

# EXECUTIVE SUMMARY



## STATE ENERGY PRIORITY AREAS



Railbelt Transmission,  
Generation, and  
Storage



Coastal Generation,  
Distribution,  
and Storage



Rural Generation,  
Distribution,  
and Storage



State Energy  
Data



Incentives and  
Subsidies



Statutes and  
Regulations

### A.O. 345 - ALASKA ENERGY SECURITY TASK FORCE

Governor Mike Dunleavy issued Administrative Order 344 on February 23, 2023, establishing the Alaska Energy Security Task Force (“Task Force”). The purpose of the Task Force is to develop a comprehensive statewide energy plan, that will evaluate energy generation, distribution, and transmission for the State of Alaska and its communities. The development of this plan included collaboration with both public and private stakeholders. This statewide energy plan, including proposed timelines and milestones, will be presented to the governor upon completion.

Administrative Order (A.O.) No. 345 on March 22, 2023 identified the Lieutenant Governor as the Chair. The Alaska Energy Security Task Force consists of 15 voting members and five ex officio members, appointed by and serving at the pleasure of the Governor. A.O. No. 345 was amended for the Task Force to produce a final report with recommendations by December 1, 2023.

The Task Force began meeting in April 2023 and met regularly every three weeks through October 2023. The Task Force divided into six subcommittees to work more efficiently in the time available. Subcommittees were divided regionally; Railbelt, Coastal, Rural, and functionally; Data, Incentives & Subsidies and Statutes & Regulations. Each subcommittee met bi-weekly outside of the regularly scheduled Task Force meetings. The subcommittees were tasked to develop strategic priorities supported by actions intended to meet the intent of AO 345.

### GOALS

In order to develop a comprehensive recommendation, the Task Force determined the need to establish long-term, mid-term, and short-term goals that reflect desired outcomes. These goals were centered on affordability, reliability, and resilience - the three key factors the Task Force identified to meet the overall goal of lowering the cost of energy for Alaskans while simultaneously ensuring energy security for our state. The recommended goals include the following:

- Short-term: Minimize regret cost while providing reliable service.
- Mid-term: Invest in infrastructure improvements to advance the long-term goal of energy diversification.
- Long-term: Significantly diversify power generation with an emphasis on local, reliable, and affordable energy.

The Task Force was motivated to seek transformational approaches to reach these goals that might provide electrical energy to residents at a target price of \$0.10/kwh in the future. The Task Force reviewed numerous generation and transmission configurations and strategies from publicly available data but did not complete independent or internal cost estimates in developing action items or strategies.

In the **short-term**, the Task Force acknowledges that continued reliability for generation and transmission in many areas of the state may require certain actions that are likely to increase costs. The expected increase in costs is directly tied to project permitting, available fund or financing, and in the case of the Railbelt, local gas supply market in Cook Inlet. Short term options for electric and gas utilities that can reliably serve the local demand are limited. The magnitude of the rising costs, and the ability to arrest and then reverse these rising costs as energy sources are diversified, will depend upon the State of Alaska’s collective response to the recommendations set forth within. Therefore, it is important that investments in the short term do not hinder mid-term and long-term goals of infrastructure improvements for diversified power generation sources.

