



Funding Sustainability:

The Inflation Reduction Act *Demystified*

Presented by



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A nationwide and Michigan firm

Our Michigan presence

- 114 team members
- 11 partners
- Named "Metro Detroit Best and Brightest Company to Work For" for the 8th consecutive year

-Municipal advisory services

-Investment advisory services

-Tax compliance services

Inflation Reduction Act ("IRA")
179D Tax Deductions

-Energy consulting services division



10th

largest accounting firm
in the U.S.



6,500+

team members



550

partners



2,000+

Certified Public
Accountants



\$1.3B

firm revenue in fiscal
year 2021



74+

office locations across
the U.S.



250+

Workplace and culture
awards

The Right Match for All Your Geothermal Needs

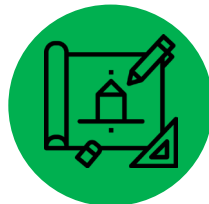
- **Unrivaled Experience:** a proven track record spanning over 25 years and 160 successful geothermal projects
- **Expansive Network** of Geo Industry Professionals
- **Trusted Certifications:** a team comprised of skilled Professional Engineers, and Certified Geothermal Designers, Installers, and Inspectors

Our experienced team is fully equipped to deliver comprehensive services throughout every phase of your project



FEASIBILITY

Studies • FTC Testing • Life Cycle Cost Analysis • Conceptual Site Plan • Economic Analysis



DESIGN

MEP & Geo Engineering • Geo Consulting • Energy Modeling • Ground Source Heat Exchanger Design



CONSTRUCTION

MEP & Geo Commissioning • Site Observation • Quality Control • Pressure Testing • System Flushing/Purging



