miller, Chief Executive Officer, discussed CEO Reports and responded to questions from the Board.

## **VII. UNFINISHED BUSINESS (NONE)**

## **VIII. NEW BUSINESS (SCHEDULED)**

- A. *2024 Capital Credit Allocation\* (Caye)*  
David Caye, Manager, Regulatory Affairs, presented the 2024 Capital Credit Allocation and answered questions from the Board

Director Fleek-Green moved, and Director Morse seconded that the Board of Directors approve the attached Resolution authorizing 2024 capital credit allocations in the amount of \$6,221,101, with \$3,452,520 assigned to South District retail members, \$2,768,581 assigned to North District retail members, and \$31,893 assigned to Seward. The motion passed unanimously.

- B. *Bragaw Street: E. Northern Lights Blvd to E. 6th Ave Overhead to Underground Conversion\* (Laughlin/Knudsen)*  
Andrew Laughlin, Chief Operating Officer, and Ander Knudsen, Sr. Manager, Distribution, Design, and Construction, presented the B. Bragaw Street: E. Northern Lights Blvd to E. 6th Ave Overhead to Underground Conversion and answered questions from the Board

Director Morse moved, and Director Fleek-Green seconded that the Board of Directors authorize the Chief Executive Officer to acquire, construct and install the Bragaw Street, East

Northern Lights Boulevard to East 6th Avenue, Overhead to Underground Conversion for respective total installed cost estimate of \$9.1 million. The motion passed unanimously.

*C. Conflicts of Interest (Board/Clarkson/Torgerson)*

Matthew Clarkson, Chief Legal Officer, and Outside Counsel, Jim Torgensen discussed any Conflicts of Interest and answered questions with the board

**IX. DIRECTOR COMMENTS**

Director comments were made at this time.

**X. EXECUTIVE SESSION**

Recess (15 minutes)

*A. Gas Supply and Storage, Subject to NDA (Rudeck/Herrmann/Clarkson)*

*B. HR Matters (Millen/Menefee)*

At 7:00 p.m. Director Fleek Green moved, and Director Morse seconded the motion that pursuant to Alaska Statute 10.25.175(c)(1), (3) and (4), the Board of Directors go into executive session to: 1) discuss and receive reports regarding matters the immediate knowledge of which would clearly have an adverse effect on the finances of the cooperative; 2) discuss with its attorneys matters the immediate knowledge of which could have an adverse effect on the legal position of the cooperative; and 3) discuss personnel matters. The motion passed unanimously.

*The meeting reconvened to open session at 7:57 p.m.*

**XI. NEW BUSINESS (NONE)**

**XII. ADJOURNMENT**

At 7:59 p.m. Director Wiggin moved, and Director Morse seconded the motion to adjourn. The motion passed unanimously.

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Susanne Fleek-Green, Secretary

Date Approved: April 23, 2025

**CHUGACH ELECTRIC ASSOCIATION, INC.**  
**Anchorage, Alaska**

**REGULAT BOARD OF DIRECTORS' MEETING**  
**AGENDA ITEM SUMMARY**

**May 28, 2025**

**ACTION REQUIRED**

**AGENDA ITEM NO. V.D.**

<u>      </u>	<b>Information Only</b>
<u>  <b>X</b>  </u>	<b>Motion</b>
<u>      </u>	<b>Resolution</b>
<u>      </u>	<b>Executive Session</b>
<u>      </u>	<b>Other</b>

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**TOPIC**

2025 Operating Budget Revision

**DISCUSSION**

The 2025 Operating Budget was approved by the Board of Directors on December 11, 2024. Since that approval, management has determined the following budget adjustments should be made:

- Adjust Operating Revenue to reflect kwh sales decline through March 31, 2025.
- Adjust expenses related to the transition of the Beluga Power Plant to remote operations, labor, insurance, legal and other operating expenses to reflect updated estimates.
- Adjust Operating Revenue to reflect the Chugach-Marathon Petroleum Company Exchange Agreement, Office/Warehouse Lease of the North Campus and AEA Agreement for Oscillation Dampening Service
- True-up of BRU Capital Surcharge Revenue and BRU Fuel Expense to align with current methodology.
- Adjust primary regulatory asset amortization to reflect the change in amortization period as approved in Chugach's general rate case.

The foregoing budget adjustments had a net \$6,319,305 impact on the 2025 budget.

**MOTION**

Move that the Board of Directors approve the amendment to the 2025 Operating Budget in the amount of \$6,319,305.

**CHUGACH ELECTRIC ASSOCIATION, INC.**  
**Anchorage, Alaska**

**REGULAR BOARD OF DIRECTORS' MEETING**  
**AGENDA ITEM SUMMARY**

May 28, 2025

**ACTION REQUIRED**

**AGENDA ITEM NO. V.E.**

<u>      </u>	Information Only
<u>  X  </u>	Motion
<u>      </u>	Resolution
<u>      </u>	Executive Session
<u>      </u>	Other

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**TOPIC**

Director Expenses

**DISCUSSION**

The Directors' expenses will be submitted for approval at the board meeting.

**MOTION**

*(Consent Agenda)*





## Legislative & Policy Positions

Advocate for legislation and public policy that aligns with Chugach's core values and serves in the best interests of our members.

Regular Board of Directors' Meeting  
May 28, 2025





# State Bills Being Tracked

HB 15 - Royalty rates for Cook Inlet (Rep. Rauscher).

- Referred to Resources and Finance. Remains in Resources



SB 32 - Costs allowed in electric cooperative rates (Sen. Giessel)

- Referred to Resources, Finance. Remains in Resources

HB 119- Fairbanks Spur of AGDC gas pipeline (Sen. Cronk; Rep. Stapp)

- Referred to State Affairs, Resources. Remains in Resources

SB 91 - Clean energy licenses and leases for State lands (Senate Resources)

- Referred to Resources, Finance. Remains in Resources

★ HB 153 - Establishes a Renewable Portfolio Standard (Rep. Holland)

- Referred to Energy, Resources, Finance. Remains in Energy

SB 112 - Credits against the oil and gas production tax (Senate Rules Comm)

- Referred to Resources, Finance. Remains in Resources

★ HB 164 - Net metering, reimbursement fund (Governor Dunleavy)

- Referred to Energy, Finance. Remains in Energy

SB 114 - Fairbanks Spur of AGDC natural gas pipeline (Sen. Cronk)

- Referred to Resources, Finance. Remains in Finance

HB 196 - Carbon offset and renewable energy grant fund (Rep. Burke)

- Referred to Energy, Finance. Remains in Energy

SB 125 - Establishes Finance Corporation to finance pipeline (Sen. Yundt)

- Referred to Resources, Finance. Remains in Resources

★ HB 208 - LNG Import Facilities (Rep. Mears)

- Referred to Resources, Labor & Commerce. Remains in Resources



SB 149 - Establishes a Renewable Portfolio Standard (Sen. Wielechowski)

- Referred to Labor & Commerce, Resources. Remains in L&C

HJR 15 - Wildfire Preparedness (Rep. Holland)

- Passed both bodies. Awaiting transmittal to Governor



SB 150- Net metering, reimbursement fund (Governor Dunleavy)

- Referred to Labor & Commerce, Finance. Remains in L&C

★ HJR 27 - State Energy Development (Rep. Holland)

- Referred to Energy. Remains in Energy



SB 180- LNG Import Facilities (Senate Resources)

- Referred to Resources, Labor & Commerce. Remains in Resources

# Questions?





# Wildfire Mitigation

**Regular Board of Directors' Meeting  
May 28, 2025**



# Wildfire Prevention Planning

## Introduction:

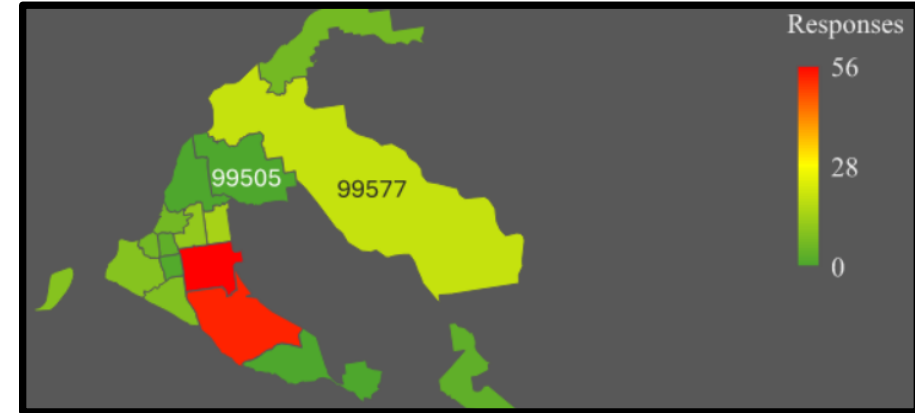
- Perceived increased fire risk for the 2025 season
- Engagement with agencies and partners
- Participation in communitywide planning
- Modifying operations related to fire risk



# Community Engagement

## Engaging with the community on efforts:

- Community meetings on clearing
- Assembly Enterprise meeting
- Community Wildfire Protection Plan



## Anchorage Fire Department Wildfire Division is developing a Community Wildfire Mitigation Plan called Community Wildfire Protection Plan (CWPP)

- Chugach is participating in the plan development
- 10 working groups
- Community Surveys
- Training exercise
- Wildfire Townhall
- Anticipated completion late 2025

# Wildfire Prevention and Mitigation Components



## Wildfire Mitigation:

- Five-point plan to support wildfire mitigation
- Each component is important to wildfire mitigation
- Have impacts to the public whether they are visual impacts or impacts to reliability
- Chugach is basing much of its operational changes on the Fire Weather Index (FWI)
- FWI accounts for:
  - Fuel build up
  - Fuel moisture
  - Temperature
  - Humidity
  - Wind
  - Fire behavior

# Definitions

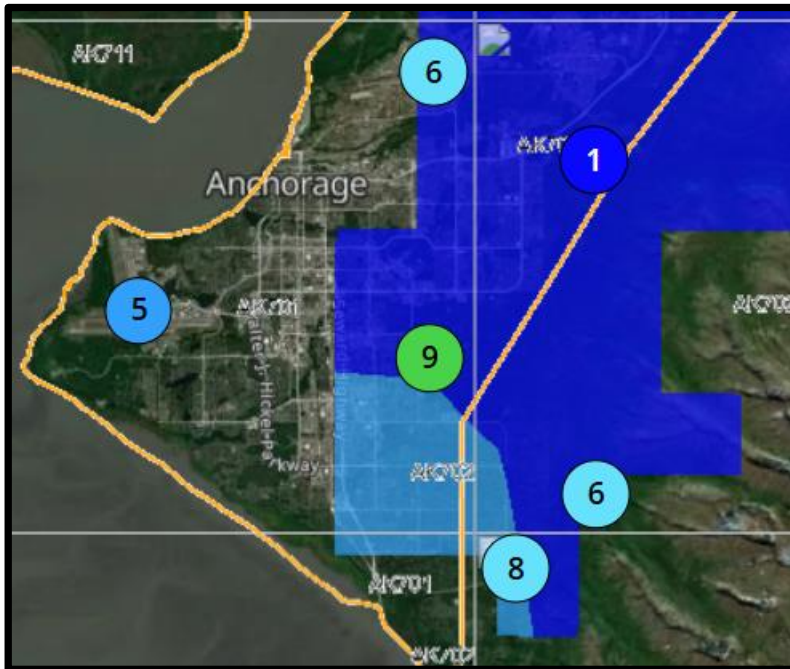
Vegetation Management	Year-round maintenance activities clearing easements and Rights-of-Way to remove vegetation on a cycle as well as Danger Trees outside of the ROW and or easements.
Disabling Automatic Reclosing (DAR)	Prevents reclosing on protective Devices, which happens under normal conditions. A line that trips will be patrolled prior to re-energization.
Enhanced Powerline Safety Settings (EPSS)	Settings in protective devices designed to be as sensitive as possible to de-energize an overhead lines as quickly as possible. A line de-energized under these conditions will be patrolled prior to re-energization.
Public Safety Power Shutoff (PSPS)	Pro-active de-energization of overhead lines to proactively reduce risk.
Incident Management	Working with the Incident Commander/Emergency Operations Center during a wildfire event.

