

Circular Economy Ontology Network (CEON) - Energy

Metadata

IRI

<http://w3id.org/CEON/ontology/energy/>

Title

Circular Economy Ontology Network
(CEON) - Energy

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Version Iri

<http://w3id.org/CEON/ontology/energy/0.1/>

Version Info

0.1

Preferred Namespace Prefix

energy

Preferred Namespace Uri

<http://w3id.org/CEON/ontology/energy/>

Description

A module of the CEON ontology network
defining aspects of the energy concept.

Covers Requirements

Covers the following requirements from
Onto-DESIDE D2.3: CE1-2, CE4-3, CE6-3,
CE7-4, CE8-2, CE10-7, CE10-9, CE11-6,
CE12-5.

Classes

Anergy^C

IRI <http://w3id.org/CE0N/ontology/energy/Anergy>

Sub Class Of [Energy^C](#)

In Range Of [hasAnergy^{op}](#)

Biofuel^C

IRI <http://w3id.org/CE0N/ontology/energy/Biofuel>

Sub Class Of [Biomass^C](#)

Biogas^C

IRI <http://w3id.org/CE0N/ontology/energy/Biogas>

Sub Class Of [Biomass^C](#)

Biomass^c

IRI <http://w3id.org/CEON/ontology/energy/Biomass>

Sub Class Of [EnergySource^c](#)

Super Class Of [Biofuel^c](#)
[Biogas^c](#)

Coal^c

IRI <http://w3id.org/CEON/ontology/energy/Coal>

Sub Class Of [FossilFuel^c](#)

Energy^c

IRI <http://w3id.org/CEON/ontology/energy/Energy>

Sub Class Of <http://w3id.org/CEON/ontology/resourceODP/Resource>

In Domain Of [hasEnergySource^{op}](#)

Super Class Of [Anergy^c](#)
[Exergy^c](#)
[NonRenewableEnergy^c](#)
[RenewableEnergy^c](#)

Energy Composition^c

IRI	http://w3id.org/CEON/ontology/energy/EnergyComposition
<u>Sub Class Of</u>	http://w3id.org/CEON/ontology/actorODP/ResourceParticipation
<u>In Domain Of</u>	hasEnergyComponentPercentage^{dp}

Energy Conversion^c

IRI	http://w3id.org/CEON/ontology/energy/EnergyConversion
<u>Sub Class Of</u>	http://w3id.org/CEON/ontology/actorODP/ResourceRelation

Energy Infrastructure^c

IRI	http://w3id.org/CEON/ontology/energy/EnergyInfrastructure
<u>Sub Class Of</u>	http://w3id.org/CEON/ontology/actorODP/Infrastructure

Energy Source^c

IRI <http://w3id.org/CEON/ontology/energy/EnergySource>

In Domain Of [hasCarbonIntensity^{dp}](#)
[hasSustainability^{dp}](#)

In Range Of [hasEnergySource^{op}](#)

Super Class Of [Biomass^c](#)
[FossilFuel^c](#)
[GeothermalEnergySource^c](#)
[Hydropower^c](#)
[SolarEnergySource^c](#)
[Wind^c](#)

Exergy^c

IRI <http://w3id.org/CEON/ontology/energy/Exergy>

Sub Class Of [Energy^c](#)

In Range Of [hasExergy^{op}](#)

Fossil Fuel^c

IRI <http://w3id.org/CEON/ontology/energy/FossilFuel>

Sub Class Of [EnergySource^c](#)

Super Class Of [Coal^c](#)
[NaturalGas^c](#)
[Petroleum^c](#)

Geothermal Energy Source^c

IRI <http://w3id.org/CEON/ontology/energy/GeothermalEnergySource>

Sub Class Of [EnergySource^c](#)

Hydropower^c

IRI <http://w3id.org/CEON/ontology/energy/Hydropower>

Sub Class Of [EnergySource^c](#)

Natural Gas^C

IRI <http://w3id.org/CEON/ontology/energy/NaturalGas>

Sub Class Of [FossilFuel^C](#)

Non Renewable Energy^C

IRI <http://w3id.org/CEON/ontology/energy/NonRenewableEnergy>

Sub Class Of [Energy^C](#)

Petroleum^C

IRI <http://w3id.org/CEON/ontology/energy/Petroleum>

Sub Class Of [FossilFuel^C](#)

