

**U.S. DEPARTMENT OF ENERGY – BONNEVILLE POWER ADMINISTRATION (BPA)
LINE AND LOAD INTERCONNECTION REQUEST**

WHO SHOULD FILE THIS FORM: Transmission Customers requesting to utilize PTP or NITS that requires connecting to the BPA TS must submit a LLIR as specified in the LLIP BP. See section A of Business practice.

INFORMATION: This application will be used by BPA to determine the level of planning study required for the interconnection request. These studies are used to determine the connection point location, equipment requirements (*Requester and BPA*), system modifications, etc. to connect transmission lines and/or loads to BPA-TS.

SECTION 1 – INTERCONNECTION REQUESTER AND CONTRACTORS (All Sections Required)

A. Requester/Owner Information

Company Name _____
Mailing Address _____
City _____ State _____ ZIP Code _____
Phone Number _____ Email Address _____ Contact Name _____

B. Technical Contact (If different from Requester)

Company Name _____
Mailing Address _____
City _____ State _____ ZIP Code _____
Phone Number _____ Email Address _____ Contact Name _____

C. Engineering Consultant (As Applicable)

Company Name _____
Mailing Address _____
City _____ State _____ ZIP Code _____
Phone Number _____ Email Address _____ Contact Name _____

This Line and Load Interconnection Request is submitted by:

Title _____	Name (First, Last) (Please Print or Type) _____
Requester Signature _____	Date _____

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SECTION 2 – GENERAL SPECIFICATIONS, LOCATION, AND DIAGRAMS FOR CONNECTION (All Sections Required)

Preliminary Review Information

A. Maturity (Required for NITS customers):

Exploratory (*utility customer seeking an informational study*)

Preliminary (*utility customer has had discussions with an enduser, but no commitments*)

Contractual Commitments (*utility customer has executed contracts with end user, purchased property, initiated state or local permitting processes, etc.*)

Comments:

B. Type of Connection:

Configuration: Radial Load Network Connection with Other Sources Present Operating Voltage (kV): _____ Requested Energization Date _____	Customer Type at Interconnection Location: Point to Point Transmission Service (PTP) Network Integration Transmission Service (NITS/NT) Has the load addition been forecasted in NITS customers Load and Resources Collection (LaRC) Process: Yes No If yes, date of LaRC submittal _____ Balancing Authority Area:
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Comments:

C. Proposed Point of Delivery (POD) and Alternate POD Location(s) – Identify the BPA-TS Line or Substation (*Note in comments if request is for additional load behind an existing connection to BPA-TS*):

D. Type of Load: Identify the characteristics which best describe the type of load to be served.

Residential

Commercial

Industrial

Industrial load type:

Computer Processing – Server Farm

Chemical Processing Plant

Aluminum Smelter

Steel Mill

Semiconductor Manufacturing Plant

Power Plant Aux Load

Industrial – Other

Comments:

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SECTION 2 (CONTINUED) – GENERAL SPECIFICATIONS, LOCATION, AND DIAGRAMS FOR CONNECTION

E. Load Data (In the table below, identify the peak load addition in year one of energization and every year for 10 years)

Value for Year:	1	2	3	4	5	6	7	8	9	10
Projected Peak Load [MW]										
Summer Peak Load [MW]										
Winter Peak Load [MW]										
Anticipated Power Factor										

(If this request will also be transferring load from other locations indicate the MW amount or percentage(s) from each substation.
 Example: Transfer 10% of load from X Substation and 25% of load from Y Substation)

F. Quality of Service (Special requirements such as redundancy, power quality, frequency and duration of outages, etc.):

G. Future Plans (Where known: Provide information on future plans to build out this project beyond this request):

H. Electrical One-Line Diagram and Geographic Information

Attach an electrical one-line diagram of the project. Show the breaker and switching arrangements, proposed protective relaying, connection to BPA-TS, and any assumed electrical equipment parameters for the connection.

Provide geographic information of project location (such as address, latitude/longitude coordinates, or attach a GIS map with project location identified):

SECTION 3 – STUDY DATA REQUIREMENTS

A. Network Power Flow Model (As required) (Enclose a model using approved WECC format)

B. Interconnecting Transmission Line(s) or Cable (Required) (Provide all parameters in **physical** units if applicable:)

Nominal voltage [kV] _____ Length (Miles) _____

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SECTION 3 (CONTINUED) – STUDY DATA REQUIREMENTS

Transmission Line Impedances		
Quantity	Positive Sequences	Zero Sequence
Series Resistance, R Ω		
Series Reactance X Ω		
Shunt Susceptance, B μS (or $\mu\Omega^{-1}$)		
Will this line be built on common structures with other circuits?	Yes No	
Will this line be transformer-terminated at either end? If "yes", state which end(s) and the transformer identifier.	Yes No	End: _____ Transformer: _____

C. Transformers (Provide parameters if applicable)

Identifier _____ Number of Windings _____ Autotransformer? Yes No

Winding	Nominal Voltage [kV]	Configuration (Δ or YG)	Nameplate MVA	/	/
H:			H to X:	/	/
X:			H to Y:	/	/
Y:			X to Y:	/	/

Tap Information:

Winding (H, X, or Y) Values: Operational [kV] Available Taps [kV]

_____ / _____ / _____ / _____ / _____

D. System Data – Only applicable where generation resources are present or if the connection includes another network source. Provide a system equivalent ($R1, X1, R0, X0$ in per unit on a 100 MVA base) at the proposed Connection Point looking into the connecting system. These values should be determined such that the system model does not include the physical connection to the BPA System. Assuming there are no other connections to the BPA System at any other point, these quantities are available by computing a single line-to-ground "bus fault" at the proposed Connection Point.

E. Emergency Generation (Required) (Identify any emergency generation. Any generation that is not emergency back-up only, must go through BPA's generation interconnection process (Attachment L/R/N)):

F. Reactive Equipment (Required) (Location, size, and rated voltage) More specific information is required for reactive with dynamic capability (SVC, TCSC, Sync Condensers, etc.):

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SECTION 4 – REQUEST FOR MATERIAL CHANGE ANALYSIS

A. Material Change Analysis: *(To submit a request for material change analysis, required to make modifications of an existing LLIR, complete an amended LLIR form capturing any proposed changes in the required field, check the "Yes" box, and provide a narrative description of the proposed change. See Section E. of the LLIP BP.)*

Yes

(Please provide a detailed description of the proposed change and all information necessary to support BPA's evaluation.)

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