

# Alaska Energy Authority (AEA)

Presentation for

## Renewable Energy Alaska Project

July 19, 2007

by

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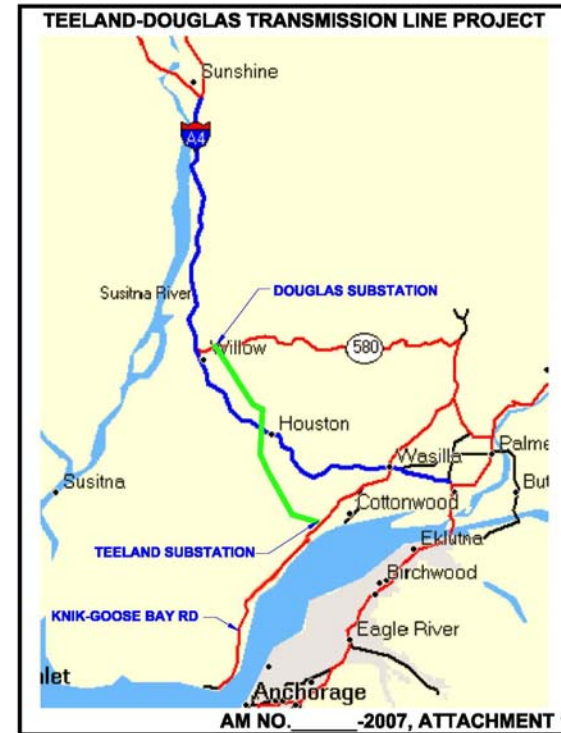
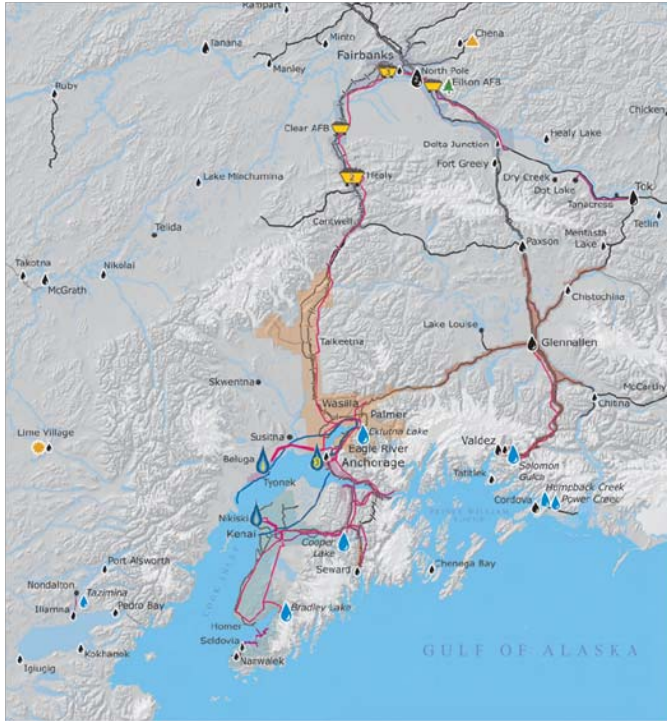
*Railbelt Electric Grid – Unified System Operations  
Project*



## Railbelt Unified System Operations

- Goals of Project
- Determine whether USO would benefit Railbelt Rate Payers and what type should be formed.
- Structure
  - Technical Conference in October 2007
  - Consultant Contract

# Railbelt Unified System Operations



The Railbelt at a glance

# Railbelt Unified System Operations

## ■ Technical Conference

- Experts in Network Architecture
- Experts in Network Management
- Instate utility experts
- Fuel suppliers
- Other stakeholders

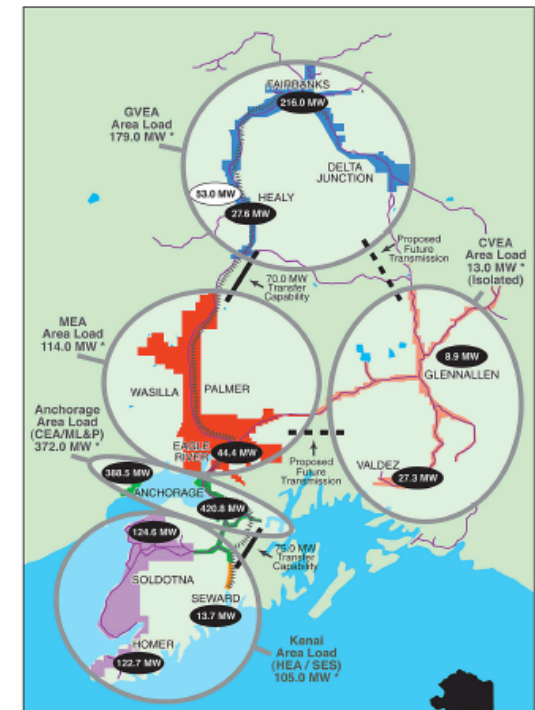
# Railbelt Unified System Operations

## ■ Physical Extent of Railbelt

- Stretches from Seldovia to Delta Junction
- Discrete monopoly service areas
- Ownership divided between certificated utilities and the Alaska Energy Authority

Report on the RAILBELT 12/2003  
Findings and Recommendations of the Alaska Energy Policy Task Force

### RAILBELT LOAD CENTERS



\* Indicates peak load for 2002  
Sources: Alaska Systems Coordinating Council, 2002 Coordinated Bulk Power Supply Report (Department of Energy EIA-471), May 23, 2003; Railbelt Energy Study, 2003; Copper Valley Electric Association  
①①① MW - Area Generation Capacity Available  
①①① MW - Healy Clean Coal Plant

