

# Natural Gas Compressor Stations



## Tags

homeland security, homeland defense, emergency response, energy, Natural Gas Compressor Station, Natural Gas Pipeline, name, address, type, status, facility characteristics, Continental United States, USA

## Summary

This feature class/shapefile contains Natural Gas Compressor Stations for the Homeland Infrastructure Foundation-Level (HIFLD) Database (<https://hifld-dhs-gii.gov/HIFLD>) as well as the Energy modeling and simulation community.

## Description

This feature class/shapefile represents Natural Gas Compressor Stations. Natural Gas Compressor Stations support the transportation flow of natural gas in pipelines from one location to another by maintaining pressure in the pipeline to provide energy to move the natural gas. Geographical coverage includes the Continental United States. The updates for this release include corrections to the definitions for the EXP\_POWER and ELEC\_COMPR attributes.

## Credits

Oak Ridge National Laboratory (ORNL) Geographic Information Science and Technology (GIST) Group, Argonne National Laboratory (ANL), Global Security Sciences Division, National Geospatial-Intelligence Agency (NGA) Homeland Security Infrastructure Program (HSIP) Team

## Use limitations

None (Public Use). Users are advised to read the data set's metadata thoroughly to understand appropriate use and data limitations.

## Extent

<b>West</b>	-123.394631	<b>East</b>	-67.453016
<b>North</b>	49.001000	<b>South</b>	25.831466

## Scale Range

<b>Maximum (zoomed in)</b>	1:5,000
<b>Minimum (zoomed out)</b>	1:150,000,000

# ArcGIS Metadata

## Topics and Keywords

- \* CONTENT TYPE Downloadable Data

## Citation

TITLE Natural Gas Compressor Stations

PRESENTATION FORMATS \* digital map

## Resource Details

DATASET LANGUAGES \* English (UNITED STATES)

SPATIAL REPRESENTATION TYPE \* vector

\* PROCESSING ENVIRONMENT Version 6.2 (Build 9200) ; Esri ArcGIS 10.6.1.9270

### CREDITS

Oak Ridge National Laboratory (ORNL) Geographic Information Science and Technology (GIST) Group, Argonne National Laboratory (ANL), Global Security Sciences Division, National Geospatial-Intelligence Agency (NGA) Homeland Security Infrastructure Program (HSIP) Team

### ARCGIS ITEM PROPERTIES

- \* NAME station\_ng\_compressor\_hifld
- \* ACCESS PROTOCOL Local Area Network

## Extents

### EXTENT

#### GEOGRAPHIC EXTENT

##### BOUNDING RECTANGLE

EXTENT TYPE Extent used for searching

\* WEST LONGITUDE -123.394631

\* EAST LONGITUDE -67.453016

\* NORTH LATITUDE 49.001000

\* SOUTH LATITUDE 25.831466

\* EXTENT CONTAINS THE RESOURCE Yes

### EXTENT IN THE ITEM'S COORDINATE SYSTEM

\* WEST LONGITUDE -13736227.516700

\* EAST LONGITUDE -7508835.393600

\* SOUTH LATITUDE 2978222.276200

\* NORTH LATITUDE 6275031.074800

\* EXTENT CONTAINS THE RESOURCE Yes

## Resource Constraints

### CONSTRAINTS

#### LIMITATIONS OF USE

None (Public Use). Users are advised to read the data set's metadata thoroughly to understand appropriate use and data limitations.