<b>FWI</b>	<b>0 – 8.9</b>	<b>9 - 17.9</b>	<b>18 – 27.9</b>	<b>28 – 34.9</b>	<b>35+ w/wind</b>
<b>Category</b>	Low	Moderate	High	Very High	Extreme
<b>Chugach's Response</b>	Monitor	Monitor	DAR	EPSS	Evaluate PSPS



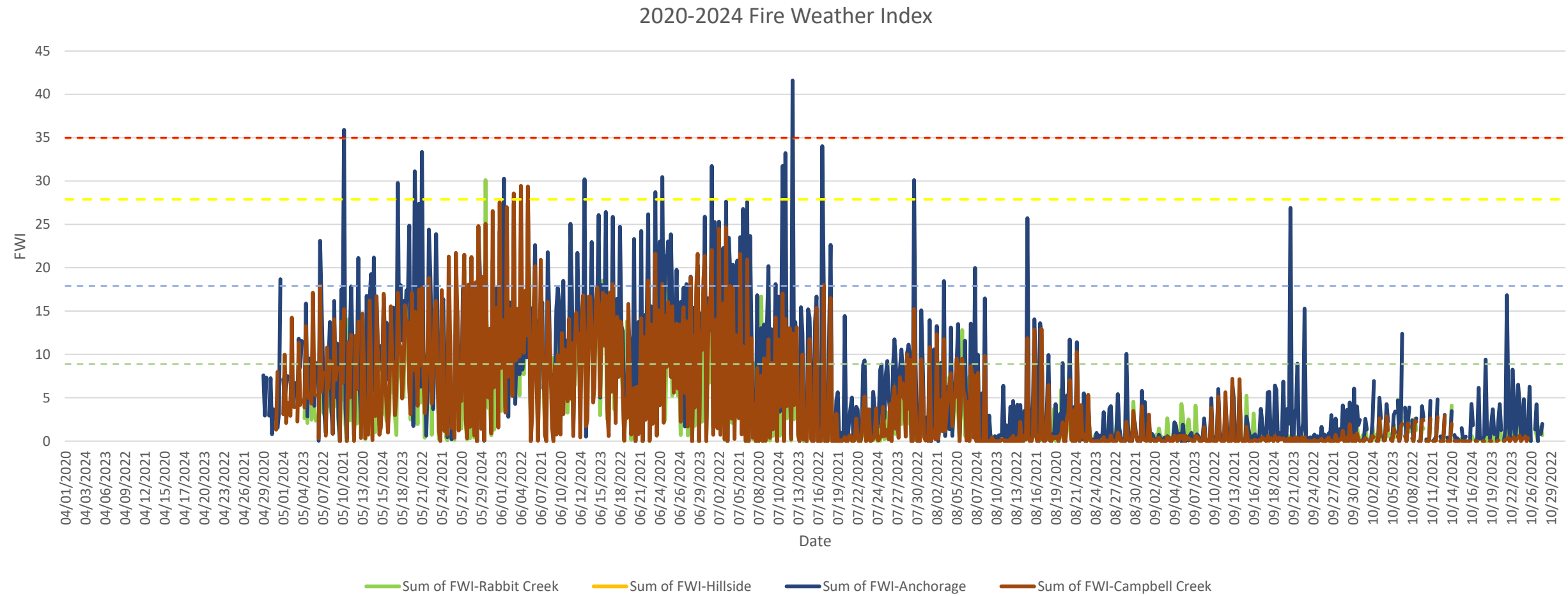
# Forecasting

- Data collected through “Alaska Fire and Fuels”
- Information maintained by the Alaska Interagency Coordination Center
- Updated daily and forecasted



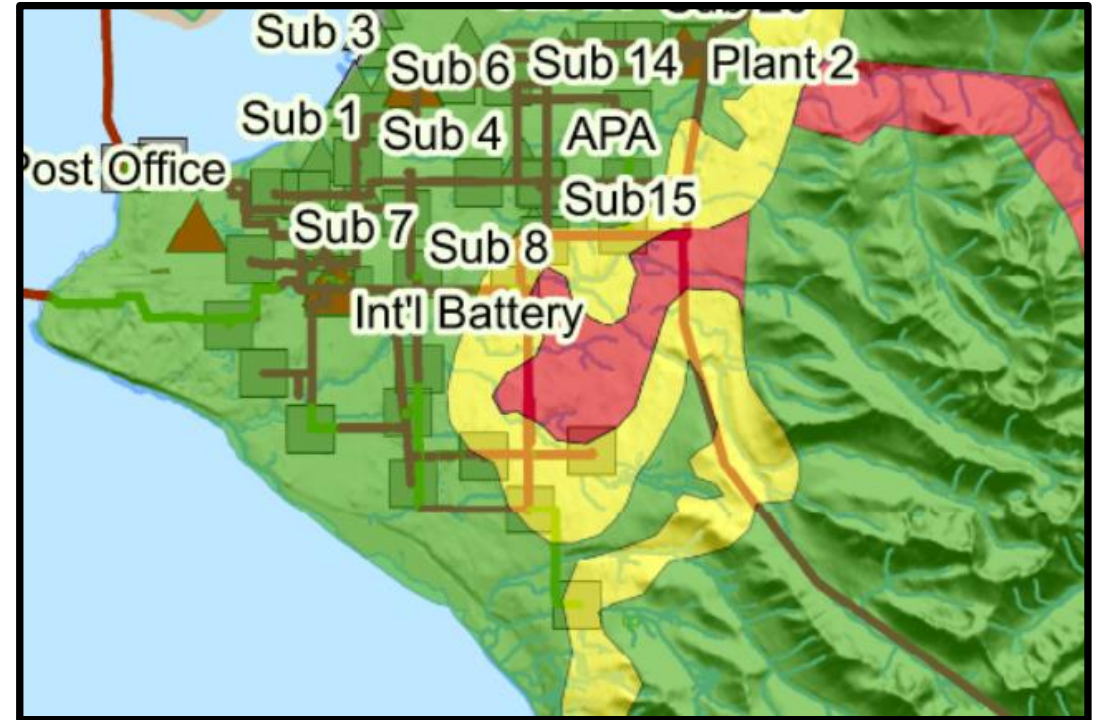
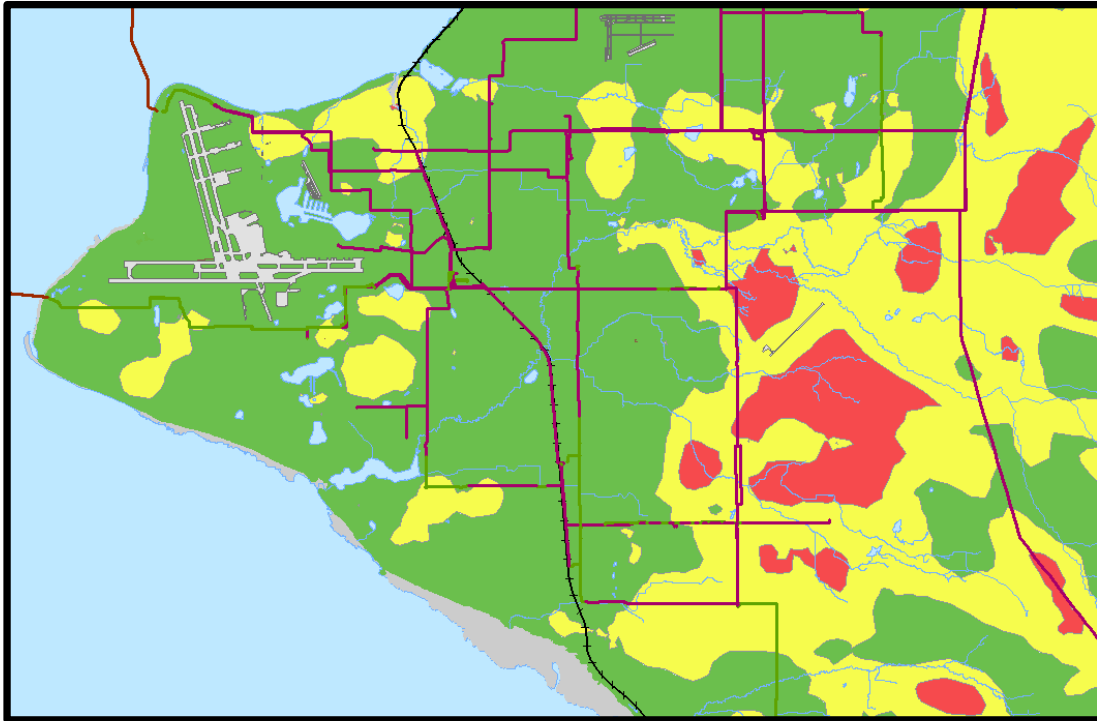
CBKA2				
CAMPBELL CREEK				
	May-17	May-18	May-19	May-20
Use in FBP	FBP	FBP	FBP	FBP
Temp (°F)	52	56	55	55
RH (%)	89	52	57	57
Wind Speed (mph)	0	9	5	6
Gust (mph)	4			
VPD (mb)	1	7	6	6
24H Precip (in)	0.02	0.03	0	0
FFMC	82.5	83	84.28	84.78
DMC	37.77	39.59	41.16	42.73
DC	132.18	136.98	141.69	146.39
ISI	1.52	3.35	2.86	3.32
BUI	44.06	45.97	47.69	49.41
FWI	4.15	9.1	8.13	9.44

# Operational Impacts



# Next Steps

- Complete development of the CWPP with Partners
- Zone and segment Chugach's service territory
- Further develop operational metrics and tools
- Train staff







