

Alaska: Carbon Legislation and Energy Policy

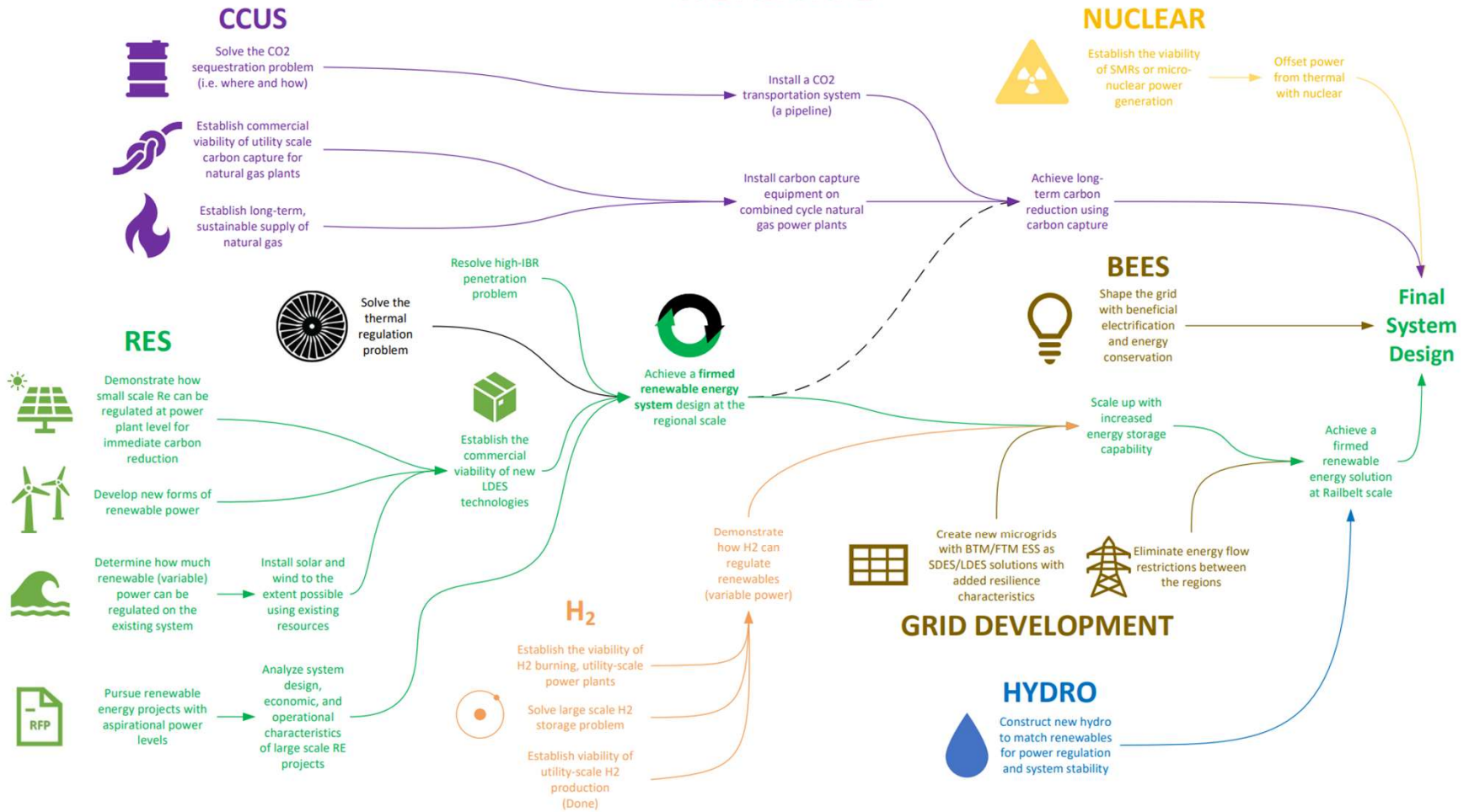
Presentation to the Kenai Assembly

Todd M Lindley, PE

February 27, 2024



DECARBONIZATION ROADMAP



CHUGACH at a glance

**NOT-FOR-PROFIT
MEMBER-OWNED
ELECTRIC COOPERATIVE**

Corporate Information

Chugach Electric Association, Inc.
P.O. Box 196300
Anchorage, AK 99519-6300
(907) 762-4489
www.chugachelectric.com