FORENSICS

Field Testing • Peer Review • Retro-Commissioning • Systems Simulations



POST-OCCUPANCY

Monitoring • Reporting • Monitor-Based & Continuous Commissioning

Inflation Reduction Act

Referred to as “Act” or IRA/IRA 2022



Aug. 16, 2022
signed into law



728
pages



\$738 billion
in funding

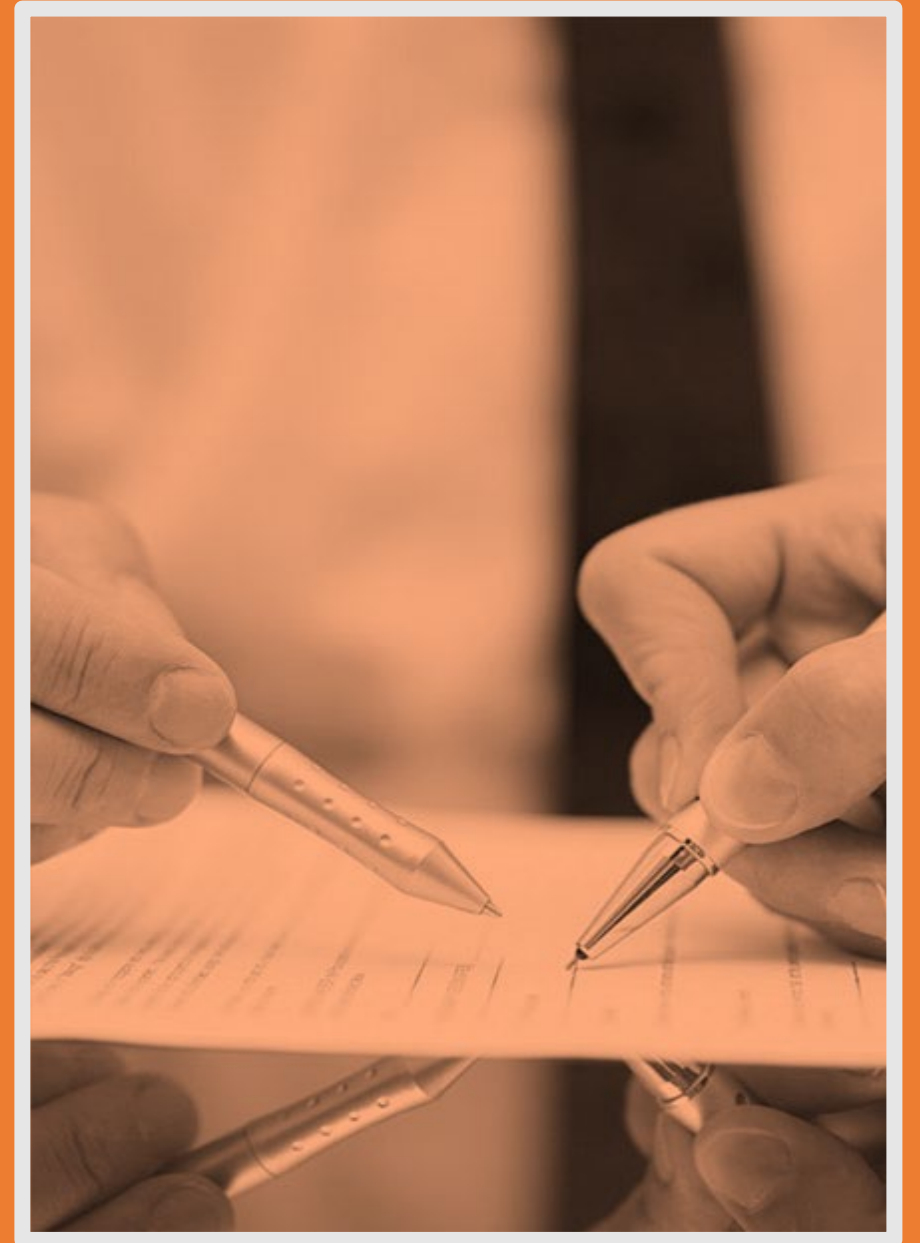


\$499 billion
in new spending
and tax cuts

Per the Congressional Budget Office – September 7, 2022

