Capacity Committed Loads (CCL)

Context:

- CCL clear on the supply side of the capacity market. Any consideration of CCL on the demand side of the capacity market is not currently in the CMD.
- CCL have an obligation to deliver capacity product in the energy market

CCL in the energy market:

CCL must submit prices and volumes ~~be bid~~ into the energy merit order at some price from $0 to $999.99.

CCL ~~Bids~~ are consuming energy until they become in merit and a dispatch will reflect a reduction of load to comply with the dispatch. For example if the SMP is $30 and a load has submitted into the energy market ~~a bid of~~ 40 MW at $35 then the load will already be consuming at $30 and will be dispatched ~~off~~ when the SMP reaches $35.

CCL can be submitted ~~bid~~ into the market in two forms; firm consumption level (FCL) – ~~Bid~~ "down **to**" a MW level or guaranteed load reduction (GLR) - ~~bid~~ "down **by**" a MW volume. The level or volume must be submitted ~~bid~~ into the energy market.

When a "down to" CCL receives a dispatch, the load above the dispatch level must be reduced in order to comply with the dispatch (i.e.~~,~~ volume consumed will be reduced to the submitted ~~bid~~ MW value). For example, if a CCL is submitted into the energy market ~~bid~~ at a level of 40 MW at $35, when the SMP reaches $35, the CCL will be dispatched to 40 MW, and the load above this level must be reduced down to the 40 MW level. The load cannot exceed 40 MW until it receives another dispatch. "Down to" CCL must have real time telemetry in place so the System Controller will be able to calculate how much load will be reduced when the CCL is dispatched.

When a "down by" CCL receives a dispatch, the CCL will reduce its load consumption by the submitted ~~bid~~ MW volume. For example if a CCL is bid at 40 MW at $35, when the SMP reaches $35 the CCL will receive a dispatch for 40~~mw~~MW and the load consumption must be reduced by 40 MW until it receives another dispatch.

When requesting an asset, the CCL must identify which type of CCL it will be, either a dispatched "down to" or a dispatched "down by" CCL.

After a CCL is dispatched to reduce consumption some or all of the CCL may not be able to come back up (return to consuming) for a length of time. If this is the case the CCL should restate their submission ~~bid~~ capability and have an acceptable operational reason (AOR) for restating their energy.

Alberta Electric System Operator, Calgary Place, 2500, 330 – 5th Avenue SW Calgary, AB T2P 0L4
Phone: 403-539-2450 Fax: 403-539-2949 www.aeso.ca @theaeso

CCL must restate their submissions ~~bids~~ to accurately reflect their capability whenever required (similar to how generators must maintain accurate energy offers) as per the same rules generators must follow. When the CCL is again capable of coming back up, a restatement indicating their ~~bid~~ capability should be made and the load can come back up after it is dispatched (i.e.~~,~~ restate its AC).

~~CCL that are dispatched off during a performance period are in compliance with the capacity performance obligation – even if they are zeroed out a start time to start consuming and return from a dispatch position. Additionally, a load that is off during a period is exempt from a performance penalty as it is not contributing to capacity requirements. .~~

CCL will need to identify a ramp rate that the load will come down or up at. Generally loads come down or up very quickly however sometimes loads need a lead time to come down or up. It is expected that the loads will reduce within 10 minutes of a dispatch.

In the event of equal priced offers and a CCL submissions ~~bid~~ at any price, the CCL asset will be dispatched last in the group, for example last of $999.99 bids and offers. For example energy offers will be dispatched and exports bids would be dispatched at $999.99 before CCL are dispatched (pending AESO tool change requirements).

CCL does not get additional payments for reducing load however avoid the energy costs by not consuming energy (i.e. CCL receive capacity payments however do not receive additional payments for curtailing their loads).

ISO Tariff Rate DTS (Demand Transmission Service) are applicable to CCL. Further consideration of changes to tariff design would be part of a separate process.

CCL are eligible to provide ancillary service products, including load shed service for imports (LLSi).

Capacity Offer Obligations

Delist would apply to CCL. Once a CCL is prequalified and clear an auction then they will have a must offer requirement in the capacity market (just like all other capacity resources) until they go through the delist process. Dispatchable loads that do not go through the qualification won’t have a must offer requirement (same for external resources).

Capacity Market Performance Assessment

For an availability assessment, CCL assets are considered in compliance with an availability assessment if:

> For guaranteed load reduction (GLR) assets, stated available capability (AC) volume adjusted for armed LSSi volumes.

For firm consumption level (FCL) assets availability will be measured by the difference between a look back baseline less the firm consumption level. For purposes of the foregoing, “look back baseline” means the recent load profile used to assess the availability of firm consumption level assets. The look back baseline will be calculated by averaging the 5 highest load observances over the immediately preceding 10 days. In terms of availability performance assessment, CCL assets are considered in compliance with an availability assessment if they have an offer in the merit order and/or are providing Operating Reserves and/or are armed for LLSI up to their obligation volume.

For a performance assessment, CCL assets are considered in compliance with an availability assessment if:

For a guaranteed load reduction (GLR) capacity asset, a reduction in energy consumption from the ten day average baseline. Load not reduced due to Operating Reserves or LSSi arming will be deducted from the metered volume of the asset. The load reduction from the ten day average baseline must be equal to or greater than the obligation volume.

For a firm consumption level (FCL) capacity asset, metered volume load not reduced due to operating reserves or LSSi arming will be deducted from the metered volume of the asset. This difference must be equal to or less than the firm consumption level.