# 2025 Sales Analysis & Load Forecasting

Regulatory & Economic Affairs

Regular Board of Directors' Meeting  
May 28, 2025





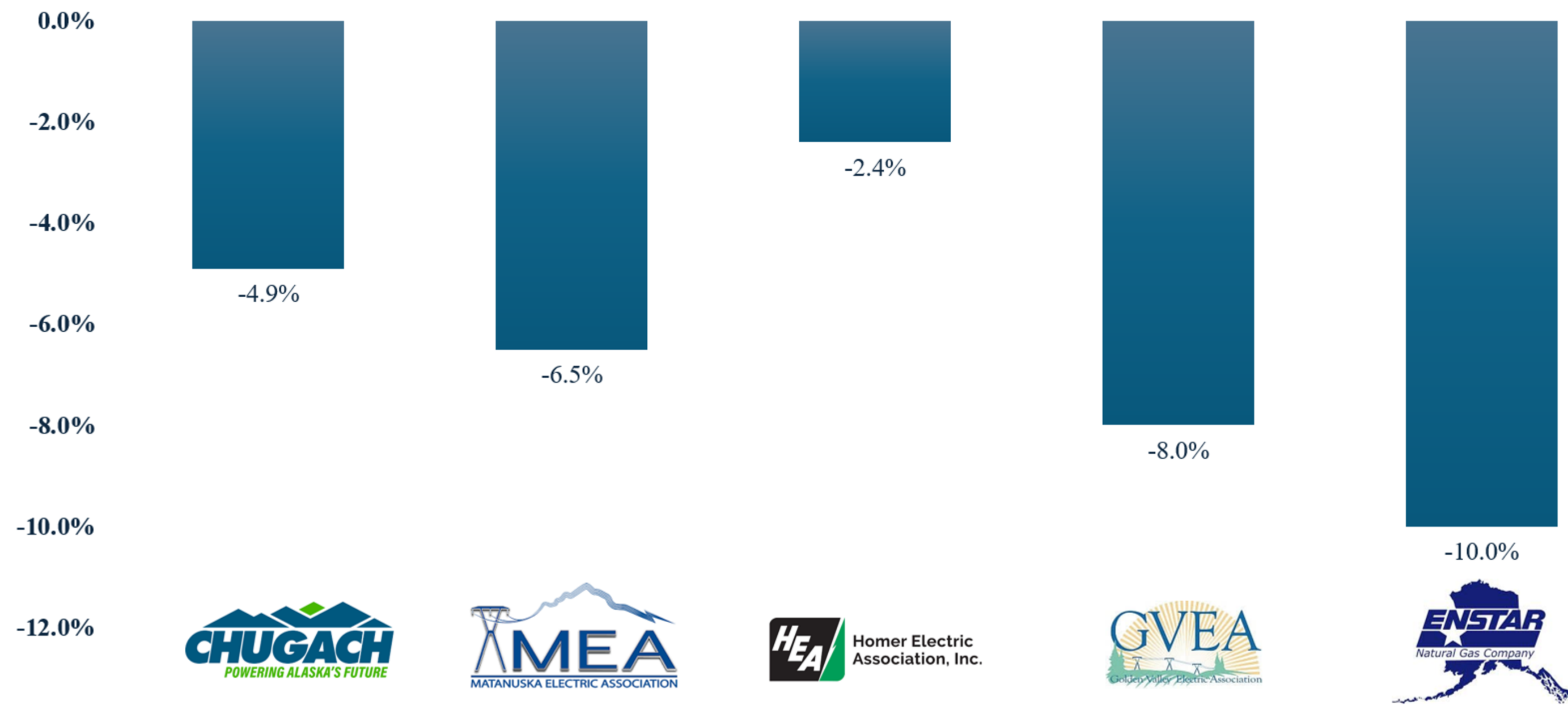
# 2025 Sales & Revenue Declines

Energy Sales					Base Rate Revenue				
Energy Sales (kWh) YoY April 2025 (YTD)					Base Rate Revenue (\$) YoY April 2025 (YTD)				
	2024	2025	Variance	% Change		2024	2025	Variance	% Change
Retail	662,506,976	634,936,007	(27,570,969)	-4.2%	Retail	\$87,082,239	\$86,702,641	(\$379,598)	-0.4%
Wholesale	19,927,557	18,303,947	(1,623,610)	-8.1%	Wholesale	\$885,063	\$874,865	(\$10,198)	-1.2%
Total	682,434,533	653,239,954	(29,194,579)	-4.3%	Total	\$87,967,302	\$87,577,506	(\$389,796)	-0.4%



# Railbelt Utility Trends - Q1 Sales

Sales Decline  
Q1, Year-Over Year



*\*Sales data is preliminary\**

# Sales Analysis Framework

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## Step 1 - Historical Data Normalization

- COVID-19
- Leap Days
- Outages
- Weather

## Step 2 - Identify Trends

- Population Decline
- Beneficial Electrification
- Distributed Generation
- Energy Efficiency

## Step 3 - Identify Correlations

- Weather - Heating Degree Days ( HDD's)
- Hours of Darkness
- Tourism

## *Going Forward: Step 4 - Build a Modern Forecasting Model*

Incorporate normalized historical data, forecast trends, and adjust for correlation with known variables



# Impact of Temperature on Sales

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## Heating is a major driver of Chugach's electric sales

- The first four months of 2024 were cold
- The first four months of 2025 were warm
- Heating Degree Days (HDD) were down significantly
- This explains much of the year to year difference in electric sales and revenue



## What is a Heating Degree Day (HDD)?

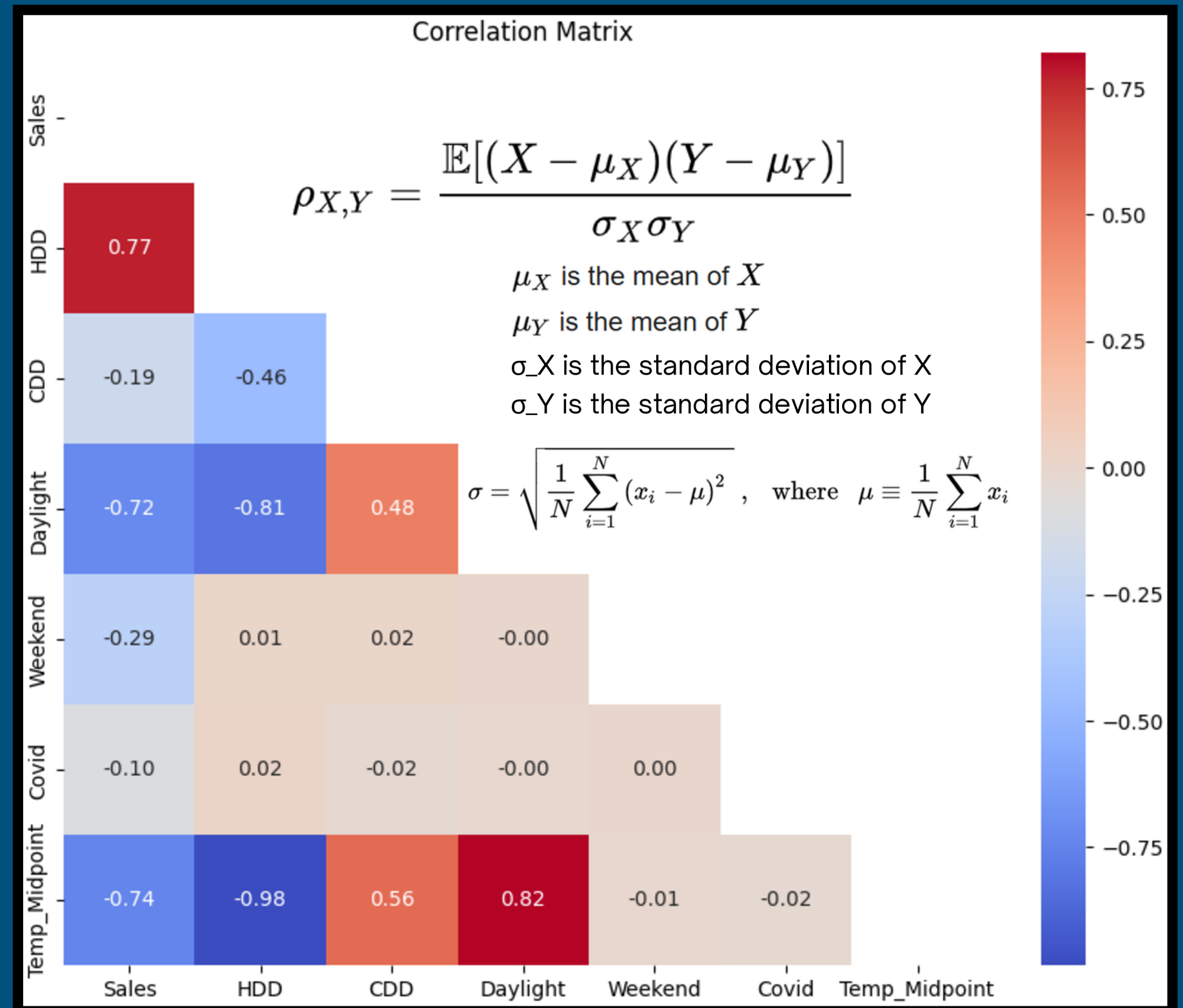
- The heating load of an area is measured in Heating Degree Days
- It is calculated as 65 minus the average temperature for a day
- For example, if the average temperature for a day is 33 degrees, then that day has 32 HDDs
- This creates a metric for measuring the amount of heating demand for a given time period





# Correlation Between Reduction in Sales and HDDs

- There is a strong correlation between HDD and sales levels.
- The correlation factor between HDD and sales is +0.77.
- As the number of HDD decreases, total system sales also decrease.
- Preliminary analysis indicates a 1°F increase in temperature is associated with a 0.44% decline in Sales.

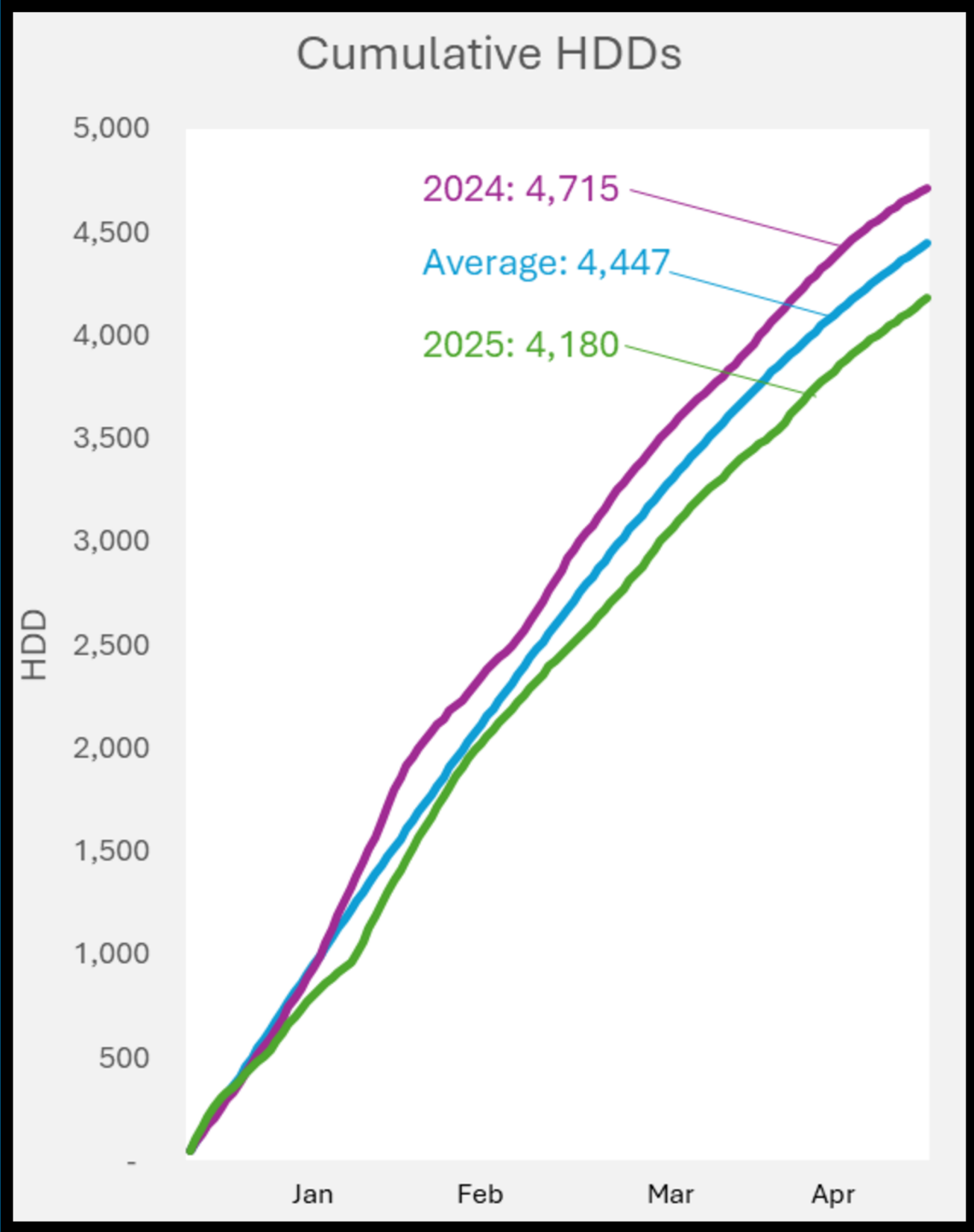


# HDD Variance

- The first four months of **2024** were **6% colder** than average
- The first four months of **2025** were **6% warmer** than average
- This is used to explain much of the year-to-year change in Chugach’s electric sales

