

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

### **OPERATIONS COMMITTEE MEETING**

#### **AGENDA**

Jim Nordlund, Chair Dan Rogers, Vice Chair Sisi Cooper, Director Susanne Fleek-Green, Director Mark Wiggin, Director

August 13, 2025

4:00 P.M.

**Chugach Board Room** 

- I. CALL TO ORDER (4:00 p.m.)
  - A. Roll Call
- II. APPROVAL OF THE AGENDA\* (4:05 p.m.)
- III. APPROVAL OF THE MINUTES\* (4:10 p.m.)
  - A. July 9, 2025 (Mankel)
- IV. PERSONS TO BE HEARD (4:10 p.m.)
  - A. Member Comments
- V. NEW BUSINESS (4:25 p.m.)
  - A. Beluga Solar Update (D. Highers) (4:25 p.m.)
  - B. Avoided Cost Comparison: Thermal Generation (Imported LNG) vs. Alternative Renewable Generation (Clarkson) (4:50 p.m.)
  - C. RRC Update (Rudeck/Baker) (5:30 p.m.)
- VI. DIRECTOR COMMENTS (5:45 p.m.)
- VII. EXECUTIVE SESSION\* (scheduled) (6:00 p.m.)

(Recess 15-minutes)

- A. RRC Update (Rudeck/Baker) (6:15 p.m.)
- B. Power Purchase Agreement with Independent Power Producer, Subject to NDA (Rudeck/Clarkson/Chicola) (6:30 p.m.)
- C. HR Matters (Millen/Menefee) (7:00 p.m.)
- VIII. NEW BUSINESS (none)
  - IX. ADJOURNMENT\* (7:20 p.m.)

<sup>\*</sup> Denotes Action Items \*\* Denotes Possible Action Items

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

July 9, 2025 Wednesday 4:00 p.m.

#### **OPERATIONS COMMITTEE MEETING**

Recording Secretary: Amanda Mankel

#### I. CALL TO ORDER

Chair Nordlund called the Operations Committee meeting to order at 4:07 p.m. in the boardroom of Chugach Electric Association, Inc., 5601 Electron Drive, Anchorage, Alaska.

#### A. Roll Call

Committee Members Present:

Jim Nordlund, Chair

Dan Rogers, Vice Chair – arrived at 4:12 p.m.

Sisi Cooper, Director – via teleconference

Susanne Fleek-Green, Director- via teleconference and in-person

Mark Wiggin, Director

Board Members Present:

Rachel Morse, Director

Katherine Jernstrom, Director

### Guests and Staff Attendance Present:

Arthur Miller	Nick Szymoniak	Kate Ayers
Sherri Highers	Dusty Menefee	Bart Armfield
Matthew Clarkson	Mike Miller	David Caye
Andrew Laughlin	Adam Lutchansky	Dan Herrmann
Allan Rudeck	Dustin Highers	Randall Chicola
Katie Millen	Trish Baker	Reis Tviet

Via Teleconference:

Stephanie Huddell Heather Slocum Nat Herz, member

Sandra Cacy Buddi Richey

#### II. APPROVAL OF THE AGENDA

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

#### III. APPROVAL OF THE MINUTES

Director Wiggin moved, and Director Cooper seconded the motion to approve April 9, 2025, Operations Committee Meeting minutes. The motion passed unanimously.

Director Rogers was not present at the time of the vote.

### IV. PERSONS TO BE HEARD (NONE)

### V. NEW BUSINESS\*\*

A. Election of Operations Committee Vice-Chair
Chair Nordlund opened the floor to nominations for Vice Chair of the
Committee.

The result of the vote: Director Rogers was elected Vice Chair of the Committee.

Director Rogers arrived in person at 4:12 p.m.

- B. Beluga River Unit Performance (Armfield)
  Bart Armfield, Consultant, presented the Beluga River Unit Performance and answered questions from the Committee.
- C. Legislative Matters (Baker)
   Trish Baker, Sr. Manager, Government & Business Affairs, presented an update on legislative activities and responded to questions from the Committee.
- D. Microgrids and Virtual Power Plants (D. Highers)
   Dustin Highers, Vice President, Corporate Programs, and Mike Miller, VP,
   Engineering Administration, presented on Microgrids and Virtual Power Plants and answered questions from the Committee.
- E. Discussion of Potential Rate Case (Szymoniak)
   Nick Syzmoniak, VP, Regulatory Economic Affairs, presented on the Potential
   Rate Case Discussion and answered questions from the Committee.

