

Economic DR energy settlement and marginal cost for On-Site Generators

DRS 9/2/22 Pete Langbein





- Please see <u>Economic DR training material</u>, On-Site Generation section for details
 - Only one clarification was made to the training material based on a recent member question.

How to determine incremental output for On-Site Generator

- Generator without injection rights: marginal cost > retail cost, only reason generator operates is because of Economic DR wholesale market revenue, otherwise cheaper to buy power at retail
- Generator with injection rights (WMPA, ISA): Typically, only eligible for Economic DR energy revenue in hours when generator does not inject power unless:
 - PJM and CSP finalize below before PJM will consider Economic DR settlements in same hour as injection,
 - Cost (Total Gen output * marginal cost) > Benefit {gen export revenue (Gen export output * LMP) + implied retail savings (Gen load reduction MWs * retail rate}
 - If Generator is also a Capacity Resource ("front of the meter") for injection and is • dispatched by PJM then Economic DR is not eligible for same interval





High Level On-Site Generator Cost Guidelines

- Generator Marginal Cost = Fuel Cost + Variable Operation and Maintenance Cost (VOM)
 - Fuel Cost (include the estimated \$/MWh cost for fuel)
 - May include gas demand charges where the demand charge is based on the monthly demand charges cost divided by the estimate run hours in the month.
 - May include emission allowances when applicable
 - VOM Cost (\$/MWh)
 - Variable Repair and Maintenance costs
 - Should *not* include employee salaries and benefits (these are not marginal)
 - Start Up cost rolled into VOM
 - Must be converted to \$/Mwh by dividing cost (\$) by total Mwh dispatched/cleared over settlement hours and adding result to VOM each hour (See Manual 15 for more details on what can be included in Start Up cost).

Make wording more consistent – cost should only include marginal cost (consistent with M-15 logic)





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[Proposal to Consolidate DRS and DIRS into one Subcommittee]

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