North American Electric Reliability Corporation (NERC) Subregions

Tags

homeland security, generation, emergency response, Continental United States, electricity, power, homeland defense, USA, name, address, megawatts, NERC Regions, NERC Subregions, energy infrastructure

Summary

This feature class/shapefile is for the Homeland Infrastructure Foundation Level Database (HIFLD) (https://hifld-geoplatform.opendata.arcgis.com/) as well as the Energy modelling and simulation community.

Description

This feature class/shapefile represents North American Electric Reliability Corporation (NERC) Regions and Subregions. NERC is an international regulatory authority that works to improve the reliability of the bulk power system in North America. NERC works with many different regional entities to improve the coordination and supply of electricity. This data set of vector layer of polygons represents the boundaries of the regional and subregional entities associated with NERC. The following updates have been made since the previous release: improved geometry of all features using new sources, the METHOD and DATE fields renamed to VAL_METHOD and VAL_DATE respectively, and SOURCEDATE field has been added.

Credits

Oak Ridge National Laboratory (ORNL) Geographic Information Science and Technology (GIST) Group, Los Alamos National Laboratory (LANL), Idaho National Laboratory (INL), 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

West -124.736880   **East**   -66.950130
North   49.384470   **South**   24.521260

Scale Range

Maximum (zoomed in)   1:5,000
Minimum (zoomed out)   1:150,000,000

ArcGIS Metadata

Topics and Keywords

THEMES OR CATEGORIES OF THE RESOURCE structure
* CONTENT TYPE Downloadable Data
PLACE KEYWORDS Continental United States, USA
THEME KEYWORDS homeland security, generation, emergency response, electricity, power, homeland defense, name, address, megawatts, NERC Regions, NERC Subregions, energy infrastructure

Citation

TITLE North American Electric Reliability Corporation (NERC) Subregions
PUBLICATION DATE 2018-06-29
PRESENTATION FORMATS * digital map
FGDC GEOSPATIAL PRESENTATION FORMAT Vector Digital Data Set (Polygon)
COLLECTION TITLE HIFLD Open and HIFLD Secure

Citation Contacts

RESPONSIBLE PARTY
  ORGANIZATION'S NAME Idaho National Laboratory
  CONTACT'S ROLE originator
RESPONSIBLE PARTY
  ORGANIZATION'S NAME Los Alamos National Laboratory
  CONTACT'S ROLE originator
RESPONSIBLE PARTY
  ORGANIZATION'S NAME Oak Ridge National Laboratory
  CONTACT'S ROLE originator

Resource Details

DATASET LANGUAGES English (UNITED STATES)
STATUS completed
SPATIAL REPRESENTATION TYPE * vector
SUPPLEMENTAL INFORMATION
  None.
PROCESSING ENVIRONMENT Esri ArcGIS 10.4.0.5524
CREDITS

Oak Ridge National Laboratory (ORNL) Geographic Information Science and Technology (GIST) Group, Los Alamos National Laboratory (LANL), Idaho National Laboratory (INL), National Geospatial-Intelligence Agency (NGA) Homeland Security Infrastructure Program (HSIP) Team

ARCGIS ITEM PROPERTIES
  * NAME jurisdiction_nerc_subregion
    * ACCESS PROTOCOL Local Area Network

Extents

EXTENT
  GEOGRAPHIC EXTENT
    BOUNDING RECTANGLE
      WEST LONGITUDE -124.74648
      EAST LONGITUDE -66.950005
      SOUTH LATITUDE 24.521051
      NORTH LATITUDE 49.384359
EXTENT
  DESCRIPTION
    Time period date range corresponds to the SOURCEDATE field.

  TEMPORAL EXTENT
    BEGINNING DATE 2018-01-05
    ENDING DATE 2018-01-05

EXTENT
  GEOGRAPHIC EXTENT
    BOUNDING RECTANGLE
      EXTENT TYPE Extent used for searching
      * WEST LONGITUDE -124.736880
      * EAST LONGITUDE -66.950130
      * NORTH LATITUDE 49.384470
      * SOUTH LATITUDE 24.521260
      * EXTENT CONTAINS THE RESOURCE Yes
  EXTENT IN THE ITEM'S COORDINATE SYSTEM
    * WEST LONGITUDE -13885645.964700
    * EAST LONGITUDE -7452854.380100
    * SOUTH LATITUDE 2817055.779900
    * NORTH LATITUDE 6340351.496000
    * EXTENT CONTAINS THE RESOURCE Yes

Resource Points of Contact

POINT OF CONTACT
  ORGANIZATION'S NAME Oak Ridge National Laboratory
  CONTACT'S ROLE point of contact

    CONTACT INFORMATION PHONE
      VOICE 865-241-3976
      FAX 865-241-6261
    ADDRESS
      TYPE both
      DELIVERY POINT One Bethel Valley Rd, MS-6017
      CITY Oak Ridge
      ADMINISTRATIVE AREA TN
      POSTAL CODE 37831
      COUNTRY US

Resource Maintenance

RESOURCE MAINTENANCE
  UPDATE FREQUENCY continual

Resource Constraints

LEGAL CONSTRAINTS
  LIMITATIONS OF USE
    Distributor assumes no liability for misuse of data.

