

North Mid-Columbia Joint Transmission

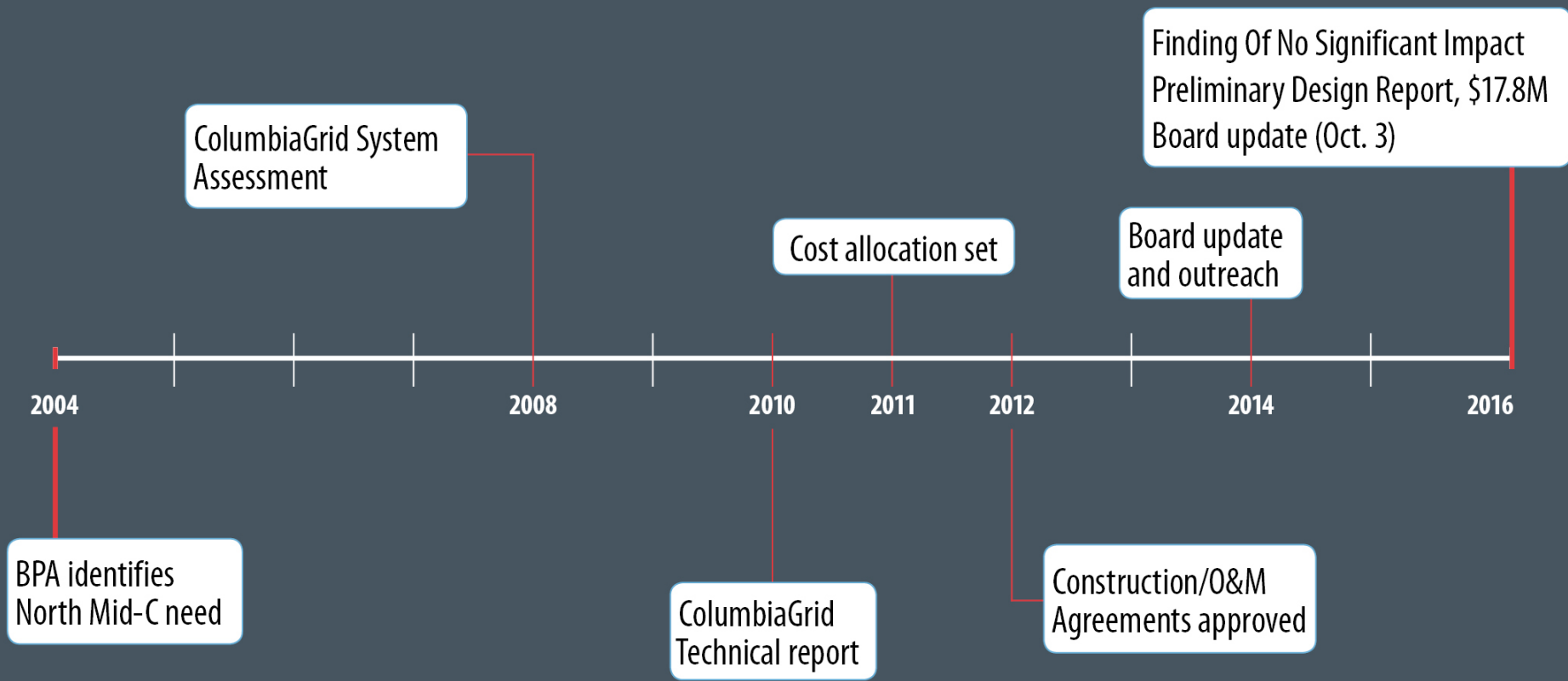
Project Update – October 3, 2016
(Rapids-Columbia 230 kV Line)



What we'll cover today

- Project history
- Project description
- Where we are
- Project benefits
- Next steps

NO ACTION REQUIRED TODAY



2004

BPA identifies North Mid-C need

2008

ColumbiaGrid System Assessment

2010

ColumbiaGrid Technical report

2011

Cost allocation set

2012

Construction/O&M Agreements approved

2014

Board update and outreach

2016

Finding Of No Significant Impact Preliminary Design Report, \$17.8M Board update (Oct. 3)



Project Description

- New 230kV Rapids to Columbia Switchyards, ~ 9 miles and new 230kV bay at Columbia
- \$14 million estimate
- \$17.8 million preliminary design estimate
- Goal: **Complete 2018**

Construction Funding - Allocations

- “Single-Utility” planning solution & District avoided costs
- Best long-term solution
- Demonstrates the Northwest can collaborate on cost allocation issues (FERC Order 1000)



42.20%



CHELAN COUNTY

23.85%



17.25%



16.70%

Construction

Construction and ownership responsibilities:

- Douglas will design, construct, own and operate:
 - 9-mile 230kV line
 - Switchyard terminal at Rapids
- BPA will design, construct, own and operate:
 - Switchyard terminal at Columbia
 - Lead the Environmental Assessment
- Chelan and Grant are funding partners
- Provides protections for cost overruns with off-ramps at 30% and 90% design

Where We Are

- \$500k for environmental work funded
- Finding of No Significant Impact published March 2016
- \$17.8 million preliminary design estimate < 30% off-ramp
- BPA continues to negotiate with Colville Confederated and Yakama
- Fresh look at benefits

