

## REQUEST FOR QUALIFICATIONS ZERO ENERGY APPENDIX

VERSION: 7/19/2019

### INTRODUCTION

This project will pursue a target of achieving a Zero Energy (ZE) or Zero Energy-Capable (ZE-C) performance level in accordance with the State of Washington **Executive Order 18-01**. A ZE building is defined as a project that generates enough renewable energy on-site to completely fulfill the energy it consumes on an annual basis, as measured at the site. A ZE-C building is designed to achieve the same level of energy efficiency as a ZE building, and is capable of achieving ZE when renewable energy is added in the future. ZE and ZE-C buildings are designed to avoid the use of fossil fuel combustion.

Achievement of these goals will require the project team to adopt an integrated delivery process, one that coordinate multiple parties in maintaining a performance-based energy target throughout design, construction and occupancy. Service providers pursuing this contract must demonstrate the experience and capacity to lead this collaborative process. This appendix outlines the scope of work and qualifications that are specifically related to this work.

### SCOPE OF WORK

Project teams will be expected to lead the following activities as part of the ZE/ZE-C scope of work:

- **Project-Specific Energy Targets:** evaluate the energy performance of buildings of similar size, type, and use in the region and within the State portfolio; define project energy targets for each space type and the overall project based on building and technology precedents.
- **Technical Feasibility Studies:** conduct feasibility studies of site renewable energy capacity; assess schematic-level building envelope and mechanical system options that will meet the renewable energy budget and/or ZE-C energy target; identify cost and technical barriers.
- **Energy Modeling:** conduct energy modeling during the conceptual design, schematic design, design development and construction document phases; issue preliminary, iterative and final compliance reports that summarize the evaluation of strategies and system options.
- **Commissioning:** engage third-party agent to assist in developing the owner's project requirements, conduct design reviews and construction inspections, lead pre-functional testing, develop systems manual and operator trainings; serve as a consistent party that manages the successful delivery of a project that meets ZE/ZE-C target and owner expectations.
- **Measurement and Verification (M&V):** design a metering and data logging system that isolates primary energy end uses; develop a M&V plan to define measurement and monitoring protocols; ensure owner access to energy data to facilitate the tracking of ZE/ZE-C achievement and opportunities for occupant or public engagement via dashboards/web interfaces.
- **Utility Rebate and Demand-Site Management Programs:** identify incentives, rebates or other funding streams available to the project; coordinate with relevant parties to secure resources.
- **Post-Occupancy Evaluations:** develop surveys to gain feedback on building function from building occupants and operators; conduct site walks and user interviews during the first year of occupancy; assist in troubleshooting issues.
- **Third-Party Building Certification:** compile 12 months of metered energy use data and utility reports; compile design documentation and photos; develop narratives to summarize key design strategies and process; submit documentation to certification authorities

## SELECTION CRITERIA

In addition to the selection criteria outlined in the RFQ, selected firms should provide evidence of their qualifications for delivering a ZE/ZE-C, which includes:

1. A list of relevant projects and references in delivering a project designed to meet a ZE/ZE-C level or a performance-based energy target.
2. Examples of conducting renewable energy feasibility studies
3. Description of approach to integrating energy modeling and cost assessment into the team design process.
4. List of projects or experience in conducting the commissioning process for Washington State or government projects of similar size and/or program
5. Examples of operations and maintenance (O&M) training programs or tenant engagement programs (e.g. tenant guidelines)
6. Qualifications or resumes of key personnel involved in the project with sustainable design credentials; including but not limited to LFA, LEED AP and WELL AP.

## ADDITIONAL INFORMATION

**Pre-Design Package** – Please review the pre-design package for details about the project program and occupancy assumptions and early feasibility studies of ZE/ZE-C compliance.

**Owner's Project Requirements (OPR)** – Please review the OPR document for details about the specific sustainability goals, certification requirements, energy targets and system-level performance specifications that will be met for this project.

## RESOURCES

### [Zero Energy Frequently Asked Questions \(FAQ\)](#)

[www.commerce.wa.gov/state-efficiency-and-environmental-performance-seep/](http://www.commerce.wa.gov/state-efficiency-and-environmental-performance-seep/)

### [ILFI Certified Zero Energy Case Studies](#)

[living-future.org/lbc/case-studies](http://living-future.org/lbc/case-studies)

### [ILFI Zero Energy Documentation Requirements](#)

[living-future.org/net-zero/zero-energy-certification](http://living-future.org/net-zero/zero-energy-certification)