

Colstrip 500 kV Upgrade Project Variable Energy Resource Integration

MT Public Service Commission
Helena, MT
August 30, 2012

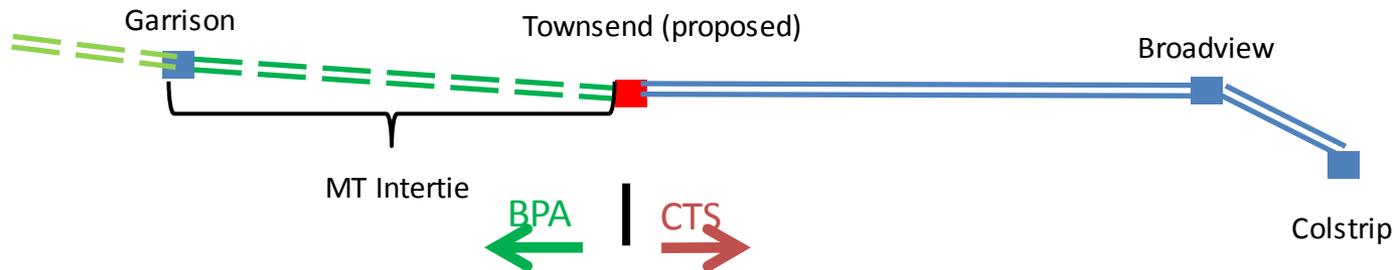


- The project is currently being developed primarily by BPA and NWE with the other owners having various levels of interest.
 - Project construction will be driven by signed Transmission Service Agreements.

- Project description

- Ownership:

	<u>Colstrip-Broadview</u>	<u>Broadview-Townsend</u>
NorthWestern	36%	24%
Puget Sound Energy	33%	39%
Portland General Electric	14%	16%
Avista Corporation	10%	12%
PacifiCorp	7%	8%



- Initially identified in RMA Ts study as being a piece of “low hanging fruit”
- No new linear facilities required
- 550 – 900 MW Potential additional
- Will be Staged-In to match Transmission Service Requests Under Open Access Transmission Tariff

- Contract Modifications
 - Colstrip Transmission Agreement compliance filing with FERC, March 28, 2012. Monumental task with other owners, PPLM intervention
- Plan of Service report completed May 2012
 - Evaluating staging-in upgrade East of Garrison due to timing of transmission service requests
 - Change of Transmission Queue lineup makes Upgrade dependent on fewer parties
 - Will not build without commitments to match capacity
 - Also dependent on BPA system upgrades west of Garrison
- Subsynchronous Resonance (SSR) Study completed April 2012
 - Results
 - Mitigation
- Schedule (dependent on BPA Environmental process)
 - Modification of existing Agreements – late 2012
 - System Planning and Path Rating Studies – 2012 - 2013
 - Engineering Completed – late 2013
 - In Service – late 2017 – many precedents and variables

COLSTRIP 500 KV UPGRADE STATUS

- Estimated Costs - Construction & Materials Only (approximate and preliminary)
 - Full build out
 - BPA \$135 M
 - CTS \$75 M
 - SSR Mitigation \$30 M (shared)
 - Phased in Approach
 - Phase I
 - BPA \$135 M
 - CTS \$38 M
 - SSR Mitigation \$30 M (shared)
 - Phase II
 - CTS \$56 M

- Customers – Renewable Resources
- Conditions Precedent
 - Transmission Service Requests
 - BPA Central Ferry – Lower Monumental Line
 - Montana Intertie Agreement Amendment
- Not Intended for NorthWestern Network/Retail Customers
 - Driven by Transmission Customers under FERC OATT

- “VER” Order History
 - January 2010 FERC Notice Of Inquiry (NOI)
 - November 2010 FERC Notice OF Proposed Rulemaking (NOPR)
 - June 2012 FERC Order 764 Issued
- Principal Elements of Order
 - The proforma Open Access Transmission Tariff (OATT) is amended to require that transmission providers (TP) offer 15 minute intra-hourly scheduling of transmission service by all transmission customers
 - Theory is that VERs will be more effectively integrated with sub-hourly scheduling.
 - The proforma Large Generator Interconnection Agreement (LGIA) is to be modified to require new VER interconnection customers to provide meteorological and forced outage data to the transmission providers if the TP needs the data for power production forecasting

- FERC declined to adopt a general mandate for rules that would have added a new ancillary service rate schedule (Schedule 10) for generation regulation charges for VER generation, but instead allowed the TPs the flexibility to file a rate schedule
- NorthWestern Efforts
 - Internal Teams organized for compliance effort
 - Regional participation in efforts to Implement requirements.
 - Development of Generation Regulation Ancillary Service
- “VER” Order timeline
 - Requires compliance within 12 months of rule’s effective date (September 11, 2013)



QUESTIONS



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