



## Accounting for embodied energy

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One of the most challenging aspects of evaluating SustainAbility initiatives is to determine precisely both the total lifecycle energy cost and the derived ROI.

The challenge stems from the multitude of variables unique to each individual building or organization. As we become more sophisticated in developing the financial models to determine the ROI of green initiatives, factors such as embodied energy come into sharper focus in the development of such models.

### Building Profile

Consider the position expressed by "The Greenest Building.org," which is that the greenest building is the one already built. "Preservation saves energy by taking advantage of the nonrecoverable energy embodied in an existing building and extending the use of it." Their "Embodied Energy Calculator" is expansive, and is divided into 3 sections: Demolition Energy Calculator, Conversion of Embodied Energy into Gasoline Calculator, and a Teardown Calculator. Used in combination with local monetary incentives such as those offered by NYSERDA, these calculators may be helpful in determining the true ROI of SustainAbility initiatives under consideration.

### Product Profile

"Sustainable ABC.com" assesses the energy impact of materials based on the industrial systems which extract/manufacture them. Their "Products Directory" may provide useful information to your data collection efforts.

### Opinions/ New Technologies

"Low-tech Magazine," available online, features interesting posts on embodied energy, many of which relate to solar and battery power as an alternative energy source.

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