“Direct pay” tax credits

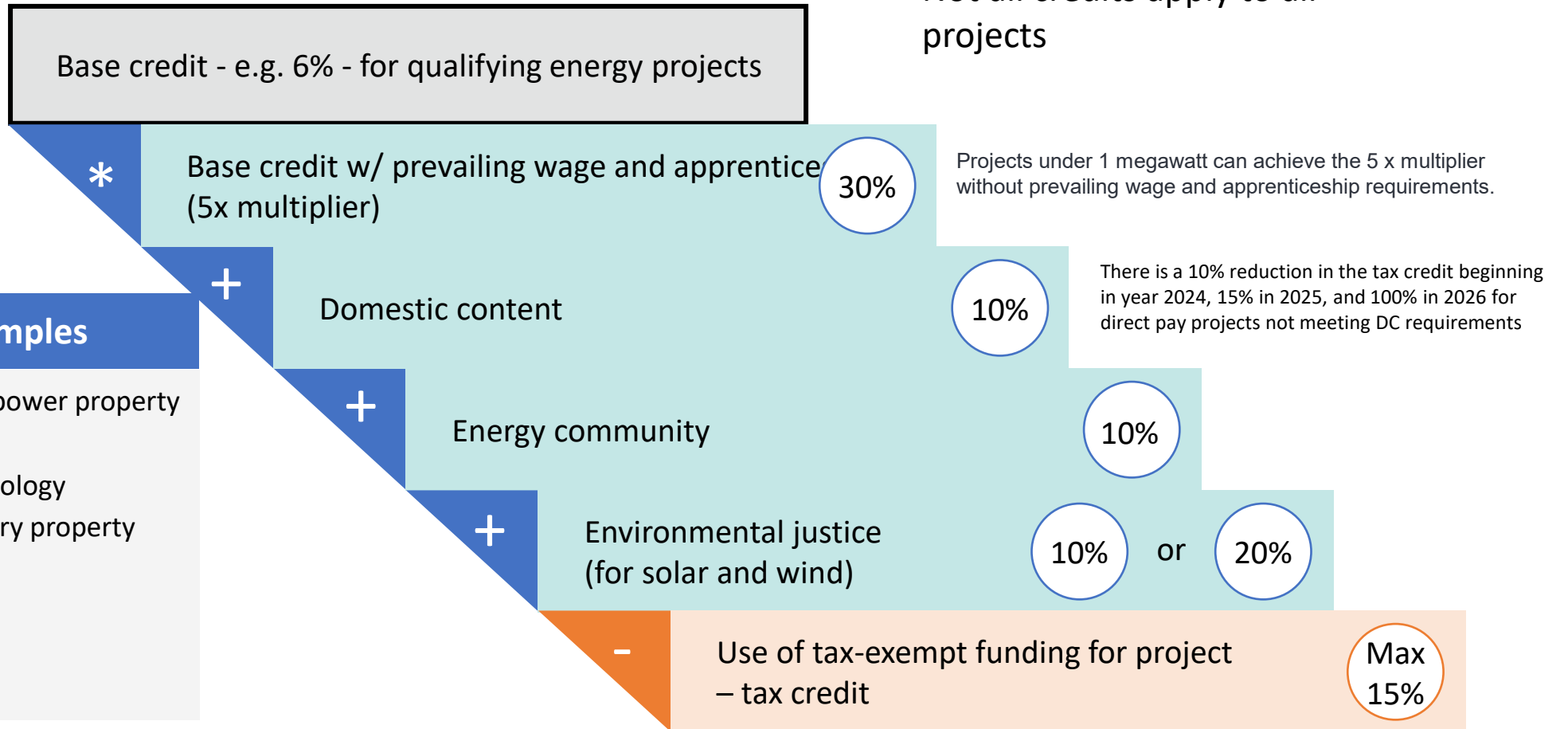
- For the first time, a segment of public sector energy project owners will have access to “direct pay” tax credits
 - Owner(s) can simply use the tax credit against their own tax liability
 - If the owner(s) don’t have tax liability or taxable income, they can now sell/transfer the credit to another taxpayer
- Public sector owners can receive a “direct payment” as a cash payment from the IRS.



