

Increasing Access to the Grid

Montana's Energy Future Symposium

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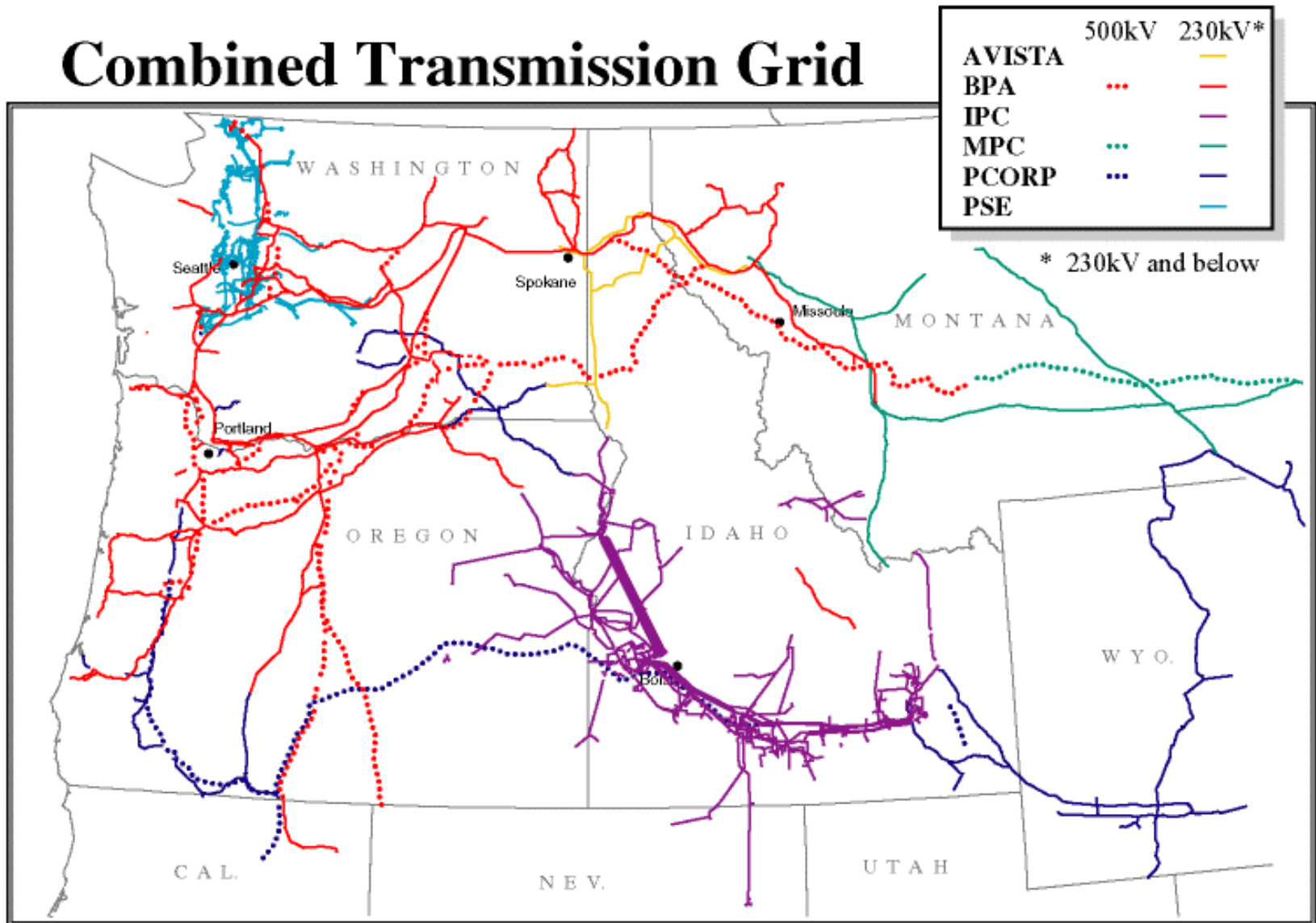
Bonneville Power Administration