#### VI. DIRECTOR COMMENTS

Director comments were made at this time.

Director Wiggin left the meeting at 5:57 p.m.

### VII. EXECUTIVE SESSION\*

- A. Gas Supply and Storage Update, Subject to NDA (Rudeck/Herrmann)
- B. Renewable Update, Subject to NDA (Rudeck)
- C. Bradley Lake RECs (Clarkson)
- D. HR Matters (Millen/Menefee)
- E. CEO Project Specific Initiatives and Priority Area Goals (Miller)

At 6:09 p.m., Director Fleek-Green moved, and Director Cooper seconded 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.

Director Cooper left the meeting at 8:05 p.m. Director Wiggin was not present at the time of the vote.

The meeting reconvened in open session at 8:54 p.m.

### VIII. NEW BUSINESS \*\*

A. CEO Project Specific Initiatives and Priority Area Goals\*\* (Miller)

No action was made on New Business item. Discussion will continue in the following Governance Committee Meeting.

### IX. ADJOURNMENT

At 8:57 p.m., Director Rogers moved, and Director Fleek-Green seconded the motion to adjourn. The motion passed unanimously.

Director Wiggin and Director Cooper were not present at the time of the vote.

# Beluga Solar Project

Project Update

Operations Committee Meeting August 13, 2025



## **Beluga Solar Project**

• • •

Development Activities

**Project Summary** 

**Project Characteristics** 

Layout

Risks

Summary



# Agenda



# Development Activities

•••

The Project Development Consulting Team consists of DeerStone Consulting, PRC Wind, and Meridian, each of which bring different skill sets to the table.

### **Resource Assessment**

On-site irradiance data to be collected over the next year to refine assumptions.

### CapEx / OpEx Estimating

Project costs based on solicited quotes and site inspection.

### **Economic Evaluation**

Focused on NPV calculations to justify the project.





# Project Summary

**Solar PV Capacity (AC)** 

**5 MW** 

CapEx Cost (Total)

