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

Anergy [C]

IRI	`http://w3id.org/CEON/ontology/energy/Anergy`
Sub Class Of	Energy [C]
In Range Of	hasAnergy [op]

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	Anergy ^C Exergy ^C 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]

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 anergy [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`
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
Range	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/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