

TOWN OF CHESHIRE

**REQUEST FOR
QUALIFICATIONS FOR
COMMISSIONING SERVICES**

RFQ # 2223-38

For the

**New North End Elementary School
Construction Project
Cheshire, Connecticut**

Issue Date:	May 16, 2023
Question Deadline:	May 30, 2023
RFQ Deadline:	June 2, 2023 at 2:00 pm EST
RFP Issued Due:	June 9, 2023
RFP Due:	June 28, 2023 at 2:00 pm EST
RFP Interview:	July 6, 2024 (Between 6-9pm)
Anticipated Award:	July 11, 2023

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The Town of Cheshire, through its Next Generation School Building Committee (“NGSBC”), seeks statements of qualifications from qualified respondents to provide professional commissioning services, in accordance with Connecticut law, for the New North End Elementary School Construction Project for the Town of Cheshire, Connecticut.

LEGAL NOTICE
REQUEST FOR QUALIFICATIONS

Commissioning Services for New North End Elementary School

Proposals will be accepted at Cheshire Town Hall, 29 Main St., Cheshire, CT 06410 until 2:00 PM Eastern Daylight Time on June 2, 2023. Instructions to bidders may be obtained at <https://www.cheshirect.org>.

The NGSBC intends to short list not more than four (4) firms selected from the responses to this RFQ to receive an RFP and submit proposals to provide documented confirmation that the New North End Elementary School fulfills the functional and performance requirements of the building owner and operators, and as required by the State of Connecticut General Statutes: Section 16a – 38k. The commissioning process will establish and document the owner’s criteria for system function, performance, and maintainability; and to verify document compliance with these criteria throughout construction, start-up, and the initial period of operation. The Project shall be designed to the Connecticut High Performance Building Standards and the Connecticut Building Standard Guidelines Compliance Manual for High Performance Buildings. The Project’s commissioning services shall consist of (i) the mandatory requirements of Section 16a-38k-3(a) of the Regulations of Connecticut State Agencies, (ii) the services described in the Compliance Manual, State of Connecticut “Capital Projects High Performance Buildings Guidelines”, State Department of Administrative Services, Division of Construction Services, Office of School Construction Grants, Supplement to the Guidelines, (iii) shall include the enhanced commissioning services as further described in this RFQ, (iv) shall include work required for the Energize CT Verification Incentive and (v) shall be performed pursuant to the ASHRAE Guideline 0-2005 (collectively, the “Commissioning Services”).

Qualified firms are required to submit their Proposal in accordance with the solicitation package requirements. The firm must meet all municipal, state and federal affirmative action and equal employment opportunity practices. One Original, twelve (12) copies of the SOQ, and one electronic copy (Adobe PDF) must be submitted.

After review of all SOQs, the Town and its NGSBC reserve the right to reject any or all proposals, or any part thereof, or waive defects in same, or accept any proposal deemed to be in the best interest of the Town of Cheshire.

All questions or comments regarding this solicitation package must be submitted to Dr. Jeff Solan (jsolan@cheshire.k12.ct.us), Richard Gussenburg (Richard.Gussenburg@cheshire.k12.ct.us), and Vincent Masciana (vmasciana@cheshire.k12.ct.us) with the subject line: Commissioning Services RFQ. Questions must be submitted by May 30, 2023 at 2:00 pm.

I. INSTRUCTIONS TO RESPONDENTS

Absolutely no extensions will be granted. Firms selected to receive an RFP shall submit fee proposals by no later than the date identified in the RFP and the selected commissioning agent will be expected to begin work immediately upon receipt of a letter from the Town directing the commencement of work.

The Town may, at its sole discretion, clarify, modify, amend, or terminate this solicitation at any time if the Town deems it to be in its best interest to do so. Respondents are responsible for checking the Town or CT DAS website for any addenda to this RFQ, and to complete its response in accordance with the latest issued addenda. The lowest priced proposal is not the sole determining factor when awarding this proposal.

