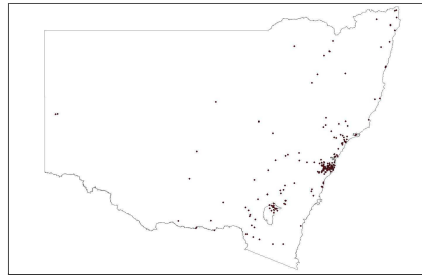


Hydro power generators

File Geodatabase Feature Class



Tags

NSW, renewable energy, infrastructure, generators, points

Summary

This feature class shows the location of, and contains information about, operational renewable energy generators and facilities in New South Wales hydro energies.

Description

This dataset contains information about operational hydro electricity generation facilities. Attributes include the location, name and owner of facility, type of renewable energy, technology, installed capacity (in MW), and year the facility was commissioned.

The Geological Survey of New South Wales developed the Renewable Energy Infrastructure database in 2016 for the Renewable Energy Mapping Project, as part of the NSW Renewable Energy Action Plan. The aim of the Renewable Energy Infrastructure database is to identify renewable energy generators and infrastructure in New South Wales and display them as spatially located point data.

Credits

Barry, C.M.
Nelson, M.D.
Gammridge, L.

Use limitations

Please refer to the 'Resource Constraints' section for limitations of use.

Extent

West 145.753430 **East** 151.767511
North -29.389749 **South** -36.595388

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, utilitiesCommunication

* CONTENT TYPE Downloadable Data
EXPORT TO FGDC CSDGM XML FORMAT AS RESOURCE DESCRIPTION No

THEME KEYWORDS RENEWABLES-Hydro

[Hide Topics and Keywords ▲](#)

Citation ►

TITLE Hydro power generators
CREATION DATE 2016-05-01 00:00:00
PUBLICATION DATE 2016-07-25 00:00:00
REVISION DATE 2017-05-23 00:00:00

EDITION 1.2
EDITION DATE 2017-05-23

PRESENTATION FORMATS * digital map
FGDC GEOSPATIAL PRESENTATION FORMAT vector digital data

OTHER CITATION DETAILS

It is recommended that this dataset be referred to as:

Wade S.L., Barry C.M., Nelson M.D. & Gammrdige L. (compilers) 2017. Renewable energy map of New South Wales, Version 1.2 (Digital Dataset). Geological Survey of New South Wales, Maitland.

Please note the raw data has been collated from various sources (see lineage statement)

[Hide Citation ▲](#)

Citation Contacts ►

RESPONSIBLE PARTY

INDIVIDUAL'S NAME Director of Geoscience Information
ORGANIZATION'S NAME NSW Resources and Geoscience, Geological Survey of NSW
CONTACT'S ROLE publisher

CONTACT INFORMATION ►

PHONE
VOICE 02 4931 6588

ADDRESS

TYPE physical
DELIVERY POINT 516 High Street
CITY Maitland
ADMINISTRATIVE AREA New South Wales
POSTAL CODE 2320
COUNTRY AU
E-MAIL ADDRESS geoscience.info@industry.nsw.gov.au

ONLINE RESOURCE

LOCATION <http://www.resourcesandenergy.nsw.gov.au>
NAME NSW Resources and Energy website
DESCRIPTION The website of the NSW Department of Planning & Environment, Division of Resources and Geoscience
FUNCTION PERFORMED information

[Hide Contact information ▲](#)

[Hide Citation Contacts ▲](#)

Resource Details ►

DATASET LANGUAGES * English (AUSTRALIA)
DATASET CHARACTER SET utf8 - 8 bit UCS Transfer Format

STATUS completed
SPATIAL REPRESENTATION TYPE * vector

* PROCESSING ENVIRONMENT Microsoft Windows 7 Version 6.1 (Build 7601) Service Pack 1; Esri ArcGIS 10.3.1.4959

CREDITS

Barry, C.M.
Nelson, M.D.
Gammridge, L.

