

# LEED NC: Energy & Atmosphere

Carbon Solutions Group offers LEED architects and facility developers an array of services for earning LEED Energy & Atmosphere points for LEED version NC, CS, CI, and EB. This document outlines the services CSG can provide for your project and which EA Credits can be attained for LEED NC.

[EA Prerequisite 1: Fundamental Commissioning Building Energy Systems](#)

[EA Prerequisite 2: Minimum Energy Performance](#)

Our Energy Efficiency Consultant will develop a comprehensive building operation plan that addresses the heating system, cooling system, humidity control system, lighting system, and safety systems. As a preliminary step to improving the energy efficiency of the facility the consultant will develop a building automation control plan as well.

The consultant will then carry out a commissioning plan that involves verifying that the building's energy related systems are installed, calibrated and perform according to the OPR (Owner's Project Requirements) and BOD (Basis of Design). The consultant will also help design the building to comply with the mandatory and prescriptive requirements of ASHRAE 90.1 2004 in order to establish the minimum level of energy efficiency for the building type. The plans and data produced as a result of the building commissioning will lay the groundwork for later energy efficiency savings.

[EA Prerequisite 3: Fundamental Refrigerant Management](#)

[EA Credit 4: Enhanced Refrigerant Management \(1 Point\)](#)

Our EE consultant will provide the requisite consultation to decide which HVAC systems are needed in order to eliminate CFC's from system operation. Further, the consultant will recommend systems that will support early compliance with the Montreal Protocol in order to eliminate HCFC or halons as well as CFC's.

[EA Credit 1: Optimize Energy Performance \(1–10 Points\)](#)

[EA Credit 3: Enhanced Commissioning \(1 Point\)](#)

[EA Credit 5: Measurement & Verification \(1 Point\)](#)

Our Energy Efficiency Consultant will use the data and processes developed during building commissioning to recommend various measures for improving energy efficiency and lowering building operation costs. These measures will be accompanied by enhanced metering and digital data building automation system to provide for ongoing accountability of building energy consumption over time.

Energy efficiency measures (ECM's) will be recommended so that the building will have the highest percentage of energy savings below the baseline building for the lowest upfront capital costs. Many recommended measures will involve negligible capital costs up front.

### EA Credit 2: On-Site Renewable Energy (1–3 Points)

#### EA Credit 6: Green Power (1 Point)

CSG is an industry leader in delivering renewable energy options at the lowest possible costs. Combinations of percentages of on and off-site renewable energy usage can earn the facility up to four points.

On-Site renewable energy in the form of solar, geothermal, wind, biomass, biogas, or hydrogen fuel cell can provide energy in order to displace traditional grid mix energy. CSG works with suppliers of various types of on-site energy providers to find solutions that fit the specific needs of your facility.

Off-Site renewable energy in the form of Renewable Energy Certificates (REC's) provide the renewable attributes associated with green power. REC's can be provided at a much more competitive cost than from local utilities. Your facility does not need to switch its current utility in order to procure off-site renewable energy for this credit

## Innovation Credits

Carbon Solutions Group works with some of the most sophisticated LEED consultants in the industry and has helped develop innovation points for energy efficiency and carbon related products.

### Innovation Credit: Green Power

For most LEED standards purchasing twice the amount of REC's for the Green Power point or extending a two-year contract into a four-year contract can earn your project an additional point.

### Innovation Credit: Emissions Reductions Reporting

For LEED NC, CS, and CI your project may earn an innovation point by determining the facility carbon footprint and reporting the emissions under a voluntary program standard such as US DOE 1605(b), EPA Climate Leaders, or WWF Climate Savers.

### Innovation Credit: Advanced Energy Automation

CSG works with developers of cutting edge building automation systems that can, in most cases, decrease your facility's energy costs without significant up-front capital costs. This advanced building operation technology may qualify as an innovation credit.

