



Affordable Housing Geothermal Tax Incentives

Energy Tax Savers

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Tax incentives for geothermal projects provide excellent opportunities for the affordable housing sector.

Geothermal is both an alternative energy technology and an energy efficiency measure so it is one of the few projects that will earn both tax credits and Section 179D energy incentives. Section 179D \$1.80 per square foot tax incentive is now a permanent part of tax law which means geothermal now has long-term tax incentives which will be adjusted upward based on an inflation index. Section 179D benefits are available for two building owner categories, namely:

1. Government building geothermal design teams, and;
2. Commercial owners

Our firm has processed tens of millions in geothermal tax incentives and we anticipate processing \$100 million in geothermal tax incentives. Our firm is the largest provider of these services in the country commencing with the enactment of EAct in the year 2006.

EAct 179D for New Construction & Energy Efficiency Retrofits

The now permanent EAct 179D benefit allows a tax deduction of up to \$1.80 per square foot for any building that was newly constructed or has completed interior lighting, HVAC, or building envelope projects. With EAct 179D becoming permanent, any building that completed construction

or retrofit after January 1, 2006 can now take advantage of the benefit on their current tax returns. This means that there is a 15-year window of past energy efficiency project tax incentives, including LED upgrades, HVAC upgrades, and roof/window replacements, that can be monetized currently.

Multi-family buildings are a favored building category for the EAct 179D tax incentive. If a multi-family building installs geothermal heating/cooling systems and pumps for efficient energy, it has a high chance of qualifying for the full \$1.80 per square foot tax benefit. Many companies have completed eligible projects since January 1, 2006 and are unaware of this lucrative tax incentive. Acting now, companies can still take advantage and receive a further tax benefit for their energy-efficient design and investments, potentially freeing up capital for further energy investments.

Affordable Housing

We are experiencing a substantial increase in affordable housing geothermal tax incentive projects, particularly in the government sector. Geothermal enables residents to have very low energy costs and truly provides lifelong low-cost housing. Even in the government affordable housing sector, we are seeing hybrid ownership structures where the geo system is actually owned by a commercial enterprise. Although affordable housing is a

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residential building category, it will qualify for the \$1.80 per square foot commercial tax incentive if it is four stories or above. This is because the tax law uses an ASHRAE building definition where a four-story or greater residential building is considered a commercial building. The following example illustrates the EAct tax geothermal designer incentive for a qualifying 300,000-square-foot government building affordable housing project:

Potential Geothermal Tax Deductions for Affordable Housing

| Total Square Footage | Prescriptive Method | |
|----------------------|---------------------------------|---------------------------------|
| | \$0.30/sq.ft. Minimum Deduction | \$0.60/sq.ft. Maximum Deduction |
| 300,000 | \$ 90,000 | \$ 180,000 |

| Total Square Footage | Whole Building Modeling Method | |
|----------------------|---------------------------------|---------------------------------|
| | \$1.20/sq.ft. Maximum Deduction | \$1.80/sq.ft. Maximum Deduction |
| 300,000 | \$ 360,000 | \$ 540,000 |

| Cost Basis | 10% Credit Rate |
|--------------|-----------------|
| \$ 100,000 | \$ 10,000 |
| \$ 200,000 | \$ 20,000 |
| \$ 500,000 | \$ 50,000 |
| \$ 800,000 | \$ 80,000 |
| \$ 1,000,000 | \$ 100,000 |

Geothermal Building Projects

Zero Place, New Paltz, NY

The Zero Place building is set to become a net-zero, multi-family building containing 46 residential units. Geothermal energy will provide all the building's heating and cooling, which will be driven from 15 wells drilled at about 300 feet deep, connecting to a number of geothermal heat pumps. The building project is one of a kind on this scale as its unique emission-free quality is serving as an educational use case in the benefits of geothermal energy systems.

Beach Green Dunes II, Rockaway Beach, NYC

Beach Green Dunes II is an 8-story, 127 unit building that was finished in 2019. The project is a follow-up to the 7-story, 120-unit Beach Green Dunes I that was completed in 2017. Both projects contain affordable housing mixed-family rental units. Beach Green Dunes I comprised of numerous sustainable energy initiatives including geothermal heating/cooling. However, the phase 2 project is the largest passive housing building in NYC. The building development involved 36 boreholes at 450-foot depth to provide geothermal heating/cooling to the 125,000 square foot building. Both passive building projects are serving as case studies for the prioritization of energy conservation practices.



Beach Green Dunes II [Source: NY-GEO]

Conclusion

Low-cost housing is an underserved need throughout the county. Geothermal enables the qualifying resident to greatly reduce monthly operating costs. The substantial tax savings help support this important social policy.

*Charles Goulding, Attorney/CPA and Ryan Donley are with **Energy Tax Savers, Inc.**, a leading provider of building and energy tax services. We are an interdisciplinary firm with backgrounds specializing in tax law, accounting, engineering, and LEED certification.*

Energy Tax Savers is a recommended tax service provider for leading architecture, engineering, design & build firms, and lighting designers. We represent many of the nation's leading retailers, warehouse owners, aerospace companies, industrial manufacturers, financial service firms and hotels. We have published over 300 articles on a range of energy tax incentives.