ARCGIS ITEM PROPERTIES

* NAME Hydro_Power_Generators
* SIZE 0.006
* LOCATION file:///\\CA615683\E\$\NEW MASTER FILES\Renewable Energy Data Update\Online data\ArcGIS\RenewablesData.gdb
* ACCESS PROTOCOL Local Area Network

[Hide Resource Details ▲](#)

Extents ►

EXTENT

GEOGRAPHIC EXTENT

BOUNDING RECTANGLE

EXTENT TYPE Extent used for searching
* WEST LONGITUDE 145.753430
* EAST LONGITUDE 151.767511
* NORTH LATITUDE -29.389749
* SOUTH LATITUDE -36.595388
* EXTENT CONTAINS THE RESOURCE Yes

EXTENT IN THE ITEM'S COORDINATE SYSTEM

* WEST LONGITUDE 145.753430
* EAST LONGITUDE 151.767511
* SOUTH LATITUDE -36.595388
* NORTH LATITUDE -29.389749
* EXTENT CONTAINS THE RESOURCE Yes

[Hide Extents ▲](#)

Resource Points of Contact ►

POINT OF CONTACT

INDIVIDUAL'S NAME Director of Geoscience Information
ORGANIZATION'S NAME NSW Resources and Geoscience, Geological Survey of NSW
CONTACT'S ROLE publisher

CONTACT INFORMATION ►

PHONE
VOICE 02 4931 6588

ADDRESS

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POSTAL CODE 2320
COUNTRY AU
E-MAIL ADDRESS geoscience.info@industry.nsw.gov.au

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LOCATION <http://www.resourcesandenergy.nsw.gov.au>
NAME NSW Resources and Energy website
DESCRIPTION The website of the NSW Department of Planning & Environment, Division of Resources and Geoscience
FUNCTION PERFORMED information

[Hide Contact information ▲](#)

[Hide Resource Points of Contact ▲](#)

Resource Maintenance ►

RESOURCE MAINTENANCE

UPDATE FREQUENCY unknown

SCOPE OF THE UPDATES dataset

[Hide Resource Maintenance ▲](#)

Resource Constraints ►

LEGAL CONSTRAINTS

LIMITATIONS OF USE

THE FOLLOWING LIMITATION APPLIES TO THE DERIVATIVE WORKS AND PLATFORM OF DELIVERY:

<http://www.planning.nsw.gov.au/Copyright-and-Disclaimer>

CONSTRAINTS

LIMITATIONS OF USE

Please refer to the 'Resource Constraints' section for limitations of use.

[Hide Resource Constraints ▲](#)

Spatial Reference ►

ARCGIS COORDINATE SYSTEM

- * TYPE Geographic
- * GEOGRAPHIC COORDINATE REFERENCE GCS_GDA_1994
- * COORDINATE REFERENCE DETAILS
 - GEOGRAPHIC COORDINATE SYSTEM
 - WELL-KNOWN IDENTIFIER 4283
 - X ORIGIN -400
 - Y ORIGIN -400
 - XY SCALE 999999999.99999988
 - Z ORIGIN -100000
 - Z SCALE 10000
 - M ORIGIN -100000
 - M SCALE 10000
 - XY TOLERANCE 8.9831528411952133e-009

Z TOLERANCE 0.001
M TOLERANCE 0.001
HIGH PRECISION true
LEFT LONGITUDE -180
LATEST WELL-KNOWN IDENTIFIER 4283
WELL-KNOWN TEXT GEOGCS["GCS_GDA_1994",DATUM["D_GDA_1994",SPHEROID
["GRS_1980",6378137.0,298.257222101]],PRIMEM["Greenwich",0.0],UNIT
["Degree",0.0174532925199433],AUTHORITY["EPSG",4283]]

REFERENCE SYSTEM IDENTIFIER

* VALUE 4283
* CODESPACE EPSG
* VERSION 8.6.2

[Hide Spatial Reference ▲](#)

Spatial Data Properties ►

VECTOR ►

* LEVEL OF TOPOLOGY FOR THIS DATASET geometry only

GEOMETRIC OBJECTS

FEATURE CLASS NAME Hydro_Power_Generators
* OBJECT TYPE point
* OBJECT COUNT 35

[Hide Vector ▲](#)