Commissioning Services (as hereinafter defined) shall be performed pursuant to a modified AIA document (AIA-C203-2017 Commissioning Agreement), which will be supplied with the RFP and must be accepted without exception, modification, or negotiation. Work will only commence on a Contract after a written notice to proceed is issued by the Town of Cheshire directing the commencement of such work. In the event of any conflicts between this RFQ and any other proposal document(s) or the contract between the Town and the successful proposer, this RFQ shall prevail.

II. COMMISSIONING SERVICES OVERVIEW

The objective of commissioning is to provide documented confirmation that a facility fulfills the functional and performance requirements of the building owner and operators, and as required by the State of Connecticut General Statutes: Section 16a – 38k. The commissioning process will establish and document the owner’s criteria for system function, performance, and maintainability; and to verify document compliance with these criteria throughout construction, start-up, and the initial period of operation. The Project shall be designed to the Connecticut High Performance Building Standards and the Connecticut Building Standard Guidelines Compliance Manual for High Performance Buildings. The Project’s commissioning services shall consist of (i) the mandatory requirements of Section 16a-38k-3(a) of the Regulations of Connecticut State Agencies, (ii) the services described in the Compliance Manual, State of Connecticut “Capital Projects High Performance Buildings Guidelines”, State Department of Administrative Services, Division of Construction Services, Office of School Construction Grants, Supplement to the Guidelines, (iii) shall include the enhanced commissioning services as further described in this RFQ, and (iv) shall be performed pursuant to the ASHRAE Guideline 0-2005 (collectively, the “Commissioning Services”). It is not the goal of this project to achieve LEED certification.

III. PROJECT DESCRIPTION

This RFQ is for commissioning services for the New North End Elementary School for the Town of Cheshire, CT. The Project is receiving a grant administered by the OSCGR, is on the Governor’s Priority List and has been approved by the Connecticut State Department of Education. Tecton is the Project Architect; O&G Industries is the Construction Manager At Risk and Arcadis is the Owner’s Representative. The project is currently in the schematic design phase. Construction is tentatively scheduled to break ground in late summer 2024 followed by a 16-18-month

construction period.

IV. SUBMITTING A STATEMENT OF QUALIFICATIONS

For a Statement of Qualifications to be responsive to this RFQ it must provide all of the following information (Collectively the “Minimum Requirements”) organized as listed below:

1. Cover letter: Describe your firm’s commitment to the project and how your firm will meet or exceed expectations. Identify any factors that distinguish your firm from your competitors. Include a contact name, email, direct telephone, and address in the letter.
2. Certification: Provide satisfactory evidence your company is certified through CCP (Building Commissioning Association), ASHRAE CPMP/BCxP, or ACG.
3. Qualifying Experience; Exhibit A: Provide evidence your company has performed commissioning services for projects of similar size and scope in Connecticut in the past five years. Complete and include Exhibit A.
4. Project Team: Identify the proposed project team for this project. List all key members of the team and their resumes, include a description of each person’s commissioning experience.
5. References: Provide five references from completed projects of similar size and scope.

V. SELECTION PROCESS

A. Evaluation

The NGSBC will evaluate the qualification submittals and develop a shortlist of not more than four (4) qualified firms. The NGSBC will request the four (4) most qualified firm(s) to provide fee proposal(s) in accordance with proposal format to be provided to those invited to submit.

VI. General Conditions

- A. The NGSBC reserves the right to accept or reject any or all proposals.
- B. The NGSBC shall be under no obligation to accept a proposal if it is deemed to be in the best interest of the Town of Cheshire not to do so. The Town of Cheshire is not responsible for any costs incurred by any Responder in connection with this RFQ. The expenses incurred by any Responder in the preparation, submission and presentation of their proposal are the sole responsibility of the Responder and shall not be charged to the Board of Education, the Town of Cheshire or the NGSBC.