## Spatial Reference

### ARCGIS COORDINATE SYSTEM

\* TYPE Projected

\* GEOGRAPHIC COORDINATE REFERENCE GCS\_WGS\_1984

\* PROJECTION WGS\_1984\_Web\_Mercator\_Auxiliary\_Sphere

\* COORDINATE REFERENCE DETAILS

#### PROJECTED COORDINATE SYSTEM

WELL-KNOWN IDENTIFIER 102100

X ORIGIN -22041257.77387803

Y ORIGIN -30241100

XY SCALE 144148035.89861274

Z ORIGIN -100000

Z SCALE 10000

M ORIGIN -100000  
M SCALE 10000  
XY TOLERANCE 0.001  
Z TOLERANCE 0.001  
M TOLERANCE 0.001  
HIGH PRECISION true  
LATEST WELL-KNOWN IDENTIFIER 3857  
WELL-KNOWN TEXT PROJCS["WGS\_1984\_Web\_Mercator\_Auxiliary\_Sphere",GEOGCS  
["GCS\_WGS\_1984",DATUM["D\_WGS\_1984",SPHEROID  
["WGS\_1984",6378137.0,298.257223563]],PRIMEM["Greenwich",0.0],UNIT  
["Degree",0.0174532925199433]],PROJECTION["Mercator\_Auxiliary\_Sphere"],PARAMETER  
["False\_Easting",0.0],PARAMETER["False\_Northing",0.0],PARAMETER  
["Central\_Meridian",0.0],PARAMETER["Standard\_Parallel\_1",0.0],PARAMETER  
["Auxiliary\_Sphere\_Type",0.0],UNIT["Meter",1.0],AUTHORITY["EPSG",3857]]

#### REFERENCE SYSTEM IDENTIFIER

- \* VALUE 3857
- \* CODESPACE EPSG
- \* VERSION 8.8(9.3.1.2)

## Spatial Data Properties

#### VECTOR

- \* LEVEL OF TOPOLOGY FOR THIS DATASET geometry only

#### GEOMETRIC OBJECTS

FEATURE CLASS NAME station\_ng\_compressor\_hifld

- \* OBJECT TYPE point
- \* OBJECT COUNT 1367

#### ARCGIS FEATURE CLASS PROPERTIES

FEATURE CLASS NAME station\_ng\_compressor\_hifld

- \* FEATURE TYPE Simple
- \* GEOMETRY TYPE Point
- \* HAS TOPOLOGY FALSE
- \* FEATURE COUNT 1367
- \* SPATIAL INDEX TRUE
- \* LINEAR REFERENCING FALSE

## Distribution

#### DISTRIBUTION FORMAT

- \* NAME File Geodatabase Feature Class

## Fields

#### DETAILS FOR OBJECT station\_ng\_compressor\_hifld

- \* TYPE Feature Class
- \* ROW COUNT 1367

#### DEFINITION

Attribute fields were populated using sources identified in the SOURCE field for the period covered in this Time Period metadata and other open source data. For string and date data types, NOT AVAILABLE values denote missing data that was not present in the source data while NOT APPLICABLE values denote that the field does not apply for the specific case. For numeric data types, -999 denotes missing data that was not present in the source data. However, the missing data may be present in other sources not yet discovered and used in the creation and/or maintenance of this dataset. These records may be populated with valid information in future update cycles.

#### DEFINITION SOURCE

Argonne National Laboratory

#### FIELD OBJECTID

- \* ALIAS OBJECTID
- \* DATA TYPE OID
- \* WIDTH 4
- \* PRECISION 0
- \* SCALE 0

#### FIELD DESCRIPTION

Internal feature number.

#### DESCRIPTION SOURCE

Esri

#### DESCRIPTION OF VALUES

Sequential unique whole numbers that are automatically generated.

#### FIELD SHAPE

- \* ALIAS SHAPE
- \* DATA TYPE Geometry
- \* WIDTH 0
- \* PRECISION 0
- \* SCALE 0

#### FIELD DESCRIPTION

Geometry defining the feature.

#### DESCRIPTION SOURCE

Esri

#### DESCRIPTION OF VALUES

Coordinates defining the features.

#### FIELD GCOMPID

- \* ALIAS GCOMPID
- \* DATA TYPE String
- \* WIDTH 20
- \* PRECISION 0
- \* SCALE 0

#### FIELD DESCRIPTION

Unique identifier for the feature.

#### DESCRIPTION SOURCE

Argonne National Laboratory

#### FIELD NAME

- \* ALIAS Name
- \* DATA TYPE String
- \* WIDTH 150
- \* PRECISION 0
- \* SCALE 0

#### FIELD DESCRIPTION

Feature name.

#### DESCRIPTION SOURCE

The responsible organization as identified in the SOURCE field.

#### FIELD PIPECO

- \* ALIAS Pipeline Company
- \* DATA TYPE String
- \* WIDTH 75
- \* PRECISION 0
- \* SCALE 0

#### FIELD DESCRIPTION

Name of natural gas pipeline company that the feature supports.