ARCGIS FEATURE CLASS PROPERTIES ►

FEATURE CLASS NAME Hydro_Power_Generators
* FEATURE TYPE Simple
* GEOMETRY TYPE Point
* HAS TOPOLOGY FALSE
* FEATURE COUNT 35
* SPATIAL INDEX TRUE
* LINEAR REFERENCING FALSE

[Hide ArcGIS Feature Class Properties ▲](#)

[Hide Spatial Data Properties ▲](#)

Data Quality ►

SCOPE OF QUALITY INFORMATION ►

RESOURCE LEVEL dataset

[Hide Scope of quality information ▲](#)

DATA QUALITY REPORT - ABSOLUTE EXTERNAL POSITIONAL ACCURACY ►

MEASURE NAME GSNSW testing and editing

CONFORMANCE TEST RESULTS

TEST PASSED Yes

RESULT EXPLANATION

Data has been sourced from several external sources. The authors have endeavoured to ensure the accuracy of the information and spatial location of facilities.

[Hide Data quality report - Absolute external positional accuracy ▲](#)

DATA QUALITY REPORT - COMPLETENESS OMISSION ►

MEASURE NAME GSNSW testing and editing

CONFORMANCE TEST RESULTS

TEST PASSED Yes

RESULT EXPLANATION

The renewable energy infrastructure database is complete as at 25/05/2016 using best available data. It contains publicly available information on renewable energy generators.

[Hide Data quality report - Completeness omission ▲](#)

[Hide Data Quality ▲](#)

Lineage ►

LINEAGE STATEMENT

A single, internally consistent database of renewable energy electricity generators and biofuel generators was compiled from the following government sources:

1. Land Use Utilities database - Land Use Assessment, Geological Survey of NSW
2. Department of Planning and Environment projects database (<http://majorprojects.planning.nsw.gov.au/>)
3. Map of operating renewable energy generators in Australia - Geoscience Australia, updated May 2012 (<http://www.ga.gov.au/renewable/>)
4. Australian Energy Resource Assessment - Geoscience Australia, updated October 2015 (<https://data.gov.au/dataset/australian-energy-resource-assessment>)
5. National Power Stations database - Geoscience Australia, updated 2014 (http://www.ga.gov.au/metadata-gateway/metadata/record/gcat_04661f51-82ee-144e-e054-00144fdd4fa6/National+Power+Stations+Database)
6. NSW Resources and Energy website (<http://www.resourcesandenergy.nsw.gov.au/investors/investment-opportunities/electricity-generation>)
7. NSW Office of Environment and Heritage (environment.nsw.gov.au)
8. NSW National Parks and Wildlife Service (nationalparks.nsw.gov.au)
9. National Electricity Market Registration and Exemption List - Australian Energy Market Operators, updated 11 April 2016 (<http://www.aemo.com.au/About-the-Industry/Registration/Current-Registration-and-Exemption-lists>)
10. GreenPower Generators database (<http://www.greenpower.gov.au/About-Us/GreenPower-Generators/>)
11. Generator database owned and maintained by Policy and Coordination unit, NSW Energy, Water, Regulation & Portfolio Strategy Division
12. ACT Territory and Municipal Services website (tams.act.gov.au)
13. Australian Solar Energy Information System (ASEIS) V3.0 - data.gov.au, updated October 2015 (<https://data.gov.au/dataset/australian-solar-energy-information-system-aseis-v3-0>)
14. Australian Energy Storage Database (<http://www.energystorageexchange.org/AESDB/projects>)

Where available, maximum capacity values (in MW) provided by the NEM Registration and Exemption List were used as the primary source of capacity information for the map. If the facility was not registered with NEM at the time of data collection, the most recent company data was used as a source of capacity information.

In the NEM Registration and Exemption List, combined registered and maximum capacities were provided for (a) Tumut 1 and 2, and (b) Kangaroo Valley and Bendeela. The registered capacity of the separate facilities was calculated by multiplying the amount of generator units at each facility by unit size. The maximum capacity was calculated from the percentage of combined capacity that each facility accounts for (as determined in the registered capacity calculation).