- C. The CxA shall be required to carry the following insurance, written by a company licensed to provide insurance in the State of Connecticut, with respect to services they perform for the duration of any contract to be let as a result of this process:
- a. Workers Compensation limits: as required by Connecticut General Statutes.
 - b. General Liability Insurance, including the Cheshire Board of Education and the Town of Cheshire as additional insured with limits of \$2,000,000 each occurrence and in the aggregate for property damage.
 - c. Commercial Automobile Liability Insurance, including the Town as an additional insured, covering the operations of all operations motor vehicles owned, leased, hired, or used by the CxA in the furtherance of this Agreement with limits of \$1,000,000 each person, \$1,000,000 each occurrence for bodily injury, and \$1,000,000 each occurrence for property damage.
 - d. Professional liability insurance for protection against claims arising out of the negligent performance of services as CxA or caused by any errors or omissions of the insured in the amount of \$3,000,000.
 - e. The CxA shall furnish, prior to commencement of work under this agreement, Certificates of insurance evidencing workers' compensation, general, automobile, and professional liability coverage with the required limits.
 - f. In addition, both parties to any contract to be let as a result of this process will be required to agree mutually to waive any rights which each may have against the other with respect to subrogation under any policy insurance relating to the services or work provided under any such agreement.
 - g. Save Harmless. As part of entering into any contract which may be let as a result of this process, the CxA for itself and its successors will be required to covenant and agree with the Town to indemnify and save harmless said Town from any and all action, causes of action, judgments, legal fees, claims and demands whatsoever, which may at any time be instituted, made, tendered or recovered against the Town to the extent caused by the CxA's negligence in the performance of the CxA services performed pursuant to any such agreement.
- D. The NGSBC, Cheshire Board of Education and the Town of Cheshire have the right to use any or all ideas, plans, specifications, and estimates presented in this RFQ or in response hereto.

VII. SCOPE OF SERVICES

The respondent awarded the Contract (the "CxA") is required to provide Commissioning Services during design, construction, approval/acceptance, and post-occupancy, and to be in compliance with Connecticut Standard Guidelines for High Performance Buildings. The CxA will provide the Town with documented assurance that mechanical, electrical, plumbing, fire protection, controls, building envelope, technology, and other systems have been installed in compliance with the contract documents and specified performance guidelines. The Commissioning Services shall include the following:

- I. Commissioning Plan:
 - A. The CxA shall prepare a detailed commissioning plan for the construction, acceptance, and post- occupancy phases of this Project. This informational document will include, but not be limited to the following:
 1. Outline the commissioning responsibilities of the CxA, the OPM, design team, and construction manager for the Project, and the trade contractors.
 2. The plan will identify the systems and building envelope features to be commissioned.
 3. The plan will explain the method of verification and documentation to be used.
 4. The plan will contain a preliminary schedule for the commissioning of systems.
 - B. The CxA will present the plan to the owner, OPM, construction manager, design team, and trade contractors. Appropriate modifications resulting from team input will be incorporated into the plan and resubmitted for approval as the final plan.
 - C. The CxA shall coordinate the commissioning work with the Construction Manager on an ongoing basis to ensure commissioning activities are incorporated into the master schedule.
 - D. The CxA shall issue four (4) hard copies and four (4) electronic copies of the final commissioning plan within 14 days following written approval of the above parties.
 - E. The CxA shall conduct post-occupancy reviews and meetings with the owner at the following intervals: 2 weeks, three (3) months, and 10 months as well as at startup of the cooling and heating season.
- II. Review Submittals:
 - A. The CxA shall review mechanical and electrical submittals and shop drawings provided by the Contractors.
 - B. This review will be done to determine adherence to the design intent and to familiarize the CxA with the specific equipment that the Contractor will be installing on the Project. This will allow the CxA to tailor its pre-functional test check-off sheets and functional test procedures to the specific equipment.
 - C. Any discrepancies with the design documents shall be brought to the attention of the Design Team, the Owner, and the OPM. The resolution of conflicts will be the responsibility of the Owner, OPM and Design Team, with input provided by the CxA.
 - D. CxA will also review envelope submittals for roofing, waterproofing, and window/door/wall assemblies, including but not limited to air barrier; diffusive vapor control; water management; and thermal barrier as necessary to ensure commissioned systems will perform properly.