Direct pay tax credits

“Base credit” + “Bonus criteria” is the overriding theme of the new credit regime

- Not all credits apply to all projects



Eligible project examples

- Combined heat and power property
- Solar and wind
- Energy storage technology
- Waste energy recovery property
- Geothermal energy
- Biogas property

IRA tax credit project funding illustration



Solar

Project cost:	\$1,000,000
30% tax credit	<u>30%</u>
Dollar amount	<u>\$300,000</u>

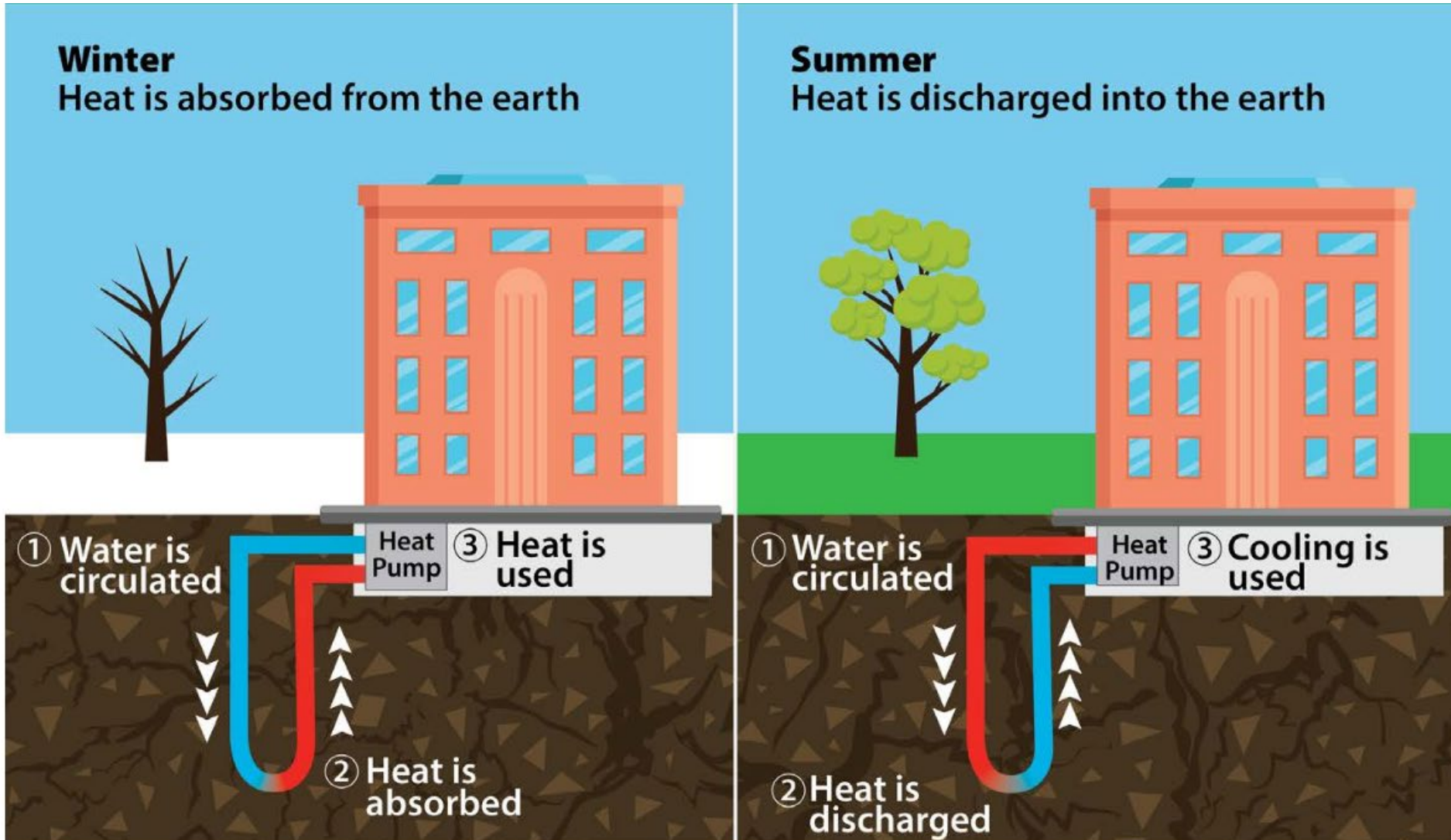
Geothermal

Project cost:	\$5,000,000
30% tax credit	<u>30%</u>
Dollar amount	<u>\$1,500,000</u>

Thermal Energy Storage Tanks

Project cost:	\$1,600,000
30% tax credit	<u>30%</u>
Dollar amount	<u>\$480,000</u>

How Geothermal HVAC Works:



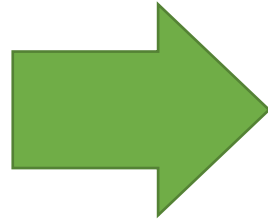
Geothermal Versus Conventional



DX Condensing Unit



Air Cooled Chiller



Steam Boiler



Hydronic Boiler



Geothermal Versus Conventional

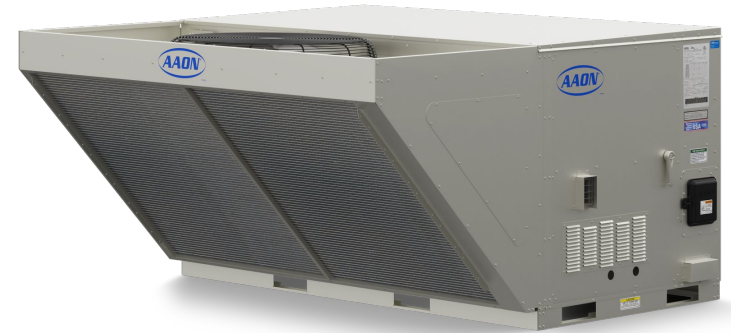


**Unit Ventilator with
DX Cooling with
Hydronic Heating**



**Unit Ventilator with
Water Source Heat
Pump**

**RTU with DX
Cooling and
Hydronic or Gas
Heating**

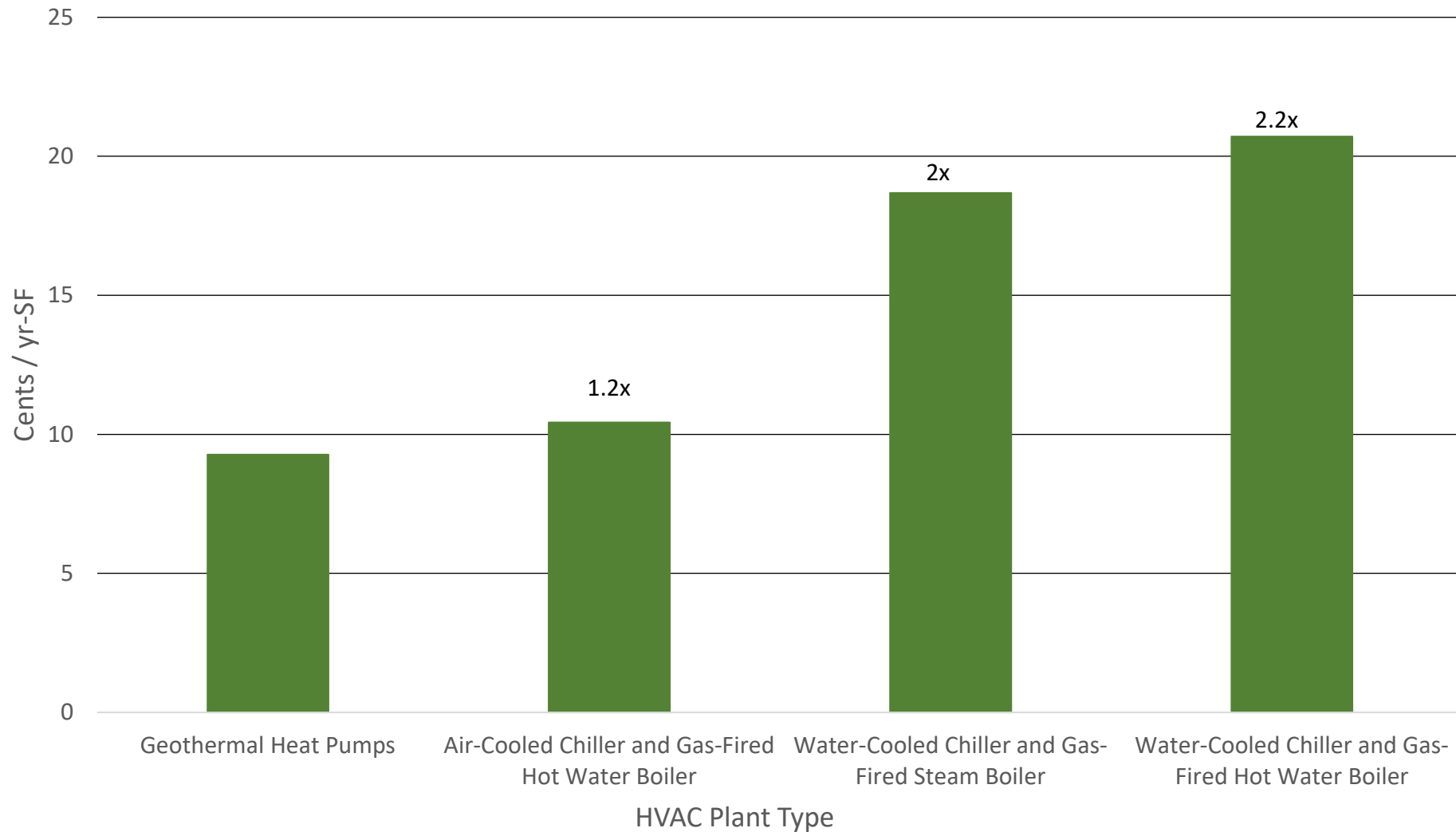


**RTU with Water
Source Heat Pump**