For example:

Tumut 1 and 2 combined - reg capacity = 616 MW, max capacity = 665 MW. Tumut 1 - 1-4 units, 82 MW unit size. Tumut 2 - 5-8 units, 72 MW unit size

Registered capacity for Tumut 1 = 4 units x 82 MW = 328 MW

Registered capacity for Tumut 2 = 4 units x 72 MW = 288 MW

Maximum capacity for Tumut 1 = $[(328/616) \times 100 = 53\%]$ = 0.53 x 665 = 352.45 MW

Maximum capacity for Tumut 2 = $[(288/616) \times 100 = 47\%]$ = 0.47 x 665 = 312.55 MW

Data authors also used Google Earth and private company or third party websites to verify the location of facilities and ensure the best available and most up-to-date data was used.

Other websites include:

- Renewable energy plants in Australia and New Zealand website (<http://www.aussierenewables.com/directory/template/desktop/map.php>)
- Renewable energy map - Clean Energy Council (<https://www.cleanenergycouncil.org.au/technologies/renewable-energy-map.html>)
- List of power stations in New South Wales - Wikipedia, updated Nov 2015 (https://en.wikipedia.org/wiki/List_of_power_stations_in_New_South_Wales)
- Visy Paper (visy.com.au)
- LMS Energy (lms.com.au)
- AGL (agl.com.au)
- Sydney Water (sydneywater.com.au)
- Big River (bigrivergroup.com.au)
- EarthPower (earthpower.com.au)
- Blantyre Farms (blantyrefarms.com.au)
- Central Coast Council (wyong.nsw.gov.au)
- SUEZ Recycling and Recovery (sita.com.au)
- Veolia (veolia.com.au)
- Waste Assets Management Corporation (wamc.nsw.gov.au)
- Energy Developments (energydevelopments.com.au)
- The Climate Institute (climateinstitute.org.au)
- Snowy Hydro (snowyhydro.com.au)
- Hunter Water (hunterwater.com.au)
- AGL (agl.com.au)
- Sydney Water (sydneywater.com.au)
- WaterNSW (waternsw.com.au)
- Icon Water (iconwater.com.au)
- Essential Energy (essentialenergy.com.au)
- Rous Water (rouswater.nsw.gov.au)
- Warragamba (warragamba.net.au)
- Delta Electricity (de.com.au)
- Trustpower (trustpower.co.nz)
- SunWiz (solaratabase.sunwiz.com.au)
- ANU Solar Thermal Group (stg.anu.edu.au)
- Randwick City Council (<http://www.randwick.nsw.gov.au/>)
- Infigen Energy (infigenenergy.com)
- CSIRO (csiro.au)
- The Solar Project (thesolarproject.com.au)
- Dubbo Solar Hub (dubbosolarhub.com.au)
- Renew Economy (reneweconomy.com.au)
- Griffith Solar Farm (griffithsolarfarm.com.au)
- Greenforce Energy (greenforcesolar.com.au)
- National Renewable Energy Laboratory (nrel.gov/csp/solarpaces)

