

U.S. Department of Energy
Energy Information Administration

Form EIA-902
ANNUAL GEOTHERMAL HEAT PUMP MANUFACTURERS SURVEY

This report is **mandatory** under the Federal Energy Administration Act of 1974 (Public Law 93-275). Failure to comply may result in criminal fines, civil penalties and other sanctions as provided by law. For further information concerning sanctions and data protections, see the sanction provision and the provisions concerning the confidentiality of information in the Instructions. **Title 18 USC 1001 makes it a criminal offense for any person knowingly and willingly to make to any Agency or Department of the United States any false, fictitious, or fraudulent statements as to any matter within its jurisdiction.**

THE REPORTING PERIOD FOR THIS SURVEY IS THE CALENDAR YEAR _____

For glossary and instructions, please refer to the instructions for this form.

1.0 IDENTIFICATION DATA

1.1 Respondent Identification: <Company Name> <Company ID>
Current Address of Principal Business Office Current Address of Preparer's Office (If different than principal address)
(a) Street Address: _____ (a) Street Address: _____
(b) City: _____ (b) City: _____
(c) State/U.S. territory or possession: _____ (c) State/U.S. territory or possession: _____
(d) Zip Code: _____ (d) Zip Code: _____

1.2 Provide the name, title, and contact information for the principal people in your company to whom questions should be addressed regarding this submission.
(a) Preparer's Supervisor Name: _____ (a) Preparer's Name: _____
(b) Title: _____ (b) Title: _____
(c) Telephone: _____ (c) Telephone: _____
(d) Fax: _____ (d) Fax: _____
(e) E-mail: _____ (e) E-mail: _____

2.0 MANUFACTURING STATUS

2.1 During the current reporting period, did your company: (Mark as appropriate)
(a) Manufacture and ship geothermal heat pumps? Yes No
(b) Cease manufacturing but continue to ship geothermal heat pumps? Yes No
(c) Import and ship geothermal heat pumps? Yes No
(d) Manufacture and export geothermal heat pumps? Yes No

Note: If you answered "Yes" to any part of question 2.1, please complete the remainder of this form. If you answered "No" to all parts of question 2.1, please complete questions 2.2 & 7.0 and submit this form electronically using EIA's secure Internet Data Collection (IDC) system.

2.2 If you answered "No" to all parts of question 2.1, do you plan to manufacture, import, export, or ship geothermal heat pumps in the future?
If yes, when? _____ (year) Yes No

3.0 MANUFACTURER AND MARKETING DATA

3.1 Mark the appropriate box or boxes to indicate all the geothermal heat pump-related activities in which your company was engaged during the survey year. Mark only those that apply to your geothermal heat pump-related activities.

- (a) Geothermal heat pump manufacturing
- (b) Geothermal heat pump or system design
- (c) Prototype geothermal heat pump development
- (d) Prototype systems development
- (e) Wholesale distribution
- (f) Retail distribution
- (g) Installation
- (h) Manufacture of system components-other than those used for geothermal heat pump assembly
- (i) Other (describe): _____

3.2 If you are planning to introduce a new geothermal heat pump-related product in the next calendar year, please check the appropriate box.

- (a) ARI-320 Water-Source Heat Pumps
- (b) ARI-325 Ground Water-Source Heat Pumps
- (c) ARI-330 Ground Source Closed-Loop Heat Pumps
- (d) ARI-870 Direct Geoexchange Heat Pumps
- (e) Other - describe _____
- (f) Non-geothermal Heat Pump System Components- describe _____

3.3 Please enter the number of person-years expended in your company in geothermal heat pump-related activities during the survey year.
_____ person-years (For clarification of "person-year" see the instructions.)