## HDD Comparison

	Average Year	2024	2025
Jan	1,388	1,571	1,188
Feb	1,168	1,188	1,205
Mar	1,113	1,134	1,010
Apr	777	822	777
Total	4,447	4,715	4,180
Variance		6.0%	-6.0%

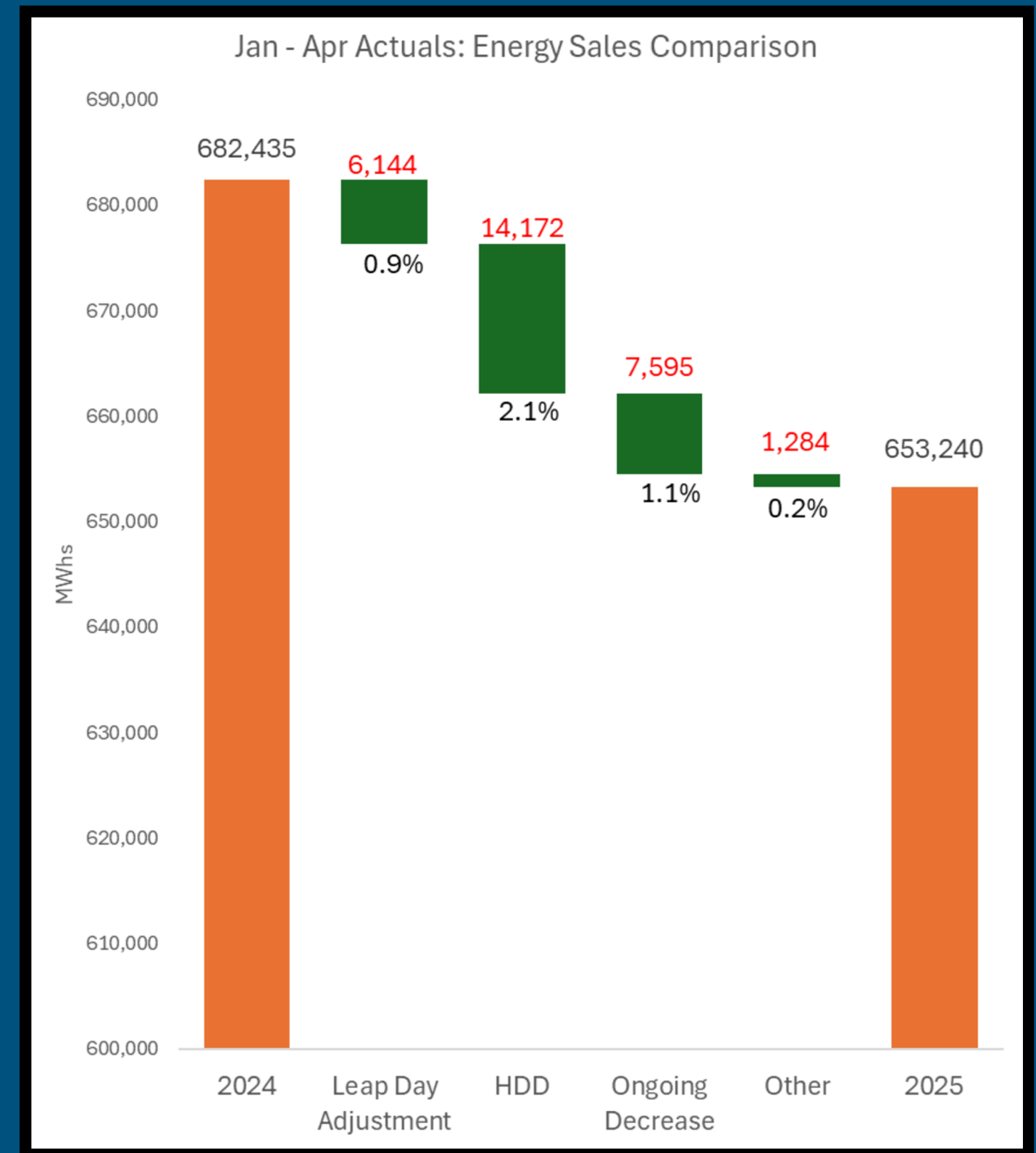


# Causes of Sales Variances

The preliminary results on the right estimate the causes for decreased sales in 2025

- **Leap Day:** adjustment for the 2024 leap day
- **HDDs:** warmer weather was the primary driver of reduced 2024 energy sales
- **Ongoing Decrease:** The model estimates long-term sales decreases of 1.1% annually
- **Other:** remaining difference not identified by the model

Note: these model results are preliminary and subject to change as Chugach improves its internal load model



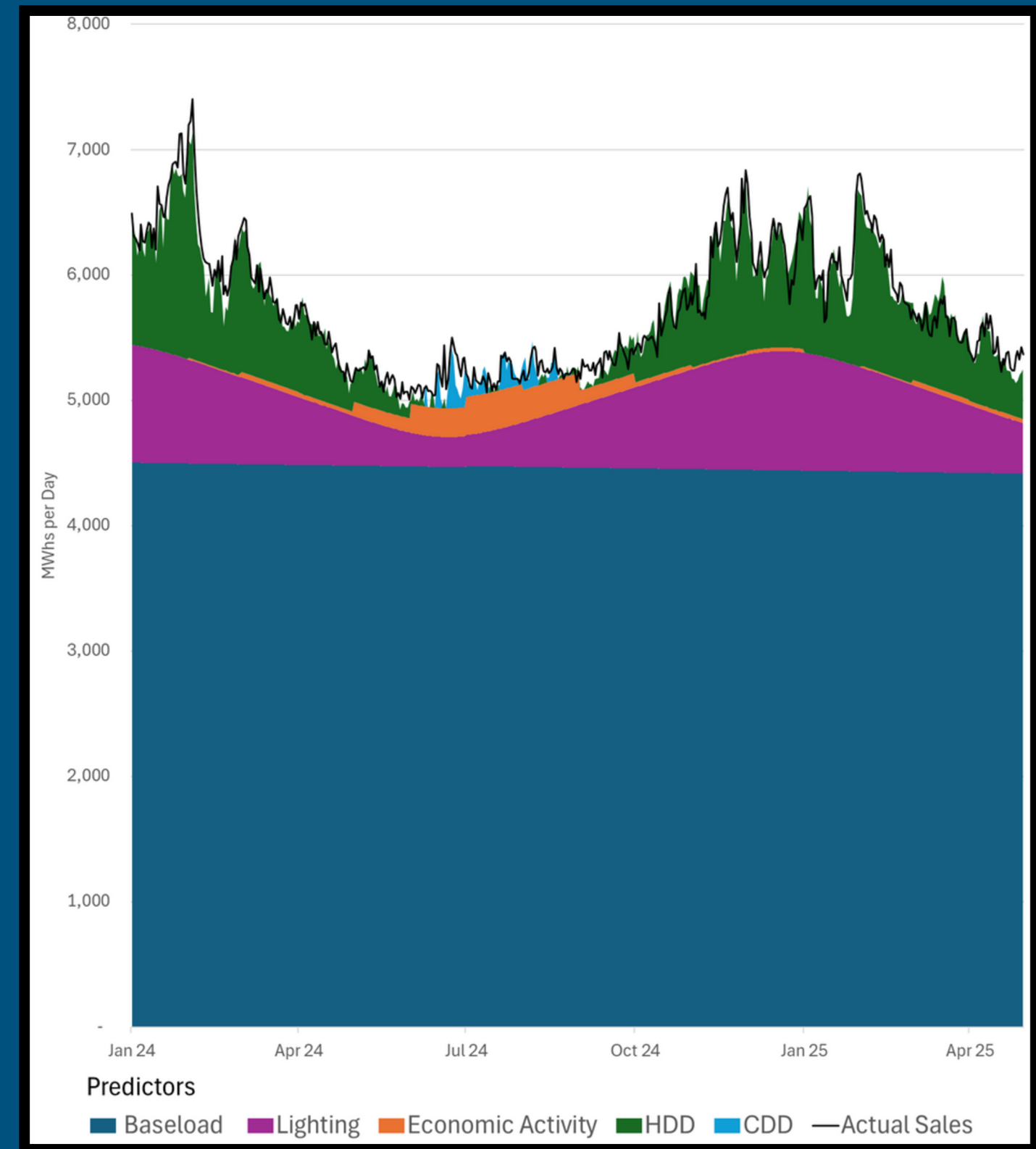
# Going Forward - Load Forecasting

Chugach is utilizing internal resources to develop electric load models.

The goal of this model is to provide improved demand and financial forecasts and to gain a better understanding of load drivers

The model result on the right is an example of an initial effort to predict demand based on key factors, including:

- Anchorage population
- Ongoing demand decrease
- Heating Degree Days
- Cooling Degree Days
- Economic activity (tourism)
- Weekends and holidays





# Going Forward - Load Forecasting (cont.)

Chugach will continue to improve its internal load forecasting capabilities with objectives to account for:

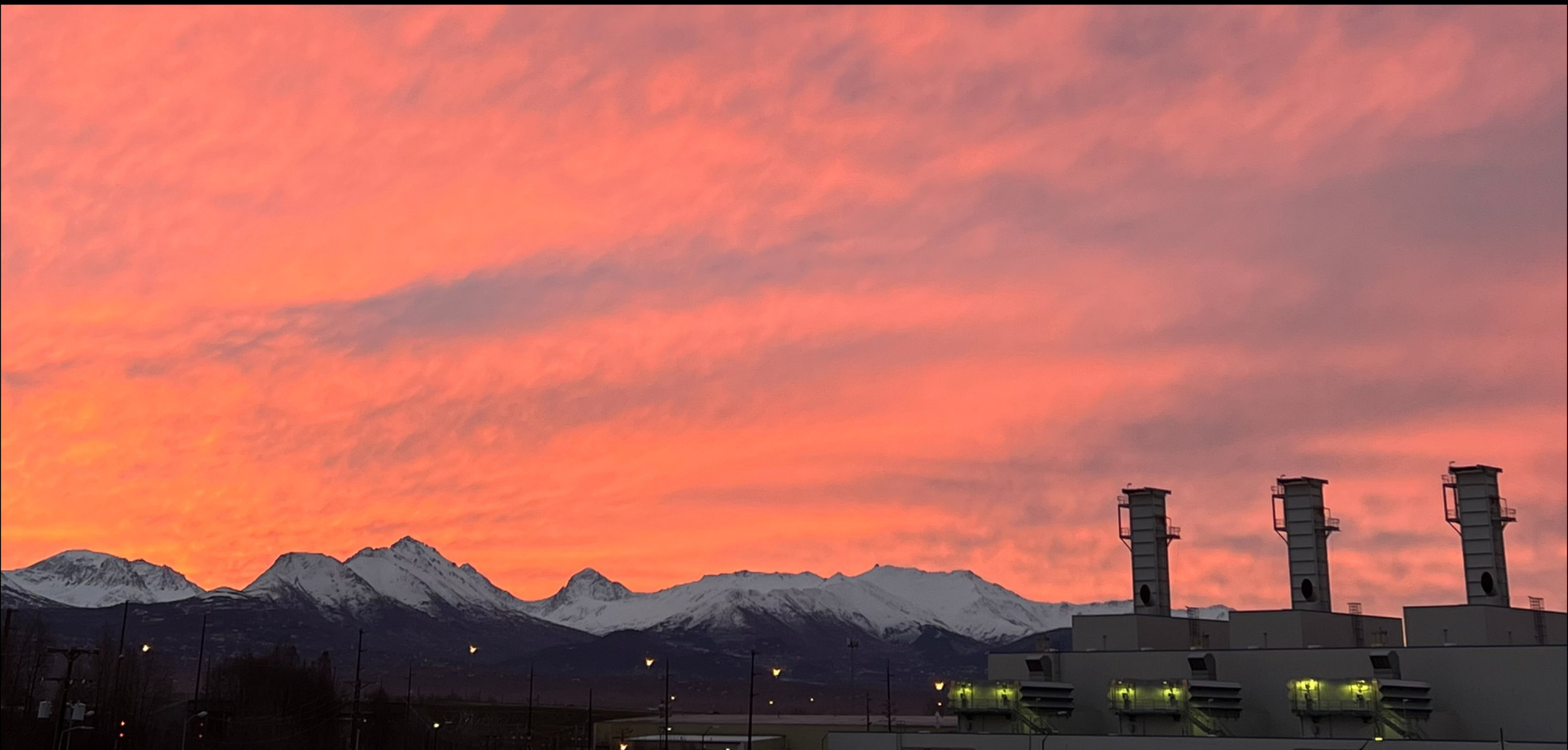
- Forecasting by customer class
- Better understanding of long-term decline drivers
- Beneficial electrification
- Distributed generation
- Price sensitivities
- Build out ARIMA models to address econometric issues.
- Develop structural econometric model for long-run forecasting

Chugach will increase the statistical rigor and tests to ensure our load forecasting can withstand scrutiny





# Questions?





# Decarbonization Program

## *Renewable Energy & Integration Projects Update*

Regular Board of Directors' Meeting  
May 28, 2025







# Overview



## Chugach's Decarbonization Program



Since 2021 Chugach has evolved in its understanding of the renewable energy possibilities here in Alaska. IPP's continue to play an important role while Chugach moves into a phase of self-development. In focus are solar and wind projects which will deliver results by 2030 to meet our 35% carbon intensity reduction goals, assuming no material negative impact to rates or reliability.

