

ELECTRIFY YOUR SAVINGS

Through the Inflation Reduction Act (IRA), there are several levels of incentives available to projects being designed with all-electric solutions or decarbonizing designs. These incentives were created for owners of a wide variety of commercial buildings ranging from education, government, to a host of private buildings. One of the most efficient paths for utilizing electric heating and cooling is an efficient geothermal system.

The incentive type and amount vary by the type of system and components applied and details surrounding specific tax credits, bonus depreciation, and accelerated depreciation should be closely reviewed in consultation with your tax professional.

Investment Tax Credit – reference IRS Form 3468

- Up to 30% topline tax deduction of the project total cost
- Up to 10% bonus tax credit for US material content – Carson Solutions equipment would qualify

Accelerated & Bonus Depreciation – reference IRS Form 4562

- Bonus Depreciation opportunity – 1 year bonus, 80% in 2023, with declining rate for subsequent years
- Modified Accelerated Cost Recovery System (MACRS) – 5 year depreciation scale

Energy Efficient Commercial Building Design – EPC 179D

- Up to \$5 per square foot potential – labor requirements & energy reduction dependent

* Assumes not a tax exempt entity

	Geothermal Heat Pump Design	Chiller / Boiler Design
Building Size	250000 sf	250000 sf
Estimated HVAC Equipment Costs	\$ 7,500,000	\$ 5,275,000
"Connected" HVAC Equipment *	\$ 5,625,000	\$ 5,275,000
Geothermal Well Related Equipment	\$ 1,875,000	\$ -

2023 Depreciation Cost Basis	\$ 6,000,000	\$ 5,275,000
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Top Line Tax Credit due to ITC	30%	
"Connected" HVAC Equipment *	\$ 1,687,500	\$ -
Geothermal Well Related Equipment	\$ 562,500	\$ -
ITC	\$ 2,250,000	\$ -

Possible 10% Domestic Content	10%	
"Connected" HVAC Equipment *	\$ 281,250	\$ -
Geothermal Well Related Equipment	\$ 93,750	\$ -
Assumed 50% Qualified for Domestic Content	\$ 375,000	\$ -

EPC 179D Deduction *		
Up to 5\$/sf - assumed \$1.0/sf	\$ 250,000	\$ -

Total NPV with assumed 30% tax rate	\$ 1,710,715	\$ 478,219
Depreciation Incentive Components	Qualified	Qualified
Including 80% First year Bonus, 2023 only	Y	N
5 Yr MACRS	Y	N
Standard 39 Year Depreciation	Y	Y

Total Value of Incentives	\$ 4,585,715	\$ 478,219
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Potential Life-Cost of Project	\$ 2,914,285	\$ 4,796,781
Potential Percentage of Original Project Cost	39%	91%

CHILLED BEAM + GEOTHERMAL WATER LOOPS = PERFECT MATCH

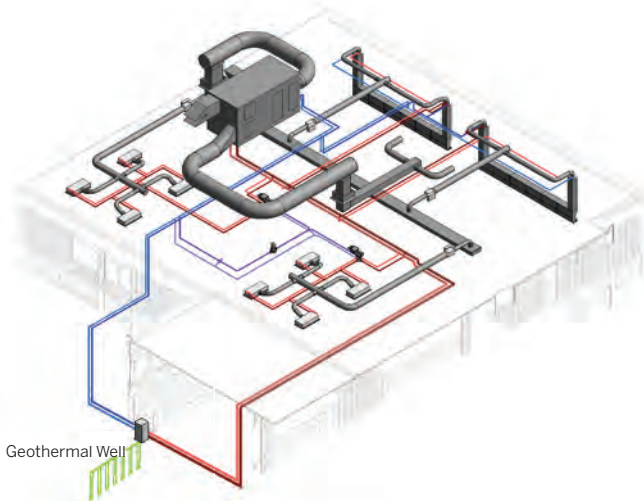


Fig 1: Geothermal water supply ties into chilled beam terminal devices

A natural fit for utilizing ground water for heating and cooling in the spaces is chilled beam terminal devices. The combination of overhead and displacement style chilled beam keeps the mechanical system congruent, and increases the system efficiency as they don't consume fan power energy in the space.

Under the legislation, ALL equipment "connected" to the geothermal water loop may qualify for the ITC, Depreciation, and Energy Efficiency incentives based upon project design and operating specifics.

Chilled beam devices offer system savings, they qualify for immediate tax deductions.

CONTACT YOUR CARSON SOLUTIONS REPRESENTATIVE TO EXPLORE MORE!

This information is presented as a hypothetical illustration only. This information should not be used as a substitute for consultation with a professional accounting, tax, legal, or other advising resources.