



January 31, 2010

To: TEPPC-2010StudyRequests@wecc.biz
Steve Walton

From: Rich Bayless - NTTG TEPPC Representative

CC: Kip Sikes - NTTG Planning Committee Chair
Shay LaBray - NTTG Transmission Use Committee Chair

Subject: 2010 Economic Study Requests (ESRs) to TEPPC:

The Northern Tier Transmission Group Planning Committee respectfully requests TEPPC develop/provide the economic transmission study Resource Scenarios identified as Regional in the attached spreadsheet (Econ Req.xls), and include listed regional transmission alternatives (or equivalent) in economic and congestion studies to be included in the TEPPC 2010 Study Plan. The attached spreadsheet lists the resource scenarios and the transmission alternatives received as ESRs. Also attached is supporting request documentation from requestors.

Summary of Study Case Descriptions Requested:

a. Regional Resource Scenarios:

Resource scenarios have been requested that add in an iterative fashion significant wind generation in various Northwest WREZ zones to identify resulting congestion on the base transmission configuration. Then, for these resource cases it is requested that the economic benefit and congestion relief provided by transmission alternatives listed be determined.

The resource additions to be studied individually include adding:

- 3000 MW above 2019 RPS levels added in Wyoming
- 3000 MW above 2019 RPS levels added in Montana
- 3000 MW above 2019 RPS levels added in Canadian Western provinces
- 6000 MW above 2019 RPS levels added in Wyoming
- 6000 MW of wind above the 2029 33% RPS case added in the high potential WREZ zones in Montana. (This is a proxy for adding these resources in Montana, North Dakota, Alberta, and Saskatchewan.)
- 12000 MW of wind above the 2029 33% RPS case levels added in Wyoming
- 1500 to 3000 MW of coastal Northwest wind added instead of inland wind with coastal wind profiles potentially more aligned with coastal load centers for comparison.

b. Regional Transmission Alternatives:

The transmission alternatives include:

- Continuing evaluation of pumped storage at or east of Garrison

- Increases to the Montana 500 kV export lines to the Northwest by upgrades to the existing 500 kV lines into Mid C.
- Montana 500 kV system augmented by a 230 kV Collector project connecting a new Townsend substation, a 345 kV DCTL conversions of existing 230 kV lines to Broadview and Garrison and the 100 kV lines conversion to 345 kV connecting to Townsend.
- Major HVDC additions including the Northern Lights, Chinook, Zephyr, and TransWest Express HVDC projects delivering Northwest resources to the Southern Nevada and neighboring areas.
- HVDC Light and underwater cable projects delivering coastal wind and other resources from north coast locations into Washington, Oregon, and California.
- Collection, storage and firming transmission and technology to facilitate delivery of Northwest renewables to California and neighboring states.

c. Miscellaneous

NTTG again this year submits requests that TEPPC perform a sub-hourly 10 minute interval production cost analysis of the detailed transmission system during a spring high water period. This study would be used to further evaluate the load following, balancing and reserve issues surrounding integration of renewable and intermittent generation and to improve modeling techniques.

Discussion:

The NTTG Sub-Regional Planning Group submits this formal request by this letter as per the TEPPC Protocol. Projects listed in the spreadsheet classified as Regional meet the TEPPC criteria listed below and involve more than the NTTG Sub-Regional Planning Group and footprint, are of regional interest, and can be combined and represented as generic as TEPPC determines.

From TEPPC Protocol Section 6.6.4

- a. What portion of the interconnection will be considered by the study?
- b. Does the request raise fundamental design issues of interest to multiple parties?
- c. Does the request raise policy issues of national, regional, or state interest; for example, access to renewable power, and location of both conventional and renewable resources?
- d. Can the objectives of the study be met by other studies by clustering or combination?
- e. Will the study provide information of broad value to customers, regulators, transmission providers, etc.?
- f. Can similar requests for studies or scenarios be represented generically if the projects are generally electrically equivalent?
- g. Can requests be aggregated into energy or load aggregation zones with generic transmission expansion between?
- h. Does the study request require the use of production cost simulation or can it be better addressed through technical studies such as power flow and stability analysis?
- i. Is the requested study necessary to meet a member Transmission Provider's compliance with its OATT, Attachment K.¹

¹ If such a request does not become a part of the TEPPC study program because it has a low regional priority, the Transmission Provider will have to address the requirement using its own resources using the TEPPC database.

Because of the alignment of the TEPPC and NTTG TPs' ESR windows, and the resulting short time between the closing of the 2010 TEPPC window and the NTTG Stakeholder meeting 1-28-2010, NTTG has not had time process these requests in its normal method. NTTG is now submitting requests that appear to be regional so as not to delay these requests until the 2011 TEPPC window.

However, NTTG will review all requests received before the end of the first quarter of 2010, categorize as Regional or Sub-Regional, prioritize, and combine requests as appropriate into the NTTG 2010 - 2011 Biennial Study Plan using its normal process. If in its normal process NTTG finds that any of these requests now submitted to TEPPC should be Sub-Regional instead of Regional, it will later withdraw such requests from the TEPPC process.

The NTTG Planning Committee along with it's state representatives are interested in active participation in the development of these resource cases and related data and will work to the best of their ability in the definition of the resource scenarios and transmission alternatives to be used in the cases.

RSB 1-31-2010