- Energy Matters (energymatters.com.au)
- Australian Solar Thermal Energy Association (austela.com.au)
- Lord Howe Island Board (lhib.nsw.gov.au)
- Manly Hydraulics Laboratory (mhl.nsw.gov.au/services/renewable.php)
- Australian Technology Park Sydney (atp.com.au)
- Parliament of New South Wales (parliament.nsw.gov.au)
- Solgen Energy Group (solgen.com.au)
- NSW Government Public Works (publicworks.nsw.gov.au/)
- University of New South Wales (sustainability.unsw.edu.au/
sustainabilityreport.unsw.edu.au)
- ACT Government archived media releases (<http://info.cmcd.act.gov.au/archived-media-releases/media.html>)
- Architecture and Design (architectureanddesign.com.au)
- Yass Tribune (yasstribune.com.au)
- Solar Choice (solarchoice.net.au)
- Wauchope Gazette (wauchopegazette.com.au)
- Solar Professionals (solarprofessionals.com.au)
- Utick (utick.com.au)
- Tyrrell's Wines (tyrrells.com.au/story/environment/energy-efficiency)
- Photon Energy (en.photonenergy.com/our-projects)
- Autonomous Energy (autonomousenergy.com)
- Manufacturers' Monthly (manmonthly.com.au)
- Port Stephens Examiner (portstephensexaminer.com.au)
- Bollson Australia (bollsonenergy.com.au)
- HCB Solar (hcb-solar.com.au)
- Fotowatio Renewable Ventures (frv.com)
- Coffs Harbour City Council (coffsharbour.nsw.gov.au)
- Superior Solar (superiorsolar.com.au)
- ABC (abc.net.au)
- Nickel Energy (nickelenergy.com.au)
- Moree Solar Farm (moreesolarfarm.com.au)
- Menai High School (menai-h.schools.nsw.edu.au)
- Northern Rivers Waste (northernriverswaste.com.au)
- EcoGeneration (ecogeneration.com.au/news)
- Georges River Council (georgesriver.nsw.gov.au)
- Solar PV Commercial (solarpv.net.au)
- Sustainable Renewable Energy Company (srec.com.au)
- Newcastle Herald (theherald.com.au)
- IKEA (ikea.com)
- SolarAustralia (solaraus.com.au)
- Sustainability Matters (sustainabilitymatters.net.au)
- ACT Government Education Directorate
(education.act.gov.au/publications_and_policies/publications_a-z/annual_report/annual-report-2013-2014/Section-B/b4-ecologically-sustainable-development)
- Smart Commercial Solar (smartcommercialsolar.com.au)
- Great Lakes Advocate (greatlakesadvocate.com.au)
- HARELEC Solar Power Specialists (harelec.com.au)
- Woolworths (woolworthslimited.com.au)
- Oilseed Products Australia (oilseeds.com.au/index.html)
- Blue Mountains Solar (bluemountainssolar.com.au)
- Sydney Theatre Company (sydneytheatre.com.au)
- The Fifth Estate (thefifthestate.com.au)
- SolarSwitch (solarswitchaustralia.worldsecuresystems.com)
- Australian Manufacturing (australianmanufacturing.com.au)
- Aspen Commercial Interiors (aspeninteriors.com.au/solar-panel-information)
- Allkotes (allkotes.com.au)
- Horizon Solar Technologies (specials.horizonsolar.net.au)
- ABB (abbaustralia.com.au)
- Sydney Morning Herald (smh.com.au)
- One Step Off The Grid (onestepoffthegrid.com.au)
- Todae Solar (todaesolar.com.au)
- Union Fenosa Wind Australia (unionfenosa.com.au)

- Taralga Wind Farm (taralga-windfarm.com.au)
- White Rock Wind Farm (whiterockwindfarm.com)
- Gullen Range Wind Farm (gullenrangewindfarm.com)
- Boco Rock Wind Farm (bocorockwindfarm.com.au)
- Origin Energy (originenergy.com.au)
- Acciona (acciona.com.au)
- Newtricity (newtricity.com.au)
- Kyoto Energy Park (kyotoenergypark.com.au)
- Sapphire Wind Farm (sapphirewindfarm.com.au)
- Uungula Wind Farm (uungulawindfarm.com.au)

Note: This dataset has been reviewed as part of the NSW Renewable Energy Mapping Project update (version 1.2, May 2017).

The following updates have been applied:

Solar Power Generators

- 100kW minimum generator size applied to the dataset
- Additional 35 new solar generators included in the dataset
- 15 solar generators were removed from the dataset (did not meet the 100kW minimum size)

Wind Power Generators

- Three wind generators owners have changed, with the attributes updated to reflect this

Hydro Power Generators

- One hydro power generator was removed from the dataset

The data is now current as of May 2017.