III. Review of Controls Software:

- A. The CxA shall review the controls contractor's shop drawings, sequence of operations, and control logic. The review will familiarize the CxA with the control logic and specific types of instruments that the contractor will use to meet the design criteria.
- B. The CxA shall also review the lines of software code that the contractor is intending to use in the Direct Digital Control (DDC) system.
- C. The CxA shall also confirm the integration of the DDC system with other systems. (i.e., Fire alarm, security, etc.)

IV. Develop Contractor Commissioning Logbooks, Pre-functional Test Check-off Sheets and Verification of Completion Forms:

- A. After review of Contractor submittals and control software, the CxA shall develop pre-functional test check-off sheets and Verification of Completion forms for all equipment to be commissioned.
- B. These forms will be provided during a meeting conducted by the CxA to the Construction Manager in the form of commissioning logbooks for further distribution to the appropriate contractor(s). The forms will be utilized to document the completion of the installation. (The Construction Manager shall verify the accuracy and completeness of the subcontractors' documentation and notify the CxA when systems are prepared for testing, balancing, and functional testing).

V. On-site Construction Observation and Meeting Attendance:

- A. The CxA shall attend all commissioning meetings and periodic Owner, OPM, Design Team, Construction Manager, and contractors' meetings.
- B. The CxA shall provide a minimum of monthly on-site construction observation visits. As work moves closer to completion, visits may increase to weekly or daily as commissioning testing gets underway. The CxA shall verify access is provided to all equipment to enable service, repair, maintenance, or replacement.
- C. Site visits will acquaint the CxA with construction progress and increase familiarity with systems to be tested and commissioned. The CxA will immediately report any discrepancies between construction and design documents to the OPM and construction manager.
- D. Site visits will be scheduled to provide adequate opportunity to observe heating, ventilation, and air conditioning (HVAC) pipe testing and flushing, duct pressure testing and cleaning, roofing uplift tests, blower door testing, and water penetration testing to ensure proper procedures are followed.
- E. On-site visits will enable the CxA to schedule the commissioning process more accurately to interface with the completion of construction.
- F. Each site visit shall be documented with a written report that will be distributed to the OPM, Owner, Design Team, and the Construction Manager. The report will include a discrepancy/recommendation log, to be updated after each site visit.
- G. Attend NGSBC meetings as requested. (No more than five (5) NGSBC meetings are anticipated).

VI. Development of Functional Test Procedures:

- A. CxA shall develop functional test procedures for systems to be commissioned based on review

of design criteria and construction documentation.

- B. Functional test procedures shall provide a detailed procedure of how the system shall be tested and a record sheet for recording test results.
- C. Test procedures shall be as specific and exact as possible to ensure the test can be easily repeated by more than one tester and the same results obtained.
- D. The CxA shall review test procedures with the OPM, Owner, Design Team, Construction Manager, and contractor(s) at a presentation meeting conducted by the CxA. If required, the test procedures will be modified and then approved by the aforementioned parties.
- E. The CxA shall issue the final functional test procedures to the OPM, Owner, Design Team, and the Construction Manager (one (1) hard copy and one (1) electronic copy each).
- F. Functional test procedures shall be provided for all systems including, but not limited to, the following. Failure to include an item in this list shall not alleviate the CxA's obligation to test all systems identified throughout project design.
 - All air handling units and associated heating and cooling coils, economizers, thermostats, etc.
 - All humidifiers
 - All exhaust fans, all return fans
 - All motorized dampers including demand-controlled ventilators.
 - All variable air volume (VAV) terminal units and associated reheat coils.
 - All lab terminal units (supply and exhaust) and associated reheat coils.
 - Chillers and all associated chilled water and condenser water pumps, etc.
 - Boiler, boiler combustion air fan, all associated pumps, tanks, condensate pumps, etc.
 - All heat exchangers and associated pressure relief valves (PRVs)
 - All energy recovery ventilation systems including enthalpy difference requirements between outdoor air and return air.
 - Cooling towers, Chilled water system, Refrigeration Systems
 - Domestic water heating system
 - Computer room air conditioning units and associated split system condensers.
 - All unit heaters, cabinet heaters, etc.
 - Building automation system, including CO2 sensors, and component failure alarms
 - Direct Digital Controls and system interlocks, including occupancy sensors.
 - Lighting and Day Lighting control system
 - Fire protection systems and equipment; fire alarm system interfaces with HVAC systems
 - Renewable Energy Systems (if required)
 - Security Systems
 - Telecommunications Systems
 - Observation of the Infrared testing for electrical gear and panel boards
 - Envelope systems: Roof, Window, Door, Wall
 - Moisture mitigation at building seams, slab on grade, etc.