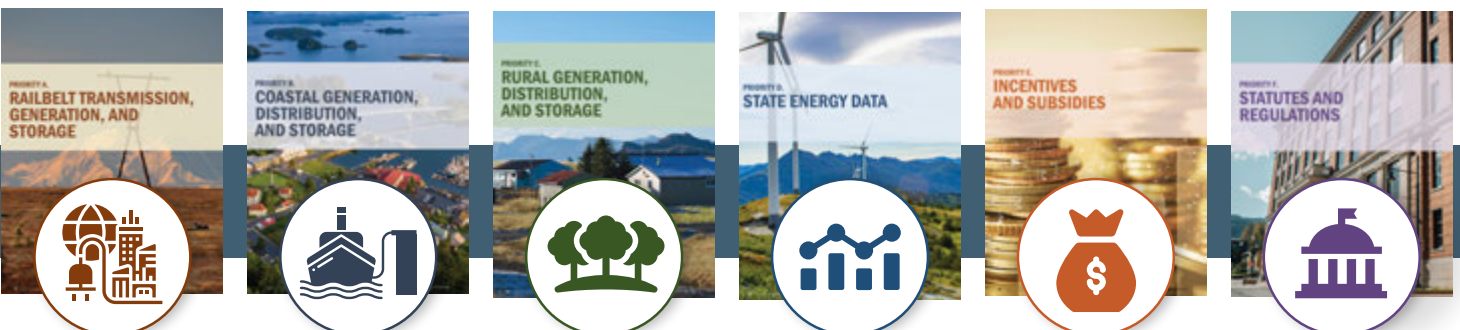
In the **mid-term** (2-20 years), significant state and federal investment must be made in energy and power infrastructure to enable the long-term goal of diversified, local, reliable, and affordable energy. Alaska must invest in its future. Transmission system upgrades must be made to allow cost competition to optimize all generation, including renewables. Energy storage is another much needed investment area; where it is viewed that shared costs and control will help optimize overall energy cost and enable diverse generation forms to expand. Transmission upgrades, further deployment of energy storage and improved operating models are necessary to facilitate economic dispatch of electrical energy.

In the **long term**, for 2040 and beyond, the Task Force established a goal that the system for generation, transmission and space heating should reflect a significant diversification of energy supply from 2023 metrics and be affordable, sourced within the State of Alaska and, most importantly, reliable. Energy generation sources also need to be considered in the context of a sustained supply for the years to come.

## **ENERGY PRIORITY AREAS & STRATEGIES**

Each subcommittee identified key strategies they felt supported the A.O. No. 345 mandate. Energy Priority Areas and strategies are organized by subcommittee. The first three subcommittees focused on geographic area needs and created strategies to meet those needs. The Railbelt subcommittee covers the geographic area from Homer, AK, the Kenai Peninsula, to Anchorage, then north through the Mat-Su Borough to Fairbanks. The Coastal Subcommittee covers coastal communities through the Aleutian Chain and then south and east to include all Southeast Alaska communities. Finally, the Rural subcommittee represented all rural communities outside those represented by the first two geographic subcommittees.

**Three subcommittees focused on functional issues that support the three geographic subcommittees.** The Data subcommittee focused on all past, present and future energy data that exists or may be collected in the future. The Incentives and Subsidies subcommittee presented ideas that might help to lower energy costs across the state. Finally, the Statutes and Regulations subcommittee looked through all subcommittee recommendations and generated recommendations related to legislative or departmental actions necessary to guide state policy or appropriations toward the goal of lowering costs of energy.



## PRIORITY A: RAILBELT TRANSMISSION, GENERATION, AND STORAGE



The Railbelt Transmission, Generation, and Storage subcommittee identified three key strategies:

**A-1 Unify Railbelt transmission and storage:** Unify all existing transmission assets along the Railbelt and Bradley Lake under Alaska Energy Authority or a new not-for-profit regulated utility.

**A-2 Diversify generation:** Encourage and coordinate the diversification of Railbelt generation assets through projects and policy that provide opportunities to maximize energy cost savings.

**A-3 Increase demand:** Significantly increase load to drive down energy rates.

### Key Outcomes

- Investing in transmission and storage infrastructure and simplifying its operation will ultimately enable the long-term goal to significantly diversify Railbelt generation and provide energy that is reliable, affordable, and generated in-state.
- Greater diversification of power generation to provide reliable, lower cost electricity, for Railbelt rate payers.
- A significant increase in load would spread fixed costs over a larger base, drive down prices for all consumers, and spur economic development.

## PRIORITY B: COASTAL GENERATION, DISTRIBUTION, AND STORAGE



The Coastal Generation, Distribution, and Storage Subcommittee identified four key strategies:

**B-1 Alaska market initiatives:** Maximize utilization of existing energy generation and transmission and promote new renewable energy assets to lower energy costs for Alaskans and their industries through market initiatives and expansion.

**B-2 Alaska policy recommendations:** Enhance Alaska's departmental and regulatory policies to spur and sustain renewable energy and transmission development to cut energy costs and advance economic prosperity for Alaska

**B-3 State of Alaska coordination with Federal agencies and with Federally and State recognized Tribes recommendations:** Refine federal policy to bolster Alaska's renewable energy and support communities in securing affordable energy.

