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:	6-Mar-14
Requesting Customer Name:	Sea Breeze Pacific- Regional Transmission System
Address:	333 Seymour St, Suite 1401
State & Zip:	Vancouver, BC V6B5A6
Requestor:	Rodney L Lenfest
Title:	Project Manager
Phone Number:	512-650-3508 or 604-689-2991
Email:	rll@trmc.com
Are you an Eligible Customer Y/N:	Y
Do you have a Current Service Contract:	No

Transmission Providers or NTTG :

Utility Name(s) for POI and POD:	Port Angeles, Washington State - Vancouver Island BC Canada
In care of:	
Title:	
Street Address	
City, State, Zip:	
Phone:	
Email:	

Study Request Details (1):

1	**General Information:**		
2	Study Name:	Analysis of the expansion of the Blaine Intertie US-Canada Interface	
3	Projected In-service Date:	1-Oct-17	
4	Narrative Description:	The JdF Project is a High Voltage, DC 550MW MW using VSC technology. It effectively increases the US to Canada Path 3 as it is electrically close, to and physically near, the Blaine Intertie. It effectively connects Cheekye-Dunsmuir on the BC Mainland to Paul Raver substation in the U.S.	
5	Justification (2):	The project provides a major backup to the existing Blaine Intertie. The project improves reliability by connecting two radial systems providing reliability benefits to both the Olympic Peninsula and Vancouver Island, bringing each to higher reliability standards not required of radial systems. Economic and renewable energy benefits associated with oversupply of wind energy in the U.S. northwest are enhanced, and opportunities for economic trading increased .	
6	Study Location POR:	Two-way DC tie - Port Angeles WA & Victoria, Vancouver Island, BC	
7	Study Point of Delivery POD:	Two-way DC tie - Port Angeles WA & Victoria, Vancouver Island, BC	
8	MW Size:	550MW	
9	Monthly or Hourly Amount MW (4):		
10	Monthly Energy amount MWH:	TBD by customers and traders	
11	Attach a Map of the study elements:		
12	**Transmission Affected (4):**		
13	Any gathering Transmission:		
14	Conductor size (5):	1800 mm2 underwater HVDC cable	
15	Bundled:	No	
16	Line spacing:		
17	L-L Voltage:	bi-pole Line to Line 300kV. +- 150kV to ground.	
18	Length (miles):	30	
19	Electric characteristic data (R, X):	NA - DC converters	
20	Capital Cost ($/mile):	NA - DC converters	
21	**Affected or Proposed Generation (3)(5):**		
22		Generator #1	Generator #2
23	Generator Name:		
24	Size:		
25	Type:		
26	Fuel type (Primary, Secondary):		
27	Fuel cost ($/mmBTU):		
28	Incremental Heat Rate Curve:		
29	Ramp Rate:		
30	Min up time (hours):		
31	Min down time (hours):		
32	Generator Forced Outage Rate:		
33	Start up cost:		

34	**Addional Load Integration**		
35		Load #1	Load #2
36	Load Name:		
37	MW Size:		
	Location:		
38	Hourly Profile (daily or monthly) MW:		
39	Controlable Demand Side Resource Daily or Monthly Hourly Profile (MW)		

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:	Rodney L Lenfest
Date:	6-Mar-14

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.