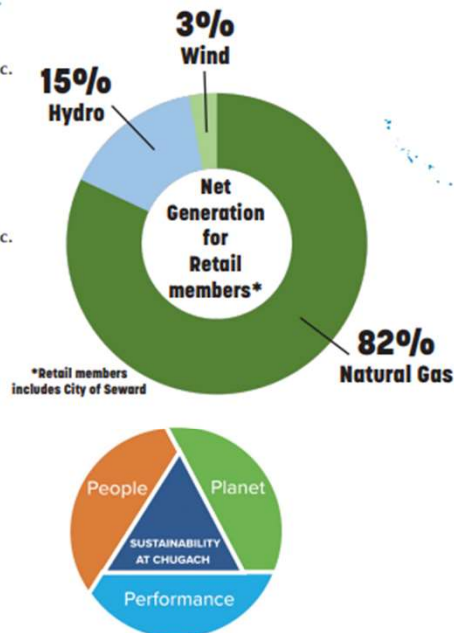
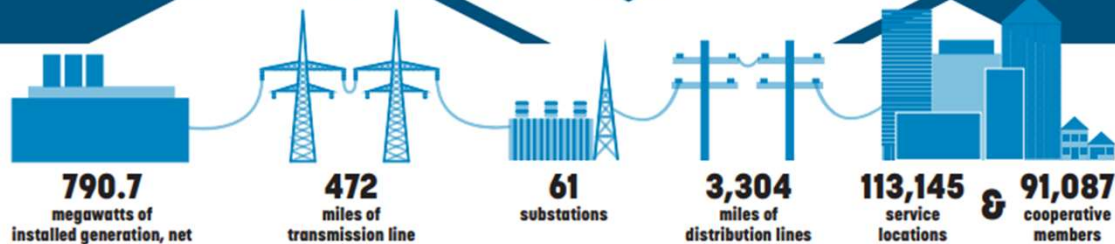
Investor Information

Chugach Electric Association, Inc.
Chief Financial Officer
P.O. Box 196300
Anchorage, AK 99519-6300
(907) 762-4511

Independent Auditor

KPMG LLP
701 W. Eighth Ave., Ste. 600
Anchorage, AK 99501

Follow us on



Chugach maintains
3,776 miles
of transmission and
distribution lines.
That's the same
distance as flying from
Anchorage to Orlando.