#### DESCRIPTION SOURCE

The responsible organization as identified in the SOURCE field.

FIELD COMPID

- \* ALIAS Company ID
- \* DATA TYPE String
- \* WIDTH 10
- \* PRECISION 0
- \* SCALE 0

FIELD DESCRIPTION

FERC-supplied pipeline ID

DESCRIPTION SOURCE

FERC

FIELD OPERATOR

- \* ALIAS Operator
- \* DATA TYPE String
- \* WIDTH 75
- \* PRECISION 0
- \* SCALE 0

FIELD DESCRIPTION

Name of the feature operator.

DESCRIPTION SOURCE

The responsible organization as identified in the SOURCE field.

FIELD TYPE

- \* ALIAS Type
- \* DATA TYPE String
- \* WIDTH 85
- \* PRECISION 0
- \* SCALE 0

FIELD DESCRIPTION

Description of the feature.

DESCRIPTION SOURCE

Argonne National Laboratory

FIELD ADDRESS

- \* ALIAS Address
- \* DATA TYPE String
- \* WIDTH 200
- \* PRECISION 0
- \* SCALE 0

FIELD DESCRIPTION

Primary street address, PO Box or location description (i.e., 5th Avenue and Main Street).

DESCRIPTION SOURCE

The responsible organization as identified in the SOURCE field.

FIELD ADDRESS2

- \* ALIAS Address 2
- \* DATA TYPE String
- \* WIDTH 75
- \* PRECISION 0
- \* SCALE 0

FIELD DESCRIPTION

Supplemental street address (e.g., Apt, Suite, Floor).

DESCRIPTION SOURCE

The responsible organization as identified in the SOURCE field.

#### FIELD CITY

- \* ALIAS City
- \* DATA TYPE String
- \* WIDTH 50
- \* PRECISION 0
- \* SCALE 0

#### FIELD DESCRIPTION

City in which the feature is located.

#### DESCRIPTION SOURCE

The responsible organization as identified in the SOURCE field.

#### FIELD STATE

- \* ALIAS State
- \* DATA TYPE String
- \* WIDTH 50
- \* PRECISION 0
- \* SCALE 0

#### FIELD DESCRIPTION

State abbreviation (United States and its Territories), Province abbreviation (Canada), and State/District abbreviation (Mexico).

#### DESCRIPTION SOURCE

Originator defined

#### CODED VALUES

NAME OF CODELIST Two-Letter State and Possession Abbreviations

SOURCE United States Postal Service (<https://www.usps.com>), Canada Postal (<https://www.canadapost.ca>) and Correos de Mexico (<http://www.sepomex.gob.mx>)

#### FIELD COUNTY

- \* ALIAS County
- \* DATA TYPE String
- \* WIDTH 50
- \* PRECISION 0
- \* SCALE 0

#### FIELD DESCRIPTION

United States and its Territories county name and legal/statistical area description (county, borough, parish, municipality, census area), Canada (province, territory), and Mexico (municipality).

#### DESCRIPTION SOURCE

The responsible organization as identified in the SOURCE field.

#### CODED VALUES

NAME OF CODELIST United States County, Canadian Province, Mexican Municipality SOURCE When the county name is available from a specific source, the contents are replicated from the SOURCE. Otherwise, ANL assigns the value based on open source searches.

#### FIELD COUNTYFIPS

- \* ALIAS County FIPS
- \* DATA TYPE String
- \* WIDTH 20
- \* PRECISION 0
- \* SCALE 0

#### FIELD DESCRIPTION

US County Federal Information Processing Standards (FIPS) Code (5 digit), Canada Standard Geographical Classification (SGC) Code (7 digit), and Mexico National Institute of Statistics and Geography (INEGI) Code (5 digit).

#### DESCRIPTION SOURCE

The responsible organization as identified in the SOURCE field.

#### CODED VALUES

NAME OF CODELIST 2010 FIPS Codes for Counties and County Equivalent Entities, Standard Geographical Classification 2011, and INEGI National Geostatistical Framework SOURCE FIPS/Census (<http://www.census.gov/geo/reference/codes/cou.html>), Statistics

Canada (<http://www.statcan.gc.ca/pub/92-195-x/2011001/other-autre/sgc-cgt/sgc-cgt-eng.htm>), and Marco Geoestadístico Nacional (<http://www.inegi.org.mx/geo/contenidos/geoestadistica/default.aspx>).