  OTHER CONSTRAINTS
    None (Public Domain Information)

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 -21940362.558060005
      Y ORIGIN -30241100
      XY SCALE 144381166.92744523
      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 jurisdiction_nerc_subregion
 * OBJECT TYPE composite
 * OBJECT COUNT 22

ARCGIS FEATURE CLASS PROPERTIES
FEATURE CLASS NAME jurisdiction_nerc_subregion
 * FEATURE TYPE Simple
 * GEOMETRY TYPE Polygon
 * HAS TOPOLOGY FALSE
 * FEATURE COUNT 22
 * SPATIAL INDEX TRUE
 * LINEAR REFERENCING FALSE

Data Quality

SCOPE OF QUALITY INFORMATION
RESOURCE LEVEL dataset

DATA QUALITY REPORT - TOPOLOGICAL CONSISTENCY
EVALUATION METHOD
Data were extracted from sources (identified in the SOURCE field) and other open source

websites to populate the attribute fields. For string and date data types, NOT AVAILABLE
values denote missing data that was not present in the source data. For numeric data
types, -999999 denote missing data that was not present in the source data. During
quality control, attributes were checked to ensure that they fell within the expected
ranges or had expected/valid values. Text attribute values were checked for spelling and
usage consistency. No topology tests were conducted. All records were verified to occur
within the spatial domain of the feature class/shapefile.

DATA QUALITY REPORT - DOMAIN CONSISTENCY
EVALUATION METHOD
Data were extracted from sources (identified in the SOURCE field) and other open source
websites to populate the attribute fields. For string and date data types, NOT AVAILABLE
values denote missing data that was not present in the source data. For numeric data
types, -999999 denote missing data that was not present in the source data. During
quality control, attributes were checked to ensure that they fell within the expected
ranges or had expected/valid values. Text attribute values were checked for spelling and

usage consistency. No topology tests were conducted. All records were verified to occur within the spatial domain of the feature class/shapefile.

DATA QUALITY REPORT - CONCEPTUAL CONSISTENCY

MEASURE DESCRIPTION

Data were extracted from sources (identified in the SOURCE field) and other open source websites to populate the attribute fields. For string and date data types, NOT AVAILABLE values denote missing data that was not present in the source data. For numeric data types, -999999 denote missing data that was not present in the source data. During quality control, attributes were checked to ensure that they fell within the expected ranges or had expected/valid values. Text attribute values were checked for spelling and usage consistency. No topology tests were conducted. All records were verified to occur within the spatial domain of the feature class/shapefile.

DATA QUALITY REPORT - COMPLETENESS OMISSION

MEASURE DESCRIPTION

Data is complete as of the most recent date indicated in the Time Period section.

DATA QUALITY REPORT - QUANTITATIVE ATTRIBUTE ACCURACY

MEASURE DESCRIPTION

No formal attribute accuracy test was conducted. Data from the authoritative sources (as identified in other sections of this metadata) is assumed to be correct and accurate. See also "Overview Description" in the "Entities and Attributes" metadata section.

DATA QUALITY REPORT - ABSOLUTE EXTERNAL POSITIONAL ACCURACY

DIMENSION horizontal

MEASURE DESCRIPTION

None; Users should read and understand the VAL_METHOD metadata as well as the Processing Steps.

DATA QUALITY REPORT - ABSOLUTE EXTERNAL POSITIONAL ACCURACY [0]

DIMENSION vertical

MEASURE DESCRIPTION

None; dataset contains no vertical data.

Lineage

PROCESS STEP

DESCRIPTION

Authoritative data sources are identified through open source research. That data is then acquired and transformed into a usable data format. The properly formatted data then goes through preprocessing steps that includes a georeferencing or spatial adjustment operation to give spatial context to the data. In the absence of more precise geometry, territories are represented with dissolved features from the Retail Service Territories feature class/shapefile, based on available authoritative data sources. The data goes through further refinement using remote sensing techniques. After preprocessing, every record goes through a review process to verify that each polygon encompasses the corresponding territory based on open source information. The DATE field indicates the date in which the review step took place.

SOURCE DATA

SOURCE CITATION [0]

TITLE see SOURCE field.

FGDC GEOSPATIAL PRESENTATION FORMAT Other

RESPONSIBLE PARTY

ORGANIZATION'S NAME see SOURCE field.

