Circular Economy Ontology Network (CEON) - Energy Module

Metadata

IRI

`http://w3id.org/CEON/ontology/energy/`

Title

Circular Economy Ontology Network (CEON) - Energy Module

Publisher

Onto-DESIDE

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Version Iri

http://w3id.org/CEON/ontology/energy/0.2/

Version Info

0.2

Prior Version

0.1

Preferred Namespace Prefix

ceon-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} WindEnergySource ^{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 Energy Source ^C

IRI `http://w3id.org/CEON/ontology/energy/WindEnergySource`

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 NonRenewableEnergy^C *or* RenewableEnergy ^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	NonRenewableEnergy ^c *or* RenewableEnergy ^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
Range	xsd:double

has energy component percentage ^{dp}

IRI	`http://w3id.org/CEON/ontology/energy/hasEnergyComponentPercentage`
Domain	EnergyComposition ^c
Range	xsd:double

has sustainability ^{dp}

IRI	`http://w3id.org/CEON/ontology/energy/hasSustainability`
Domain	EnergySource ^c
Range	xsd:double

Namespaces

:

`http://w3id.org/CEON/ontology/energy/`

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#

vann

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

xsd

http://www.w3.org/2001/XMLSchema#

Legend

c	Classes
op	Object Properties
dp	Datatype Properties