\$14M

**CapEx Cost (per Watt)** 

\$2/Watt-DC

**O&M Cost** 

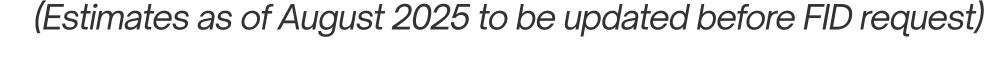
\$34/kW-DC/Year

**Solar Production** 

6,500 MWh/Year

**Avoided Natural Gas** 

**50,000 MCF/Year** 





# Project Characteristics

Solar PV Capacity AC 5 MW

DC/AC Ratio 1.4

Land Requirement 40 acres

Row Spacing 40 feet

Tilt 35°

Azimuth 180°

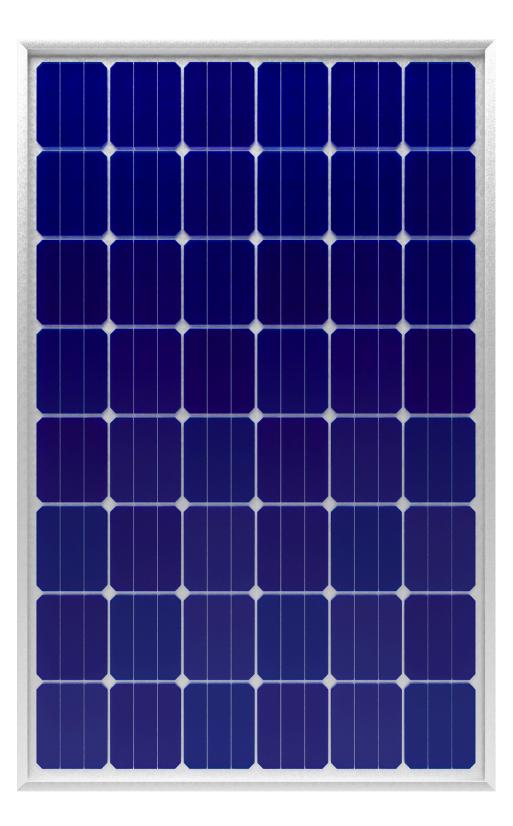
Array Layout Portrait, 2-high

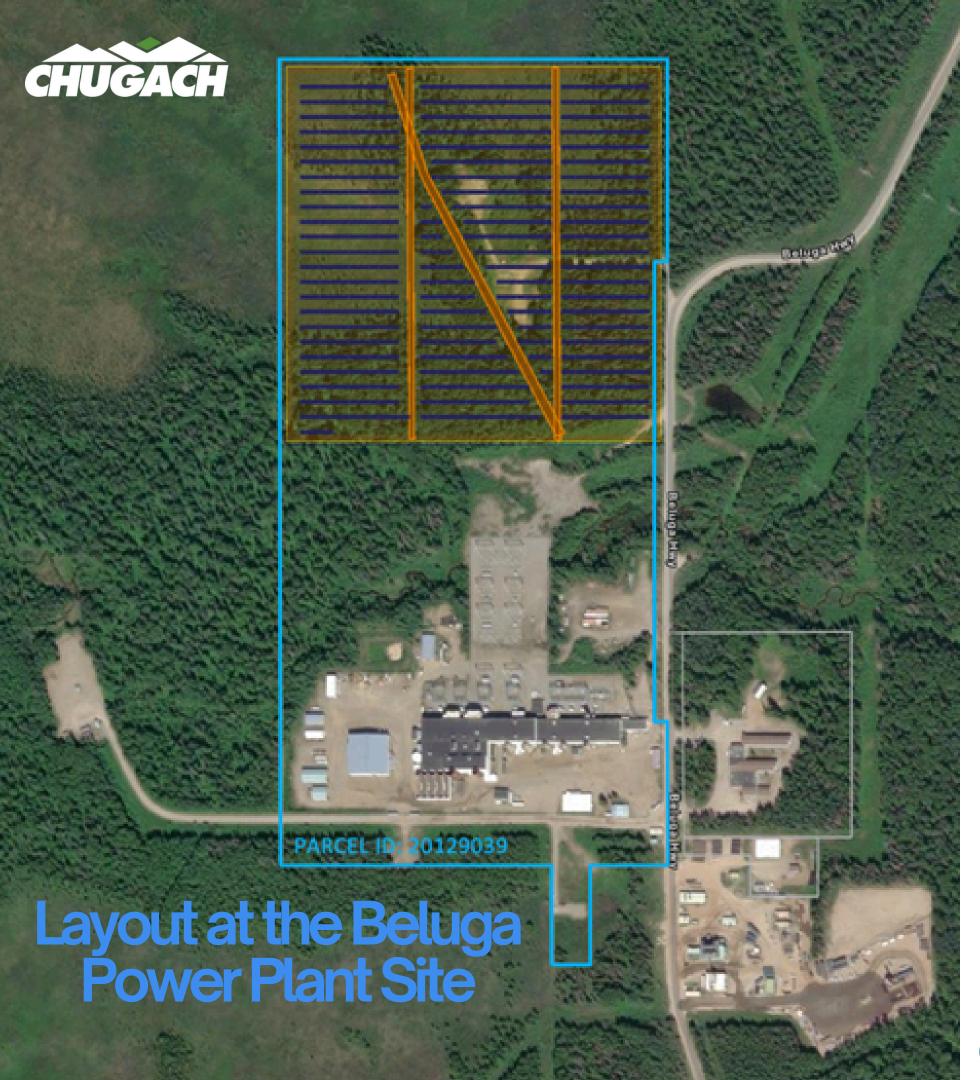
Inverter 98% minimum efficiency

Module Bifacial, 21% minimum efficiency









# Layout

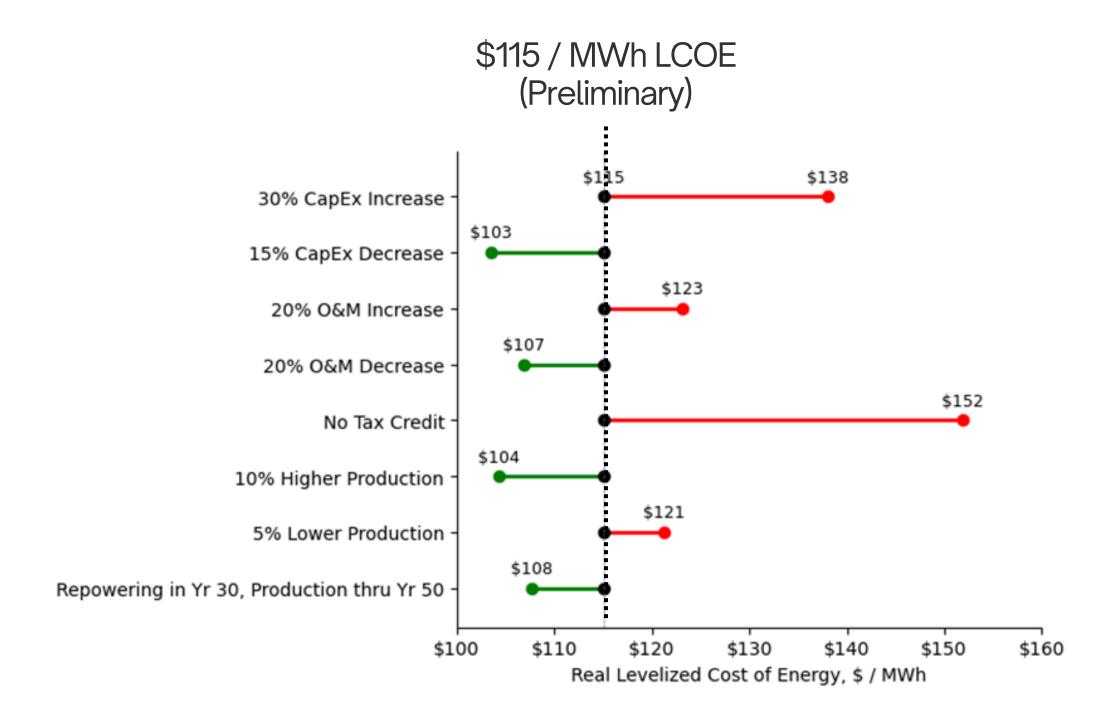
