Adequacy & Demand Curve Determination Design Stream

Principles to Setting Demand Curve Parameters

This document proposes a set of principles to be used in setting the demand curve parameters. The proposed principles were derived based on the capacity market design criteria[1], which establish what the capacity market is intended to achieve and high-level measures of success, along with input from the workgroup.

The proposed set of principles for setting demand curve parameters in the Alberta Capacity market are as follows:

1. Supply adequacy: Demand curve parameters should be set to ensure procurement of a sufficient amount of capacity for reliable operation of the electricity grid and to achieve the resource adequacy target, while avoiding significant over-procurement or under-procurement.
2. Efficient price formation: Demand curve parameters should be set to send an efficient price signal in the capacity market, avoid excessive capacity price volatility and reduce the opportunity for the exercise of market power.
3. Demand curve parameters should be set to balance between achieving resource adequacy and lowest possible long-term cost to consumers and to sustain resource adequacy over time through market-based outcome.
4. Demand curve parameters, and the dependence on Net-CONE, should be set to ensure that Alberta's market stays attractive to investors as needed (for the necessary level of new entry and maintaining existing capacity) in order to achieve the resource adequacy target.
5. Demand curve parameters should be compatible with and robust to reasonably foreseeable changes in supply, demand, energy prices, and other factors in the electricity market.
6. To the extent applicable to the Alberta context, the demand curve analysis should incorporate experience and lessons learnt from other jurisdictions.
7. Unique aspects of Alberta's electricity system should be considered (e.g. small size of the market, market transition).

[1] Developed through consultation with stakeholders in early 2017, published in Designing Alberta's Capacity Market – Desired end state, criteria and assumptions, May 2017

Comment Received:	Consideration Given:
The demand curve should be set in a way that that works with the energy and AS market to achieve the goal of resource adequacy. The capacity market alongside the E&AS market should aim to provide robust enough market-based signals so as to avoid the need for out of market subsidies.	Agreed, and the use of Net-CONE in the development of the demand curve dynamically connects the capacity market with the energy and AS market. Captured to a degree in principle number 4 with the added reference to Net-CONE.
A simplicity principle, avoid evolving to complicated non-linear curves that we believe do not add a lot of value and at the same time add uncertainty to the market.	A simplicity principle is not being added as a principle itself. However, there is agreement that any special parameters of the curve should meet a value threshold if they contribute to complication or uncertainty. Captured to a degree in the efficient price formation principle.
The capacity market signal should be agnostic to supply type and the right type of supply should be incented through the energy and AS signals exclusively.	Supply investment decisions will be based on blended revenue expectations from capacity, energy and ancillary service markets. The capacity market signal is agnostic to the supply type, however the demand curve is indexed to the net-CONE of the reference technology.
Principle #2 is noted to cover Reduce Market Manipulation – this is more a bidding rule vs. demand curve shape issue.	Captured in both bidding rules and demand curve shape.
The term lowest cost is not appropriate in a market context. If the market is setup to be fair, efficient, and openly competitive, it should necessarily result in the lowest possible cost to consumers. The AESO will need to design a demand curve that the facilitates the most efficient and least cost through the development efficient market clearing mechanism.	Using Lowest cost wording to align with AESO Desired End State[1].
Creates an investment signal to incent timely reliability resource development and maintenance.	Principle is revised to incorporate.