
Emerging Priorities in Energy Research

The Challenges of Integrating
Renewables in Small Grids

Railbelt Challenges

- Stability impacts due to variable power sources
- High cost of electrical infrastructure
- Availability & high cost of energy storage
- System operational constraints

Goal for Renewable Energy

Dispatch a Non-Dispatchable Resource

Ongoing Projects

- Multi-Stage Energy Storage System (MSESS)
- Governor Upgrades to Southcentral Power Project
- Governor & control valve upgrades to Beluga Frame 7 units
- Battery Energy Storage System (BESS)