Renewable Energy^C

IRI <http://w3id.org/CEON/ontology/energy/RenewableEnergy>

Sub Class Of [Energy^C](#)

Solar Energy Source^C

IRI <http://w3id.org/CEON/ontology/energy/SolarEnergySource>

Sub Class Of [EnergySource^C](#)

Wind^C

IRI <http://w3id.org/CEON/ontology/energy/Wind>

Sub Class Of [EnergySource^C](#)

Object Properties

has energy^{op}

IRI <http://w3id.org/CEON/ontology/energy/hasAnergy>

Sub Property Of <http://w3id.org/CEON/ontology/actorODP/participatingObject>

Range [Anergy^C](#)

has converted energy^{op}

IRI	http://w3id.org/CEON/ontology/energy/hasConvertedEnergy
<u>Sub Property Of</u>	http://w3id.org/CEON/ontology/actorODP/participatingResource
<u>Range</u>	RenewableEnergy^c <i>or</i> NonRenewableEnergy^c

has energy source^{op}

IRI	http://w3id.org/CEON/ontology/energy/hasEnergySource
<u>Domain</u>	Energy^c
<u>Range</u>	EnergySource^c

has exergy^{op}

IRI	http://w3id.org/CEON/ontology/energy/hasExergy
<u>Sub Property Of</u>	http://w3id.org/CEON/ontology/actorODP/participatingObject
<u>Range</u>	Exergy^c

has original energy^{op}

IRI <http://w3id.org/CEON/ontology/energy/hasOriginalEnergy>

Sub Property Of <http://w3id.org/CEON/ontology/actorODP/participatingResource>

Range [RenewableEnergy^c](#) *or* [NonRenewableEnergy^c](#)

participating energy^{op}

IRI <http://w3id.org/CEON/ontology/energy/participatingEnergy>

Sub Property Of <http://w3id.org/CEON/ontology/actorODP/participatingSubject>

Datatype Properties

has carbon intensity^{dp}

IRI <http://w3id.org/CEON/ontology/energy/hasCarbonIntensity>

Domain [EnergySource^c](#)

has energy component percentage^{dp}

IRI <http://w3id.org/CEON/ontology/energy/hasEnergyComponentPercentage>

Domain [EnergyComposition^c](#)

has sustainability^{dp}

IRI <http://w3id.org/CEON/ontology/energy/hasSustainability>

Domain [EnergySource^c](#)

Annotation Properties

description^{ap}

IRI <http://purl.org/dc/elements/1.1/description>

contributor^{ap}

IRI <http://purl.org/dc/terms/contributor>

created^{ap}

IRI <http://purl.org/dc/terms/created>

creator^{ap}

IRI <http://purl.org/dc/terms/creator>

description^{ap}

IRI <http://purl.org/dc/terms/description>

license^{ap}

IRI <http://purl.org/dc/terms/license>

title^{ap}

IRI <http://purl.org/dc/terms/title>

preferred namespace prefix^{ap}

IRI <http://purl.org/vocab/vann/preferredNamespacePrefix>

preferred namespace uri ^{ap}	
IRI	http://purl.org/vocab/vann/preferredNamespaceUri

covers requirements ^{ap}	
IRI	http://www.ontologydesignpatterns.org/schemas/cpannotationschema.owl#coversRequirements

definition ^{ap}	
IRI	http://www.w3.org/2004/02/skos/core#definition

pref label ^{ap}	
IRI	http://www.w3.org/2004/02/skos/core#prefLabel

Namespaces

: <http://w3id.org/CEON/ontology/energy/>
 dc <http://purl.org/dc/elements/1.1/>
 dcterms

<http://purl.org/dc/terms/>

geo

<http://www.opengis.net/ont/geosparql#>

odp

<http://www.ontologydesignpatterns.org/schemas/cpannotationschema.owl#>

owl

<http://www.w3.org/2002/07/owl#>

prov

<http://www.w3.org/ns/prov#>

rdf

<http://www.w3.org/1999/02/22-rdf-syntax-ns#>

rdfs

<http://www.w3.org/2000/01/rdf-schema#>

skos

<http://www.w3.org/2004/02/skos/core#>

vann

<http://purl.org/vocab/vann/>

Legend

c	Classes
op	Object Properties
dp	Data type Properties
ap	Annotation Properties