

NET ZERO CONSULTANT SCOPE – PATH 1

Tasks	
Task 1	Base Net Zero Consultant Scope
1.1	<p>Facilitate/Participate in a Net Zero Scoping Meeting- Facilitate or participate in a scoping meeting with the project team to establish clear net zero/low EUI goals and provide direction. Possible scope items include providing EUI benchmarks of similar projects for guidance, assessing whether additional analytical services are needed for project success (Task 2 and more), brainstorming energy reduction/conservation measures.</p> <ul style="list-style-type: none"> • Deliverable: Summary memo detailing key meeting results, recommendations, and Mass Save Sponsor next steps. Prepare proposal for Task 1 and for additional ZNE consulting services detailed in Task 2 if appropriate. • Turnaround Time: Within 2 weeks following meeting.
1.2	<p>If Needed – In the event that the project team, Mass Save Sponsors and Net Zero Vendor all agree that a site specific EUI target is necessary for a particular project, the Net Zero Vendor will assist in establishing an alternative EUI target that meets the requirements of the Path 1 MOU (roughly a minimum 40% reduction from a mixed fuel baseline).</p>
1.3	<p>Review and Comment on Design Drawings at Key Milestones - Review design documents at 100% SD, mid-DD, 100% DD (For National Grid additional review at 60% CDs). Participate in meetings with project team at each of these intervals.</p> <ul style="list-style-type: none"> • Deliverable: Memo at each interval (100% SD, 50% DD, 100% DD (and for National Grid 60% CD) stating the projected EUI and Path 1 tier the project is designing toward, including recommendations for further reducing site EUI, noting any abnormalities in modeling assumptions, and stating whether the project is still on track to achieve a Path 1 EUI at the end of design. Other information to include in final memo: <ul style="list-style-type: none"> ○ The building’s gross square footage (see Path 1 MOU for definition), ○ Heat pump tonnage and type(s) ○ State whether there will be a natural gas meter serving this building for any purpose, including back up generation ○ Confirm that building is separately metered from other buildings, that parking garages, PV and electric vehicles are all separately submetered, and that the requirements of ASHRAE 90.1-2016 para 8.4.3 are met, such that the following loads will be metered/recorded and will be reported to Mass Save on at least an hourly, daily, monthly and annual basis for the one-year period (Exception – up to 10% of the load for each of the following categories (b) through (e) shall be allowed to be from other electrical loads): <ul style="list-style-type: none"> ▪ Total building electrical energy ▪ HVAC systems ▪ Interior lighting ▪ Exterior lighting ▪ Receptacle circuits ○ Confirm that energy use from non-electrical sources (e.g., gas or propane for space heating, cooking, hot water, etc.) will be recorded and reported at least monthly (or if using delivered fuels, as often as deliveries are made) and annually for the same one-year period as for the electrical usage ○ Updated design schedule <p>Turnaround Time: Within 2 weeks from receipt of design drawings.</p>
1.4	<p>If needed, hand off to Mass Save modeler at 100% DD (60% CD National Grid)- Participate in one meeting with Mass Save Sponsors and the Mass Save Sponsors’ own energy modeler (if different from the Mass Save ZNE vendor) at the end of DD or 60% CD for National Grid to hand off the project. If the Mass Save Net Zero vendor will be the same as the Mass Save energy modeler, this scope item is not needed.</p>
Task 2	Additional Net Zero Consultant Services (Begin in feasibility or early SD to complete by 100% DD)
2.1	<p>Load Reduction Analysis- Analyze and provide specific recommendations for load reduction strategies, such as window-to-wall ratios, insulation levels, infiltration, shading strategies, and glazing properties with goals of</p>

	<p>load reduction, optimized daylighting and meeting the EUI target. Strategies should be optimized relative to one another. Assume meetings with the design team to review results.</p> <ul style="list-style-type: none"> • Deliverable: Memo detailing recommended load reduction strategies. • Turnaround Time: In accordance with Customer's Schedule
2.2	<p>HVAC System Selection Analysis- Collaborate with the mechanical system design engineers to provide parametric energy analysis for up to three (3) HVAC system options. Assume meetings with design team to review results.</p> <ul style="list-style-type: none"> ➢ Provide recommendations for the 3 system options and ways to optimize each. ➢ Show expected building EUIs under all HVAC scenarios analyzed. <ul style="list-style-type: none"> • Deliverable: Spreadsheet/analysis/report showing results. • Turnaround Time: In accordance with Customer's Schedule
2.3	<p>Life Cycle Cost Analysis- Provide LCCA for systems under consideration to allow the design teams to make informed decisions at critical milestones of the project. The project team is to provide cost data for the parameters under study. Assume meetings with design team to review results.</p> <ul style="list-style-type: none"> • Deliverable: LCCA spreadsheet/analysis showing results. • Turnaround Time: In accordance with Customer's Schedule
2.4	<p>Plug-Load Inventory & Load Reduction Analysis, and Assessment of Modeling Inputs – Subtasks to be considered: Inventory equipment anticipated for installation in the project in terms of expected wattage and use schedules; use industry research to assess expected energy use, make recommendations for reducing plug loads, make recommendations for modeling assumptions. Assume meetings with design team to review results.</p> <ul style="list-style-type: none"> • Deliverable: Plug load memo /analysis showing results. • Turnaround Time: In accordance with Customer's Schedule

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