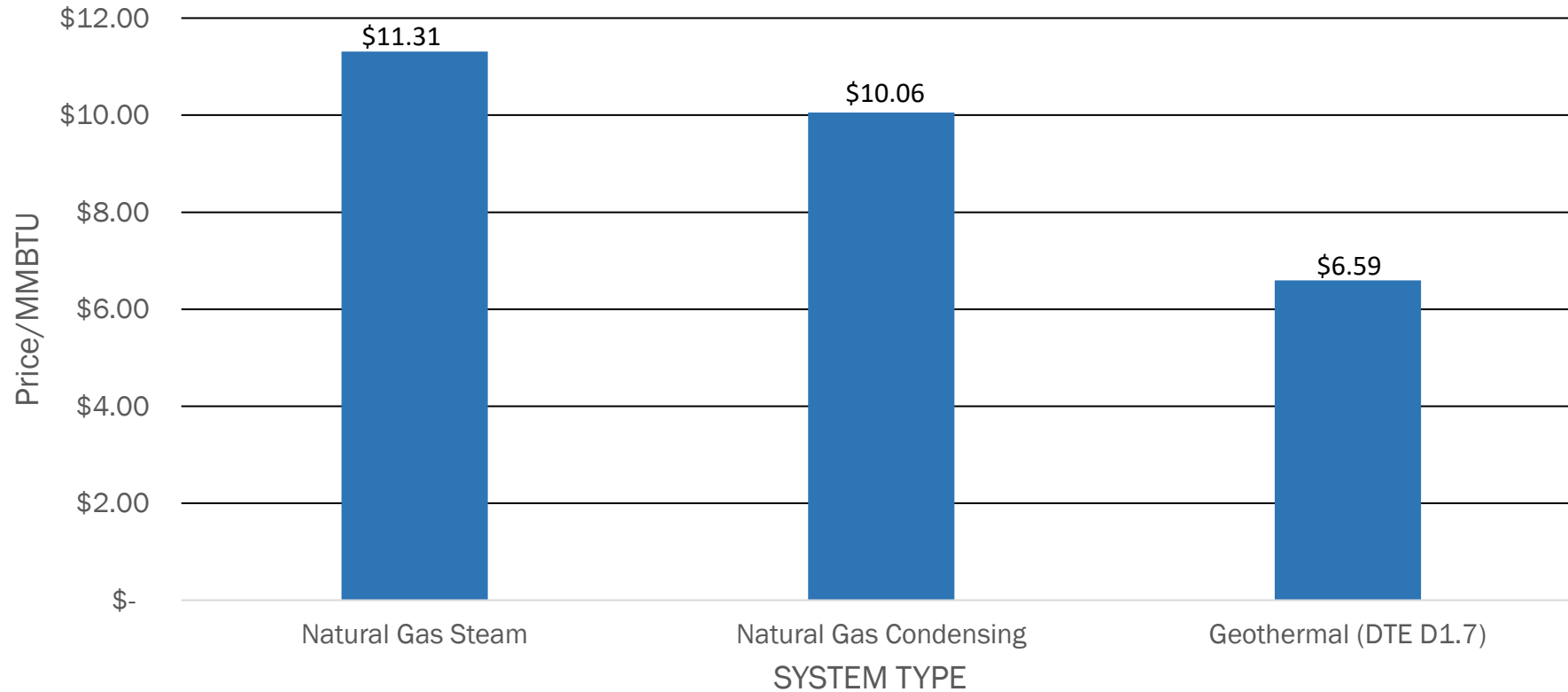
Benefits

Total Maintenance Costs / Year-Cooling-SF



Benefits

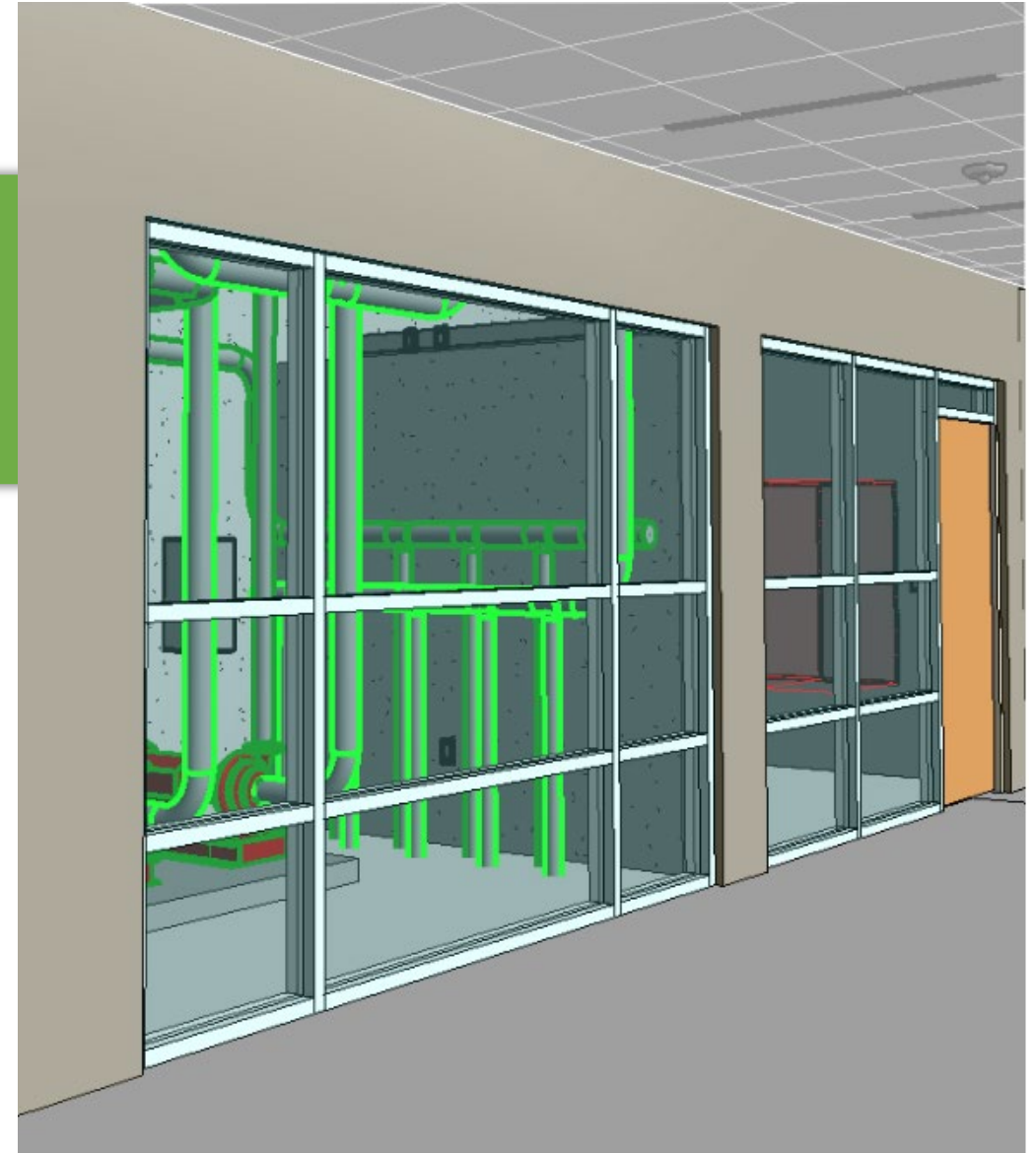
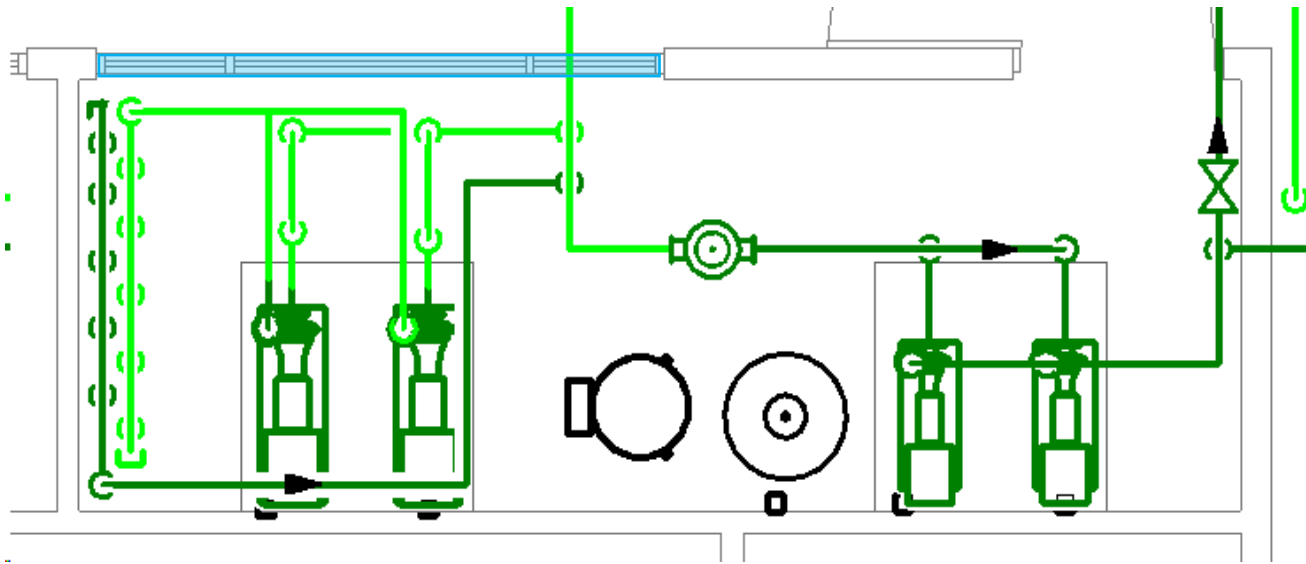
FUEL COST COMPARISON PER MMBTU USEABLE HEAT



