

Circular Economy Ontology Network (CEON) - Energy Module

Metadata

IRI

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

Title

Circular Economy Ontology Network (CEON) - Energy Module

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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 D3.2: CE1-2, CE4-3, CE6-3, CE7-4, CE8-2, CE10-7, CE10-9, CE11-6, CE12-5.

Classes

Biofuel ^c
IRI http://w3id.org/CEON/ontology/energy/Biofuel
Sub Class Of Biomass ^c
Biogas ^c
IRI http://w3id.org/CEON/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	NonRenewableEnergy^c RenewableEnergy^c

Energy Composition^c

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

Energy Conversion^c

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

Energy Infrastructure^c

IRI	http://w3id.org/CEON/ontology/energy/EnergyInfrastructure
Sub Class Of	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](#)

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 anergy^{op}

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

Sub Property Of [http://w3id.org/CEON/ontology/actorODP/participatingObject](#)

has converted energy^{op}

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

Sub Property Of [http://w3id.org/CEON/ontology/actorODP/participatingResource](#)

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

has energy source^{op}

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

Domain [Energy^c](#)

Range [EnergySource^c](#)

has exergy^{op}

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

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

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/cpannotation schema.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	Datatype Properties
ap	Annotation Properties