Reliability

2.51 hours
average outage length
per customer in 2022,
up 0.14 from 2.37 in 2021



224 miles
of line cleared
of trees to increase
reliability

2.54 hours
5-year average outage
length per customer,
up 0.21 from 2.33 in 2021

Incorporation

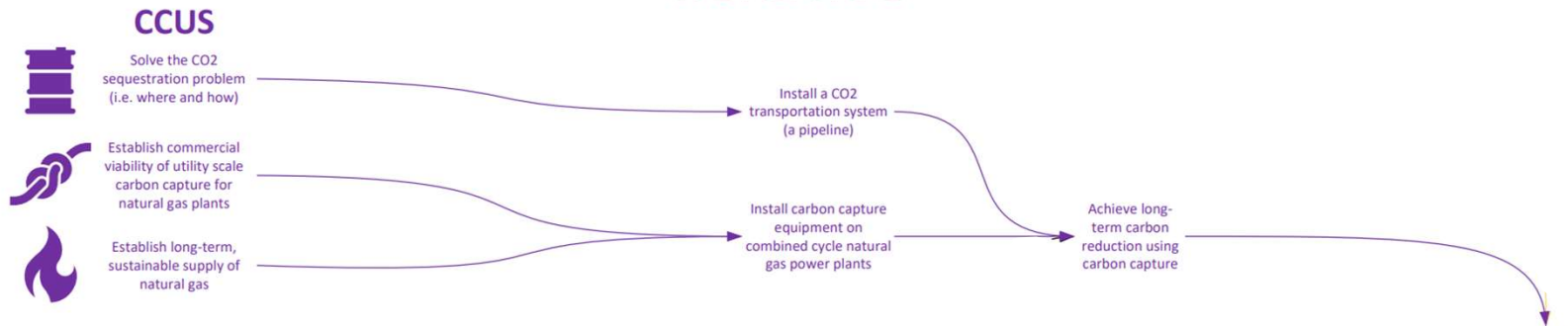
Chugach Electric Association, Inc. was incorporated in Alaska on March 1, 1948, with funding under the Rural Electrification Act of 1936, as amended. In 1991, Chugach refinanced and paid off its federal debt, leaving the Rural Electrification Administration. Chugach remains a cooperative and ranks among the largest of the more than 900 electric cooperatives in the nation.

Equal Employment Opportunity

It is a policy of Chugach Electric Association, Inc. to recruit, hire, train, promote and compensate persons without regard to race, color, religion, national origin, sex, marital status, pregnancy, parenthood, physical or mental disability, veteran's status, age or any other classification protected by applicable federal, state or local law.



DECARBONIZATION ROADMAP



HB50 / SB 49 – Carbon Sequestration

- Sequestration of CO₂ underground to reduce emissions

HB 49 / SB 48 – Carbon Offsets **[PASSED 5/17/23]**

- Lease state land to offset emissions

Risk: Gas supply is replaced, expensive CO₂ removal equipment and wells, state land encumbered to maintain offsets



Carbon Capture Utilization and “Storage” (CCUS) (50)

- Driven by the 45Q tax credit only
 - Fed Govt. credit (paid for by the citizens)
 - Not voted in but forced into the national budget
- Pursue Class VI Well Primacy for Geologic Storage
 - CO2 emissions pumped underground, under pressure, for permanent storage
 - This is NOT the same thing as using carbon for Enhanced Oil Recovery (EOR)
- 3rd party exchange to verify **emissions reduction per unit of production** (intensity)
 - \$2.5/ton of CO2 injection fee
 - Rental fees
- State take ownership at the end of the lease term
 - Maintain pressure and



Carbon Offset “Tree Bill” (49)

- The premise is to lease state forest land to offset carbon emissions
 - This is for companies to strive for a “net zero” carbon footprint. Doesn’t reduce emissions
- Forest land will be assessed as **trees per acre (density)**
 - Payment only on ADDITIONALITY
 - If trees were going to be harvested, and the land was used for Carbon Offsets, Alaska cannot compensate the tree harvest from another area.
- 3rd party exchange company
 - verifies a company's offset potential
 - Is the authoritative power as the “middle man”
 - Testified to charge the state ~20% of revenues
- Insurance required at ~ 18% of revenues
- Minimum of 55 year lock-up – 100 years required on compliance markets.



Solve the
thermal
regulation
problem

HB 50 / SB 69 – Geothermal Resources

- Lease land for injection and extraction of geothermal resources

Risk: Unreliable at extreme cold, requires land to be accessed to install the units, still requires electricity for circulation of fluids



DECARBONIZATION ROADMAP

HB 121 / SB 101 – Renewable Portfolio Standard (RPS)

- Originally proposed by Gov. Dunleavy, carried by Rep. Sumner and Sen. Tobin
- Now stalled thanks for Sen. Bjorkman

HB 368 – Renewable and Electrical Energy Portfolio Standards

- Establishes a Clean Energy Standard and compliance
 - 35% by 2036
 - 60% by 2051
- Same as RPS, different committee – House Energy

