

# STRATEGIC ENERGY MANAGEMENT PROGRAM & SAVINGS REVIEW

DNV GL reviewed and assessed the methodology and calculations for estimating electric energy savings from the program year 2019 industrial strategic energy management (SEM) demonstration initiative administered by National Grid via vendor Cascade. The purpose of this review was to complete an independent review of the savings methodology in use and identify significant savings evaluation risks for National Grid.

## APPROACH

DNV GL reviewed program documentation associated with all seven electric sites participating in the initiative.



7 electricity savings models reviewed



Review of vendor's savings documentation



Baseline calculation review



Interviews with administrators of comparable programs

## Key Terms

**Strategic Energy Management (SEM):** A set of processes that empower an organization to implement energy management actions and consistently achieve energy performance improvements ([energy.gov](http://energy.gov)).

**Forecast Models:** A calculation method in which a facility energy consumption regression is created using baseline period data and then used to predict what facility energy consumption would have been during the reporting period

had the facility not implemented SEM. Energy savings is the difference between the baseline predicted and actual metered energy consumption, less any non-routine adjustments ([NREL/SR-7A40-68316](http://NREL/SR-7A40-68316)).

**Non-routine adjustment (NRA):** A one-time, ad hoc adjustment to the adjusted baseline to account for a change in facility energy consumption that cannot be modeled econometrically ([NREL/SR-7A40-68316](http://NREL/SR-7A40-68316)).

## KEY FINDINGS



The program is well documented and follows industry best practice for measuring achieved savings during the measurement period.



National Grid is appropriately managing savings risk through its use of best practice methods to estimate savings and the documentation available to support savings claims.



Current program documentation is sufficient to support future evaluation.

## IMPROVEMENT OPPORTUNITIES

National Grid can further ensure the savings estimated by the program are realized by:

- Listing the actions that are believed to have resulted in the measured savings in the annual energy savings report and/or providing the date an opportunity starts to provide savings.
- Documenting what adjustments to the Standard Operating Procedure were made during the year that are tied to recorded opportunities.
- Ensuring details on non-routine adjustments are available for future evaluation, including tracking information and project documentation for other incentivized measures, and outliers excluded.