CxA is to determine if construction documents require others to perform infrared scan of building walls and roofs and provide a summary report of results to the OPM, Owner, Contractor, and the Design Team, during a presentation meeting conducted by the CxA, with areas of concern identified for further investigation.

VII. Develop Commissioning Schedule:

- A. The CxA shall develop a commissioning schedule for all required project systems.
- B. The schedule will be coordinated with the construction completion schedule and will identify contractor and manufacturer start-up tests for major equipment.
- C. CxA will present the schedule to the OPM, Owner, Design Team, Construction Manager, and contractor(s) for review and approval.
- D. The CxA shall maintain and update the schedule as needed and coordinate with balancing.

VIII. Preparation and Testing, Adjusting, and Balancing (TAB) of HVAC/R Systems:

- A. CxA will hire and subcontract with the Testing, Adjusting and Balancing Company to perform all TAB requirements in coordination with Construction Manager and HVAC contractor.
- B. CxA shall determine when balancing may be conducted.
- C. CxA shall review the completed balance report and independently spot check balancing readings to verify compliance with the submitted report. The CxA shall confirm the required rate of outdoor air flow is being delivered to the breathing zone within each space.
- D. CxA will bring any discrepancies to the attention of the Owner, OPM, Design Team, and Construction Manager for review. The CxA shall facilitate discussions with the project team to resolve any discrepancies identified during its review.
- E. A copy of the final balancing report will be included in the final commissioning report.
- F. Any smoke control testing by other agencies having authority will be witnessed and documented by the CxA.
- G. Coordinate and witness start-up of hydronic systems to verify cleaning, flushing and chemical treatment have been completed prior to the start of water balancing.

IX. Perform Functional Test Procedures and Document Results:

- A. The CxA shall commission those systems as outlined in the commissioning plan through the performance of the functional test procedures.
- B. Testing will be scheduled based on the commissioning schedule, the completion of the work, and the system testing and balancing. The CxA will review the test results/reports, including, but not limited to, the efficiency test reports for heating, hot water systems, and cooling systems.
- C. During the testing, a weekly report of progress and results will be provided to the Owner, OPM, Design Team, Construction Manager, and the Contractor(s). Additionally, a running discrepancy/recommendation log will be provided and updated weekly. The CxA shall retest after corrections have been made and track all corrections.
- D. If systems do not comply with testing standards, the CxA shall provide recommended solutions for review by the owner, OPM, design team, construction manager, and Contractor(s). The CxA shall facilitate discussions with the group to arrive at a solution.

- E. All test results will be documented and included in the final commissioning report.
- F. Seasonal peak testing will be performed in the appropriate peak season.

X. Review Operation and Maintenance (O&M) Manuals, Warranties, As-built Documentation:

- A. CxA shall review O&M manuals for, but not limited to, completeness, accuracy, and compliance with the construction contract. The CxA shall provide comments and feedback to the Construction Manager within 15 days following receipt of the O & M manuals.
- B. The CxA shall verify completeness from an operational standpoint and include commissioning information.
- C. CxA shall confirm construction documents are updated regularly by the Construction Manager. Deficiencies are to be reported to the CM and OPM and tracked until remedied.
- D. The CxA shall review all HVAC system and electrical equipment warranties to verify client agency's responsibilities are clearly identified.

XI. Provide Operations Staff Systems Training:

- A. The CxA shall coordinate training of the facility's maintenance personnel to include System configuration, control sequences, special systems, safety, and alarms/trouble codes.
- B. The CxA will attend videoed training performed by the CM and will be conducted after the O&M manuals have been distributed to the facility's maintenance personnel.
- C. The CxA shall attend, facilitate, and ensure all training specified in the project construction documents is properly carried out by the Contractor(s).