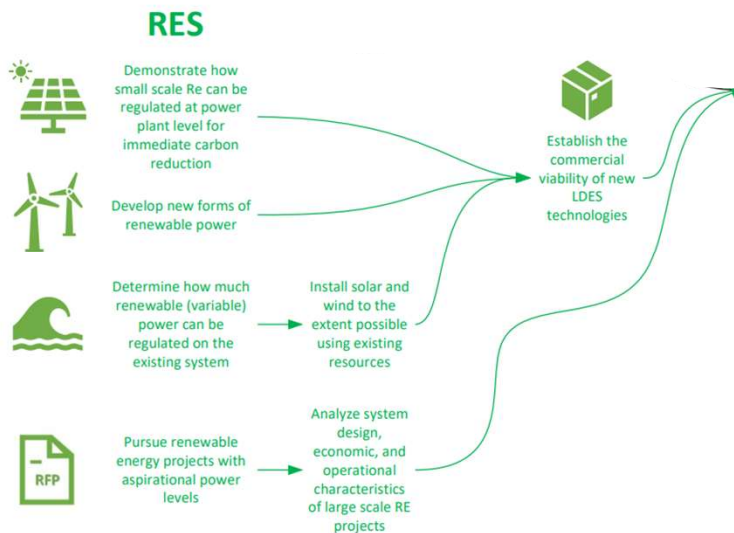
HB 62 / SB 33 – Renewable Energy Grant Fund

- Makes funds available from the state for renewable projects

HB 154 / SB 125 – AFHC Sustainable Energy

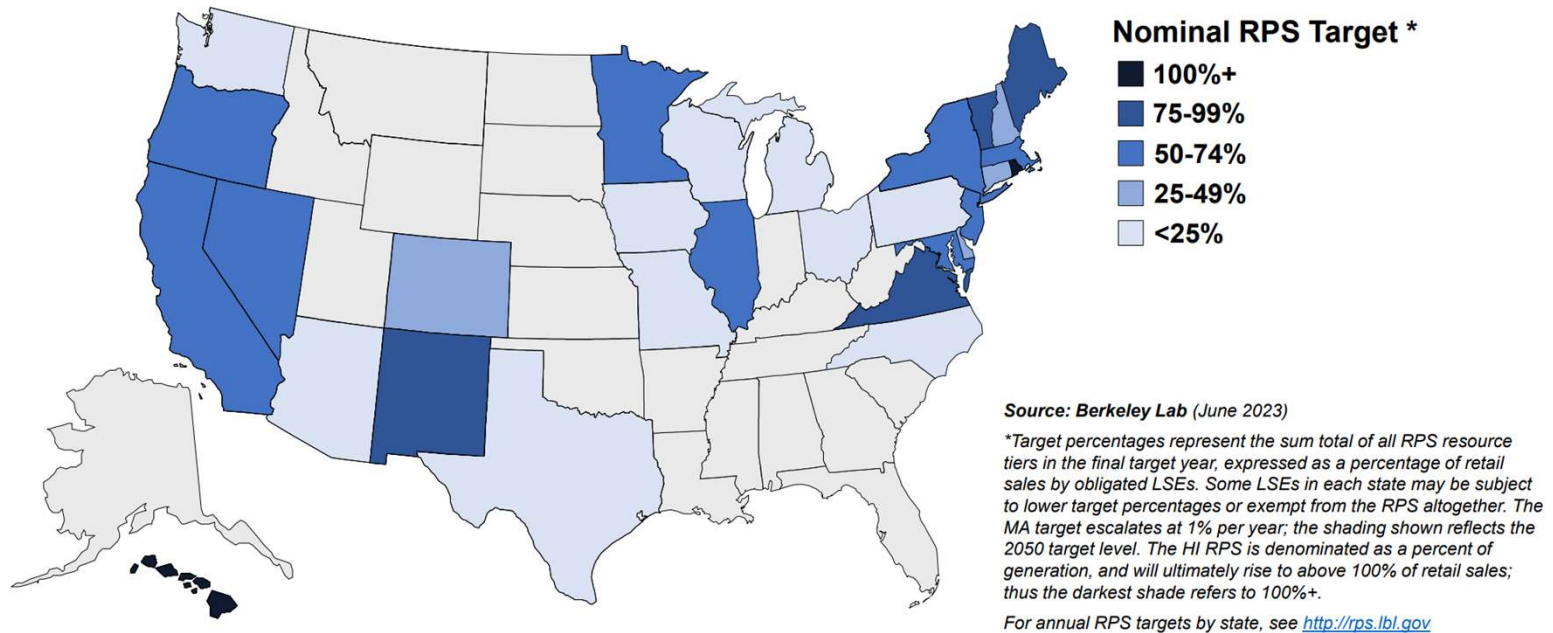
- Provides financial assistance for sustainable energy projects in community and low income areas

