SAM 2.0 Stakeholder Comment Matrix
Recommendation: Demand Curve Principles

As per our commitment to transparency and process in ensuring all stakeholder feedback is reviewed in session, below is the specific Stakeholder Feedback as it pertains to the Recommendation on Demand Curve Principles in Session 12 for Adequacy & Demand Curve on November 15, 2017

Name: Grant Pellegrin Organization: Cenovus Energy Inc

Feedback:

The setting of the Demand Curve and Resource Adequacy Requirement is critically important for the efficiency of the capacity market. Cenovus echoes the CWG comments that further analytical work be done to determine the most efficient outcome, keeping consumer costs as manageable as possible.

Name: Heather McDermid Organization: MEG Energy

Feedback:

The capacity demand curve and resource adequacy targets are a fundamental component of the market redesign, and analytical work is required to ensure an efficient outcome.
In particular:
- The slope and intercept of the demand curve should include a 'value' component, wherein the willingness to pay for incremental capacity is at least related to the value of lost load and the incremental reliability provided by extra capacity
- An assessment of implications associated with different demand curve shapes
- The expected impact of different choices for reference technology

Clarity on the expected process and regulatory oversight associated with setting the demand curve are also key. The success of the capacity market will be closely tied to the credibility of the demand curve process

Name: Sarah Griffiths Organization: EnerNOC [WIG participant]

Feedback:

EnerNOC supports a downward sloping convex demand curve. A convex curve provides some stable/robust price signals when the system is short on capacity while still recognizing the incremental value of capacity beyond a system's Planning Reserve Margin.

Name: Kris Aksomitis Organization: Cogen Working Group [WIG participant]

Feedback:

The capacity demand curve and resource adequacy targets are a fundamental component of the market redesign, and the CWG suggests that analytical work is required to ensure an efficient outcome. In particular, the CWG suggests:
- The slope and intercept of the demand curve should include a 'value' component, wherein the willingness to pay for incremental capacity is at least related to the value of lost load and the incremental reliability provided by extra capacity
- An assessment of implications associated with different demand curve shapes
- The expected impact of different choices for reference technology

Clarity on the expected process and regulatory oversight associated with setting the demand curve are also key. The CWG believes that the success of the capacity market will be closely tied to the credibility of the demand curve process.

The CWG supports a principled approach to developing a market power mitigation framework across the entire spectrum of markets. However, it appears as though the mitigation mechanisms proposed risk reducing confidence in the ability of the market to attract investment as well as hampering the ability of participants to manage risk. Any mitigation measure should be aimed at a known or likely market failure.
The CWG proposes that the overall market mitigation framework consider that:
- A sloped demand curve is a mitigation tool. Participants with no or limited ability to profitably increase capacity prices based on the size of their portfolio and the slope of the demand curve should not be mitigated.
- A must offer obligation creates risk, especially when used in conjunction with an offer cap based on net CONE. Participants require flexibility to remove capacity from the auction, particularly in the event that penalties can exceed capacity payments.

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Name: Richard Penn Organization: IPCAA [WIG participant]

Feedback:
Resource adequacy criteria: agreed. IPCAA would also like to review the criteria discussed by the AESO in recommending a resource adequacy requirement to the government. Demand curve (DC): agreed. It will be downward sloping. DC governance: agreed. The first DC should be reviewed in a formal governance process and again on a fixed cycle every three years.

Name: Janene Taylor Organization: TransCanada Energy Ltd. (TCE) [WIG participant]

Feedback:

Demand Curve

The capacity demand curve and resource adequacy targets are a fundamental component of the market redesign. TCE suggests that AESO undertake an analysis that models the impact of different demand curve parameters to ensure the ultimate design results in an efficient outcome. TCE supports the development of a downward sloping demand curve for which the slope and intercept of the demand curve reflects the willingness to pay for incremental capacity. The demand curve should therefore value incremental capacity in excess of the reliability target less than incremental capacity below the reliability target. The value of capacity should also be related to the value of lost load. TCE also recommends that the AESO model the expected impact of different choices for reference technology on the market outcomes. TCE also supports the presence of regulatory oversight associated with setting the demand curve (and the reference technology cost that underpin it), and its parameters as investor confidence will be a function of the credibility of the process for setting the demand curve.

TCE agrees that there are significant market power interdependencies across the various design streams. TCE is concerned that the combination of market power mechanisms recommended in SAM 1.0 will interfere with the market's ability to attract sufficient investment in new capacity as the degree of market power mitigation will prevent new entrants from recovering their costs and from managing their risks.

TCE recognizes that market mitigation measures are required when there are legitimate market failures (i.e., when competition fails) but does not support the implementation of market power mitigation mechanisms without a clear understanding of the market power issue that the mitigation is intended to resolve.