CONTACT'S ROLE originator

RESPONSIBLE PARTY

ORGANIZATION'S NAME see SOURCE field.

CONTACT'S ROLE publisher

CONTACT INFORMATION

ADDRESS

DELIVERY POINT see SOURCE field.

EXTENT OF THE SOURCE DATA

DESCRIPTION

observed

TEMPORAL EXTENT
    BEGINNING DATE 2017-04-21
    ENDING DATE 2017-04-21

Distribution
DISTRIBUTOR
  CONTACT INFORMATION
    ORGANIZATION'S NAME HIFLD Subcommittee
    CONTACT'S ROLE distributor

      CONTACT INFORMATION
       ADDRESS
        E-MAIL ADDRESS hifld@hq.dhs.gov
  AVAILABLE FORMAT
    NAME Vector Digital Data Set (Polygon)
  ORDERING PROCESS
    TERMS AND FEES None. No fees are applicable for obtaining the data set.
DISTRIBUTION FORMAT
  * NAME File Geodatabase Feature Class
TRANSFER OPTIONS
  ONLINE SOURCE

    LOCATION https://hifld-geoplatform.opendata.arcgis.com/

Fields
DETAILS FOR OBJECT jurisdiction_nerc_subregion [0]
  * TYPE Feature Class
  * ROW COUNT 22
  DEFINITION
    Attribute fields were populated using sources identified in the SOURCE field for the period covered in the 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. For numeric data types, -999999 denote 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
    Originator defined

  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
Feature geometry.

DESCRIPTION SOURCE
Esri

DESCRIPTION OF VALUES
Coordinates defining the features.

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

FIELD DESCRIPTION
Unique ID for each feature.

DESCRIPTION SOURCE
Originator defined

FIELD NAME
- ***** ALIAS NAME
- ***** DATA TYPE String
- ***** WIDTH 80
- ***** PRECISION 0
- ***** SCALE 0

FIELD DESCRIPTION
Feature name.

DESCRIPTION SOURCE
The responsible organization as identified in the SOURCE field.

FIELD ADDRESS
- ***** ALIAS ADDRESS
- ***** DATA TYPE String
- ***** WIDTH 80
- ***** 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 CITY
* **ALIAS** CITY
* **DATA TYPE** String
* **WIDTH** 60
* **PRECISION** 0
* **SCALE** 0

FIELD DESCRIPTION
City name.

DESCRIPTION SOURCE
The responsible organization as identified in the SOURCE field.

FIELD STATE
* **ALIAS** STATE
* **DATA TYPE** String
* **WIDTH** 2
* **PRECISION** 0
* **SCALE** 0

FIELD DESCRIPTION
State abbreviation (United States and its Territories)

DESCRIPTION SOURCE
The responsible organization as identified in the SOURCE field.

CODED VALUES
NAME OF CODELIST Two–Letter State and Possession Abbreviations
SOURCE United States Postal Service (https://www.usps.com)

FIELD ZIP
* **ALIAS** ZIP
* **DATA TYPE** String
* **WIDTH** 10
* **PRECISION** 0
* **SCALE** 0

FIELD DESCRIPTION
Zip Code (5 digit).

DESCRIPTION SOURCE
The responsible organization as identified in the SOURCE field.

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

FIELD COUNTRY
* **ALIAS** COUNTRY
* **DATA TYPE** String
* **WIDTH** 3
* **PRECISION** 0
* **SCALE** 0

FIELD DESCRIPTION
Country Code (3 character).

DESCRIPTION SOURCE
Originator defined

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 SOURCE
* ALIAS SOURCE
* DATA TYPE String
* WIDTH 250
* PRECISION 0
* SCALE 0
FIELD DESCRIPTION
Original source used to identify geospatial location and/or attribution for the feature.

DESCRIPTION SOURCE
Originator defined

FIELD SOURCEDATE
* ALIAS SOURCEDATE
* DATA TYPE Date
* WIDTH 8
* PRECISION 0
* SCALE 0
FIELD DESCRIPTION
Date of the source, or, if not available, the date the originator accessed the source.

DESCRIPTION SOURCE
Originator defined

RANGE OF VALUES
MINIMUM VALUE 01/05/2018
MAXIMUM VALUE 01/05/2018
UNITS OF MEASURE Date

FIELD VAL_METHOD
* ALIAS VAL_METHOD
* DATA TYPE String
* WIDTH 100
* PRECISION 0
* SCALE 0
FIELD DESCRIPTION
Methodology used to validate geospatial location of the feature.