XII. Final Commissioning Report:

- A. The CxA shall provide and present a final commissioning report to include the following:
 - 1. Summary of commissioning process.
 - 2. A final evaluation of system compliance with the design intent, including any discrepancies and recommendations for modifications.
 - 3. All functional test procedures and their final record sheets.
 - 4. Final discrepancy/recommendation log listing final status of each item.
 - 5. Final Testing, Adjusting, and Balancing report.
- B. The CxA shall submit five (5) copies of the final commissioning report within 60 days after completion of the services itemized in subsections I through XIV above. The final report shall include all information required by the State's HPB Standards, C.G.S. 16a - 38k.
- C. CxA will distribute one hard copy and one electronic format copy each to the owner, OPM, Construction Manager.

XIII. Warranty Period Review:

- A. During the warranty period the CxA shall retest any systems that had testing deferred during the initial functional testing and shall conduct seasonal testing that had been deferred due to the lack of peak season conditions. This testing will ensure all system sequences of operations have been verified.
- B. The CxA shall perform a site visit at the 10-month interval of the project warranty to investigate any post-occupancy issues, determine if systems are performing properly, and identify issues requiring correction.

- C. The CxA shall submit and present the warranty period review report to the Owner, OPM, and Construction Manager, outlining the findings of the 10-month warranty reviews and recommendations for corrective action(s). The report shall include all information required by the State's HPB standards 16a – 38k.

XIV. *Eversource Energize CT Verification Team*

Requirements: 50% or 90% Construction Document Control

Sequence Review

- The Verification Team, MEP firm and commissioning agent shall facilitate an integrated review of the project's control sequences.
- The Verification Team, MEP firm and commissioning agent shall review and comment on the sequences to ensure they are optimized and clearly written. Where possible, the general contractor/controls subcontractor shall be involved in this process.

Verification Period

The Verification Period is the 12-month period during which the Verification Team completes the scope of work below. The Verification Period begins when the building becomes occupied after any issues from the commissioning agent's initial functional testing are substantially resolved.

XV. Exhibits:

Exhibit A: Qualifying Experience

Exhibit B: Eversource Energize CT Verification Incentive Program Guidelines

End of Section

EXHIBIT A: LIST OF QUALIFYING PROJECTS

Name of Bidder: _____

Date: _____

1. Project Title: _____
CT State Project # (if applicable): _____
Owner: _____
Contact Name/Telephone: _____
Project Budget: _____
Completion: Month/Year: _____

2. Project Title: _____
CT State Project # (if applicable): _____
Owner: _____
Contact Name/Telephone: _____
Project Budget: _____
Completion: Month/Year: _____

3. Project Title: _____
CT State Project # (if applicable): _____
Owner: _____
Contact Name/Telephone: _____
Project Budget: _____
Completion: Month/Year: _____

4. Project Title: _____
CT State Project # (if applicable): _____
Owner: _____
Contact Name/Telephone: _____
Project Budget: _____
Completion: Month/Year: _____

5. Project Title: _____
CT State Project # (if applicable): _____
Owner: _____
Contact Name/Telephone: _____
Project Budget: _____
Completion: Month/Year: _____

EXHIBIT A: PAGE 2

Name of Bidder: _____

Date: _____

6. Project Title: _____
CT State Project # (if applicable): _____
Owner: _____
Contact Name/Telephone: _____
Project Budget: _____
Completion: Month/Year: _____
7. Project Title: _____
CT State Project # (if applicable): _____
Owner: _____
Contact Name/Telephone: _____
Project Budget: _____
Completion: Month/Year: _____
8. Project Title: _____
CT State Project # (if applicable): _____
Owner: _____
Contact Name/Telephone: _____
Project Budget: _____
Completion: Month/Year: _____
9. Project Title: _____
CT State Project # (if applicable): _____
Owner: _____
Contact Name/Telephone: _____
Project Budget: _____
Completion: Month/Year: _____
10. Project Title: _____
CT State Project # (if applicable): _____
Owner: _____
Contact Name/Telephone: _____
Project Budget: _____
Completion: Month/Year: _____

Verification Incentive

Eversource and the United Illuminating (UI), Southern Connecticut Gas (SCG), and Connecticut Natural Gas (CNG), subsidiaries of AVANGRID, Inc. (The Companies) offer a **50% cost share up to \$10,000** for supplemental energy use verification as defined below. The Companies' scope of work is to assist building owners/operators, contractors and design teams in verifying that the building continues to function as designed or better during its first year of occupancy. The building must have undergone functional testing prior to this scope.