**B-4 Alaska hydropower generation recommendations:** Enhance Alaska's policies to fast-track hydropower to provide affordable, secure energy for Alaskans.

### Key Outcomes

- Strategically planned market initiative actions with tactical implementation will optimize State of Alaska's Energy plan to lower Alaskans' energy costs (electric, heating, transportation).
- Administration and AEA strategic maturation of Task Force recommendations, optimizing federal funding for the strategic achievement of goals will reduce the cost of power for Alaskans today and leave an energy legacy for generations to follow.
- The expected results and outcomes from this cross-agency, inclusive tribal interest effort will lower Alaska's energy costs and reduce the dependency on imported fuels, using local Alaska land and energy resources for the benefit of Alaska.
- The State of Alaska can take an active, willful, and calculated role in lowering the energy cost for Alaskans, by effectively guiding hydropower development policy and investments in hydropower assets and related transmission infrastructure.

## C PRIORITY C: RURAL GENERATION, DISTRIBUTION, AND STORAGE

The Rural Generation, Distribution, and Storage Subcommittee identified five key strategies:

**C-1 Increase access to capital:** Increase access to capital to provide additional funding/finance for project and infrastructure construction.

**C-2 Infrastructure investment:** Support existing infrastructure and add new infrastructure to provide Alaskans with reliable energy at reduced cost.

**C-3 Lower operational costs:** Lower operational costs of power/electricity in rural Alaskan villages.

**C-4 Increase economies of scale:** Reduce the cost of power and improve reliability.

**C-5 Data decision making:** Improve access to relevant data necessary to make informed value decisions related to energy generation, distribution, transmission and storage in rural Alaskan villages.

### Key Outcomes

- Identify sufficient investment in energy projects/infrastructure to reduce the cost of energy in rural Alaska.
- Investment in connected regional infrastructure for the community needs that lead to the most affordable and reliable energy.
- Connect communities to each other and anchor tenants to improve the reliability and reduce the cost of energy.

## D PRIORITY D: STATE ENERGY DATA

The State Energy Data Subcommittee identified four key strategies:

**D-1 Establish a data department within the Alaska Energy Authority (AEA):** Staff and properly equip a team dedicated to energy data management within the Alaska Energy Authority.

**D-2 Establish an energy data governance committee:** Ensure that collection, quality, storage, use of, and access to energy data in Alaska meets industry standards, current protocols, and best practices.

**D-3 Fund data capacity:** Establish dedicated data collection and analysis positions in state agencies that are responsible for collecting, analyzing, hosting, distributing data in formats that are accessible

**D-4 Improve existing statewide energy data and collect new:** Fund a gap analysis of energy data, including existing data, accessibility, quality, age, and what form and character of data is and would be needed for data-informed decision making.

### Key Outcomes

- Provision of consistent and accessible data further enabling data-informed decision-making on energy projects and policy across the state and across electric, heat, and transportation sectors.
- Energy data in Alaska meets and conforms with industry standards, protocols, and best practices. Increased participation of energy data stakeholders and end-users.
- Increased collaboration, reduced duplication of efforts, ease of data access, and better-informed decision making.

## PRIORITY E: INCENTIVES AND SUBSIDIES



The Incentives and Subsidies Subcommittee identified five key strategies:

**E-1 Strengthen state-federal coordination and investment:** Establish a state/federal working group that identifies and works toward improved access on federal lands with funding in place to accelerate a local, reliable, and affordable energy transition.

**E-2 Reduce the barriers to private sector investments:** Create a strategic approach to policy, tax, and program development that stimulates and incentivizes private sector activity leading to lower cost, local, and reliable energy.

**E-3 Maintain residential subsidy focused on equity, while reducing need across communities:** Ensuring residents have access to subsidy and to 1) consider alternative mechanisms, 2) strategically deploy PCE funds to advance low-cost energy solutions, and 3) expand the ability of PCE to lower costs across sectors within communities.

**E-4 Improve the economics of project development:** Create a multi-pronged approach to reduce risk to utilities and project proponents, increase the availability of financing mechanisms, and encourage ancillary investments.

