

Comprehensive Design Support Technical Sheet

CUSTOM PROGRAM

Comprehensive Design Support offers services and incentives to owners/customers and their building design professionals (architectural and engineering) to work with the program, starting from the conceptual design stage of the new construction, major renovation, or building addition. The program provides guidance from energy efficiency experts with technical assistance in analysis of energy-efficient design options and help in identifying the potential alternative energy efficiency measures/designs to consider. It also provides the customer's design team incentives to support the analysis necessary to assess and evaluate alternative design considerations and incorporate energy conservation measures into the final building design in accordance with the building owner's decisions.

Projects eligible for Comprehensive Design Support include:

- 1. Any new construction or major renovation project of 50,000 conditioned square feet or more, or
- 2. Projects that encompass a minimum of 150 tons of cooling capacity and 75 kW of lighting load.

In addition, the program offers Modified Comprehensive Design Support and Technical Assistance that include:

- 1. Projects that have progressed beyond schematic design and smaller projects going through LEED certification may receive pro-rated incentives under Design Support.
- 2. Smaller projects not attempting LEED certification may receive technical assistance and advice from the program at no cost to the customer.

Comprehensive Design Support incentive rules and processes support participation in the LEED rating system if the customer desires. However, the program's energy baseline will be compatible with the International Energy Conservation Code (IECC) 2018, the most recently adopted Maryland State Building Code, which references ASHRAE 90.1-2016.

The Comprehensive Design Support Application requires that the Owner and Design Team Lead a signed Memorandum of Understanding (MOU). The MOU details participation, incentives, and requirements at each phase of the process.

All projects MUST receive pre-approval before purchasing equipment or beginning work. Please review the program process and eligibility requirements on the program's <u>website</u> as well as the <u>Terms and Conditions</u>. Contact the program office with any questions.

How to Apply:

- 1. The customer must complete and submit the application via the online <u>Application Center</u>. The customer also must obtain pre-approval before proceeding. Additionally, the customer must include the following supporting document:
 - ☑ Completed and signed <u>Terms and Conditions (T&Cs)</u>
 - ☑ Completed and signed Memorandum of Understanding
- 2. The program reviews submitted documentation, revises and/or requests additional documentation as necessary. A site inspection may be required as part of the pre-approval process.
- 3. The program gives the customer and design team lead pre-approval. Upon pre-approval notice, the customer schedules the brainstorming meeting with the program representative(s).
- 4. Upon completion of each phase of the Comprehensive Design Support process, the customer submits the supporting documentation noted in the MOU for the program review and approval. The customer must complete Phases I through III of the process within six (6) months of the pre-approval date.
- 5. The program distributes the incentive check to the payee following final approval processing.

Incentives

Phase I - brainstorming

Brainstorm possibilities to make the building more efficient in the Conceptual Design Phase. Parties in Brainstorming include the building owner, the design team, and the program representative(s). The Brainstorming session includes:

- Review of the design intent and available architectural, electrical, and mechanical plans.
- Determine the party who is responsible for building simulation.
- Discuss building base case design proposed.
- Discuss ASHRAE 90.1-2016 Appendix G baseline model criteria.
- Establish modelling software to be used for building simulation.
- Determine energy efficiency measures that will be evaluated.
- 7. Discuss enhanced commissioning.

Up to \$1,000 based on building conditioned square footage (sq. ft.)

Incentives (continued)

Phase II - simulation analysis

Simulation Analysis is carried out by the design team and will evaluate the proposed building base design and alternative efficiency measures agreed to during the Brainstorming session. Endorsed modeling software includes DOE2.1E, eQUEST (DOE2.2), Trane Trace, Carrier HAP, and EnergyPlus, or a comparable 8,760-hour modeling software acceptable to the program. Choice of measures to be incorporated into the final design shall be made by the building owner and design team, and interactive modeling of the measures will be performed. The final interactive model will be compared to an ASHRAE 90.1-2016 Appendix G baseline model and must result in energy savings over the baseline building model. Bonus on achieving 20% utility cost performance improvement (16% for major renovation projects) will be paid upon completion of Phase III.

1st 50,000 sq. ft. conditioned area - \$0.10 per sq. ft. Additional conditioned area - \$0.03 per sq. ft. Bonus of \$0.02 per sq. ft. conditioned area (capped at \$10,000) if performance improvement is achieved

Phase III - final design

Final design will incorporate the selected energy efficiency measures/designs according to the decisions of the building owner after presentation of the findings and recommendations that result from the building simulation analysis. Once final design documents are complete, applications for incentives must be submitted and preapproved by the program before purchase or installation.

Up to \$8,000, based on building conditioned sq. ft. and measures incorporated in the areas of lighting, HVAC, custom, building envelope, and central plant/chiller

Phase IV - enhanced commissioning

Enhanced Commissioning is carried out by a third-party commissioning agent (CA). At minimum, in relation to systems selected for commissioning, the CA must review construction documents at 50% and 100%, submittals, prepare or review systems manual, verify training, and review operation and performance with building owner 6-10 months after completion

Up to \$8,000, based on building conditioned sq. ft. and the cost of Enhanced Commissioning



Pepco Energy Savings for Business program

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