[Hide Lineage ▲](#)

Geoprocessing history ▼

Distribution ►

DISTRIBUTOR ►

CONTACT INFORMATION

INDIVIDUAL'S NAME Director of Geoscience Information
 ORGANIZATION'S NAME NSW Resources and Geoscience, Geological Survey of NSW
 CONTACT'S ROLE publisher

CONTACT INFORMATION ►

PHONE

VOICE 02 4931 6588

ADDRESS

TYPE physical
 DELIVERY POINT 516 High Street
 CITY Maitland
 ADMINISTRATIVE AREA New South Wales
 POSTAL CODE 2320
 COUNTRY AU
 E-MAIL ADDRESS geoscience.info@industry.nsw.gov.au

ONLINE RESOURCE

LOCATION <http://www.resourcesandenergy.nsw.gov.au>
 NAME NSW Resources and Energy website
 DESCRIPTION The website of the NSW Department of Planning & Environment, Division of Resources and Geoscience
 FUNCTION PERFORMED information

[Hide Contact information ▲](#)

[Hide Distributor ▲](#)

DISTRIBUTION FORMAT

* NAME File Geodatabase Feature Class

VERSION 10.3.1

[Hide Distribution ▲](#)

Fields ►

DETAILS FOR OBJECT [Hydro_Power_Generators ►](#)

* TYPE Feature Class

* ROW COUNT 35

DEFINITION

Renewable energy infrastructure points

DEFINITION SOURCE

Charlotte Barry

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.

[Hide Field OBJECTID ▲](#)

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.

[Hide Field Shape ▲](#)

FIELD Name ▶

- * ALIAS Name
- * DATA TYPE String
- * WIDTH 50
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

Name of the renewable energy generator facility.

DESCRIPTION SOURCE

GSNSW

[Hide Field Name ▲](#)

FIELD Owner ▶

- * ALIAS Owner
- * DATA TYPE String
- * WIDTH 50
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

Current owner of the renewable energy generator facility.

DESCRIPTION SOURCE

GSNSW

[Hide Field Owner ▲](#)

FIELD Fuel_Type ▶

- * ALIAS Fuel type
- * DATA TYPE String
- * WIDTH 50
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

Describes the source of renewable energy (e.g. landfill methane, bagasse, etc. are sources of bioenergy).

DESCRIPTION SOURCE

GSNSW

[Hide Field Fuel_Type ▲](#)

FIELD Technology ▶

- * ALIAS Technology
- * DATA TYPE String
- * WIDTH 50
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

Describes the specific technology used to generate electricity from renewable energy sources (e.g. turbines for wind energy).

DESCRIPTION SOURCE

GSNSW

[Hide Field Technology ▲](#)

FIELD Commissioned ►

- * ALIAS Commissioned
- * DATA TYPE String
- * WIDTH 50
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

The year in which the renewable energy generator first became operational.

DESCRIPTION SOURCE

GSNSW

[Hide Field Commissioned ▲](#)

FIELD Status ►

- * ALIAS Status
- * DATA TYPE String
- * WIDTH 50
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

Describes the operational status of the renewable energy generator (e.g. operational, under construction).

DESCRIPTION SOURCE

GSNSW

[Hide Field Status ▲](#)

FIELD Primary_Reference ►

- * ALIAS Primary reference
- * DATA TYPE String
- * WIDTH 50
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

Main source of data/information.

DESCRIPTION SOURCE

GSNSW

[Hide Field Primary_Reference ▲](#)

FIELD Modified_Date ►

- * ALIAS Modified date
- * DATA TYPE String
- * WIDTH 50
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

The date of when the information was last updated.

DESCRIPTION SOURCE

GSNSW

[Hide Field Modified_Date ▲](#)

FIELD Comments ►

- * ALIAS Comments
- * DATA TYPE String
- * WIDTH 254
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

Additional information.

DESCRIPTION SOURCE

GSNSW

[Hide Field Comments ▲](#)

FIELD Megawatt_Capacity ►

- * ALIAS Megawatt capacity
- * DATA TYPE Single
- * WIDTH 4
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

Numerical value of the installed capacity of the renewable energy generator in megawatts (MW).

DESCRIPTION SOURCE

GSNSW

[Hide Field Megawatt_Capacity ▲](#)

FIELD Latitude ►

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

FIELD DESCRIPTION

Latitudinal coordinate of the point (GDA94).