The market mitigation mechanisms proposed in SAM 1.0 include:

- a sloped demand curve,
- a price cap on existing capacity resources in the capacity market, and
- ex-ante, cost based offers in the energy market.

TCE is concerned that these mechanisms combined with the proposal to impose a must offer obligation in the capacity market, and on capacity resources in the energy market, will inhibit the ability of investors to recover their costs and manage their risks. TCE does not agree that ex ante mitigation (i.e. a price cap) is required in the capacity market as distortions due to market power can easily be managed through ex-post market power mitigation mechanisms, such as a conduct and impact test. Market participants with no or limited ability to profitably increase capacity prices based on the size of their portfolio and the slope of the demand curve should not be mitigated. Therefore, TCE opposes the imposition of an offer cap on existing capacity resources. Further, if market participants can demonstrate that their costs exceed the cap on the demand curve, they should be able to offer at the higher price. Finally, the determination of UCAP will also impact the risk faced by capacity market resources. Market participants may require flexibility to remove capacity from the auction if they disagree with the UCAP calculated by the AESO, particularly if penalties can exceed capacity payments.

Name: Brian Strandlund: The City of Medicine Hat

Feedback:

Further Analysis
Medicine Hat supports the use of a downward sloping demand curve and further analysis that will enable participants to better understand the design choices in this area.

Name: Surendra Singh Organization: Alberta Newsprint Company [WIG participant]

Feedback:

Support of Recommendations to Date
ANC supports the use of a downward sloping demand curve, and the need for appropriate governance and oversight in the determination of the curve.

Name: Robert Stewart Organization: Rocky Mountain Power (2006) Inc. and Energy Storage Canada [WIG participant]

Feedback:

Why is the determination of E&AS revenue critical to the overall demand curve if the price cap (and therefore demand curve) are based on Gross CONE?

Name: Marcy Cochlan Organization: TransAlta Corporation [WIG participant]

Feedback:

TransAlta supports the implementation of a downward sloping demand curve. The objective of the demand curve is to define the value of capacity for the purposes of achieving reliability standards. As such, the slope of the demand curve should be related to the basic objectives of ensuring reliable electric service. The segment of the curve to the left of Net CONE signals the need for new investment, while the segment to the right of Net CONE helps retain existing resources. As expressed in SAM 1.0, the (Target – Minimum) < (Maximum – Target), which dictates a steeper slope at reliability levels below the Target and a flatter slope above the Target. A steeper slope below the Target assigns a higher opportunity cost to consumers if reliability goals are not achieved, while the flatter slope above the Target protects against the premature retirement of existing capacity, mitigates the price volatility, and thereby ensures low consumer costs in the long-term. Therefore, with a demand curve aligned with the marginal value that consumers should place on reliability, a downward sloping demand curve supports creating an effective balance between the reliability provided to consumers and the capacity costs paid to ensure that reliability.

While TransAlta understands that the working group is still considering various shapes to the downward sloping demand curve, we note that a convex demand curve is commonly applied in the US capacity markets (e.g. ISO-NE and PJM). TransAlta also encourages the working group to consider the small size of Alberta's market and historical reserve margins that will help inform the specific demand curve parameters that should be implemented.
Market power mitigation is complex, is highly important to all market participants and consumers, and has far reaching impacts on the development of a sustainable, competitive electricity market. Without a well-designed market power mitigation framework, the capacity, energy and ancillary services markets are unlikely to be efficient, stable, transparent nor work effectively in Alberta and market forces cannot be relied on to achieve the lowest cost for consumers. The market mitigation mechanisms must be designed as a whole framework with the mitigation measures designed in the capacity, energy and ancillary services markets working as complements to each other to minimize the risk of market power abuse. The separation of market mitigation into two working groups, market mechanics and energy and ancillary services, is not conducive to developing a well-designed mitigation framework for the overall market. It does not prioritize market power mitigation with the importance it has on a properly functioning market, creates an unnatural division of concepts, does not facilitate sufficient consideration of mitigation measures between capacity and energy and ancillary services markets other than a communication and feedback channel between working groups, and inefficiently progresses the design work due to a lack of coordination between the working groups. We recommend that market power mitigation be one of a number of topics that would be dealt with in a parallel process to the Working Groups during the Fall of 2017 and throughout the first half of 2018. That process should entail members from all relevant working groups and should be managed by AESO as an objective market participant. The other high priority topics that also merit a cross-Working Group discussion include resource adequacy and eligibility; capacity cost allocation; and Net CONE calculations for setting of the demand curve

Name: Jay Dyson Organization: ENMAX [WIG participant]

Feedback:

Annual vs Seasonal Reliability Requirement:

- "Appropriate Governance" needs to be defined.
- Have significant interdependencies with the other working groups, including pay-for-performance, UCAP calculation and obligation terms.
- Governance and oversight is required for the AESO load forecast in addition to the demand curve.