3.4 What percentage of your company's total sales revenue do geothermal heat pump-related activities compose?

- (a) 90 - 100%
- (b) 50 - 89%
- (c) 10 - 49%
- (d) Less than 10%

Company Name:

Reporting Period (Calendar Year)

| 4.0 GEOTHERMAL HEAT PUMP SHIPMENT DATA. For each type of geothermal heat pump manufactured or imported, and shipped, enter the data for this reporting period. | | | | | | |
|--|--------------------------------|-----------------------------------|-----------------|-------------|---------------------------|--|
| ITEM | TYPE OF HEAT PUMP | | | | | TOTAL Geothermal Heat Pumps (f) Total = (b) + (c) + (d) + (e) |
| | ISO-13256-1 ¹ | | | | | |
| | ARI-320 Total ² (a) | ARI-320 GHP Only ³ (b) | ARI-325/330 (c) | ARI-870 (d) | Other (Non-ARI Rated) (e) | |
| 4.1 Number of Heat Pumps | | | | | | |
| 4.2 Total GHP Shipments (total rated capacity in tons) | | | | | | |
| 4.3 Total Value of GHP Shipments (dollars) | | | | | | |
| 4.4 Average Cooling (EER) | | | | | | |
| 4.5 Average Heating (COP) | | | | | | |
| 4.6 Domestic Shipments by Sector (total rated capacity in tons) | | | | | | |
| (1) Residential | | | | | | |
| (2) Commercial | | | | | | |
| (3) Industrial | | | | | | |
| (4) Electric Power | | | | | | |
| (5) Transportation | | | | | | |
| (6) Total domestic shipments by sector ⁴ | | | | | | |
| 4.7 Domestic Shipments by End Use (total rated capacity in tons) | | | | | | |
| (1) Hot Water | | | | | | |
| (2) Ice Melt | | | | | | |
| (3) Pool Heating | | | | | | |
| (4) Process Hot and Cool Water | | | | | | |
| (5) Space Heating and Cooling | | | | | | |
| (6) Triple Function: Heating, Cooling, and Hot Water | | | | | | |
| (7) Total domestic shipments by end use ⁴ | | | | | | |
| 4.8 Imports (total rated capacity in tons) | | | | | | |
| 4.9 Exports (total rated capacity in tons) | | | | | | |

¹ARI/ISO Standard 13256-1 Certification Program, which replaced ARI Standard-320, 325, and 330.

²Do not include total number of ARI-320 in total GHP in item 4.1 (e).

³In this column, only report ARI-320 units connected to ground, ground water, or surface water connection for heat exchange. Do not include units connected to a boiler and/or cooling tower.

⁴Domestic shipments equal to total GHP shipments in item 4.2 minus exports in item 4.9.

4.12 Domestic Shipments by Customer Type (total rated capacity in tons).

Tons
(Domestic Shipments)

| | |
|----------------------------|--|
| (a) Exporters | |
| (b) Wholesale Distributors | |
| (c) Retail Distributors | |
| (d) Installers | |
| (e) End - Users | |
| TOTAL | |

5.0 SYSTEMS DATA

5.1 Of the geothermal heat pump shipments reported in 4.2 (f), how many complete systems were shipped _____ (number of systems)?

5.2 Of the geothermal heat pump shipments reported in 4.2 (f) enter the total rated capacity that were sold as part of complete systems _____ (tons)?

5.3 What was the value of complete systems shipped in question 5.1 _____ (dollars)?

6.0 GEOGRAPHIC DATA

6.1 Please check the box for each State/U.S. territory or possession in which you manufactured/imported. Report the total geothermal heat pumps shipments (total rated capacity in tons) in item 4.2 (f) that your company manufactured in the State/U.S. territory or possession listed below under Code 01-78, this indicates manufacture from the State/U.S. territory or possession. If some geothermal heat pumps were imported from another country, please indicate under Code 00 the total rated capacity and report details about the country of import in question 4.10.

