

UPPER COOKINLET marine ALLIANCE

Joint Port Commission Meeting – May 23, 2022

Port MacKenzie



Partnership to:

- Boost Port of Alaska Modernization Program funding efforts
- Eliminate Port MacKenzie operating deficit
- Enhance Alaska cargo transport resiliency/food security
- Achieve State Renewable Energy Portfolio standards
- Decrease Port of Alaska/Alaska cargo-related greenhouse gas emissions
- **Promote Public-Private Partnerships to cultivate emerging Upper Cook Inlet business sectors**

Alliance vs. Port Authority

- ✓ Muni-Borough Agreement
- ✓ Faster to implement
- ✓ Market driven (avoids over building public infrastructure)
- ✓ Avoids need to build out Port MacKenzie-related infrastructure

- ❑ State ownership/oversight?
- ❑ Slower to implement
- ❑ Legislative action?
- ❑ Public vote?

Upper Cook Inlet marine cargo market is too small to economically support additional docks

- Port of Alaska operates at about 35% capacity
- Industry best practices say expand docks if/when operations exceed 75% capacity
- Port of Alaska docks currently handle 80% of total vans and containers shipped into Southcentral and distributed statewide
- Port of Alaska tonnage directly correlates with Alaska population
- State population could double before market can economically support additional dock capacity

Alaska challenge:

State population is too small and dispersed to economically support more than one large, inbound port.



Failure



Commerce failures

National defense failures

Disaster recovery failures

Key Operational Risks

- Aging Docks
- Deficient Power Systems

Proposed Solutions

- Port of Alaska Modernization Program – series of dock replacement projects that started construction in 2020
- Port Power Plan



Port Power Plan



- Connected microgrid
- Energy storage
- Emergency generation
- Metering and controls
- Renewable generation

Aligns public, private interests

- Improves grid efficiency, peak management, power quality
- Incentivizes better operational efficiency
- Reduce carbon emissions
- Renewable/sustainable power generation
- Flexibility to accommodate changing cargo markets, emerging cargo-handling technologies



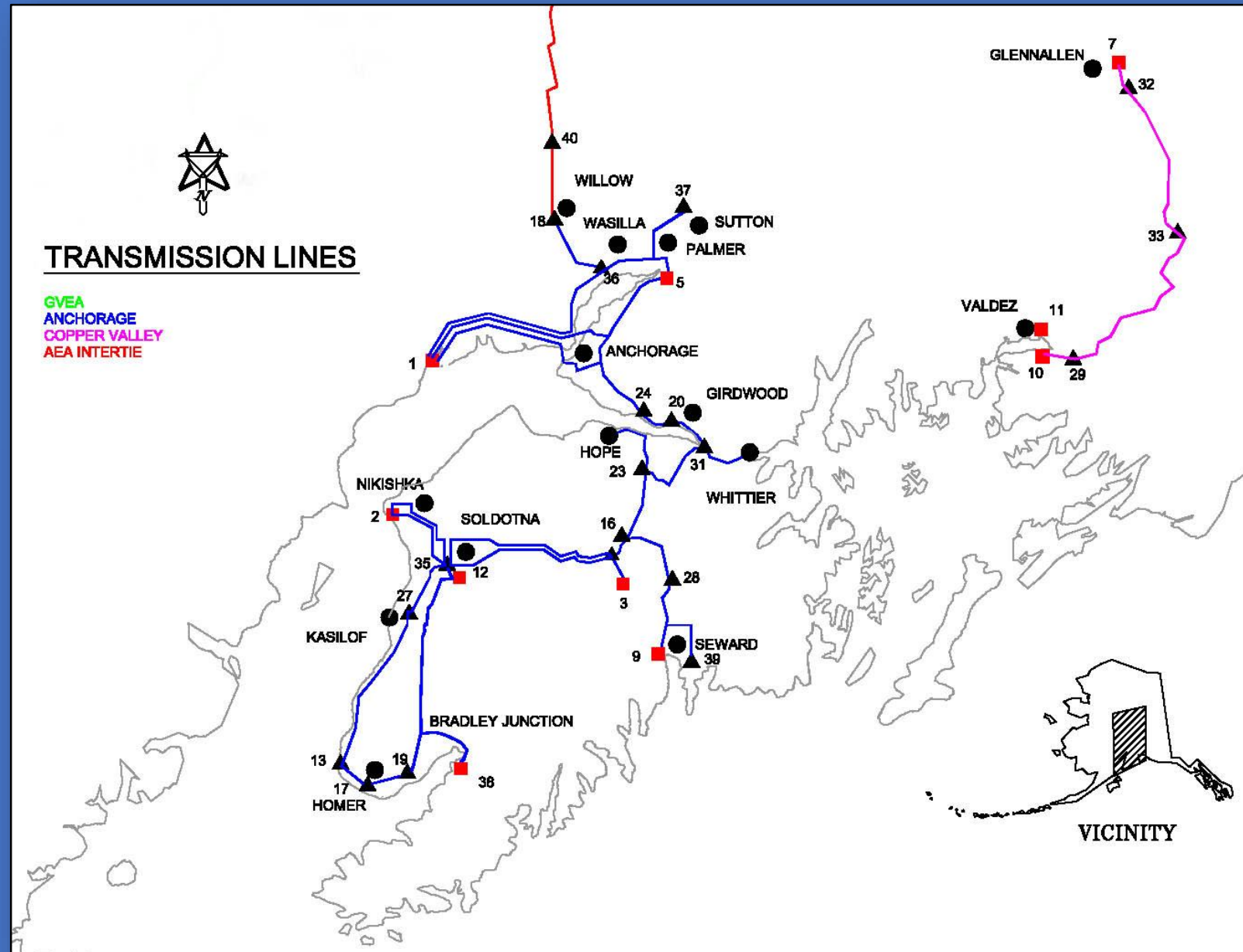
Port MacKenzie



- Open 20 years
- Minimal business or private investment
- Remote site adds significant transport costs to most final destinations
- Limited cargo handling infrastructure
- Work force challenges
- Limited intermodal connectivity
- Significant maritime safety/ operating challenges

Port MacKenzie Features

- Fast currents for tidal power generation
- Open land for solar generation
- Space for battery storage system
- No need to build new roads, rail, etc.
- Existing transmission infrastructure for efficient, reliable power distribution



Upper Cook Inlet Marine Alliance

- Partnership must be mutually beneficial ... need alignment of interests to ensure sustainable success
- Leverage public and private investment (i.e., Public Private Partnerships with utilities, independent power producers . . . etc.)
- Port MacKenzie lease revenue from land users
- Utilize existing infrastructure/capacity
- Public funds invested to enhance power infrastructure for public benefit
- Investments scalable . . . expand to meet market demand

Initial alliance partners include:

- Municipality of Anchorage/Mat-Su Borough
- U.S. Department of Energy/Sandia National Laboratory
- Independent Power Producers
 - Railbelt utilities
 - JBER
 - Private investors



Questions?