Name: Jason Comandante Organization: Capital Power [WIG participant]

Feedback:

Addressing Interdependencies

Capital Power supports the AESO's efforts to address interdependencies between WGs. The above matrix is helpful in demonstrating the complicated interlinkages and interdependencies between the issue of market power mitigation and design decisions in the five work streams. The discussion regarding interdependencies, however, is not unique to market power mitigation. Several critical design components rely on the resolution of others in order to proceed and allow WG members to make informed design recommendations. As stated above, key parameters such as net-CONE, reference technology, and demand curve rely on assumptions about the overall market design.

Organization: UCA

Feedback:

There is interdependency with respect to the price of capacity determined in this working group and the pricing mechanisms being discussed in the Energy & Ancillary Services working group, as well as the demand curve determined in this working group and the eligibility of demand resources in the Eligibility & Capacity Value Determination working group. The UCA is concerned if these groups aren't aligned, then consumers could end up paying more for capacity and for energy than is needed to achieve the objective of "sufficient investment to maintain supply adequacy and reliability at the lowest cost for consumers". The UCA suggests that there should be joint discussions between these working groups to mitigate this risk. The UCA also has concern that the SAM 2.0 discussion from the working group states "General agreement by the WG that the price cap should be a multiple of Gross Cone". The UCA submits more information is required from the WG to understand the rationale for generally agreeing that the price cap should be a multiple of Gross Cone. The UCA is concerned this may result in overpayment for capacity and submits that a multiple of Net CONE should be considered to acknowledge that resources will earn revenues in the Energy & Ancillary Services markets. The UCA supports the conclusion that the target procurement volume should be based on probabilistic resource adequacy requirement modelling. The UCA submits that cost modelling must also be completed to ensure supply adequacy reliability is maintained at the lowest cost.

Name: Tory Whiteside Organization: URICA Energy Management on behalf of the REA Working Group [WIG participant]

Feedback:

The capacity demand curve and resource adequacy targets are a fundamental component of the market redesign. The REA WG suggests that AESO undertake an analysis that models the impact of different demand curve parameters to ensure the ultimate design results in an efficient outcome. The REA WG supports the development of a downward sloping demand curve for which the slope and intercept of the demand curve reflects the willingness to pay for incremental capacity. The REA WG also supports the presence of regulatory oversight associated with setting the demand curve (and the reference technology cost that underpin it), and its parameters as investor confidence will be a function of the credibility of the process for setting the demand curve.

The REA WG supports further research on the seasonality component, but is of the belief that the determination of a UCAP that accounts for this and will be based on summer availability will necessitate thee existence of robust financial bilateral market for capacity. Give this the REA WG believes the AESO could use the single demand period originally suggested.

The REA WG agrees that there are significant market power interdependencies across the various design streams. The REA WG is concerned that the combination of market power mechanisms recommended in SAM 1.0 will interfere with the market's ability to attract sufficient investment in new capacity as the degree of market power mitigation will prevent new entrants from recovering their costs and from managing their risks.

The REA WG recognizes that market mitigation measures are required but does not support the implementation of market power mitigation mechanisms without a clear understanding of the market power issue that the mitigation is intended to resolve. There seems to excessive market mitigation mechanisms with no rationale for their need. The REA WG does not feel the majority of these mechanisms are necessary in the initial implementation of the market, and as the AESO and Government of Alberta have both stated that the initial structure will not be perfect and will change and evolve as we move forward. This is obviously a very interdependent element, but in the end we could be creating an initial structure that is so mitigated that it will inhibit the ability of investors to recover their costs and manage their risks. Which is not great for the attractiveness of the market to investment.

Therefore, if market participants can demonstrate that their costs exceed the cap on the demand curve, they should be able to offer at the higher price. Further participants require flexibility to remove capacity from the auction, particularly if penalties can exceed capacity payments. In addition, market participants with no or limited ability to profitably increase capacity prices based on the size of their portfolio and the slope of the demand curve should not be mitigated. the REA WG therefore opposes the imposition of an offer cap on existing capacity resources.

Name: Matthew Davis Organization: ATCO [WIG participant]

Feedback:

ATCO agrees with the downward sloping demand curve conclusion. Further discussion on parameters of the demand curve, and governance of the process are required.

In this working group, the AESO needs to clearly determine and articulate what is the resource adequacy product they are purchasing to resolve questions such as seasonality requirements, performance periods, cost allocation and inform on issues such as self-supply (e.g. if self-supply permitted, will the AESO be basing the requirement off of AIES demand, or will forecasts still be based on AIL). ATCO notes that the conclusion/directional alignment on the use of a multiple of Gross-CONE in determining the maximum/cap of the demand curve was not captured in the SAM 2.0 document, but expects that it will be brought forward for SAM 3.0.