#### FIELD COUNTRY

- \* ALIAS Country
- \* DATA TYPE String
- \* WIDTH 15
- \* PRECISION 0
- \* SCALE 0

#### FIELD DESCRIPTION

Country Code (3 character).

#### DESCRIPTION SOURCE

The responsible organization as defined in the SOURCE field.

#### CODED VALUES

NAME OF CODELIST Geopolitical Entities, Names, and Codes (GENC) Standard  
SOURCE National System for Geospatial Intelligence (NSG) Standards Registry  
(<https://nsgreg.nga.mil/genc/discovery>)

#### FIELD ZIP

- \* ALIAS Zip Code
- \* DATA TYPE String
- \* WIDTH 15
- \* PRECISION 0
- \* SCALE 0

#### FIELD DESCRIPTION

Zip Code (5 digit), Postal Code (alphanumeric), and Postal Code (5 digit and alphanumeric).

#### DESCRIPTION SOURCE

Originator defined

#### CODED VALUES

NAME OF CODELIST US Postal Zip Codes and Postal Codes  
SOURCE United States Postal Service (<https://www.usps.com>), Canada Postal  
(<https://www.canadapost.ca>) and Corres de Mexico (<http://www.sepomex.gob.mx>)

#### FIELD ZIP4

- \* ALIAS Zip Code 4
- \* DATA TYPE String
- \* WIDTH 15
- \* PRECISION 0
- \* SCALE 0

#### FIELD DESCRIPTION

Extended Zip Code (4 digit)

#### DESCRIPTION SOURCE

Originator defined

#### CODED VALUES

NAME OF CODELIST US Postal Zip Codes  
SOURCE United States Postal Service (<https://www.usps.com>)

#### FIELD LATITUDE

- \* ALIAS Latitude
- \* DATA TYPE Double
- \* WIDTH 8
- \* PRECISION 0
- \* SCALE 0

#### FIELD DESCRIPTION

The angular distance north or south from the equator on the earth's surface.

#### DESCRIPTION SOURCE

Argonne National Laboratory

RANGE OF VALUES

UNITS OF MEASURE Decimal Degrees

FIELD LONGITUDE

\* ALIAS Longitude

\* DATA TYPE Double

\* WIDTH 8

\* PRECISION 0

\* SCALE 0

FIELD DESCRIPTION

The angular distance east or west from the prime meridian on the earth's surface.

DESCRIPTION SOURCE

Argonne National Laboratory

RANGE OF VALUES

UNITS OF MEASURE Decimal Degrees

FIELD SOURCE

\* ALIAS Source

\* DATA TYPE String

\* WIDTH 500

\* PRECISION 0

\* SCALE 0

FIELD DESCRIPTION

Original source used to identify geospatial location and/or attribution for the feature.

DESCRIPTION SOURCE

Argonne National Laboratory

FIELD SOURCEDATE

\* ALIAS Source Date

\* DATA TYPE Date

\* WIDTH 8

\* PRECISION 0

\* SCALE 0

FIELD DESCRIPTION

Date of source, or, if not available, the date ANL accessed the source .

DESCRIPTION SOURCE

Argonne National Laboratory

FIELD VAL\_METHOD

\* ALIAS Validation Method

\* DATA TYPE String

\* WIDTH 85

\* PRECISION 0

\* SCALE 0

FIELD DESCRIPTION

Methodology used to validate geospatial location and/or attribution for the feature.

DESCRIPTION SOURCE

Argonne National Laboratory

LIST OF VALUES

VALUE GEOCODE

DESCRIPTION Street address geocoding used to determine the location.

ENUMERATED DOMAIN VALUE DEFINITION SOURCE Argonne National Laboratory

VALUE IMAGERY

DESCRIPTION The best available imagery used to determine the location.

ENUMERATED DOMAIN VALUE DEFINITION SOURCE Argonne National Laboratory



VALUE IMAGERY/OTHER

DESCRIPTION Imagery and supplemental open source information used to determine the location.

ENUMERATED DOMAIN VALUE DEFINITION SOURCE Argonne National Laboratory

VALUE OTHER

DESCRIPTION Aggregated open source information used to determine/verify attribution and locational information for the feature.