| Geothermal Heat Pumps Imported State Code or Manufactured in the State (Tons) | Geothermal Heat Pumps Imported State Code or Manufactured in the State (Tons) | Geothermal Heat Pumps Imported State Code or Manufactured in the State (Tons) |
|--|--|--|
| 00 <input type="checkbox"/> Imported _____ | 22 <input type="checkbox"/> Louisiana _____ | 41 <input type="checkbox"/> Oregon _____ |
| 01 <input type="checkbox"/> Alabama _____ | 23 <input type="checkbox"/> Maine _____ | 42 <input type="checkbox"/> Pennsylvania _____ |
| 02 <input type="checkbox"/> Alaska _____ | 24 <input type="checkbox"/> Maryland _____ | 44 <input type="checkbox"/> Rhode Island _____ |
| 04 <input type="checkbox"/> Arizona _____ | 25 <input type="checkbox"/> Massachusetts _____ | 45 <input type="checkbox"/> South Carolina _____ |
| 05 <input type="checkbox"/> Arkansas _____ | 26 <input type="checkbox"/> Michigan _____ | 46 <input type="checkbox"/> South Dakota _____ |
| 06 <input type="checkbox"/> California _____ | 27 <input type="checkbox"/> Minnesota _____ | 47 <input type="checkbox"/> Tennessee _____ |
| 08 <input type="checkbox"/> Colorado _____ | 28 <input type="checkbox"/> Mississippi _____ | 48 <input type="checkbox"/> Texas _____ |
| 09 <input type="checkbox"/> Connecticut _____ | 29 <input type="checkbox"/> Missouri _____ | 49 <input type="checkbox"/> Utah _____ |
| 10 <input type="checkbox"/> Delaware _____ | 30 <input type="checkbox"/> Montana _____ | 50 <input type="checkbox"/> Vermont _____ |
| 11 <input type="checkbox"/> D.C. _____ | 31 <input type="checkbox"/> Nebraska _____ | 51 <input type="checkbox"/> Virginia _____ |
| 12 <input type="checkbox"/> Florida _____ | 32 <input type="checkbox"/> Nevada _____ | 53 <input type="checkbox"/> Washington _____ |
| 13 <input type="checkbox"/> Georgia _____ | 33 <input type="checkbox"/> New Hampshire _____ | 54 <input type="checkbox"/> West Virginia _____ |
| 15 <input type="checkbox"/> Hawaii _____ | 34 <input type="checkbox"/> New Jersey _____ | 55 <input type="checkbox"/> Wisconsin _____ |
| 16 <input type="checkbox"/> Idaho _____ | 35 <input type="checkbox"/> New Mexico _____ | 56 <input type="checkbox"/> Wyoming _____ |
| 17 <input type="checkbox"/> Illinois _____ | 36 <input type="checkbox"/> New York _____ | 60 <input type="checkbox"/> American Samoa _____ |
| 18 <input type="checkbox"/> Indiana _____ | 37 <input type="checkbox"/> North Carolina _____ | 66 <input type="checkbox"/> Guam _____ |
| 19 <input type="checkbox"/> Iowa _____ | 38 <input type="checkbox"/> North Dakota _____ | 72 <input type="checkbox"/> Puerto Rico _____ |
| 20 <input type="checkbox"/> Kansas _____ | 39 <input type="checkbox"/> Ohio _____ | 78 <input type="checkbox"/> Virgin Islands (U.S.) _____ |
| 21 <input type="checkbox"/> Kentucky _____ | 40 <input type="checkbox"/> Oklahoma _____ | <input type="checkbox"/> Other U.S. territory or possession (Specify) _____ |

Total _____

6.2 Please check the box for each State/U.S. territory or possession to which you shipped/exported. Report the total geothermal heat pumps shipments (total rated capacity in tons) in item 4.2 (f) that your company shipped to the State/U.S. territory or possession listed below under Code 01-78, this indicates shipments to the State/U.S. territory or possession. If some geothermal heat pumps were exported to another country, please indicate under Code 00 the total rated capacity and report details about the country of export in question 4.11.