DESCRIPTION SOURCE
Originator defined

LIST OF VALUES
VALUE IMAGERY
DESCRIPTION The best available imagery used to determine the location.
ENUMERATED DOMAIN VALUE DEFINITION SOURCE Originator defined

VALUE IMAGERY/OTHER

DESCRIPTION Imagery and supplemental open source information used to determine the location.
ENUMERATED DOMAIN VALUE DEFINITION SOURCE Originator defined

VALUE OTHER
DESCRIPTION Open source information used to determine the location.
ENUMERATED DOMAIN VALUE DEFINITION SOURCE Originator defined

VALUE UNVERIFIED
DESCRIPTION Feature could not be located or the feature has not yet been validated.
ENUMERATED DOMAIN VALUE DEFINITION SOURCE Originator defined

FIELD VAL_DATE

* **ALIAS** VAL_DATE
* **DATA TYPE** Date
* **WIDTH** 8
* **PRECISION** 0
* **SCALE** 0

FIELD DESCRIPTION
Date when geospatial location was last validated for the feature.

DESCRIPTION SOURCE
Originator defined

RANGE OF VALUES
MINIMUM VALUE 01/05/2018
MAXIMUM VALUE 01/05/2018
UNITS OF MEASURE Date

FIELD WEBSITE

* **ALIAS** WEBSITE
* **DATA TYPE** String
* **WIDTH** 250
* **PRECISION** 0
* **SCALE** 0

FIELD DESCRIPTION
The feature specific website.

DESCRIPTION SOURCE
The responsible organization as identified in the SOURCE field.

FIELD SUBNAME

* **ALIAS** SUBNAME
* **DATA TYPE** String
* **WIDTH** 80
* **PRECISION** 0
* **SCALE** 0

FIELD DESCRIPTION
Feature subregion name.

DESCRIPTION SOURCE
The responsible organization as identified in the SOURCE field.

FIELD SHAPE_Length

* **ALIAS** SHAPE_Length
* **DATA TYPE** Double
* **WIDTH** 8
* **PRECISION** 0
* **SCALE** 0

FIELD DESCRIPTION
Length of feature in internal units.

DESCRIPTION SOURCE
Esri

DESCRIPTION OF VALUES
Positive real numbers that are automatically generated.

FIELD SHAPE_Area
- **Alias** SHAPE_Area
- **Data type** Double
- **Width** 8
- **Precision** 0
- **Scale** 0

FIELD DESCRIPTION

Area of feature in internal units squared.

DESCRIPTION SOURCE

Esri

DESCRIPTION OF VALUES

Positive real numbers that are automatically generated.

OVERVIEW DESCRIPTION

ENTITY AND ATTRIBUTE OVERVIEW

The entity and attribute information provided here describes the tabular data associated with the data set. Please review the detailed descriptions that are provided (the individual attribute descriptions) for information on the values that appear as fields/table entries of the data set. Please see the "Processing Steps" section for further methodology. For string and date data types, NOT AVAILABLE values denote missing data that was not present in the source data. For numeric data types, -999999 denote 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.

ENTITY AND ATTRIBUTE DETAIL CITATION

Oak Ridge National Laboratory

References

AGGREGATE INFORMATION

ASSOCIATION TYPE larger work citation

AGGREGATE RESOURCE NAME [0]

TITLE HIFLD Open and HIFLD Secure
FGDC GEOSPATIAL PRESENTATION FORMAT GIS Data Project/Collection
RESPONSIBLE PARTY
ORGANIZATION'S NAME Homeland Infrastructure Foundation-Level Data (HIFLD) Subcommittee
CONTACT'S ROLE originator

Metadata Details

METADATA LANGUAGE English (UNITED STATES)
METADATA CHARACTER SET utf8 - 8 bit UCS Transfer Format
SCOPE OF THE DATA DESCRIBED BY THE METADATA dataset
SCOPE NAME * dataset
* LAST UPDATE 2019-01-22
ARCGISMETADATA PROPERTIES
METADATA FORMAT ArcGIS 1.0
STANDARD OR PROFILE USED TO EDIT METADATA FGDC
METADATA STYLE FGDC CSDGM Metadata
CREATED IN ARCGIS FOR THE ITEM 2019-01-21 16:07:43
LAST MODIFIED IN ARCGIS FOR THE ITEM 2019-01-22 93:54:20
AUTOMATIC UPDATES
HAVE BEEN PERFORMED Yes
LAST UPDATE 2019-01-22 09:34:47

Metadata Contacts

METADATA CONTACT
ORGANIZATION'S NAME Oak Ridge National Laboratory
CONTACT'S ROLE point of contact

CONTACT INFORMATION
PHONE
VOICE 865-241-3976
FAX 865-241-6261
ADDRESS
TYPE both
DELIVERY POINT One Bethel Valley Rd, MS-6017
CITY Oak Ridge
ADMINISTRATIVE AREA TN
POSTAL CODE 37831
COUNTRY US