

About the Athena Impact Estimator for Buildings

Athena Sustainable Materials Institute

Background

In North America, the Athena Impact Estimator for Buildings is the only free software tool that is designed to evaluate whole buildings and assemblies based on internationally recognized cradle-to-grave life cycle assessment (LCA) methodology. The Impact Estimator is the easiest way to meet the LCA options in Green Globes®, LEED®, CALGreen, the International Green Construction Code, and the National Green Building Standard. The Impact Estimator has been available to the design community since 2007 and was developed with our software and engineering partner, [Morrison Hershfield](#).

Using the Impact Estimator, architects, engineers and other construction specifiers can easily assess and compare the environmental implications of new buildings and major renovations.

The Impact Estimator takes into account the environmental impacts of:

- material manufacturing, including resource extraction and recycled content
- related transportation
- on-site construction
- regional variation in energy use, transportation and other factors
- building type and assumed lifespan
- maintenance and replacement effects
- demolition and disposal

The Impact Estimator provides these cradle-to-grave impacts of a building:

- fossil fuel consumption
- global warming potential
- acidification potential
- human health respiratory effects potential
- ozone depletion potential
- photochemical smog potential
- eutrophication potential

This user-friendly tool provides quick results in clear tables and graphs. The Impact Estimator allows users to change the design, substitute materials, and make side-by-side comparisons. It also lets users compare similar projects with different floor areas on a unit floor area basis.

Guided by its commitment to meeting the changing needs of the sustainable building community and providing the best available data, the Athena Institute releases software updates semi-annually.