40 acres required for the layout of the solar PV facility

Located on the north side of the Beluga Power Plant on Chugach-owned property

Wet ground and existing stream will reduce area coverage



# Economic & Financial Risks



Overall project risks appear to maintain LCOE in a reasonable range around the \$115/MWh estimate.

Loss of ITC and/or increased costs due to tariffs or other market conditions would challenge project economics.

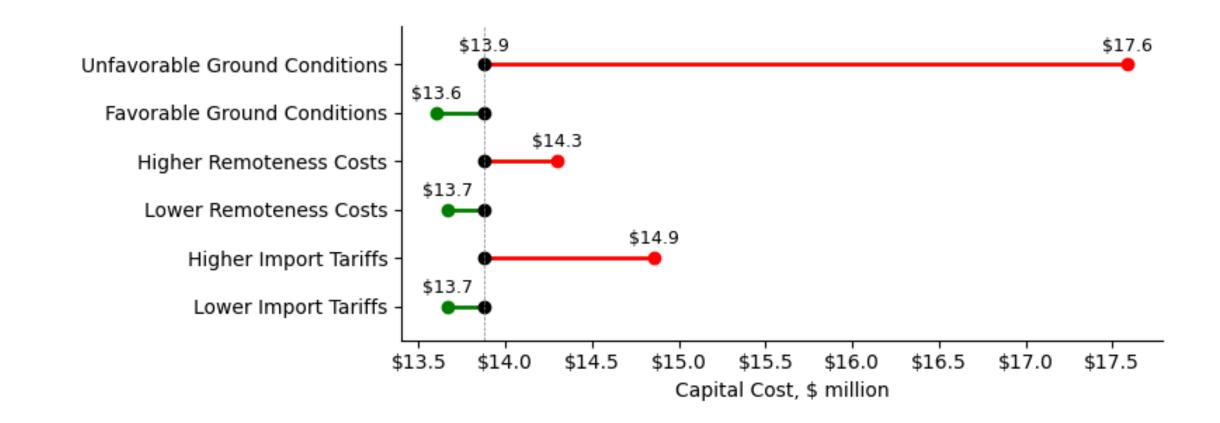




# Project Execution Risks

Geotech will be required to fully understand subsurface conditions, and this work is being scheduled.