ENUMERATED DOMAIN VALUE DEFINITION SOURCE Argonne National Laboratory

VALUE UNVERIFIED

DESCRIPTION Feature could not be located or the feature has not yet been validated.

ENUMERATED DOMAIN VALUE DEFINITION SOURCE Argonne National Laboratory

FIELD VAL\_DATE

\* ALIAS Validation Date

\* DATA TYPE Date

\* WIDTH 8

\* PRECISION 0

\* SCALE 0

FIELD DESCRIPTION

Date when geospatial location and/or attribution were last validated for the feature.

DESCRIPTION SOURCE

Argonne National Laboratory

FIELD POSREL

\* ALIAS Precision

\* DATA TYPE String

\* WIDTH 50

\* PRECISION 0

\* SCALE 0

FIELD DESCRIPTION

The level of accuracy and confidence in the feature's location.

DESCRIPTION SOURCE

Argonne National Laboratory

LIST OF VALUES

VALUE WITHIN 40 FEET

DESCRIPTION Coordinates are within 40 Feet of the feature's actual location.

ENUMERATED DOMAIN VALUE DEFINITION SOURCE Argonne National Laboratory

VALUE WITHIN 166 FEET

DESCRIPTION Coordinates are within 166 Feet of the feature's actual location.

ENUMERATED DOMAIN VALUE DEFINITION SOURCE Argonne National Laboratory

VALUE WITHIN 1 MILE

DESCRIPTION Coordinates are within 1 Mile of the feature's actual location.

ENUMERATED DOMAIN VALUE DEFINITION SOURCE Argonne National Laboratory

VALUE EXCEEDS 1 MILE

DESCRIPTION Coordinates are farther than 1 Mile from the feature's actual location.

ENUMERATED DOMAIN VALUE DEFINITION SOURCE Argonne National Laboratory

VALUE NOTIONAL

DESCRIPTION The exact position is either unknown or determination is cost-prohibitive.

ENUMERATED DOMAIN VALUE DEFINITION SOURCE Argonne National Laboratory

VALUE THIRD PARTY

DESCRIPTION Geospatial coordinates provided by a third party source. Revalidating the provided geolocations would not be cost effective.

ENUMERATED DOMAIN VALUE DEFINITION SOURCE Argonne National Laboratory

FIELD NAICS\_CODE

- \* ALIAS NAICS CODE
- \* DATA TYPE String
- \* WIDTH 50
- \* PRECISION 0
- \* SCALE 0

FIELD DESCRIPTION

The Facility North American Industry Classification System code number for the feature.

DESCRIPTION SOURCE

Argonne National Laboratory

CODED ALUES

NAME OF CODELIST North American Industry Classification System

SOURCE Office of Management and Budget (<http://www.census.gov/eos/www/naics/>)

FIELD NAICS\_DESC

ALIAS NAICS Description

- \* DATA TYPE String
- \* WIDTH 85
- \* PRECISION 0
- \* SCALE 0

FIELD DESCRIPTION

Description of the Natural Gas Compressor Station North American Industry Classification System code number.

DESCRIPTION SOURCE

Argonne National Laboratory

CODED VALUES

NAME OF CODELIST North American Industry Classification System

SOURCE Office of Management and Budget (<http://www.census.gov/eos/www/naics/>)

FIELD WEBSITE

- \* ALIAS Website
- \* DATA TYPE String
- \* WIDTH 500
- \* PRECISION 0
- \* SCALE 0

FIELD DESCRIPTION

The feature specific website.

DESCRIPTION SOURCE

Argonne National Laboratory

FIELD STATUS

- \* ALIAS Status
- \* DATA TYPE String
- \* WIDTH 25
- \* PRECISION 0
- \* SCALE 0

FIELD DESCRIPTION

Indicates the operational status of the feature.

DESCRIPTION SOURCE

Argonne National Laboratory

FIELD NUM\_UNITS

- \* ALIAS Number of Units
- \* DATA TYPE Double
- \* WIDTH 8
- \* PRECISION 0
- \* SCALE 0

FIELD DESCRIPTION

Number of compressor units at the feature.

DESCRIPTION SOURCE

The responsible organization as identified in the SOURCE field.