Risks: Penalties for not meeting targets, unreliable sources at peak demand



In Good Company

RPS Policies Exist in 29 States and DC Apply to 58% of total U.S. retail electricity sales





DECARBONIZATION ROADMAP

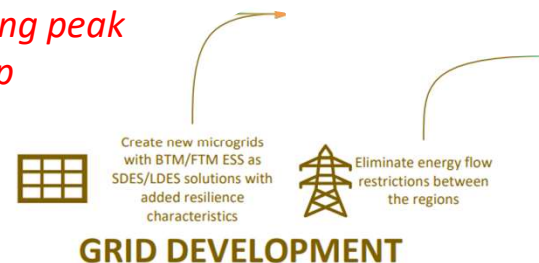
HB 307 / HB 217 – Integrated Transmission Systems

- Includes Independent Power Producers (IPPs) to pay tax of kWhs for wholesale electricity to coops or municipal electrical utilities

HB 256 – Electric Utility Plant/Facility Closures

- If a utility uses state funding, before they close
 - they have to offer a sale to another utility
 - and the legislature has to approve it

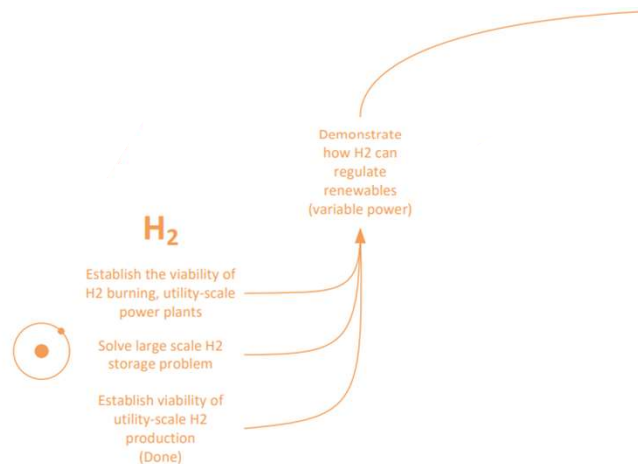
Risk: Unreliable supply of electricity on the transmission system during peak and high demand periods, loss of coop or municipal utility ownership



Department of Energy Hydrogen Hub (\$7B in Funding)

- Establish Alaska as a hydrogen hub
- Key to AK LNG development plan

Risk: Costly upgrades to power generating equipment in the form of blue and green hydrogen





DECARBONIZATION ROADMAP

Eklutna Dam

- Current consideration is that the dam should be removed
- Decision will be made by the Governor in October 2024
 - *Native Village of Eklutna and REAP support a Pump Energy Storage (PES) System*
 - *Project owners did not include in alternatives analysis due to cost*
 - *The Governor is studying this independent of the 1991 USFW Agreement*