# 2030 Projects Portfolio





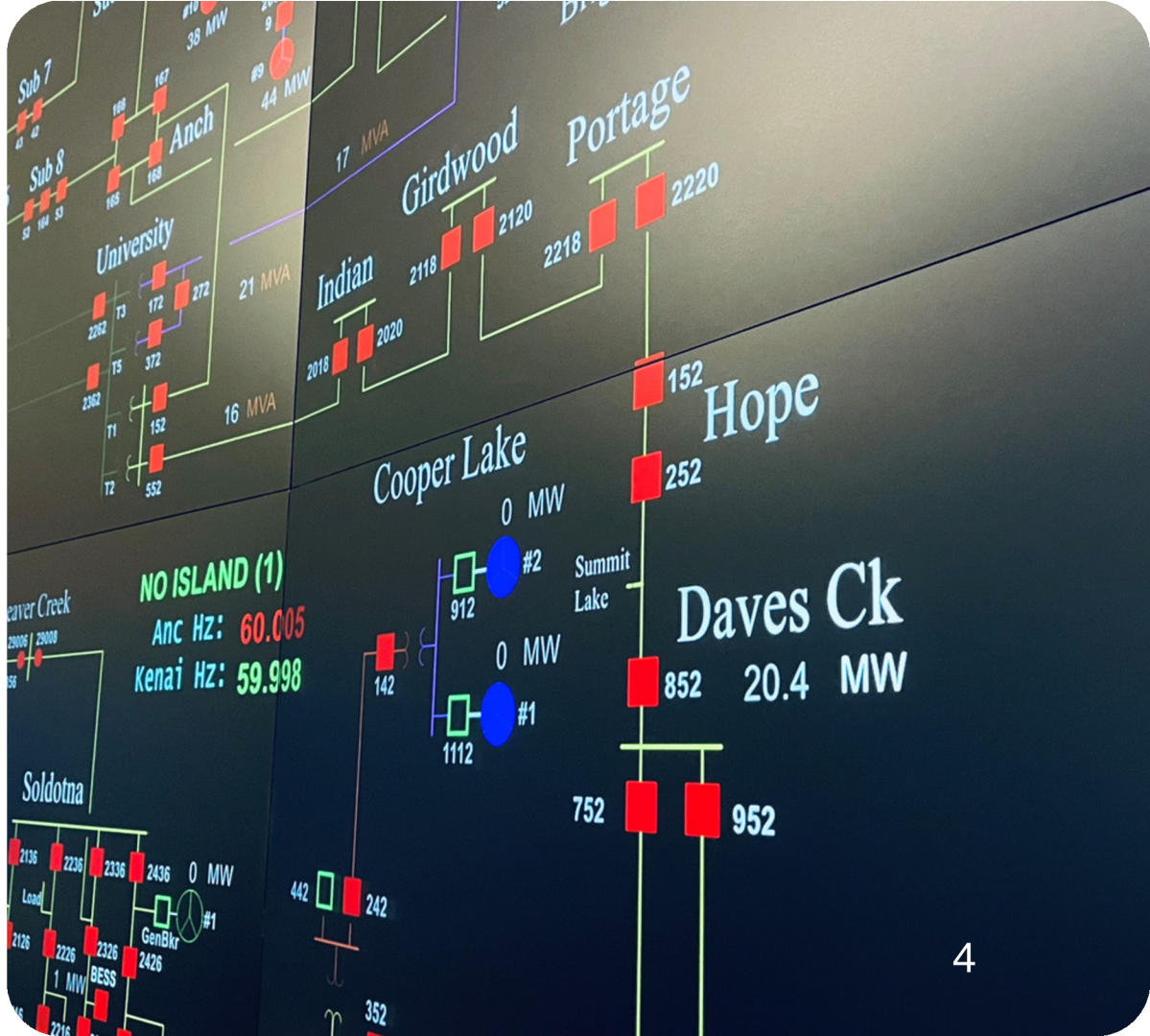
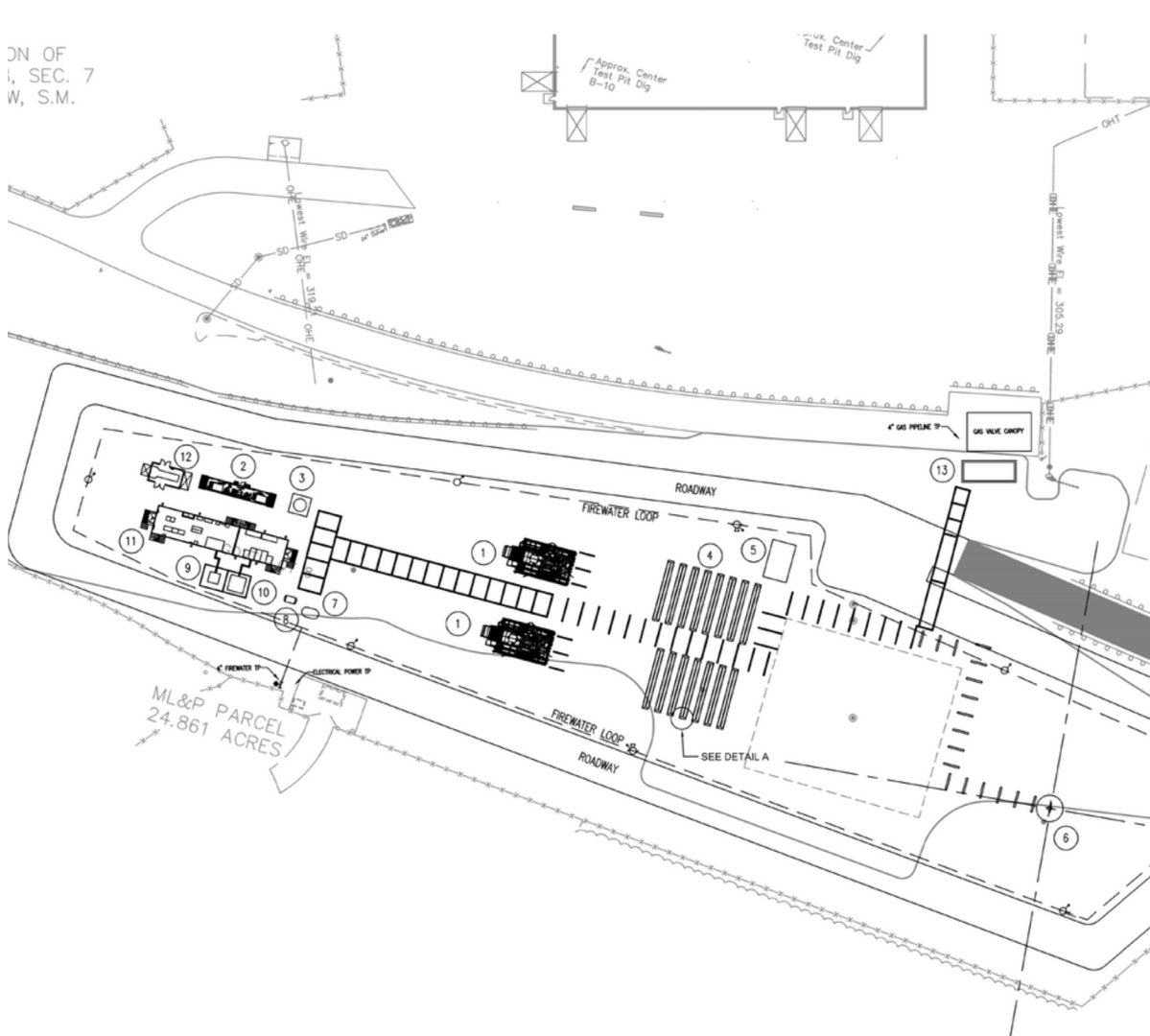
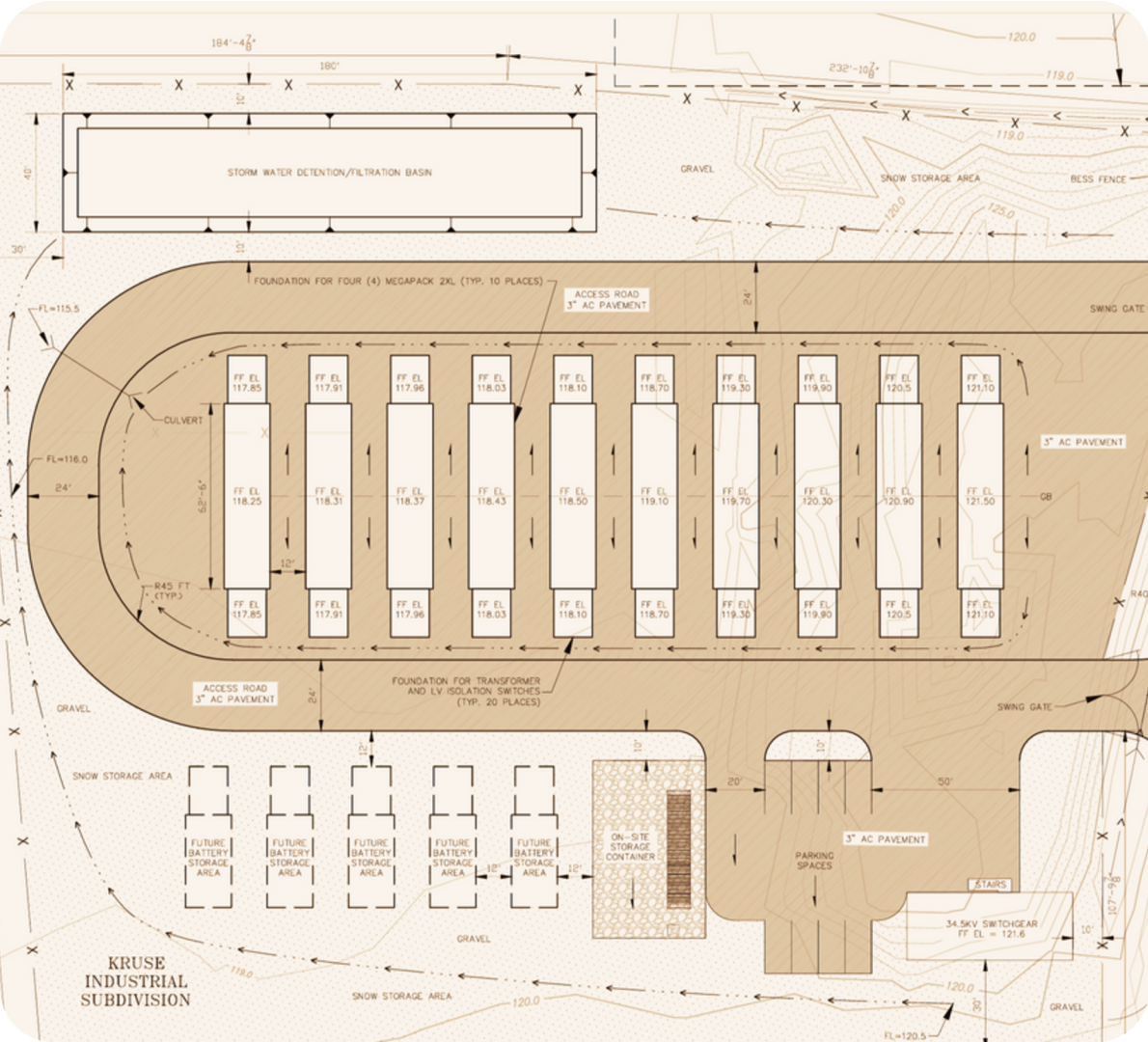
# System Integration Projects

Laying the foundation  
for renewables  
...

