



# RETRO-COMMISSIONING



## Study Provider Qualifications

Study Providers must be properly qualified to execute a successful Retro-Commissioning project. Minimum qualifications must be submitted and approved prior to submitting a Retro-Commissioning project application.

## Minimum Provider Submission Requirements

Each provider submission will be reviewed by DP&L, and providers will be notified by the Administrator of their approved status. Please provide the following to facilitate DP&L's review:

- Corporate Overview
- Project Staff Resumes
- Three (3) sample Retro-Commissioning Reports from past completed projects (completed after January 1, 2013)
- An owner-direct letter of reference from one of the completed project reports
- A sample scope of work / proposal addressing the DP&L Retro-Commissioning Program

Supplemental information may be requested at the discretion of DP&L.

Please submit all information to [DPLRetroCx@dplinc.com](mailto:DPLRetroCx@dplinc.com).

All projects will be subject to the Retro-Commissioning Terms and Conditions. DP&L reserves the right to approve or deny qualification submissions based upon their understanding of the applicant's capability to complete a successful Retro-Commissioning Study given the information provided. Should an application not be approved, applicants will be eligible to resubmit qualifications in 6 months following the original application.



The purpose of the Measurement and Verification (M&V) effort will be to verify the electricity savings resulting from measures implemented as part of the Retro-Commissioning effort. The M&V effort will commence upon conclusion of the 12-week savings measure implementation period. The M&V period will last a minimum of thirty days, and the results will determine the final twenty percent of the Study Rebate.

The following details the steps which will be taken as part of the M&V process. The verification will primarily utilize trend data gathered from the Building Energy Management System to confirm the energy conservation measure calculation assumptions utilized in the study. Trend data must be collected by the Study Provider prior to any energy saving measure implementation to establish a baseline condition. The Study Provider will be responsible for determining which data points will be collected and for how long the data will be collected, as well as setting up all necessary trends, during the Retro-Commissioning Study. It is required that a minimum of two weeks of trend data is collected for if the associated data point is used to complete energy conservation measure savings calculations.

The Study Provider shall provide all trend data used to estimate savings in the Study Report to DP&L as an Appendix to the Study Report for use during the M&V Phase. For the post-implementation period, DP&L will require a minimum of 30 days of trend data. This will include the same data points as collected during the Study (pre-implementation) period. This data will be analyzed by DP&L to estimate energy savings.

If trend data is not available, clamp-on style amperage meters shall be utilized to measure all applicable end-use electricity consumption both during the Study (pre-implementation) and post-implementation period. It is the responsibility of the Study Provider to install and remove all clamp-on style meters to confirm operational patterns and electric demand to support energy conservation measure calculations used in the Study Report. The Study Provider is expected to share all data used in the Study with DP&L for use during the M&V Phase, providing detailed documentation and photographs of locations of meter installation and circuits recorded by each meter. A minimum of two weeks of trend data shall be collected for the pre-implementation period. DP&L will then coordinate with the Customer to install equivalent meters in the same locations after the implementation period has concluded to evaluate the measures implemented. This data will be collected for a minimum of 30 days. DP&L will utilize the data collected during the M&V period to estimate savings.

In the event that trend data is not available and it is unreasonable to utilize clamp-on style metering for individual pieces of equipment, the Study Provider must provide a detailed M&V plan for review and approval by DP&L, prior to beginning the Retro-Commissioning Study.

The collected data will be utilized to calculate Verified Savings, which will be utilized to determine final Study Provider Study Rebate and Customer Rebate (see [Terms & Conditions](#) for further details). All savings calculations will be based on the Ohio Technical Reference Manual (OTRM), standard industry equations, and tools and methods internal to DP&L and their Program Administrator. Electricity savings will be extrapolated to determine annual savings. The calculation process will include normalizing the data to account for differences in weather, occupancy, or operation between the pre- and post-implementation time periods. The calculations will include using actual degree days as publicly available from the Wright Brothers Airport weather station (station ID: KFFO).

Once the savings have been determined, the M&V effort will be presented to the Customer and Study Provider in a formal written report. This report will be standardized for the Retro-Commissioning program. The report will identify the measures implemented, detail the specific calculation method(s) utilized to verify savings, and the Verified Savings.