Risk: Removes source of power and alternatives range from \$57M to \$800M



HYDRO

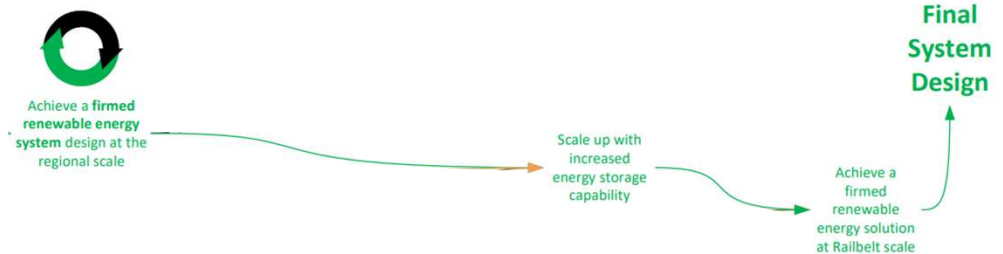
Construct new hydro
to match renewables
for power regulation
and system stability

Final System Design ... Carbon Fascism

- Cook Inlet Gas displaced to be a CO2 Storage Basin
- Unachievable RPS Goals leading to immediate penalties on the utility
- Pump Energy Storage will be the outcome of Eklutna decision
- IPPs tie-in to grid with no accountability for capacity or reliability
- Railbelt propped up by IRA credits for residential and commercial
- Coop bankruptcy leads to sale and approved by legislature to Lower 48 investors
- Lower 48 Investors purchase assets and electricity costs are traded on an open market

- Net zero is achieved but it didn't reduce carbon ... it reduced your income, forever

This may be the roadmap for Chugach but ultimately it's the plan for all electrical utilities in Alaska ...



Bill	Title	Key Point	Sponsor
HB 49 / SB 48	Carbon Offsets	Lease trees to to offset emissions	Gov. Dunleavy
HB 50 / SB 49	Carbon Storage	Inject CO2 underground to reduce emissions	Gov. Dunleavy
HB 62 / SB 33	Renewable Energy Grant Fund	Grant funds for projects in the state	Rep. Edgmon / Sen. Kaufman
HB 74 / SB 69	Geothermal Resources	Wells used for recovering geothermal heat	Gov. Dunleavy
HB 121 / SB 101	Utilities: Renewable Portfolio Standards	Establishing renewable energy standards and penalties	Rep. Sumner / Sen. Tobin
HB 154 / SB 125	AFHC: Sustainable Energy	Financial assistance for sustainable energy projects	Gov. Dunleavy
HB 223 / SB 254	Tax and Royalty for Certain Gas	5% royalty and zero production tax	Rep. Rauscher / Sen. Bjorkman
HB 256	Electric Utility Plant/Facility Closures	Utility can't close unless offer to sell and the legislature approves it	Rep. McCabe
HB 257	Cook Inlet Seismic Data	Make data available unless confidential or on private land	Rep. McKay
HB 276 / SB194	Reduce Royalty on Cook Inlet Oil and Gas	5% over 10yrs; 5% royalty rate not applicabel to lease without royalty share reserved to state	Gov. Dunleavy
HB 307 / SB 217	Integrated Transmissions Systems	Includes IPPs selling power to coop or municipal utilities a tax on the kWh	Gov. Dunleavy
HB 368	Electrical Energy and Energy Portfolio Standards	Defines clean energy standard; defines clean energy portfolio; defines timeframes	House Energy

What Can You Do

- Oppose every one of the listed bills
- Go to your utility board meetings and demand transparency
- Recall your legislators
- Do not participate in the lie that CO2 and carbon need to be reduced
- Share this information

Take Back Your Power

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"Providing Stable Leadership for the Chugach Electric Association Board"



Dan Rogers, PE

Engineer, Business Owner
Candidate for Chugach Board

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<https://www.votechugachstability.org/>