**E-5 Increase State programmatic investments:** Evaluate and update current programmatic investments.

### Key Outcomes

- Increase knowledge of available funding and implementation support for energy projects in Alaska, and leverage current federal investment through IJJA and IRA.
- Initiating a series of statutory changes and encouraging quicker adoption by communities and use by utilities and others will unlock private sector investment.
- Working toward a flatter rate across Alaska improves the mobility of residents, increases economic opportunity, and improves quality of life for Alaskans.

## PRIORITY F: STATUTES AND REGULATIONS



The Statutes and Regulations Subcommittee identified four key strategies:

**Statutes F-1 Improve Electrical Transmission System:** Identify changes in statutes, regulations, or appropriations needed to improve electrical transmission in Alaska.

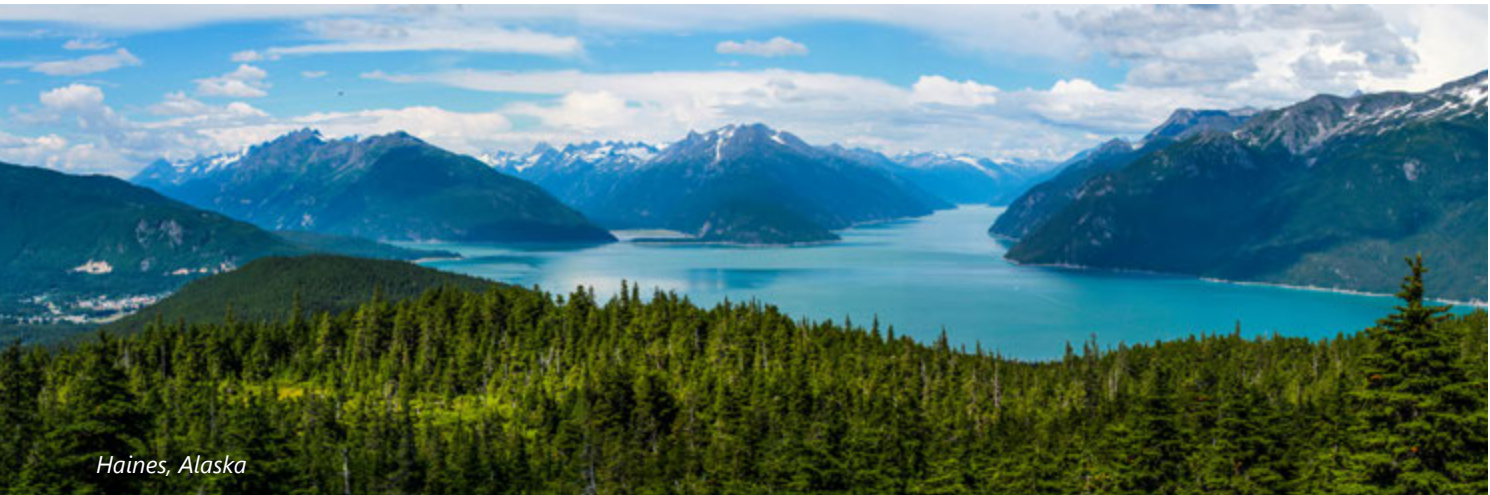
**Statutes F-2 Encourage Energy and Generation Diversification:** Identify changes in statutes, regulations, or appropriations needed to encourage energy generation diversification.

**Statutes F-3 Utility Regulation:** Identify changes in statutes, regulations, or appropriations needed to implement AESTF recommendations related to utility regulation.

**Statutes F-4 Executive and Organizational Changes:** Staff and properly equip a team dedicated to energy data management within the Alaska Energy Authority.

### Key Outcomes

- More resilient and reliable transmission and electric grid system that will lower rates, help bring online clean energy, reduce costs for consumers, and promote job creation.
- Greater diversification of power generation to provide reliable, lower cost electricity, heat, and transportation for rate payers.
- Improved utility regulation and a more efficient RCA will allow utilities to be able to respond to system challenges in a more timely and cost effective manner.



