## **TRANSMISSION** CAPABILIT

aeso @

A GUIDE IN IDENTIFYING INTEGRATE GENERATION POTENTIAL LOCATIONS TO

> Substations with capability greater than my project are favorable locations to consider

The bigger the bubble, the larger the capability...



more complex connection request project

less complex

connection request

## Assumptions

Historical merit order, load and interchange













Current Installed Transmission System

- All elements in service
- Transmission equipments (>=69 kV) monitored

## Methodology

- Substations are evaluated independently (not additive)
- DC power flow analysis
- Hourly market simulation with economic generation dispatch
- Optimization techniques to determine capability without congestion

## Results

- Provide substation capabilities by
- Size of bubbles indicate the relative magnitude of substation capability
- Capability is provided by bus and is selected to align with planning practices





The map provides directional information as one of the inputs to support market participants' connection decisions



The capability value is not guaranteed. Comparing the project size to the capability signals the level of

complexity expected in the connection process.



The connection process is the official process to facilitate system access service on Alberta's transmission system