DESCRIPTION SOURCE

GSNSW

[Hide Field Latitude ▲](#)

FIELD Longitude ►

- * ALIAS Longitude
- * DATA TYPE Double
- * WIDTH 8
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

Longitudinal coordinate of the point (GDA94).

DESCRIPTION SOURCE

GSNSW

[Hide Field Longitude ▲](#)

FIELD Alternative_reference ►

- * ALIAS Alternative reference
- * DATA TYPE String
- * WIDTH 250
- * PRECISION 0
- * SCALE 0

FIELD DESCRIPTION

Alternative sources of data/information.

DESCRIPTION SOURCE

GSNSW

[Hide Field Alternative_reference ▲](#)

[Hide Details for object Hydro_Power_Generators ▲](#)

[Hide Fields ▲](#)

References ►

PORTRAYAL CATALOGUE CITATION ►

TITLE Hydro power generators
PUBLICATION DATE 2016-07-25 00:00:00
REVISION DATE 2017-05-23 00:00:00
CREATION DATE 2016-05-01 00:00:00

EDITION 1.2
EDITION DATE 2017-05-23

PRESENTATION FORMATS digital map
FGDC GEOSPATIAL PRESENTATION FORMAT vector digital data

OTHER CITATION DETAILS

It is recommended that this dataset be referred to as:

Wade S.L., Barry C.M., Nelson M.D. & Gammridge L. (compilers) 2017. Renewable energy map of New South Wales, Version 1.2 (Digital Dataset). Geological Survey of New South Wales, Maitland.

Please note the raw data has been collated from various sources (see lineage statement)

[Hide Portrayal catalogue citation ▲](#)

[Hide References ▲](#)

Metadata Details ►

- * METADATA LANGUAGE English (AUSTRALIA)
- * METADATA CHARACTER SET utf8 - 8 bit UCS Transfer Format

METADATA IDENTIFIER FD550973-A418-408F-B262-A816A68AF232

SCOPE OF THE DATA DESCRIBED BY THE METADATA * dataset
SCOPE NAME * dataset

* LAST UPDATE 2017-07-18

ARCGIS METADATA PROPERTIES

METADATA FORMAT ArcGIS 1.0
METADATA STYLE ISO 19139 Metadata Implementation Specification
STANDARD OR PROFILE USED TO EDIT METADATA ISO19139

CREATED IN ARCGIS FOR THE ITEM 2016-06-21 13:02:48
LAST MODIFIED IN ARCGIS FOR THE ITEM 2017-07-18 94:91:80

AUTOMATIC UPDATES

HAVE BEEN PERFORMED Yes
LAST UPDATE 2017-07-18 09:46:00

[Hide Metadata Details ▲](#)

Metadata Contacts ►

METADATA CONTACT

INDIVIDUAL'S NAME Director of Geoscience Information
ORGANIZATION'S NAME NSW Resources and Geoscience, Geological Survey of NSW
CONTACT'S ROLE publisher

CONTACT INFORMATION ►

PHONE
VOICE 02 4931 6588

ADDRESS

TYPE physical
DELIVERY POINT 516 High Street
CITY Maitland
ADMINISTRATIVE AREA New South Wales
POSTAL CODE 2320
COUNTRY AU
E-MAIL ADDRESS geoscience.info@industry.nsw.gov.au

ONLINE RESOURCE

LOCATION <http://www.resourcesandenergy.nsw.gov.au>
NAME NSW Resources and Energy website
DESCRIPTION The website of the NSW Department of Planning & Environment, Division of Resources and Geoscience
FUNCTION PERFORMED information

[Hide Contact information ▲](#)

[Hide Metadata Contacts ▲](#)

Metadata Maintenance ►

MAINTENANCE

UPDATE FREQUENCY unknown

[Hide Metadata Maintenance ▲](#)

Thumbnail and Enclosures ►

THUMBNAIL

THUMBNAIL TYPE JPG

[Hide Thumbnail and Enclosures ▲](#)

FGDC Metadata (read-only) ▼