## Railbelt Unified System Operations

### ■ Technical Conference

#### □ Goal:

- Educate stakeholders and the public on the needs of utilities and consumers, and network structure
  - Physical extent
  - Regulatory and business structures now employed
- Gather information on the Railbelt network
- Proceeding to be published

## Railbelt Unified System Operations

### ■ Consultant Contract

#### □ Goal

- Define the extent that collective planning should be employed for the Railbelt Network
- Develop an implementation plan for any recommended network regulatory, ownership and management restructuring

## Railbelt Unified System Operations

### ■ Consultant Contract – Collective Planning

- Functional needs for network
- Planning horizon – to be determined
- Future attributes
  - Business structure and number of utilities
  - Regulatory structure
  - Future design and degree of interconnection required

## Railbelt Unified System Operations

### ■ Consultant Contract

- Consider different options for USO functional responsibility
- Does regional integrated resource planning make sense?
- Different approaches to create regional power portfolio
- Consider role alternate and renewable energy projects should play in power portfolio

## Railbelt Unified System Operations

- **Consultant Contract**
  - Ownership of energy infrastructure
  - Fuel availabilities
    - External factors
    - Potential for gas supply from lower cook inlet, north slope, and coal
  - Robustness of transmission capacity
  - Network access rules

## Railbelt Unified System Operations

### ■ Consultant Contract

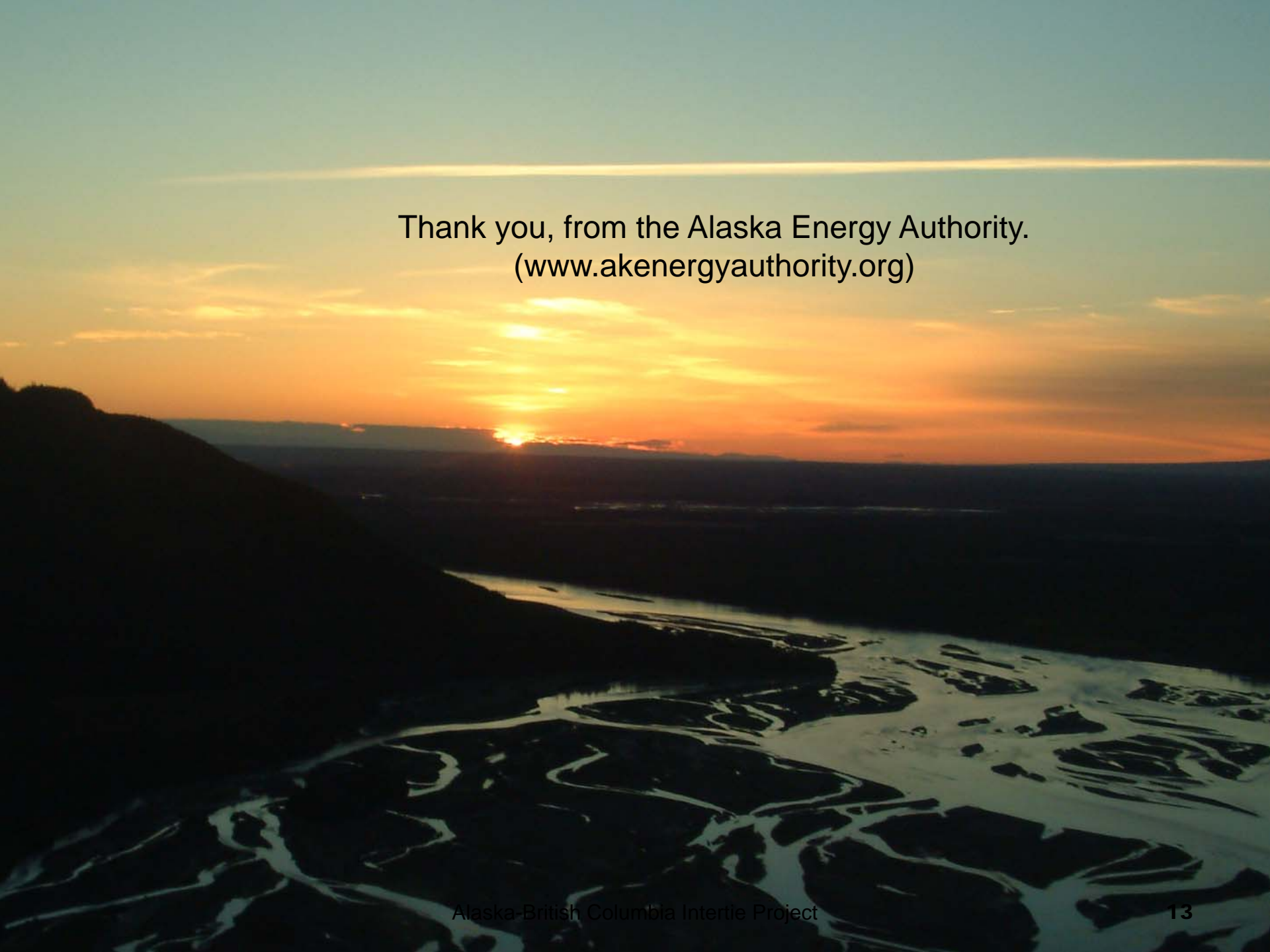
#### ■ Develop a reasonable implementation plan

- define actions for AEA, State of Alaska, utilities, and prospective IPPs to achieve unified grid operation
- Identify new agreements necessary
- Identify barriers to restructuring

## Railbelt Unified System Operations

### ■ Public process

- Advisory Work group and steering committee envisioned
- Recommendations to AEA on scope of the work
- Public hearings for input from all stakeholders



Thank you, from the Alaska Energy Authority.  
([www.akenergyauthority.org](http://www.akenergyauthority.org))