Benefits

- Regional solution
- Mitigates congestion on Rocky Reach – Columbia 230kV lines (BPA and Chelan)
- Mitigates impacts of new Grant and Douglas projects
- Balances Columbia 230kV bus
- Provides greatest operational flexibility
- Reduces transmission congestion
- Reduces the need to re-dispatch/reduce Rocky Reach and Wells generation
- Provides capacity for future system growth
- Much less expensive than individual utility solutions

Additional Benefits

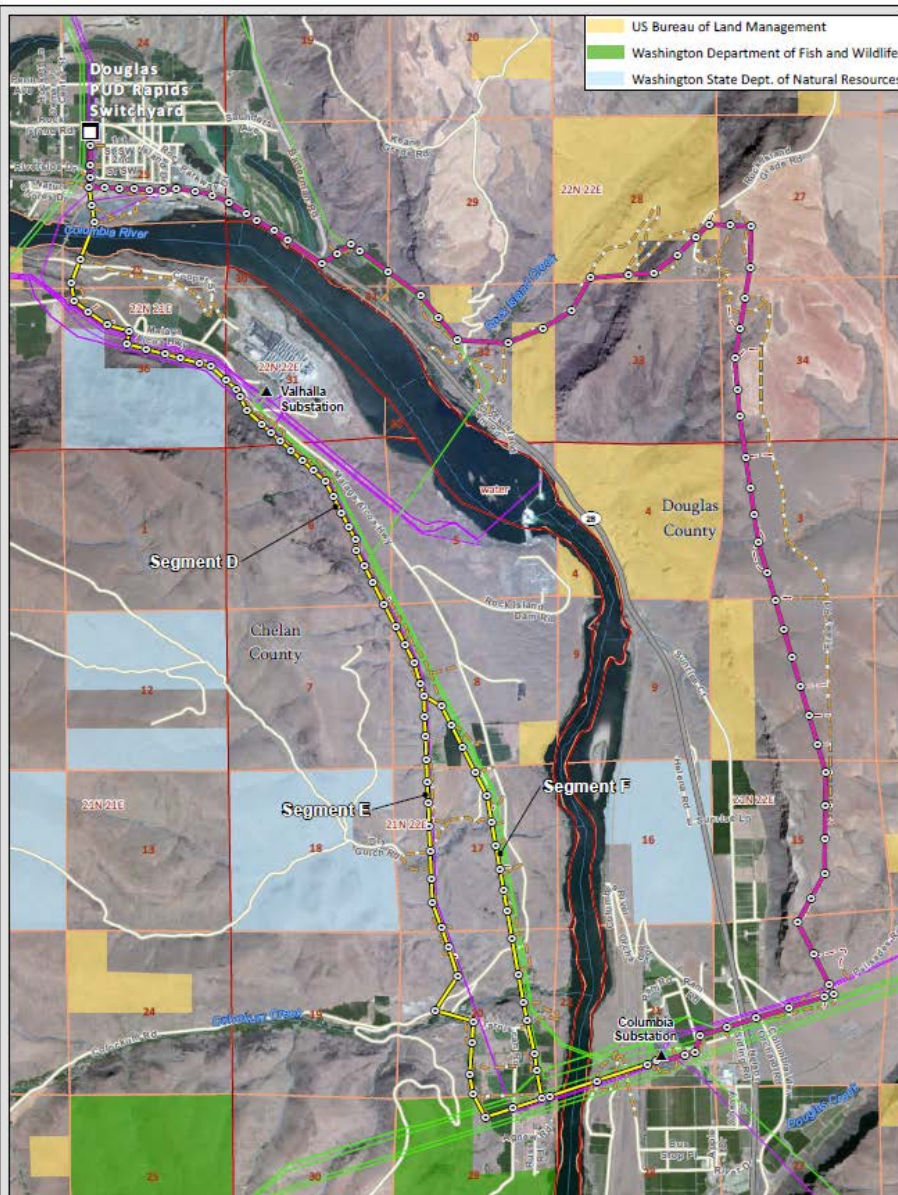
- Project Cost: \$17.8M
- Chelan's share is 23.85%, which is \$4.2M
 - Break even analysis at 7% IRR
 - Transmission Loss Reduction: \$2.4M (NPV)
 - Avoided Generation Loss: \$1.5M (NPV)
 - Capital cost share \$4.2M \$3.8M (NPV)
 - O&M cost share ~\$4k/year \$0.1M (NPV)
- Additional evaluation to occur as project moves to the 90% Detailed Estimate

Next Steps

- Align the project budget with the preliminary design estimate, \$905k increase
- Second off-ramp opportunity likely summer 2017, 90% design review
 - Opportunity for off-ramp if the 90% estimate is greater than \$20.5M (15% increase)

An aerial photograph of a valley. In the foreground, a river flows through a lush green area with several houses and a large, partially constructed house. A road runs parallel to the river. In the middle ground, there are more houses, trees, and a large pond. The background features rolling hills and a prominent, layered mountain range under a clear sky.

Questions



Project Vicinity Map
Proposed Northern Mid-Columbia Joint Project
 Chelan and Douglas Counties, Washington

- ▲ BPA Substation
- ⊙ Proposed Transmission Structures
- BPA Transmission Line
- Non-BPA Transmission Line
- East Route Alternative
- West Route Alternatives
- Existing Road Proposed for Access
- New Road Proposed for Access



0 1 2 Miles 9/15/2014



10/3/2016