Remote work typically results in higher costs, although some degree of cost has already been included in the cost estimate.





# Project Schedule

	2025	2026	2027
Development, Permitting, Design			
Initiate Procurement			
Site Clearing			
Foundation, Racking, Module Installation			
Electrical Work & Interconnection			
Commissioning			





- \$14M before ITC and taking risk elements into consideration
- \$2/W-dc estimated
- \$115/MWh LCOE estimated
- Estimates may be adjusted by September when brought to Board for final investment decision

# Summary



## Gas and Wind Generation Equivalent Cost Analysis

**Operations Committee Meeting Aug 13, 2025** 



### **Avoided Cost Primer**

### What is Avoided Cost?

- **Short-run avoided cost (energy)**: The incremental costs (fuel and variable operations and maintenance) to generate electric energy (measured hourly, monthly, or quarterly) that the utility would avoid if it instead purchased that energy from another source.
- **Long-run avoided cost (capacity)**: The costs to build additional generation capacity that the utility would avoid if it instead purchased that capacity from another source.

### What is Chugach's Current Avoided Cost?

- Short-run avoided cost (energy): \$55 \$60/MWh.
- Long-run avoided cost (capacity): None. No capacity additions required over next 25 years.

### What is Chugach's 10-Year Projected Avoided Cost?

- Short-run avoided cost (energy): \$100 \$110/MWh.
- Long-run avoided cost (capacity): None. No capacity additions required over next 25 years.

### How does Avoided Cost typically factor into power purchase decisions?

 Avoided Cost establishes the maximum price a utility can pay for electricity from a third-party source without economically harming its ratepayers.



### Gas Cost Equivalent on a \$/MWh Basis

		_						
<b>Gas Heat Rate</b>	7.5	8	8.5	9	9.5	10		
LNG \$/Mcf		Equivalent \$/MWh						
\$6	\$45	\$48	\$51	\$54	\$57	\$60		
\$8	\$60	\$64	\$68	\$72	\$76	\$80		
<b>\$10</b>	\$75	\$80	\$85	\$90	\$95	\$100		
<b>\$12</b>	\$90	\$96	\$102	\$108	\$114	\$120		
<b>\$14</b>	\$105	\$112	\$119	\$126	\$133	\$140		
<b>\$16</b>	\$120	\$128	\$136	\$144	\$152	\$160		
<b>\$18</b>	\$135	\$144	\$153	\$162	\$171	\$180		
<b>\$20</b>	\$150	\$160	\$170	\$180	\$190	\$200		
<b>\$22</b>	\$165	\$176	\$187	\$198	\$209	\$220		
<b>\$24</b>	\$180	\$192	\$204	\$216	\$228	\$240		
<b>\$26</b>	\$195	\$208	\$221	\$234	\$247	\$260		
\$28	\$210	\$224	\$238	\$252	\$266	\$280		
\$30	\$225	\$240	\$255	\$270	\$285	\$300		
\$32	\$240	\$256	\$272	\$288	\$304	\$320		
\$34	\$255	\$272	\$289	\$306	\$323	\$340		
\$36	\$270	\$288	\$306	\$324	\$342	\$360		
\$38	\$285	\$304	\$323	\$342	\$361	\$380		
\$40	\$300	\$320	\$340	\$360	\$380	\$400		



### Diesel Cost Equivalent on a \$/MWh Basis

Diesel Heat Rate:	10.0	14.0	18.0	22.0	26.0
Diesel \$/Gal			Equivalent \$/N	1Wh	
\$3	\$173	\$242	\$312	\$381	\$450
<b>\$</b> 5	\$289	\$404	\$520	\$635	\$750
\$7	\$404	\$566	\$727	\$889	\$1,051



# Executive Session Motion (Financial, Legal and Personnel) August 13, 2025

### **Chugach Electric Association, Inc. Operations Committee Meeting**

### Agenda Item VII.

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 Operations Committee Meeting on August 13, 2025 Agenda Item VII.

- A. Discussion of confidential and sensitive information regarding a Power Purchase Agreement with Independent Power Producer, which is subject to a Nondisclosure Agreement, 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 HR matters, public disclosure of which could have an adverse effect on the personnel, finances, and legal position of the Association. (AS 10.25.175(c)(1), (3) and (4))