| State Code | Geothermal Heat Pumps Exported or Shipped to a State (Tons) | State Code | Geothermal Heat Pumps Exported or Shipped to a State (Tons) | State Code | Geothermal Heat Pumps Exported or Shipped to a State (Tons) |
|--------------------|--|---------------|--|---------------|--|
| 00 | <input type="checkbox"/> Exported _____ | 22 | <input type="checkbox"/> Louisiana _____ | 41 | <input type="checkbox"/> Oregon _____ |
| 01 | <input type="checkbox"/> Alabama _____ | 23 | <input type="checkbox"/> Maine _____ | 42 | <input type="checkbox"/> Pennsylvania _____ |
| 02 | <input type="checkbox"/> Alaska _____ | 24 | <input type="checkbox"/> Maryland _____ | 44 | <input type="checkbox"/> Rhode Island _____ |
| 04 | <input type="checkbox"/> Arizona _____ | 25 | <input type="checkbox"/> Massachusetts _____ | 45 | <input type="checkbox"/> South Carolina _____ |
| 05 | <input type="checkbox"/> Arkansas _____ | 26 | <input type="checkbox"/> Michigan _____ | 46 | <input type="checkbox"/> South Dakota _____ |
| 06 | <input type="checkbox"/> California _____ | 27 | <input type="checkbox"/> Minnesota _____ | 47 | <input type="checkbox"/> Tennessee _____ |
| 08 | <input type="checkbox"/> Colorado _____ | 28 | <input type="checkbox"/> Mississippi _____ | 48 | <input type="checkbox"/> Texas _____ |
| 09 | <input type="checkbox"/> Connecticut _____ | 29 | <input type="checkbox"/> Missouri _____ | 49 | <input type="checkbox"/> Utah _____ |
| 10 | <input type="checkbox"/> Delaware _____ | 30 | <input type="checkbox"/> Montana _____ | 50 | <input type="checkbox"/> Vermont _____ |
| 11 | <input type="checkbox"/> D.C. _____ | 31 | <input type="checkbox"/> Nebraska _____ | 51 | <input type="checkbox"/> Virginia _____ |
| 12 | <input type="checkbox"/> Florida _____ | 32 | <input type="checkbox"/> Nevada _____ | 53 | <input type="checkbox"/> Washington _____ |
| 13 | <input type="checkbox"/> Georgia _____ | 33 | <input type="checkbox"/> New Hampshire _____ | 54 | <input type="checkbox"/> West Virginia _____ |
| 15 | <input type="checkbox"/> Hawaii _____ | 34 | <input type="checkbox"/> New Jersey _____ | 55 | <input type="checkbox"/> Wisconsin _____ |
| 16 | <input type="checkbox"/> Idaho _____ | 35 | <input type="checkbox"/> New Mexico _____ | 56 | <input type="checkbox"/> Wyoming _____ |
| 17 | <input type="checkbox"/> Illinois _____ | 36 | <input type="checkbox"/> New York _____ | 60 | <input type="checkbox"/> American Samoa _____ |
| 18 | <input type="checkbox"/> Indiana _____ | 37 | <input type="checkbox"/> North Carolina _____ | 66 | <input type="checkbox"/> Guam _____ |
| 19 | <input type="checkbox"/> Iowa _____ | 38 | <input type="checkbox"/> North Dakota _____ | 72 | <input type="checkbox"/> Puerto Rico _____ |
| 20 | <input type="checkbox"/> Kansas _____ | 39 | <input type="checkbox"/> Ohio _____ | 78 | <input type="checkbox"/> Virgin Islands (U.S.) _____ |
| 21 | <input type="checkbox"/> Kentucky _____ | 40 | <input type="checkbox"/> Oklahoma _____ | | <input type="checkbox"/> Other U.S. territory or possession (Specify) _____ |
| Total _____ | | | | | |

7.0 **COMMENTS** – Enter comments in the space provided.