

GEOHERMAL HEAT PUMP DECISION TREE

The Inflation Reduction Act (IRA) provides payments to public entities for installing geothermal, or ground-source, heat pumps.

Eligible projects receive a base payment of 30% of the total project cost and could be eligible for two bonus payments—an additional 10% for domestically manufactured heat pumps and an additional 10% for being installed in a designated “energy community”—for up to 50% of the total project cost.

A geothermal feasibility study is prepared by the project developer and provides the information necessary to determine the technical and financial viability of a geothermal heat pump project.

WHEN SHOULD DPS INSTALL GEOHERMAL HEAT PUMPS?

Is the building receiving full A/C?

YES
Obtain ROM* cost for geothermal

NO
Scope too small to explore geothermal

*ROM: Rough Order of Magnitude

Is ROM around 40% premium or lower?

YES
Conduct geothermal feasibility study

NO
Select Climate Conscious A/C where applicable or Standard A/C

Is geothermal feasible?

YES
Design and price geothermal

NO
Select Climate Conscious A/C where applicable or Standard A/C

Is cost within 40% premium?*

*or 50% for Johnson and Gust because they are in an “energy community”

YES

NO
Select Climate Conscious A/C where applicable or Standard A/C

Will the project meet the IRA’s domestic bonus?

YES
SELECT GEOHERMAL HEAT PUMPS

NO

Is cost within 30% premium?*

*or 40% for Johnson and Gust because they are in an “energy community”

YES
SELECT GEOHERMAL HEAT PUMPS

NO
Select Climate Conscious A/C where applicable or Standard A/C

Climate Conscious A/C

DPS has also proposed using air-source heat pumps, which typically have a lower construction cost than ground-source heat pumps but do not qualify for the IRA payment.

Air-source heat pumps either reject heat to the air in cooling mode or absorb heat from the air in heating mode.

Geothermal heat pumps either reject heat to the ground or absorb heat from the ground and are more efficient than air-source in extreme temperatures.