

Request for Economic Study

Instructions: For the data submittal window, please reference the appropriate local NTTG Funding Members' Attachment K

Provide the information in the yellowed boxes. If the information is not available or unknown, please state so. Transmission Customers requesting an economic study shall, upon request of NTTG, supply all relevant information necessary to perform the economic study. If the Transmission Customer fails to provide the information requested, NTTG shall have no obligation to complete the study. This form is not a transmission service request or a generation interconnection request. Please see the appropriate local

Study Request Control #

(Assigned by Transmission Provider or Planning Committee)

Study Sponsor Information:

Date:	29-Mar-19
Requesting Customer Name:	Deseret Power on behalf of "Joint Parties"
Address:	10714 S Jordan Gateway
State & Zip:	UT 84095
Requestor:	"Joint Parties" (Utah Association of Energy Users, Deseret Power, Utah Municipal Power Agency, Utah Department of Commerce Office of Consumer Services and Utah Associated Municipal Power Systems)
Title:	
Phone Number:	801-619-6504
Email:	npowell@deseretpower.com
Are you an Eligible Customer Y/N:	Y
Do you have a Current Service Contract:	Y

Transmission Providers or NTTG :

Utility Name(s) for POI and POD:	NTTG
In care of:	
Title:	
Street Address	
City, State, Zip:	
Phone:	
Email:	

Study Request Details (1):

1	General Information:	
2	Study Name:	Wyoming Lower Cost Transmission Alternative
3	Projected In-service Date:	Prior to 2028
4	Narrative Description:	<p>The Joint Parties request that a lower cost transmission alternative be studied, that reliably meets the projected 2028 loads and resources submitted by NTTG members for the NTTG footprint. With wind resource additions projected to cause transmission constraints in the Wyoming area, it is requested that a more targeted transmission solution consisting of 345 kV transmission line additions through the immediate congestion area be developed and evaluated as a lower cost alternative to Gateway West and Gateway South. Targeting the transmission additions through the congestion area and utilizing the existing 345 kV system voltage class (rather than introducing a higher cost 500 kV solution) may result in fewer transmission miles at a lower cost per mile when compared to the dF RTP.</p> <p>This study request consists of evaluating up to two 345 kV transmission lines, independently originating in a logical location on the east side of the transmission constraint such as the Windstar or Aeolus area of Wyoming and independently terminating at a logical location on the west side of the constraint such as Bridger, Borah or Midpoint as needed to meet reliability criteria. Please identify the minimum amount of 345 kV line additions between these locations that are required to meet reliability criteria, including the use of any transformer additions that may be necessary.</p> <p>It is also requested that this potential lower cost transmission alternative be evaluated under the scenarios that were studied as part of the Public Policy Considerations request, where additional resources are expected to be retired in the Wyoming area .</p>
5	Justification (2):	<p>Justification for the study request includes planning for the alleviation of congestion due to resource changes within NTTG, specifically in the Wyoming area where wind resources are being added and thermal resources are projected to retire. Because the wind resource additions in Wyoming are projected to exacerbate transmission congestion across Wyoming, a lower cost transmission alternative, specifically targeted to alleviate the Wyoming congestion should be considered and compared against the expansive and costly transmission modifications in the dRFTP. Many customers would benefit from a lower cost transmission alternative that reliably meets the needs of the projected 2028 load and resources.</p>
6	Study Location POR:	Up to two 345 kV lines, independantly interconnected in the Windstar or Aeolus area of Wyoming
7	Study Point of Delivery POD:	Up to two 345 kV lines, each independantly terminating at a location west of the transmission constraint such as Bridger, Borah or Midpoint (as needed to meet reliability)

8	MW Size:	NA (use existing NTTG member L&R data)	
9	Monthly or Hourly Amount MW (4):	NA (use existing NTTG member L&R data)	
10	Monthly Energy amount MWH:	NA (use existing NTTG member L&R data)	
11	Attach a Map of the study elements:	NA (use existing NTTG member L&R data)	
12	Transmission Affected (4):		
13	Any gathering Transmission:	none	
14	Conductor size (5):	match existing Wyoming 345 kV conductor size (e.g. bundled 1272 ACSR)	
15	Bundled:	match existing Wyoming bundle type	
16	Line spacing:	match existing Wyoming transmission tower type	
17	L-L Voltage:	345 kV	
18	Length (miles):	estimate considering direct routes and existing corridors	
19	Electric characteristic data (R, X):	match existing Wyoming 345 kV transmission impedance per mile	
20	Capital Cost (\$/mile):	per WECC guideline documents	
21	Affected or Proposed Generation (3)(5):		
22		Generator #1	Generator #2
23	Generator Name:	NA (use existing NTTG member L&R data)	
24	Size:	NA (use existing NTTG member L&R data)	
25	Type:	NA (use existing NTTG member L&R data)	
26	Fuel type (Primary, Secondary):	NA (use existing NTTG member L&R data)	
27	Fuel cost (\$/mmBTU):	NA (use existing NTTG member L&R data)	
28	Incremental Heat Rate Curve:	NA (use existing NTTG member L&R data)	
29	Ramp Rate:	NA (use existing NTTG member L&R data)	
30	Min up time (hours):	NA (use existing NTTG member L&R data)	
31	Min down time (hours):	NA (use existing NTTG member L&R data)	
32	Generator Forced Outage Rate:	NA (use existing NTTG member L&R data)	
33	Start up cost:	NA (use existing NTTG member L&R data)	

34	Additional Load Integration		
35		Load #1	Load #2
36	Load Name:	NA (use existing NTTG member L&R data)	
37	MW Size:	NA (use existing NTTG member L&R data)	
	Location:	NA (use existing NTTG member L&R data)	
38	Hourly Profile (daily or monthly) MW:	NA (use existing NTTG member L&R data)	
39	Controlable Demand Side Resource Daily or Monthly Hourly Profile (MW)	NA (use existing NTTG member L&R data)	

By signing and submitting this request the requestor agrees to provide, to the greatest extent practical, additional information and agrees to cooperate as necessary to complete the economic study.

Authorized Signature:

Nathan Powell

Date:

29-Mar-19

Footnotes

1. Expand or add new cells (row or column) if additional space is needed.
2. Justification must include relevant facts and circumstances as addressed in FERC Order Nos. 890 and 1000. The justification should address all relevant facts that indicate that the study is "... for the purposes of planning for the alleviation of congestion through integration of new supply and demand resource into the regional transmission grid or expand the regional transmission grid in a manner that can benefit large numbers of customers, such as by evaluating transmission upgrades necessary to connect major new areas of generation resource (such as areas that support substantial wind generation). Specific requests for service would continue to be studied pursuant to existing pro forma OATT processes."
3. This planning process does not replace the System Impact Study process. Specific transmission service or generation interconnection will continue to be studied pursuant to existing OATT processes. An Economic Study Request may not be used for a transmission service request or a generation interconnection request.
4. Detailed impedance and other modeling data may be required to model the economic study request.
5. For an Economic Study detailed generation cost data and hourly load profile data is required. This will include the incremental dispatch cost, the startup cost, any startup constraints, the heat rate characteristics, any energy limitations. For wind generation, monthly peak and energy and hourly energy shapes for the entire year will be needed. If the requestor's own generation is affected by the request, the following information must be provided: economic dispatch costs, hourly generation patterns, relevant maintenance information; expected generation forced outage rate; and all other factors affecting generation output.