**Retherford BESS**  
FEL-2 Study in Review

**Sullivan Gas Storage**  
FEL-2 Study in Review

**Virtual Power Plant Controls**  
FEL-1 Complete  
Individual Projects Being Defined





# Owned Renewables



Ownership of renewable energy and energy storage projects has provided results. Solar facilities installed at our power plants are in service while two others, including the largest rooftop solar facility in Alaska, are in construction.





# Retherford Solar Update



Construction Started in Feb 2025

Approximately 80% complete

On budget at \$2.6M (before ITC)

Minor change orders approved

On schedule

First power late June / early July

Community Solar is fully  
subscribed

Community Solar Phase II project  
selection is in progress





# SPP Solar by the Numbers

...

System Size: 70 kW AC	
Number of Panels:	196
Watts/Panel (DC)	410 W
Anticipated Annual Output	61,150 kWh
Capacity Factor	10%
Tilt	90 degrees
Solar energy used for	Plant Station Service
Construction Status	Complete





# Sullivan Solar by the Numbers

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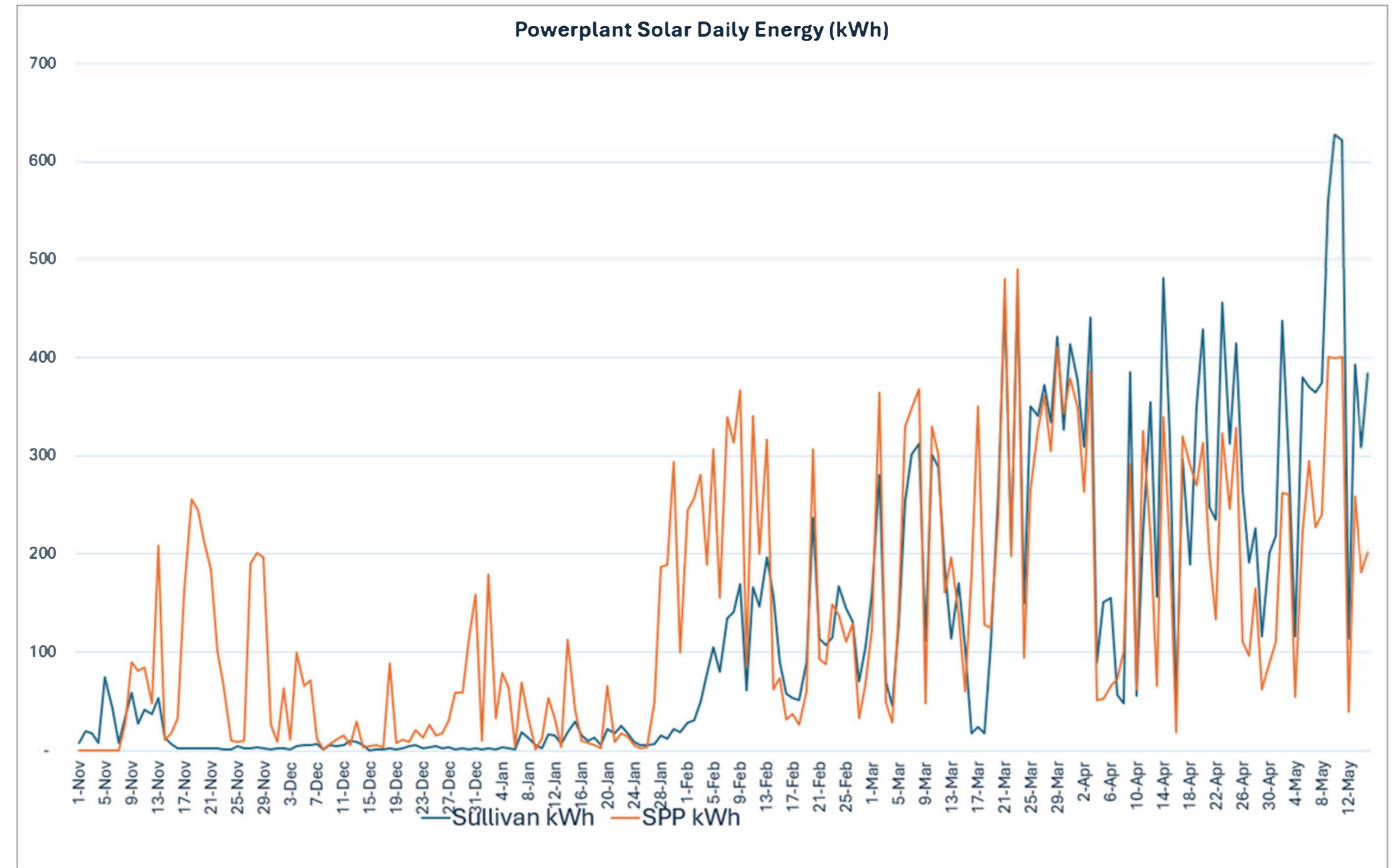
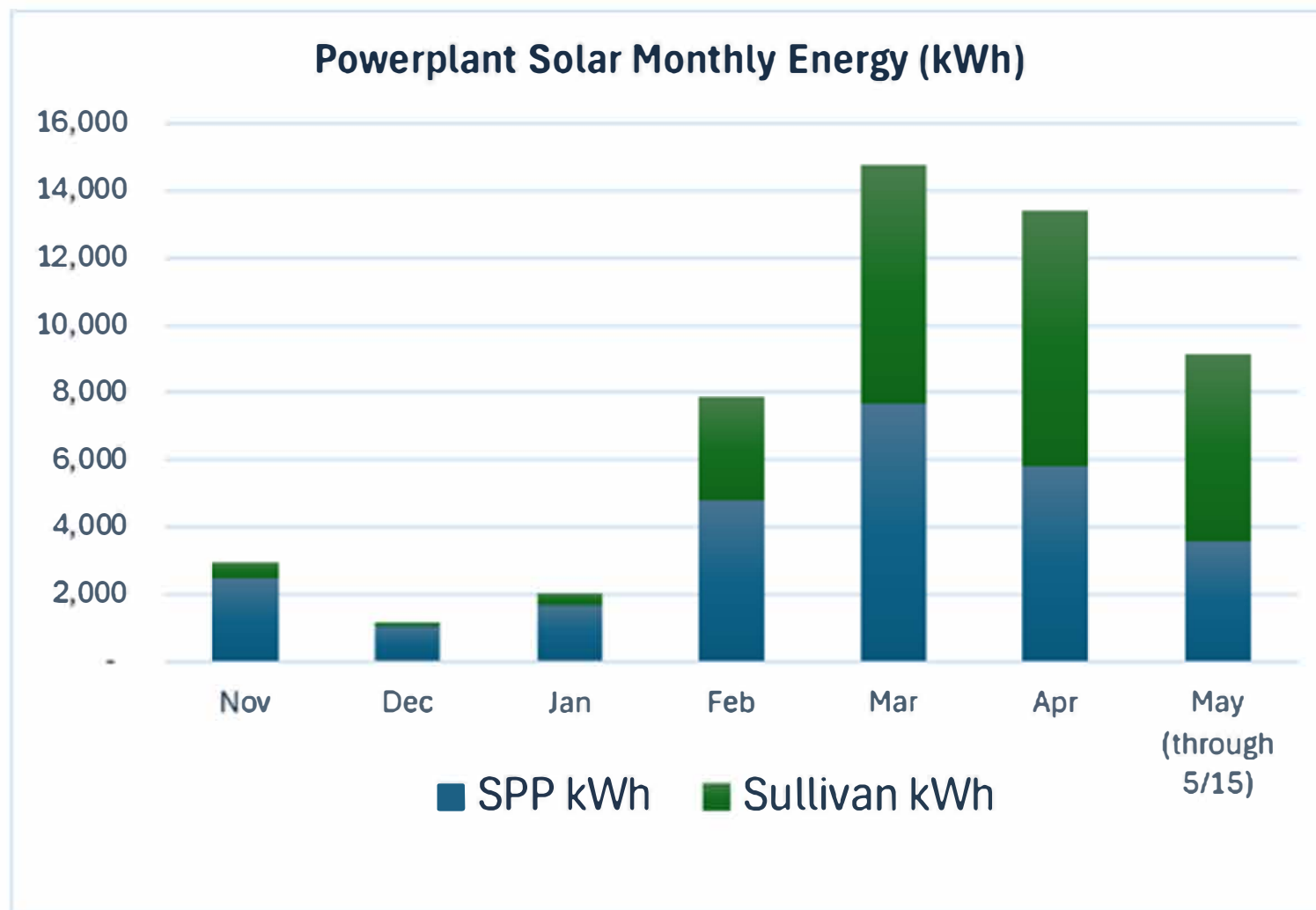
System Size: 75 kW AC	
Number of Panels:	208
Watts/Panel (DC)	410 W
Anticipated Annual Output	82,760 kWh
Capacity Factor	13%
Tilt	30 degrees
Solar energy used for	Plant Station Service
Construction Status	Complete







