

## Greenhouse gas impacts and cost effectiveness

PCEF seeks to achieve carbon reduction goals in a way that provides equitable social and economic benefits. To that end, the program needs to account for and evaluate a proposals' climate impact at the application phase. Greenhouse gas (GHG) emission reductions are realized when there is a decrease in use of fossil fuels, sequestration of carbon through plants or other natural process, or reduction in release of other heat-trapping fugitive emissions from industrial, waste, or agricultural practices.

Program staff will calculate a score for GHG impact to ensure consistent methods between applicants. Calculations will be based on applicant inputs and regional models for carbon intensity of emission sources.

Below is a summary of how emissions reduction and sequestration will be assessed for different project types. Project types that do not fit into these categories will be assessed on a case-by-case basis. If you have questions or need clarification please email [cleanenergyfund@portlandoregon.gov](mailto:cleanenergyfund@portlandoregon.gov).

**Clean Energy cost effectiveness:** Clean energy projects are those that include Energy Efficiency or Renewable Energy infrastructure. These projects will be ranked for impact from highest to lowest by estimating GHG reduction and dividing by amount of grant funds requested. The ranked list will be divided into quintiles with the highest quintile receiving full points and the lowest receiving one fifth of possible points.

Energy Efficiency: Applicants are not required to have identified the buildings that will receive energy efficiency improvements. In cases where buildings have been identified and site specific information is known, that information will be used for baseline energy usage. In cases where baseline information is unknown, an average energy use based on the building type(s) will be used. Whole home deep retrofits will be assumed to decrease energy consumption by 30 percent and have a useful life of 20 years. Light energy retrofits will be assumed to decrease energy consumption by 10 percent and have a useful life of 10 years. Industry-standard or manufacturer specifications will inform estimated savings and lifespans for stand-alone and known measures. Carbon embedded in materials will be considered only for new construction. Applicants will provide information requested in the appropriate Energy Efficiency form – [EE Form 1](#) for applicants who have not yet identified the buildings where improvements will occur and [EE Form 2](#) for those that have- and uploaded with the application.

Renewable Energy: For projects seeking to generate renewable energy through use of solar or other renewable technology, industry standards will be assumed for project life. For solar projects this is 30 years. Derating factors and lifespan standards will be taken from National Renewable Energy Lab (NREL) models. Applicants will provide information requested in the application [Renewable Energy Form](#).

**Regenerative Agriculture/Green Infrastructure**: The program will use information about the projects' regenerative agriculture and/or green infrastructure practices, size of site, previous use of site(s), and projected length of time site(s) will be used for regenerative agricultural or green infrastructure purposes. Projects will be awarded points for each of the element listed above and awarded a score using the following calculation:

80% of score (initial score) = (points for practices/activities + points for current use) X points for size of site X points for length of use

PLUS

20% of score = the initial score (above) will be divided by grant funds requested (\$) and this value will be ranked for all projects and divided into quintiles. The top quintile will receive the highest points and the lowest quintile will receive the lowest points.

Applicants will provide information requested in the application [Regenerative Agriculture/Green Infrastructure Form](#).