



Georgia's Clean Energy Property Tax Credit 2012 Economic Impact Model

On May 14, 2008, Georgia House Bill 670 was signed into law establishing the Georgia Clean Energy Property Tax Credit (CEPTC). HB670 created an income tax credit for a variety of renewable and energy efficiency technologies. The credits are available to taxpayers placing qualified clean energy property in service between July 1, 2008, and December 31, 2014. The program's annual cap was \$2.5 million for 2008 through 2011, and is \$5 million for 2012 through 2014.

In 2011, the Georgia Environmental Finance Authority (GEFA) developed the Georgia Clean Energy Property Tax Credit Impact Model to analyze the energy, environmental and economic impacts associated with the CEPTC. The model utilizes formulas and default values derived from sources such as the National Renewable Energy Laboratory, the U.S. Environmental Protection Agency and the U.S. Energy Information Administration. Depending on the specific technology, certain data is taken into consideration, such as the cost and size of the system installed, the relevant fuel cost rate, and the applicant's previous energy use. The model then calculates information such as energy savings, electricity savings, energy avoided and carbon dioxide emissions avoided.

Included in this report are the 2012 model results for the CEPTC. Data is analyzed annually by the individual clean energy technology types. In 2012, a total of 288 applications were approved (200 residential and 88 non-residential). The clean energy property projects generated \$1,397,628.33 in sales tax revenue from a total investment of \$20,144,605.90. The projects also produced:

- \$607,771.61 in annual energy savings;
- 6,884,548 kilowatt hours (kWh) of annual electricity savings;
- 23,529 million British thermal units (mmBtu) of annual energy savings; and
- 4,718 tons of annual carbon dioxide emissions avoided.

Tax Credit Limits

Clean Energy Technology	Credit Limit (max. 35 percent of cost)	
	Residential	Commercial
Solar energy equipment for domestic water heating	\$2,500 per dwelling unit	\$100,000 per installation
Solar energy equipment for solar electric (PV), other solar thermal electric applications or active space heating	\$10,500 per installation	\$500,000 per installation
Wind	35 percent of the cost	\$500,000 per installation
Biomass gasification and pyrolysis	N/A	\$500,000 per installation
Energy Efficiency Technology		
Energy Conservation Projects (Lighting)	N/A	\$0.60/sq. ft. price cap of \$100,000
Geothermal Heat Pump (GHP) Systems	\$2,000 per installation	\$100,000 per project
Energy Efficient Buildings	N/A	\$1.80/sq. ft. price cap of \$100,000
Wood Residuals	Georgia Forestry Commission determines the value of the tax credits based on a voucher system.	

2012 Tax Credit Applications

Clean Energy Type	Solar Electric*	Solar Hot Water	Lighting**	Geothermal Heat Pump***	Total
Total Applicants	173	42	45	28	288
Residential Applicants	131	41	0	28	200
Non-Residential Applicants	42	1	45	0	88
Sales Tax Generated	\$1,146,233.41	\$22,713.36	\$184,338.80	\$44,342.75	\$1,397,628.33
Investment (system cost)	\$16,500,181.14	\$330,062.00	\$2,662,913.01	\$651,449.75	\$20,144,605.90
Annual Energy Savings	\$565,918.70	\$35,301.64	\$1,480.17	\$5,071.09	\$607,771.61
Annual Electricity Savings (kWh)	6,423,595	400,700	16,801	43,453	6,884,548
Annual Energy Avoided (mmBtu)	21,924	1,368	57	181	23,529
Annual Carbon Dioxide Emissions	4,400	274	12	32	4,718

Several applications were received that did not have sufficient data to calculate the energy savings, electricity savings, energy avoided, and carbon dioxide emissions avoided. For applications with incomplete energy savings information, data for the following categories are included in the above chart: total applicants; residential applicants; nonresidential applicants; sales tax generated; and investment (system cost). A summary of applications with missing data is below:

- * Two of the residential solar electric applications. The total installed system cost was \$3,550 and the sales tax generated was \$248.50.
- ** One of the non-residential lighting applications. The total installed system cost was \$1,205.74 and the sales tax generated was \$84.50.
- ***21 of the 28 residential geothermal heat pump applications. The total installed system cost was \$486,366 and the sales tax generated was \$32,787.

About the Georgia Environmental Finance Authority

The Georgia Environmental Finance Authority (GEFA), headquartered in Atlanta, Ga., is the lead agency for state energy programs; directs the Georgia Land Conservation Program and maintains state-owned fuel storage tanks; and offers financing for reservoir and water supply, water quality, storm water and solid waste infrastructure. Since 1985, GEFA has approved more than \$3 billion in financial commitments to local governments, businesses and nonprofit organizations. For more information, visit www.gefa.org, [Facebook](#) or [Flickr](#).