

ISSUES ASSOCIATED WITH AN INDEPENDENT SYSTEMS OPERATOR [OR UNIFIED SYSTEMS OPERATOR] GOVERNING ELECTRICAL TRANSMISSION IN THE RAILBELT AREA OF ALASKA

**Moving towards an Integrated
Grid and Economic Dispatch of
Electrical Power in the Railbelt**

House Special Committee on Energy (HENE)

Second Hearing 2 February 2016

Capitol 17

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- ▶ **Electrical Transmission and Region-wide Generation**
- ▶ **Utilities in the Railbelt area**
- ▶ **4 Electrical cooperatives; 2 municipal electrical utilities**
- ▶ **Grid unification- numerous studies & reports**
- ▶ **2014 Alaska Legislature and RCA Report (June 30, 2015)**
- ▶ **Proposed transmission company –TRANSCO**
- ▶ **Independent Systems Operator (ISO)**
- ▶ **Unified Systems Operator (USO) as an Approach**
- ▶ **Benefits and Challenges of the ISO or USO mechanism for pooling & economic dispatch**

RAILBELT ELECTRICAL UTILITIES

► 6 ELECTRICAL UTILITIES

■ COOPERATIVES

- GOLDEN VALLEY ELECTRIC ASSOCIATION (GVEA)
- MATANUSKA ELECTRIC ASSOCIATION (MEA)
- CHUGACH ELECTRIC ASSOCIATION (CEA)
- HOMER ELECTRIC ASSOCIATION (HEA)

■ MUNICIPALITIES:

- MUNICIPAL LIGHT & POWER (ML&P)
- CITY OF SEWARD

GRID UNIFICATION

- ▶ **NUMEROUS STUDIES AND REPORTS GOING BACK OVER DECADES**
- ▶ **PROPOSED TRANSMISSION APPROACH – “TRANSCO”**
 - **FOR PROFIT OR NON-PROFIT**
 - **INVESTS IN TRANSMISSION UPGRADES, PLANNING, CONSTRUCTION, AND MAINTENANCE**
 - **FINANCING OF UPGRADES**
 - **RATE OF RETURN BASED ON REGULATION BY THE REGULATORY COMMISSION OF ALASKA**

HISTORY & OBJECTIVES OF RAILBELT ELECTRICAL GENERATION

- ▶ **2014 Alaska Legislature appropriation**
 - ▶ **RCA contracted study with the Alaska Center for Energy & Power (ACEP)**
- ▶ **RCA June 30 Letter to the AK Legislature**
 - ▶ **5 key findings and recommendations**
- ▶ **Major benefits of Grid Integration**
- ▶ **Transco – Progress with forming a region-wide transmission entity**
- ▶ **ISO – Does this mechanism have advantages relative to the establishment of a USO?**
- ▶ **Key Milestones in RCA Regulatory Proceedings with regard to these issues**

RCA TO ALASKA LEGISLATURE (JUNE 30, 2015): CHALLENGES AHEAD

- ▶ **Reform and reorganize the Railbelt Electrical System**
- ▶ **Balkanization is evident; there have been many contested regulatory proceedings**
- ▶ **Problem with moving power through various service jurisdictions**
 - ▶ **There are multiple tariffs which result in “pancaking”**
- ▶ **Institutional structure currently problematic**

RCA TO ALASKA LEGISLATURE (JUNE 30, 2015): OPPORTUNITIES AVAILABLE THROUGH “VOLUNTARY” EFFORTS

- ▶ **Benefits from more efficient operation of the regional system**
 - ▶ **Greater than \$50,000,000 annually (could be more)**
- ▶ **A transmission company can provide unified tariffs and non-discriminatory access to the grid, along with investments in needed capacity**
- ▶ **Ratepayers should benefit**

ACEP REPORT TO RCA

- ▶ **Completed by Anthony Scott, Alaska Center for Energy and Power**
- ▶ **Grid integration and economic dispatch**
- ▶ **Modeling benefits to consumers**

MAJOR BENEFITS OF GRID UNIFICATION

- **Economic dispatch**
 - **More efficient use of transmission**
 - **Better opportunities for Independent Power Producers (IPPs)**
 - **Reduced emissions**
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ISO OR USO

- ▶ **Regulated by the RCA**
- ▶ **Non-asset owning**
- ▶ **Responsible for planning, construction, management and maintenance of the integrated grid**
- ▶ **Ensure non-discriminatory access to the grid**
- ▶ **Promulgate and monitor compliance with:**
 - ▶ **Statutes (Alaska Legislature)**
 - ▶ **Policies (Executive and Legislative branches)**
 - ▶ **Regulatory rulemaking (RCA)**

IMPLICATIONS, BENEFITS, AND PROGRESS

- **Three submittals as of the JAN. 31, 2016 MILESTONE – received by the RCA**
- **Progress metrics should be explicitly addressed**
- **HB187 STATUS: Now in first Committee of Referral**
- **RCA Engagement/ Dockets / Findings & Recommendations
June 30, 2015 Letter to AK Senate President Kevin Meyer & Speaker of the House Mike Chenault**
- **Road map of “progress” to achieve grid integration and economic dispatch**

THANK YOU FOR YOUR ATTENTION!

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