Increasing Access to the Grid

- n Expand the Pie
- n Increase Utilization
- n Coordinated Planning

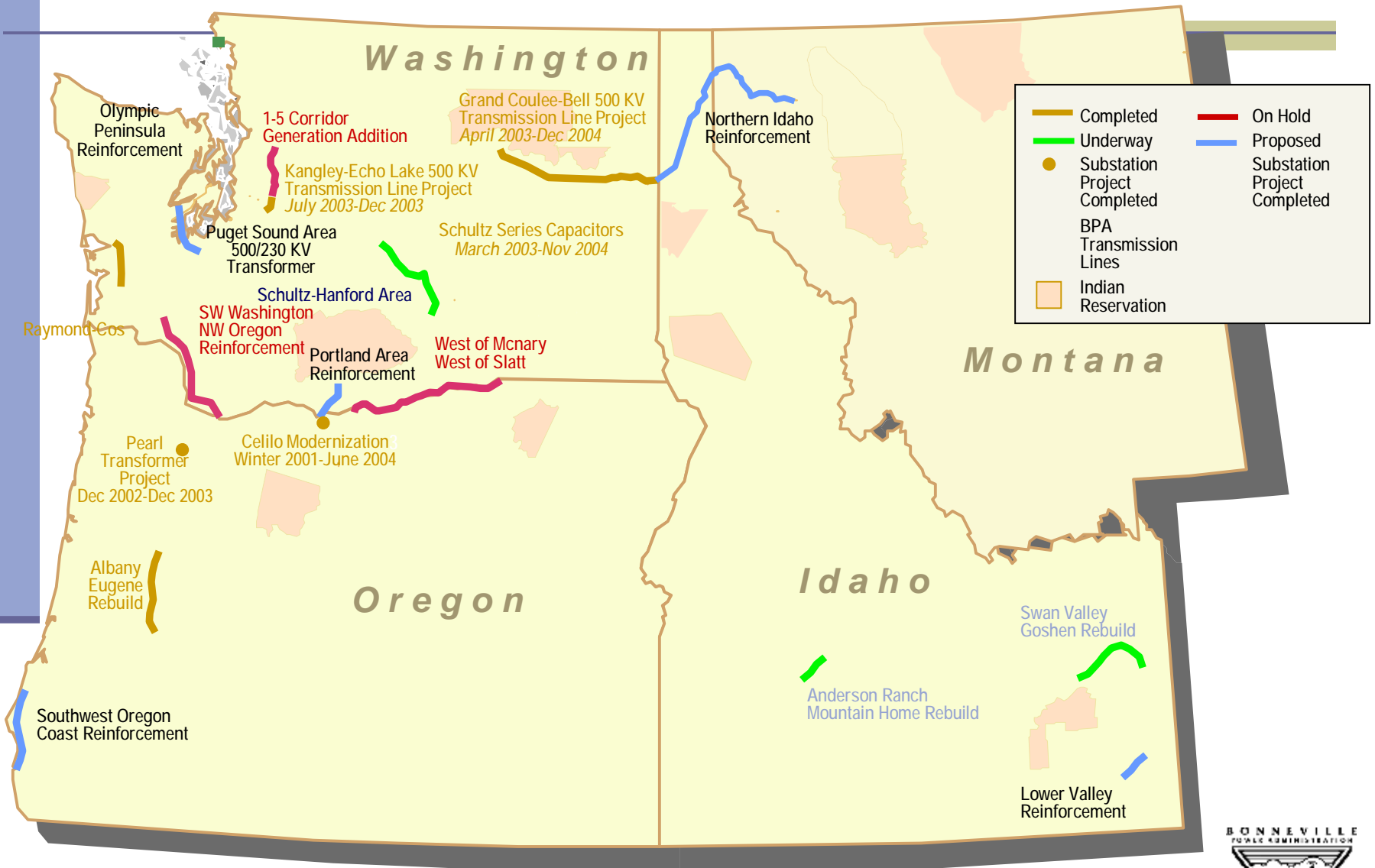
Combined Transmission Grid



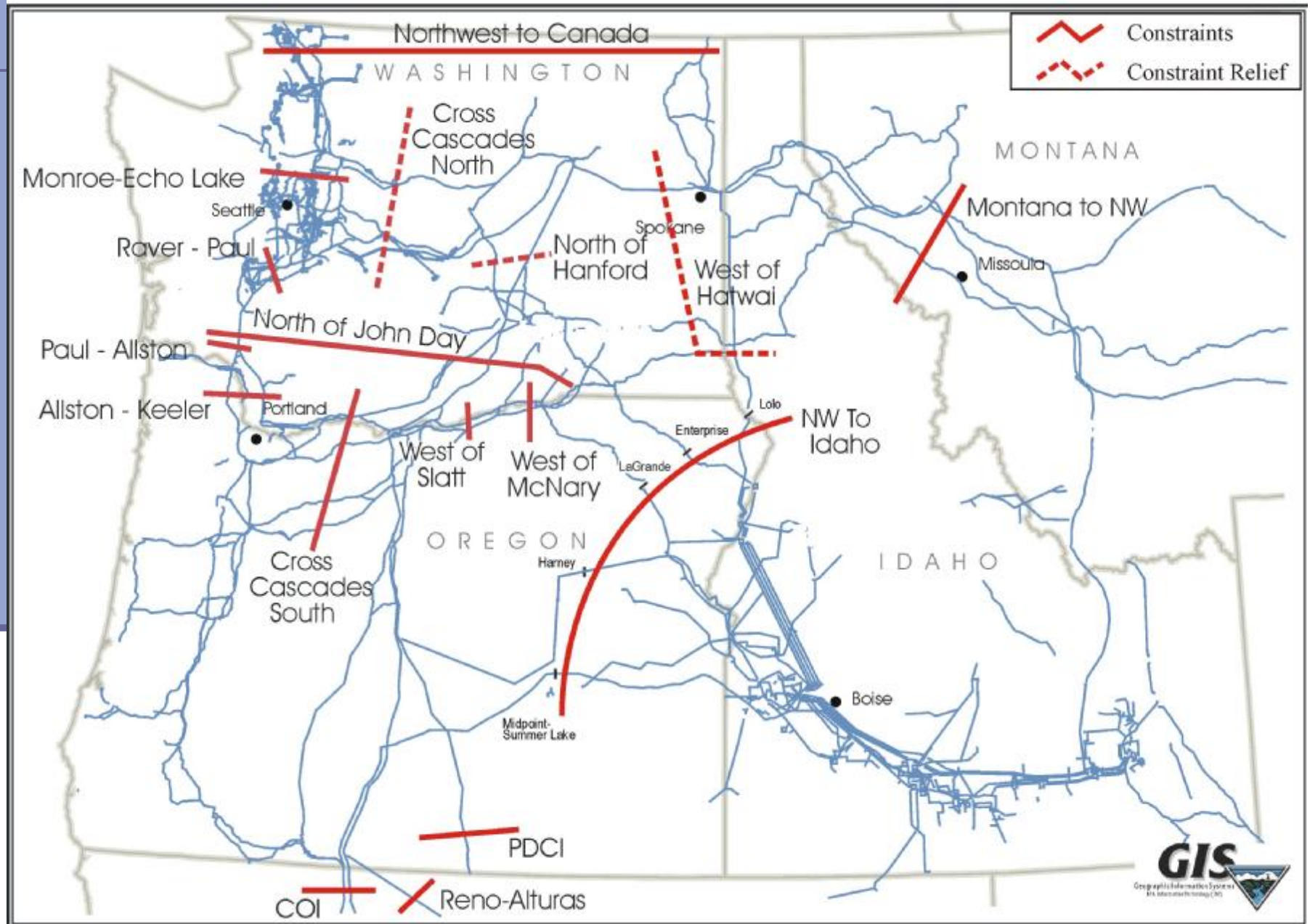
Infrastructure Accomplishments

- n First major line construction in the Northwest since 1987.
- n Invested more than \$1 billion over four years.
- n Two 500-kV lines completed, one under way.
 - n Kangley – Echo lake
 - n Coulee – Bell
 - n Schultz – Wautoma
- n Modernized the nation's largest direct current terminal (Celilo Converter - 3100 MW).
- n Several projects to upgrade local load service.

Status of BPA Infrastructure Additions



2005: Network Constraints



Non Wires Solutions

- n Potential Measures
 - n Demand response
 - n Energy efficiency
 - n Distributed generation
 - n Appropriately sited large generation
- n Objectives
 - n Find least-cost solutions to transmission limitations
 - n Provide equivalent reliability to a transmission fix
 - n Benefits of transmission deferral
 - n Time value of money
 - n Option value of delaying costly investments

Increase Utilization

- n Flow-based **A**vailable **T**ransfer **C**apability
- n **C**onstraint **S**chedule **M**anagement
- n New products and services
 - n Conditional firm
 - n Redispatch
- n Better remarketing of unused rights
- n Strategic use of nonfirm and short-term firm

Integrated Planning Concept

- n **Objective:** Achieve an adequate and least-cost plan in a functionally separated industry.
- n **Premise:** Most commitments to long-term transmission, particularly those that require expansion, are tied to utility power purchase agreements.
- n **Concept:** Establish a coordinated planning cycle that links individual utility resource planning with a region-wide transmission open season.
- n **Benefits:**
 - n Improves our ability to develop transmission when needed.
 - n Provides for a regional adequacy assessment.

Integrated Planning Concept