Haines, Alaska

## NEXT STEPS AND ACTIONS RECOMMENDED FOR IMMEDIATE IMPLEMENTATION

The Task Force recognizes that this report will become an iterative planning tool to be continually updated to meet the mandate of A.O. No. 344 and A.O. No. 345. Updates to this report will become more comprehensive in nature as actions are implemented across agencies and departments. This report is intended to guide institutions in building programs and policies that promote energy affordability, reliability, and resilience.

The actions listed below are those actions the Task Force feels are ready for immediate implementation to help advance the overall actions/outcomes identified in the plan. These actions deserve to be considered for further development by the Governor or the Legislature in the coming legislative session. Detailed description of each of these actions can be found in **Appendix II- Additional Action Detail Summary**.

High priority actions are as follows:

**Railbelt A-1.1:** Unify all existing transmission assets along the Railbelt and Bradley Lake under AEA or a new not-for-profit regulated utility.

**Railbelt A-2.1; Incentives E-2.1(3); and Statutes F-3.5:** Adopt a Clean Energy Standard with incentives to diversify generation

**Railbelt A-2.3.1; A-2.4.1; and A-2.4.2:** Progress known near- and long-term energy diversification projects to a go/no-go decision (i.e., Dixon Diversion, Susitna Watana, AKLNG, Bullet Line and Alternatives)

**Coastal B-1.1; B-1.2; B-1.3; B-1.4; and B-1.5:** Alaska Market Initiatives

**Coastal B-2.3:** Strengthen and Streamline the State of Alaska's internal state regulatory and land use administrative processes to accelerate approval to advance strategic energy projects and transmission for regional energy security and lower energy costs.

**Coastal B-2.6; Rural C-3.1; and Incentives E-5.1(4):** Recruit, Train, and Enhance Alaska workforce with technical skills and training to increase capability & capacity-building activities to lower Alaska energy costs and to sustain Alaska's growing energy infrastructure.

**Coastal B-4.1:** Foster, Support, and Assist Hydropower development and their transmission in Alaska to lower energy costs, provide energy security, and spur economic growth, job creation, and prosperity for Alaska.

**Rural C-2.3:** Fund and Construct Opportunities to Connect Rural Communities through Transmission Lines and Other Shared Energy Projects.

**Rural C-3.4:** Procure, install, and improve grid modernization and automation

**Data D-1.1; D-1.2; D-1.3; D-1.4; D-1.5; and, Statutes F-4.1:** Establish a Data Department within the Alaska Energy Authority (AEA), using statute as necessary

**Data D-2.1 and D-2.2:** Establish an energy data governance committee that is responsible for setting minimum protocols for data collection, quality, storage, use, and access

**Data D-3.1 and D-3.2:** Fund data capacity

**Data D-4.1; D-4.2; D-4.3; and D-4.4:** Improve existing statewide energy data and collect new, needed data with respect to electricity, heat, and transportation

**Incentives E-2.1(4):** Implement low-interest loan program (concessionary capital, like Power Project Loan Fund) that facilitates affordable energy development and infrastructure improvements.

**Incentives E-3.1(2):** Implement a strategic approach to lowering costs according to highest use communities.

**Incentives E-3.1(5):** Consider the development of a postage stamp rate alternative, where all Alaskans pay the same rate.

**Incentives E-4.1(1):** Establish a Green Bank for financing of community scale energy efficiency projects.

**Incentives E-4.1(6):** Reestablish the Emerging Energy Technology Fund (EETF) in order to promote public-private investment in energy technology demonstration and deployment programs.

**Statutes F-1.1:** Identify state matching funds necessary for all federal funds available for transmission infrastructure (also see Action F-1.6, B-2.4, C-2.3).

**Statutes F-2.1:** Identify state matching funds necessary for all federal funds available for generation infrastructure when a cost/benefit analysis shows a positive benefit to the state or the communities the project is intended for. (see also C-3.4).

**Statutes F-2.2:** Monitor and evaluate third party development of carbon capture and sequestration technologies and pass legislation establishing a regulatory framework for the geologic storage of carbon.

**Statutes F-3.1:** Provide support for the Regulatory Commission of Alaska (RCA) sufficient to improve the RCA's ability to respond timely and appropriately to the complex energy production, generation, and transmission challenges in Alaska.

**Statutes F-3.2:** Maintain and expand the PCE Program until all Alaskans benefit from actual equitable and lower cost energy.