System Type	Units	Unit Price	BTU/Unit	Efficiency / COP	Price/MMBTU
Electric Resistance	Kwh	\$ 0.15	3,413	100%	\$ 43.95
Natural Gas Steam	Therm	\$ 0.91	100,000	80%	\$ 11.31
Natural Gas Condensing	Therm	\$ 0.91	100,000	90%	\$ 10.06
Geothermal (DTE D1.7)	Kwh	\$ 0.09	3,413	4.0	\$ 6.59

Educational Opportunities

Placing the geothermal manifold and pumping system behind glass allows students to better learn about the system serving their school.



GEOHERMAL SYSTEMS

Economics

Geothermal HVAC System		Conventional HVAC System
130,000	Building Size (sq-ft)	130,000
\$73	HVAC Cost (\$/sq-ft)	\$55
\$9,490,000	HVAC Cost	\$7,150,000
\$2,340,000	Geo Premium Cost	--
34%	IRA Direct Pay Credit	--
\$3,226,600	IRA Direct Pay Credit	--
\$6,263,400	Net Cost	\$7,150,000
--	Net Premium Cost	\$886,600

Process and overview

Phase 1

Estimates and options

In the beginning stage, government officials work with construction and tax consultants to evaluate the project eligibility and estimated dollars available through the IRA.

- Construction professionals provide key information regarding construction costs, timing and differences in future operating expenses upon project completion.
- Tax consultants review the design, timing, size, location, financing and other considerations to estimate the potential IRA dollars available. With key construction and tax information, school district officials can evaluate the advantages and disadvantages of the energy project along with different routes on how to proceed.
- Remember that direct pay tax credit dollars are not received until after project completion. Part of the planning process includes identifying funding and how IRA tax credit dollars will be utilized once received after project completion.

Phase 2

Planning, bidding, and construction

Once a project begins, collaboration between the working group is imperative. Many government projects include eligible and non-eligible IRA costs.

- A planning meeting should occur between the construction team and tax consultant regarding the best way to bid the projects in conformity with IRA tax rules.
- In addition, if the project is over 1 megawatt and will be subject to the IRA prevailing wage and apprenticeship requirements, project bid documents must include the appropriate language and a system must be identified to track payroll and apprenticeship requirements during construction.
- Errors in any of these areas can result in a bad start that potentially jeopardizes IRA tax credit dollars.

Phase 3

Workpapers and tax credit filing

Several steps occur once the project is nearing and achieving completion.

- Projects approaching completion need to be filed in the IRS pre-registration portal.
- Next, workpapers including invoice copies identifying IRA eligible and non-eligible costs need to be organized for documentation.
- Reports presenting the IRA eligible project size and applicable tax credit percentage are needed. For projects subject to prevailing wage and apprenticeship rules, payroll records along with apprenticeship ratio documentation need substantiation.
- Once the project is complete and all workpapers organized, final filing and registration with the IRS is initiated to receive the funds. These steps coincide with the school district’s fiscal year.

When hiring an “IRA consultant” make sure you are hiring a tax consultant. The consultant should take responsibility for the advice being given, have IRS tax credit filing experience, assist with workpapers and IRS filings, and will support you in the event of IRS audit of tax credit.

Disclosure

The information provided here is of a general nature and is not intended to address the specific circumstances of any individual or entity. In specific circumstances, the services of a professional should be sought.

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Questions?

Anything you would like further clarification on?



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