# SPP and Sullivan Solar Performance to Date





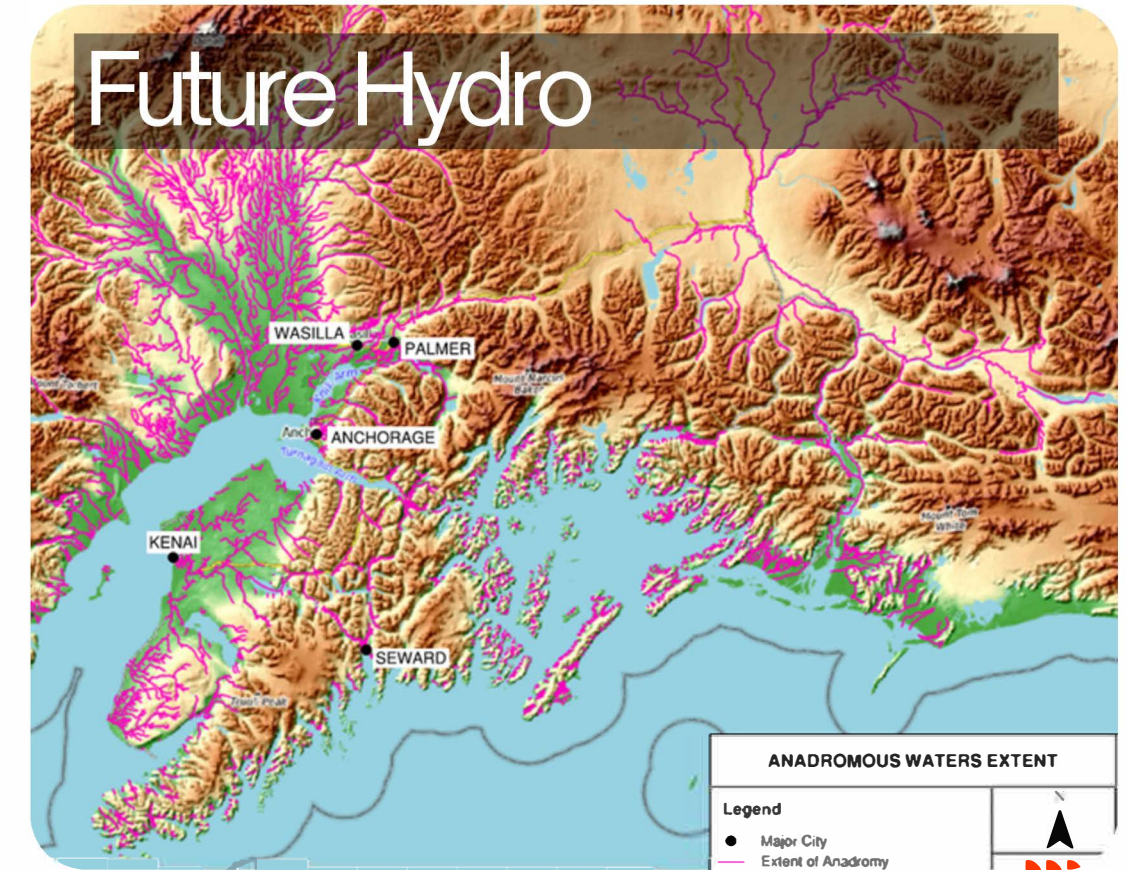
Beluga Solar



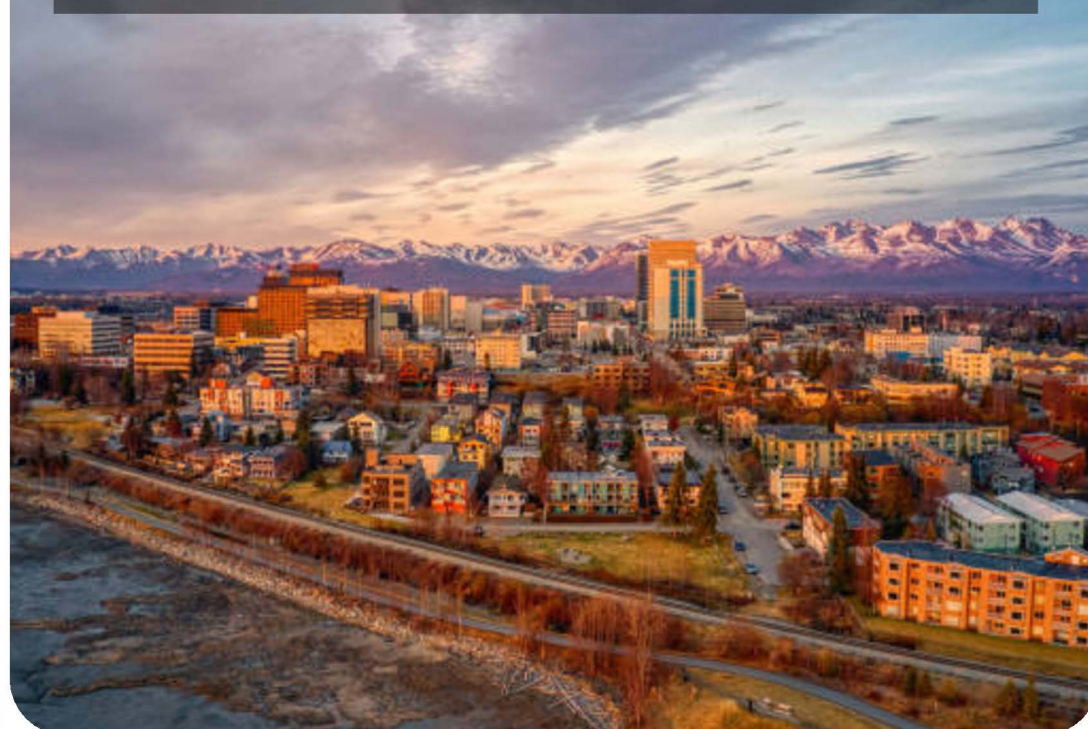
Future Wind



Future Hydro



Muni Solar



# Self-Developed Projects

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Beluga Solar is moving forward, using some of the over 80 acres Chugach owns outside of the existing power plant. Solar, wind, and hydro sites are also being pursued while seeking strategic partners, like the Municipality of Anchorage.





Dixon Diversion



Little Mount Susitna & Shovel Creek Wind

## Wind, Solar, Water, Geothermal & Energy Storage

Projects being developed by Longroad (by Alaska Renewables) and the State of Alaska remain underway. Houston Solar Phase II is also in development. The Don Young Port of Alaska is in procurement of a small BESS to support their microgrid vision, having received the equipment specification from Chugach to provide future grid support.

Of note, GeoAlaska has opened the possibility of geothermal on Augustine Island. Chugach and other utilities are now looking forward to a proposal.

# PPA or Leased Projects



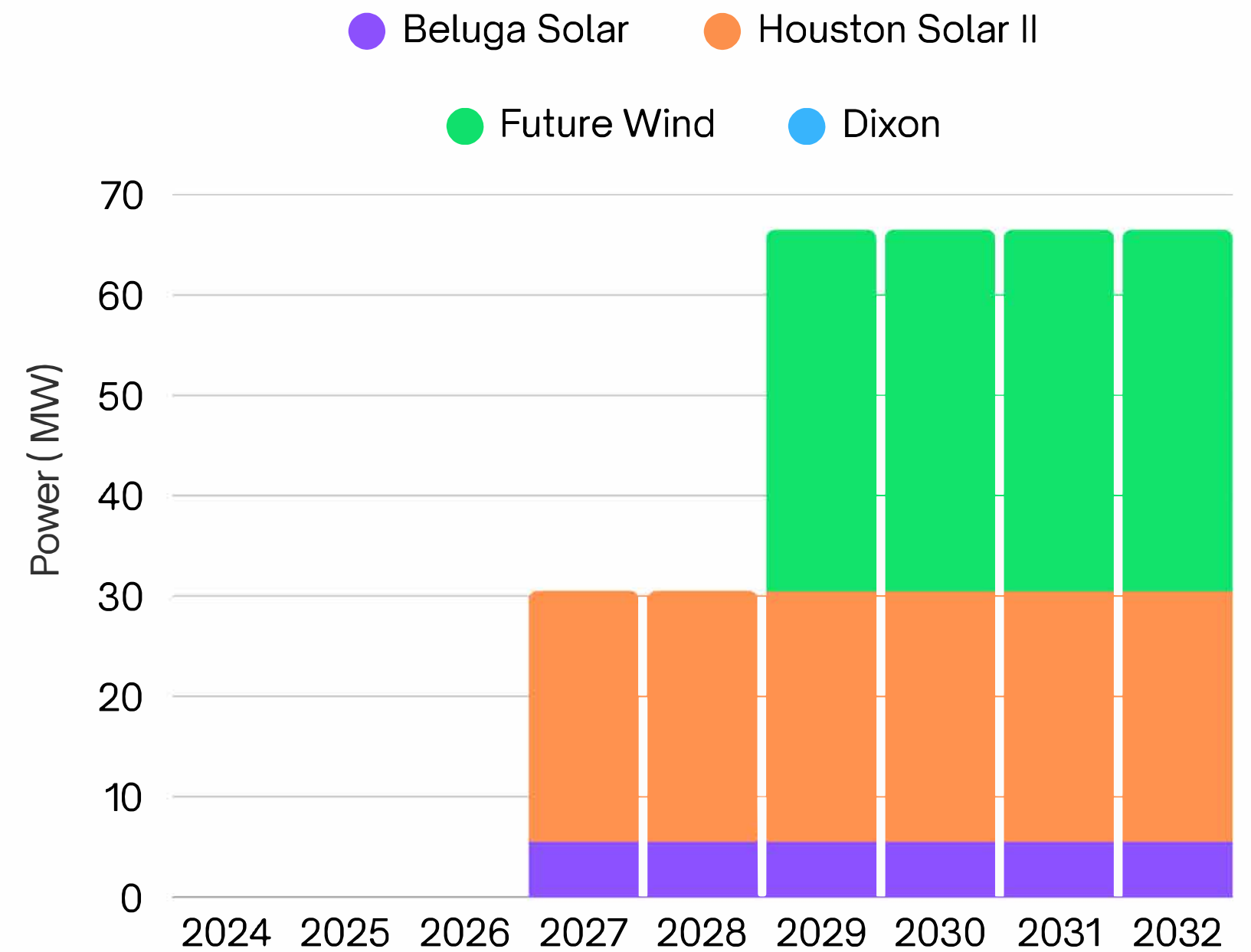
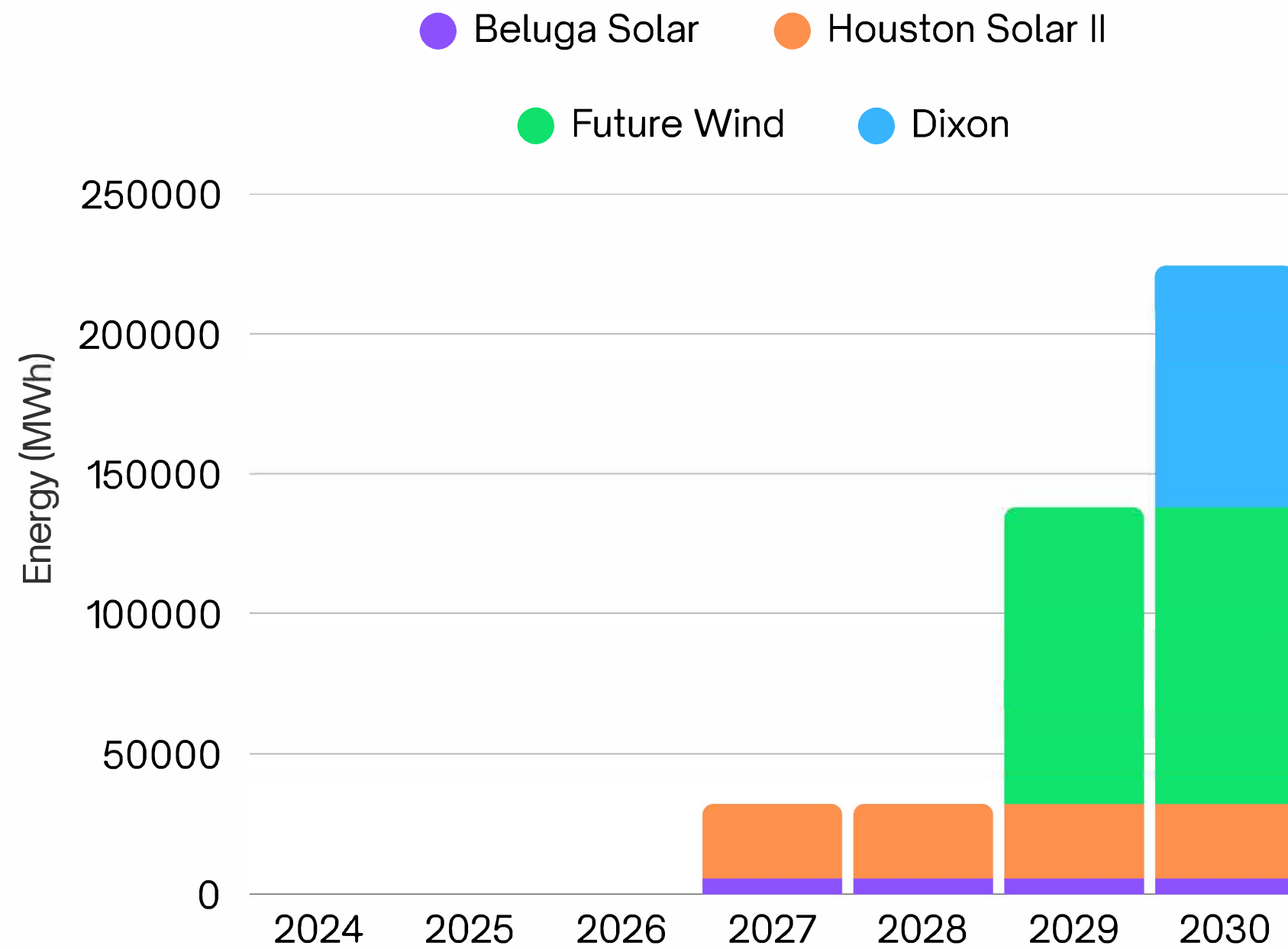
Houston Solar II



