Incentivized Day-Ahead Economic Load Curtailment Program

Examples of "Incentives" and "Uplift"

Incentive vs. No Incentive Example

The proposal as approved by BIC really consists of two programs: (a) "Incentivized" economic curtailment of Load, and (b) economic selection of small generators for self-supply. They're treated very much the same, except in terms of payment received from the NYISO to the LSE (LSE or CSP in future)...

1) Economic "Incentivized" Curtailment of Load - For Load scheduled to economically curtail Day-Ahead, that actually does curtail in Real-Time, the LSE would be not be charged for the curtailed Energy **(this is the "Incentive" portion)** and the LSE would be paid the higher of Price-Cap Curtail Bid **or** Day-Ahead LBMP which would include a supplement **(i.e., "Uplift" payment)**, if needed, for "Bid Curtailment Cost Guarantee" to allow full recovery of the "Curtailment Initiation Cost" .

As an example, assume:

a) A 10 MW Load bids to curtail 3 MW of Load at a Price Cap of $100/MWh plus $2,000 for "Curtailment Initiation Costs" for a continuous time strip of 6 hours. This amounts to a total curtailment bid of $3,800 = (3 MW x $100/MWh x 6 hours) plus $2,000.
b) That Load is scheduled Day-Ahead for a 3 MW curtailment for 6 hours.
c) Day-Ahead LBMP is $250/MWh for those 6 hours.
d) The Load actually consumes 7 MW and curtails 3 MW over those 6 hours.

The resulting charges and payments would be as follows...

e) The LSE/CSP would be **charged** $10,500 = $250/MWh x 7 MW x 6 hours, **but** would not be charged (as an "Incentive") for the 3 MW of curtailed Energy @$250/MWh.
f) The LSE/CSP would be **paid** $4,500 = $250/MWh LBMP x 3 MW x 6 hours for the curtailment.
g) No supplemental "Uplift" payment for a "Bid Curtailment Cost Guarantee" would be needed since the $4,500 LBMP payment would exceed the $3,800 total curtailment bid.

2) Economic Selection of Small Generators for Self-Supply - For Load scheduled to economically curtail Day-Ahead, which continues to consume, but self-supplies the "curtailed" Load with a "behind-the-fence" small generator, the LSE would be charged for the full amount of Energy that the load consumes (i.e., no "Incentive" would be paid), and the LSE would be paid the higher of Price-Cap Curtail Bid **or** Day-Ahead LBMP for the self-supply which would include a supplement **(i.e., "Uplift" payment)**, if needed, for "Bid Curtailment Cost Guarantee" to allow full recovery of the "Curtailment Initiation Cost" (in the case of a small self-supplying generator, this would be identical to a "Bid Production Cost Guarantee" to allow full recovery of start-up and min gen costs) .

Consequently, a Load that "curtails" through self-supply would not be (and specifically is not intended to be) treated exactly the same way as a Load that "curtails" through an actual reduction in consumption. The self-supplied Load is not eligible for the "Incentive". However, this does provide a mechanism for small generators to bid into the market without the more rigorous requirements of large generators. In essence, a Load and its "behind-the fence" small generator would be treated as two separate entities under this program **for billing purposes**.

As an example, assume:

a) A 10 MW Load bids to curtail 3 MW of Load through self-supply via a "behind-the-fence" small generator at a Price Cap of $100/MWh plus $2,000 for "Curtailment Initiation Costs" (or "Start-up and Min Gen Costs") for a continuous time strip of 6 hours. This amounts to a total curtailment bid of $3,800 = (3 MW x $100/MWh x 6 hours) plus $2,000.
b) That load is scheduled Day-Ahead for a 3 MW curtailment for 6 hours.
c) Day-Ahead LBMP is $250/MWh for those 6 hours.
d) The Load actually consumes 10 MW, but self-supplies 3 MW of that 10 MW over those 6 hours (i.e., it has a net consumption of 7 MW).

The resulting charges and payments would be as follows...

e) The LSE/CSP would be **charged** $15,000 = $250/MWh x 10 MW x 6 hours for its total consumption even though a portion is self-supplied (i.e., no "Incentive" payment would be paid for the 3 MW of self-supplied "curtailed" Load).
f) The LSE/CSP would be **paid** $4,500 = $250/MWh LBMP x 3 MW x 6 hours for the self-supplied "curtailed" Load.
g) No supplemental "Uplift" payment for a "Bid Production Cost Guarantee" would be needed since the $4,500 LBMP payment would exceed the $3,800 total curtailment bid.

The difference, obviously, between "#1" and "#2" above is that under "#1", the LSE would be charged $4,500 less for Energy -- i.e., the "Incentive".

Uplift Example

Assume the same example for a curtailable Load Bid above (with and without the self-supplying small generator) except that the Load bids a Price-Cap of $150/MWh rather than $100/MWh, and continues to bid $2,000 for "Curtailment Initiation Costs". This amounts to a total curtailment bid of $4,700 = (3 MW x $150/MWh x 6 hours) plus $2,000.

For a Load without a self-supplying generator, the payments and charges would be as follows:

a) The LSE/CSP would be **charged** $10,500 = $250/MWh x 7 MW x 6 hours, **but** would not be charged (as an "Incentive") for the 3 MW of curtailed Energy @$250/MWh.

b) The LSE/CSP would be **paid** $4,500 = $250/MWh LBMP x 3 MW x 6 hours.

c) The LSE/CSP would also be paid $200 = $4,700 - $4,500 as a supplemental **"Uplift"** payment for a "Bid Curtailment Cost Guarantee" since the total $4,700 curtailment bid exceeded the $4,500 LBMP payment (this is based upon the requirement that SCUC determines that the total bid production cost over the 24 hour Dispatch Day will be lower with this Load curtailed).

The same example holds for Load that curtails through self-supply except that the "Incentive" payment is not made.

This example is simplified somewhat because the bids and LBMPs in each hour were the same, but the principle remains that "Uplift" is paid if, over the course of the 24 hour Dispatch Day, bid costs are not fully recovered through LBMP.