



Grid Restructuring and Open Access

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Agenda

- Who Am I / Who is ARCTEC?
- The Case For Action
- Unified System Operator: Principles, Objectives and ARCTEC's Role
- USO vs TRANSCO



Who We Are

- ARCTEC is a cooperative formed by four of the largest utilities in the railbelt: MEA, CEA, GVEA and the City of Seward
- Dave Gillespie, CEO
 - **20+ years utility experience; helped establish CAISO, ISO New England**
 - **10 years independent power experience; developed and managed 5000MW projects throughout lower forty-eight and Canada**
 - **Started up renewable biofuel company**
 - **4 Years CEO of Alaska Native Corporation**



The Coop Model

- Our sole mission is to deliver reliable, sustainable energy to our customers at the lowest possible cost.
- It is our obligation
- The sole purpose of the railbelt transmission system is to fulfill this mission.
- The buck stops at our members. There are no shareholders to create competing priorities



Case For Action

- Alaska Energy Authority has estimated **ANNUAL** costs to Alaska customers of **\$60M-\$140M** due to ***uneconomic dispatch***.
- It is difficult to build transmission projects that have ***regional*** benefit.
- Despite PURPA and RCA regulations, non-utility and renewable generation developers have no clear road map to get their projects built.
- Reliability standards are not uniformly adopted.
- Although individual utilities have long-term resource plans, there is no integrated long-term plan to ensure the most economic upgrades to the ***system***.



We Have Two Problems

- Part of the problem is physical: the cheapest available power can't always get to where it is needed;
 - **Transmission lines don't always have enough capacity to carry cheap power from the Kenai to Anchorage or from Anchorage to Fairbanks**
- Part of the problem is the way we're regulated: the railbelt electric grid is planned and operated by six independent entities.
 - **Transmission Tariffs are structured in such a way that a wind developer in Anchorage needs to pay three different utilities to use their lines to sell power to Fairbanks**



The Current Situation Stymies Development

- Coops have fiduciary obligation to their **members**, not the region as a whole
 - Patchwork transmission charges
 - Little system wide planning
 - Competing priorities
- The physical transmission system cannot deliver the **existing** generation, let alone **new** generation
- The electric system is technically complex, with issues that are sometimes only understood by engineers. This can create an atmosphere of mistrust



So, What is the Solution?

- To implement a new system to manage the transmission grid as a single, unified whole instead of six individual systems
- This approach is common in the lower forty-eight and is referred to variously as ISO, USO, or RTO
- We prefer “Unified System Operator”



Guiding Principles for a Unified System Operator

1. Stakeholder governance
2. RCA jurisdiction / regulatory compact
3. Nationally recognized reliability standards
4. Interconnection standards
5. Plans system upgrades
6. Provides non-discriminatory access and service
7. Economic dispatch
8. Respects existing agreements and investments



ARCTEC's USO Objective

- To capture for our members the economic benefits available through better grid integration
 - **Economic dispatch**
 - **More efficient use of transmission system**
 - **Better opportunities for IPPs**
- Coordinated planning
- More efficient use of capital
- To create a regulatory regime, overseen by the RCA, that delivers on our guiding principles



We Will Be Most Successful When All Stakeholders Participate

- System is interconnected: reliability standards must be consistent.
- Joint planning is necessary to ensure most economic deployment of capital.
- System wide transmission tariff is necessary to eliminate rate pancaking and to allow economic energy dispatch.
- Rules for interconnecting IPPs should be consistent regardless of where on the system they are located.



ARCTEC's Role

- Act as a catalyst for change
- To provide a forum to develop stakeholder consensus
- To develop a proposal to RCA for implementation that has broad-based support
- To provide services to the USO



USO vs TRANSCO

- The USO's role is to use a stakeholder based process to establish, implement and enforce a set of rules and procedures that are consistent with the Guiding Principles for delivering the lowest cost, most reliable, sustainable energy to railbelt consumers.
- The TRANSCO's role is to own and operate transmission assets, to attract and deploy capital, to create scale economies and to otherwise implement the USO's policies



USO vs TRANSCO

- **USO**

- Doesn't own assets
- Makes / enforces the rules
- Stakeholder governed
- Has an RCA regulated tariff
- Plans transmission system
- Non-profit

- The USO is fundamentally a policy making body

- **TRANSCO**

- Owns assets
- Follows / implements the rules
- Owner governed
- Has an RCA regulated tariff
- Implements transmission system plan
- Usually for-profit

- The TRANSCO is fundamentally an operating body



In Conclusion

- There is an opportunity to save many millions of dollars annually by restructuring the way we manage the railbelt electric grid.
- There are diverse stakeholders, but we agree on far more than we disagree.
- We believe implementing a Unified System Operator model is the best approach.
- ARCTEC would like to be the catalyst to bring the stakeholders together