Port Microgrid



# Forecast Power & Energy





• • •

A  
Commitment  
to Renewable  
Energy



- Integration projects are in engineering review
- Control & communication projects are being defined based on FEL-1 report
- Owned projects are either complete or in construction
- Self-developed projects initiated with Beluga Solar Project
- State and IPP projects remain in development; awaiting proposals
- Muni and Port projects are being discussed

# Summary

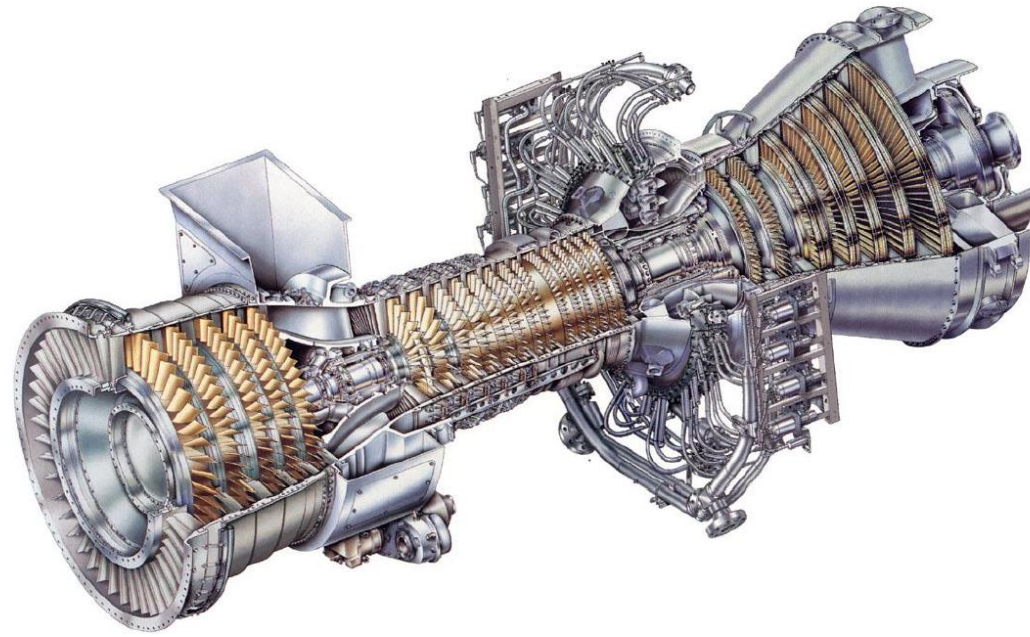


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# Questions?

...





# Sullivan Unit 10 Major Overhaul

Regular Board of Directors' Meeting  
May 28, 2025



# Sullivan Unit 10 Major Overhaul

## *Introduction:*

- Requesting Board authorization for Sullivan Unit 10 Major overhaul.

## *Project Background and Description:*

- *Background:*  
LM6000 turbine major overhauls are typically around 50,000 hours and is on-condition per General Electric (GE) Original Equipment Manufacturer (OEM).
- As of 4/25, Sullivan Unit 10 currently has 51,000 fired hours and will be approaching 55,000 hours at next scheduled outage in the Fall 2025.



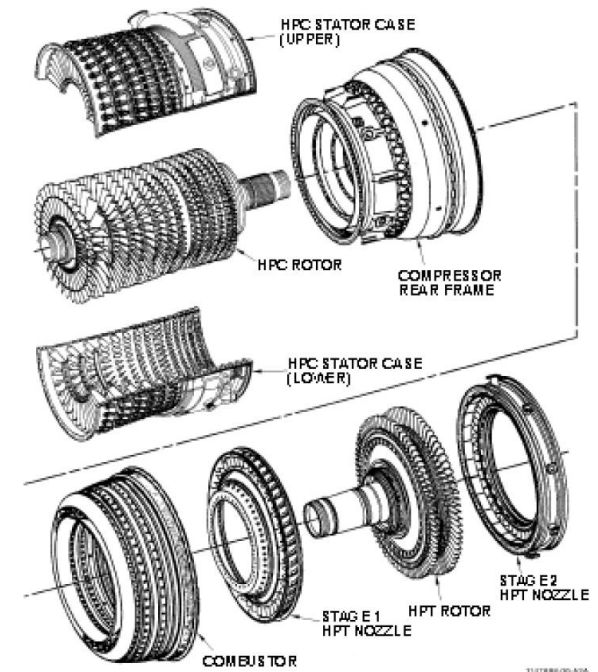
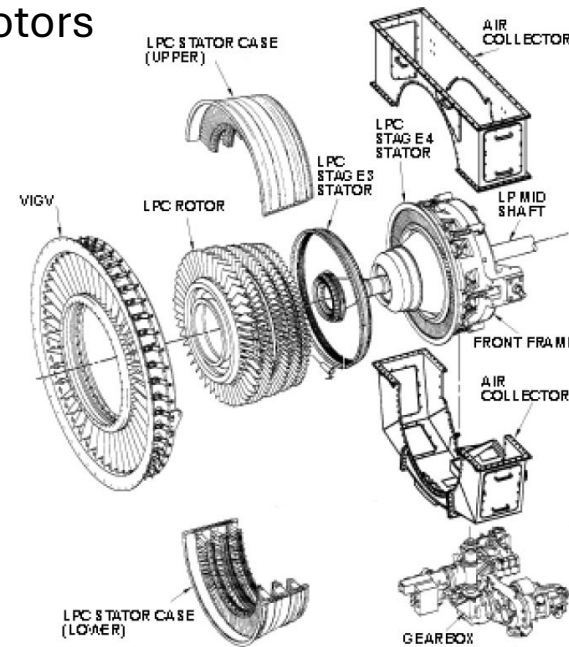


# Sullivan Unit 10 Major Overhaul

The major overhaul consists of breaking the engine down to Engine Maintenance Units (EMUs). This is a complete disassembly, inspection, repair, reassembly, and testing of all the engine components.

- In addition to these hot section components, other components will be addressed with the major overhaul:

- Front frame and air collector
- Low and high pressure compressor stators and rotors
- Compressor rear frame
- LPT rotor and stator
- Turbine rear frame
- Inlet and accessory gear boxes
- All bearings are to be replaced
- Service bulletins are to be applied
- Turbine to be brought to “zero-time”



# Sullivan Unit 10 Major Overhaul

## Project Authorization

- Request Board Approval for project total cost \$9.2 M.
- Outage is scheduled for October 2025, the turbine will be overhauled and returned by June 2026.
- The spare turbine will be placed in Unit 10 to avoid an extended outage.



**CHUGACH ELECTRIC ASSOCIATION, INC.**  
**Anchorage, Alaska**

**REGULAT BOARD OF DIRECTORS' MEETING**  
**AGENDA ITEM SUMMARY**

**May 28, 2025**

**ACTION REQUIRED**

**AGENDA ITEM NO. VIII.A**

<u>      </u>	<b>Information Only</b>
<u>  <b>X</b>  </u>	<b>Motion</b>
<u>      </u>	<b>Resolution</b>
<u>      </u>	<b>Executive Session</b>
<u>      </u>	<b>Other</b>

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**TOPIC**

Sullivan Unit 10 Major Overhaul Project: TransCanada Turbines Ltd. Contract Execution and Project Authorization.

**DISCUSSION**

A major overhaul of Unit 10 at the Sullivan Power Plant is scheduled for the fourth quarter of 2025. To prepare for this overhaul, Chugach Electric Association, Inc. (Chugach) issued a Request for Proposal (RFP) for the removal and refurbishment of the existing turbine at an authorized Original Equipment Manufacturer (OEM) facility. During the overhaul period, the plant's spare turbine will be installed in Unit 10 to maintain operational continuity.

Chugach received one proposal in response to the RFP, from TransCanada Turbines Ltd., in the amount of \$8,791,050. The total estimated installed cost of the project is \$9,200,000, including the cost of the overhaul, supporting materials, and associated labor for removal and installation of the turbine. Unit 10 is scheduled to be out of service for approximately three weeks in October 2025. The refurbished turbine is expected to be returned and available for reinstallation by June 2026.

This project is included in Chugach's 2025–2029 Capital Improvement Plan.

**MOTION**

Move that the Chugach Board of Directors authorize the Chief Executive Officer to execute a contract with TransCanada Turbines Ltd. for the overhaul of the Sullivan Power Plant Unit 10 turbine, and for the procurement of materials and all associated work required for the installation of the spare turbine, at a total installed cost not to exceed \$9,200,000.



Executive Session Motion  
(Financial, Legal and Personnel)  
**May 28, 2025**

**Chugach Electric Association, Inc.**  
**Regular Board of Directors' Meeting**

**Agenda Item X.**

Move that pursuant to Alaska Statute 10.25.175(c)(1), (3) and (4), the Board of Directors go into executive session to: 1) discuss and receive reports regarding matters the immediate knowledge of which would clearly have an adverse effect on the finances of the cooperative; 2) discuss with its attorneys matters the immediate knowledge of which could have an adverse effect on the legal position of the cooperative; and 3) discuss personnel matters.

Chugach Electric Association, Inc.  
Anchorage, Alaska

Summary of Executive Session Topics for  
Regular Board of Directors' Meeting on May 28, 2025  
Agenda Item X.

- A. Discussion of confidential and sensitive information regarding an update of gas supply and storage, public disclosure of which could have an adverse effect on the finances and legal position of the Association. (AS 10.25.175(c)(1) and (3))
- B. Discussion of confidential and sensitive information regarding Chugach's Collective Bargaining negotiations, public disclosure of which could have an adverse impact on the personnel, finances, and legal position of the Association. (AS 10.25.175(c)(1), (3) and (4))
- C. Discussion of confidential and sensitive information regarding personnel matters, public disclosure of which could have an adverse effect on the Association. (AS 10.25.175(c)(4))



**CHUGACH ELECTRIC ASSOCIATION, INC.**  
**Anchorage, Alaska**

**REGULAR BOARD OF DIRECTORS' MEETING**  
**AGENDA ITEM SUMMARY**

**May 28, 2025**

**ACTION REQUIRED**

**AGENDA ITEM NO. XI.A.**

<u>      </u>	<b>Information Only</b>
<u>  <b>X</b>  </u>	<b>Motion</b>
<u>      </u>	<b>Resolution</b>
<u>      </u>	<b>Executive Session</b>
<u>      </u>	<b>Other</b>

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**TOPIC**

Chief Executive Officer Annual Performance Evaluation

**DISCUSSION**

On May 28, 2025, the Chugach Electric Association, Inc. Board of Directors completed the annual performance evaluation of the Chief Executive Officer for the period from May 1, 2024 to April 30, 2025.

**MOTION**

Move that the Board of Directors approve the May 1, 2024 – April 30, 2025, Chief Executive Officer evaluation and compensation as discussed in executive session.