Eligibility

- Project is participating under Path 1 or Path 2 of the C&I New Construction Program
- For projects participating under Path 2, the owner/developer must be planning to commission the building to levels equivalent to the LEED BD&C Version 4 Fundamental Commissioning and Verification Prerequisite
- The project must comply with the requirements of ASHRAE 90.1-2013 related to metering

Documentation and Deliverables

1. Executed contract, including a proposal with the scope of work below
2. Summarize the outcomes of the control sequence review
3. Maintain a log of issues identified during the Verification Period, including date of resolution
4. Develop a verification report at each interval with the results of each desk review
 - Graphically display trend data with a discussion of how discrepancies and resolutions impact trends

Verification Team

The owner/developer must form a Verification Team to complete the scope of work referenced below. The team must include:

- The owner or designated representative
- An "energy verifier"¹
- A Registered Architect (RA) or a Professional Engineer (PE) who has experience looking at trend and metering data and understanding energy model reports and outputs

The verification team will need to coordinate with the design and construction teams, as necessary, to complete the verification scope of work. This will include engagement with the commissioning agent, MEP firm, architect, general contractor and/or controls contractor, and building operator. Some requirements may be met in coordination with the commissioning design review, if applicable.

Verification Period

The Verification Period is the 12-month period during which the Verification Team completes the scope of work below. The Verification Period begins when the building becomes occupied after any issues from the commissioning agent's initial functional testing are substantially resolved.

¹ May be any of the following: the project's commissioning agent, the project's MEP firm, or an MBCx firm with analysts who can submit comprehensive savings calculations and analyses.

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Owner/Developer Obligations

The owner/developer is expected to resolve issues found during verification either through workmanship warranties or other means. In addition, the owner/developer must ensure the verification team is provided with the following:

- The design team's energy model, output files and report (for Path 1 projects) or the Energize CT Technical Assistance Provider's energy model, output files and report (for Path 2 projects). The building's predicted Energy Use Intensity (EUI) and monthly energy usage for each end-use should be clearly shown.
- Commissioning reports
- Monthly energy bills for all fuels following the completion of functional testing
- Following the completion of functional testing, monthly sub-metered electric usage from the equipment installed to comply with ASHRAE 90.1-2013
- Monthly usage and generation from onsite generation following the completion of functional testing

The Verification Team's Scope of Work required for the Energize CT Verification Incentive: 50% or 90% Construction Document Control Sequence Review

- The Verification Team, MEP firm and commissioning agent shall facilitate an integrated review of the project's control sequences.
- The Verification Team, MEP firm and commissioning agent shall review and comment on the sequences to ensure they are optimized and clearly written. Where possible, the general contractor/controls subcontractor shall be involved in this process.

Verification Desk Reviews

- Review energy use data at the end of two-month, six-month and twelve-month intervals during the Verification Period. (Effort is "front-loaded" to identify/resolve issues early.)
 - Compare to energy use as predicted by the project's energy model/reports
 - Identify sources of discrepancies between predicted energy usage and actual energy usage
- Review trend data and as-built control sequences of all major systems to ensure consistency with as-designed sequences and design intent at the end of two-months, six-month, and twelve-month intervals during the Verification Period.
 - Trends shall include the measures reported in the Whole Building Modeling Template. Trend data parameters may include ventilation cfm, heating/cooling plant efficiency and renewable energy generation.
 - Identify sources of discrepancy between trends, as-built sequences and as-designed sequences.
- Review results of desk review with owner/developer, building operator, MEP firm, commissioning agent and contractor.

Incentive Payment

The incentive payment will be made upon receipt of the above deliverables.

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