FIELD CERT\_HP

- \* ALIAS Certified Horsepower
- \* DATA TYPE Double
- \* WIDTH 8
- \* PRECISION 0
- \* SCALE 0

FIELD DESCRIPTION

Total certified horsepower.

DESCRIPTION SOURCE

The responsible organization as identified in the SOURCE field.

FIELD PLANT\_COST

- \* ALIAS Station Cost
- \* DATA TYPE Double
- \* WIDTH 8
- \* PRECISION 0
- \* SCALE 0

FIELD DESCRIPTION

Original compressor station cost (\$).

DESCRIPTION SOURCE

The responsible organization as identified in the SOURCE field.

FIELD EXP\_FUEL

- \* ALIAS Annual Fuel Expense
- \* DATA TYPE Double
- \* WIDTH 8
- \* PRECISION 0
- \* SCALE 0

FIELD DESCRIPTION

Annual fuel expense (\$).

DESCRIPTION SOURCE

The responsible organization as identified in the SOURCE field.

FIELD EXP\_OTHER

- \* ALIAS Annual Other Expense
- \* DATA TYPE Double
- \* WIDTH 8
- \* PRECISION 0
- \* SCALE 0

FIELD DESCRIPTION

Annual other expenses (\$).

DESCRIPTION SOURCE

The responsible organization as identified in the SOURCE field.

FIELD GAS\_COMPRE

- \* ALIAS Gas for Compressor
- \* DATA TYPE Double
- \* WIDTH 8
- \* PRECISION 0
- \* SCALE 0

FIELD DESCRIPTION

Gas for Compressor Fuel (Dth)

DESCRIPTION SOURCE

The responsible organization as identified in the SOURCE field.

FIELD OP\_COMP\_HR

- \* ALIAS Annual Compressor Hours
- \* DATA TYPE Double
- \* WIDTH 8
- \* PRECISION 0
- \* SCALE 0

FIELD DESCRIPTION

Total Compressor hours of operation during year.

DESCRIPTION SOURCE

The responsible organization as identified in the SOURCE field.

FIELD OP\_NUM\_COM

- \* ALIAS Compressor Operated during Station Peak
- \* DATA TYPE Double
- \* WIDTH 8
- \* PRECISION 0
- \* SCALE 0

FIELD DESCRIPTION

Number of compressors operated at time of station peak. If this is zero then there will be no date in OP\_DATE\_PE.

DESCRIPTION SOURCE

The responsible organization as identified in the SOURCE field.

FIELD OP\_DATE\_PE

- \* ALIAS Station Peak Date
- \* DATA TYPE Date
- \* WIDTH 8
- \* PRECISION 0
- \* SCALE 0

FIELD DESCRIPTION

Date of station peak.

DESCRIPTION SOURCE

The responsible organization as identified in the SOURCE field.

FIELD EXP\_POWER

- \* ALIAS Annual Power Expense
- \* DATA TYPE Double
- \* WIDTH 8
- \* PRECISION 0
- \* SCALE 0

FIELD DESCRIPTION

Annual power expenses (\$).

DESCRIPTION SOURCE

The responsible organization as identified in the SOURCE field.

FIELD ELEC\_COMPR

- \* ALIAS Electricity for Station (kWh)
- \* DATA TYPE Double
- \* WIDTH 8
- \* PRECISION 0
- \* SCALE 0

FIELD DESCRIPTION

Electricity for compressor station (kWh).

DESCRIPTION SOURCE

The responsible organization as identified in the SOURCE field.

## Metadata Details

\* METADATA LANGUAGE English (UNITED STATES)  
SCOPE OF THE DATA DESCRIBED BY THE METADATA \* dataset  
SCOPE NAME \* dataset  
\* LAST UPDATE 2019-09-02  
ARCGIS METADATA PROPERTIES  
METADATA FORMAT ArcGIS 1.0  
METADATA STYLE FGDC CSDGM Metadata  
STANDARD OR PROFILE USED TO EDIT METADATA FGDC  
CREATED IN ARCGIS FOR THE ITEM 2019-09-01  
LAST MODIFIED IN ARCGIS FOR THE ITEM 2019-09-02  
AUTOMATIC UPDATES  
HAVE BEEN PERFORMED Yes  
LAST UPDATE 2019-09-02