Map Overview

The <u>AESO Transmission Capability Map</u> is an online interactive tool that provides a visual, geographic guide to assist market participants in making informed decisions for generation capacity and location siting in a way that facilitates transmission system optimization. For any questions regarding usage of the map please contact <u>customer.connections@aeso.ca</u>.

Map Basics

Layers & Legend

The map layers are shown within the Layers & Legend panel on the right-hand side of the map and can be checked/unchecked to toggle visibility:

Page 1

		\$
Map Layers & Legend	*	×
Layers	Q	
Substations		
•		
✓ Transmission Lines		
Voltage		
69/72 kV		
138/144 kV		
240 kV		
AESO Projects (March 2022) - not included in the capability calculations	n	
Generation		
Load		
Recently Energized		
AESO Planning Regions		
Central Region		
South Region		

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Navigation

Navigate within the map by clicking and dragging across the screen. Zoom in/out using the mouse wheel or the +/- buttons in the top left of the map. Specific substations and geographic locations can also be searched and zoomed to. At any time return to the default map view by clicking the Home button:



Substation Capability Bubbles

The green "bubbles" at each substation provide a high-level illustrative view of the relative magnitude of substation capability. A bigger bubble indicates larger capability at the sub and vice-versa:



Substation Capability Pop-Ups

To view more specific capability information at a substation, click on that sub and a pop-up will appear:





Transmission Line T-tap Capability Pop-Ups

To view capability information for a T-tap connection to a transmission line, click on that line and a pop-up will appear. Values are shown for both ends of a line as well as any tapped substations along that line. As a potential T-tap location nears the connecting substations listed, the T-tap capability for the line approaches the MW value shown:



Projects Layer

The map also displays a layer of projects to provide users with context regarding existing project interest that could impact capability in a particular area. Projects are taken from the AESO Project List and are filtered to show Generation and Load projects in the areas covered by the Capability Map. Also shown are projects that have Recently Energized but were not included in the capability calculations. The full AESO Project List and a map showing those projects can be found <u>here</u>. The projects layer is updated monthly as the new project list is released. **Please note that the capability values shown are based on the existing transmission system and do <u>not</u> consider the impact of projects in the calculations.**

To view additional information on a project, click on the project point and a pop-up will appear:

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Map Tools

Filter Substations, Transmission Lines or Projects Display

The Filter tool allows users to only show substations, transmission lines or projects based on certain criteria and is accessed with the funnel button at the top-left of the map:



To filter a layer, first select the desired criteria field from the top drop-down list:



T 22 2/2 1 2/2 1 2/2 1	
Filter Substations, Lines or Projects	×
Select Filter Criteria Substation Capability (MW) - Enter MW Value	
GREATER THAN OR EQUAL	

Substations and transmission lines can be filtered by Capability Number or by Bus Voltage. Projects can be filtered by STS or DTS MW values, Fuel Type, Stage, or Inclusion status for project studies.

Next select the criteria on which to filter. The default will be based on the type of field, and some fields will have a drop-down list of values that the user can select from:

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Filter Substations, Lines or Projects	×
Select Filter Criteria	
Substation Capability (MW) 👻	
Enter MW Value	
GREATER THAN OR EQUAL	

Next, enter or select the value to be filtered for and click the Apply button:

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Filter Substations, Lines or Projects	×
Select Filter Criteria	
Substation Capability (MW)	
Enter MW Value	
GREATER THAN OR EQUAL	
Type in a Value	
Add Criteria	
Apply	Reset

Click the Add Criteria button to add additional criteria within a field:

Select Filter Criteria	
Substation Bus Voltage (KV)	
EQUALS -	
138	~
OR 👻	
EQUALS -	8
240	~
Add Criteria	
Add Chiefin	

When a filter is applied the map will only display features that meet the filter criteria. Multiple filters can be added progressively across multiple fields to make the display as specific as desired (for example, a user



could view only substations and lines with a 240 kV voltage that have capability greater than 400 MW, and only projects that meet Inclusion criteria):



Filters will remain in place in the map until the Filter Reset button is clicked:

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Filter Substations, Lines or Projects	×
Select Filter Criteria	
Substation Capability (MW) 🔻	
Enter MW Value	
GREATER THAN OR EQUAL	
400	
Add Criteria	
Apply	Reset



Measure Tool

The measure tool allows for geographic measurements of distance or area and is accessed with the ruler button at the top-left of the map:



Select whether to measure Distance or Area and the desired unit of measurement:



Click on the map to begin the measurement and to add subsequent points to the area polygon or distance line. Double-click to complete the measurement. A typical use for this tool would be measuring the distance from a potential project location to a substation or line, such as in the example below:





Change Basemap Background

The Basemap Gallery tool allows the user to change the background of the map and is accessed with the grid button at the top of the map:



A wide array of Basemaps is available, including detailed satellite imagery. Different basemaps will focus more heavily on different features within the map. Users can choose the basemap that best suits their purpose:

