

# OEO Developer Meeting #24

## Pads:

- Pad to this meeting: <https://etherpad.wikimedia.org/p/oeo-dev-24>
- Pad for next meeting: <https://etherpad.wikimedia.org/p/oeo-dev-25>
- Notes from last meeting: <https://etherpad.wikimedia.org/p/oeo-dev-23>

**Date:** 09.09.2021, 10:00 -- xx:xx

## Preparation:

- Read last protocol: <https://github.com/OpenEnergyPlatform/ontology/wiki/OEO-developer-meetings>
- Check issues for next release: <https://github.com/OpenEnergyPlatform/ontology/milestones>
- Load software (GitHub, git, Protégé, DFN)

## Agenda

- one of the next meetings: CHK organises a meeting on **restructuring oil and petroleum products** issue <https://github.com/OpenEnergyPlatform/ontology/issues/811>
- **continuation of the last meeting: renewable needs a rework**
  - <https://github.com/OpenEnergyPlatform/ontology/issues/741>
  - Latest idea:
    - Redefine **origin** as proposed: *Origin is a quality that indicates where a portion of matter or energy comes from (its source).*
    - Redefine **renewable** that it can be applied to energy classes only: *Renewable is an origin **of portions of matter or energies** that replenish on a human time scale.*
    - Changes of axioms:
      - Delete axiom: air 'has origin' some renewable
      - Delete axiom: biofuel 'has origin' some renewable
      - Delete axiom: solid biofuel 'has origin' some renewable
      - Delete axiom: liquid biofuel 'has origin' some renewable
      - Delete axiom: renewable municipal waste fuel
      - Delete axiom: photon 'has origin' some renewable
      - Delete axiom: water 'has origin' some renewable
      - Add axiom: renewable disjoint with fossil
  - Define new class **renewable energy**: *A renewable energy is an energy that has renewable origin.*
  - Define new class **renewable energy carrier disposition**: *A renewable energy carrier disposition is an energy carrier disposition of a material entity that contains renewable energy.*

- Redefine **renewable energy carrier**: *A renewable energy carrier is an energy carrier that has a renewable origin **renewable energy carrier disposition**.*
  - Redefine **renewable fuel**: *A renewable fuel is a fuel that has a renewable origin and an energy carrier disposition that is used as a fuel **renewable energy carrier disposition**.*
    - Water, hydro energy and renewable:
      - *Hydro energy is kinetic energy of moving liquid water which can result directly from its potential energy.*
      - Define new subclass of hydro energy that is hydro energy from collected water occurring naturally (rain water, melted snow and ice), That would get the axiom has origin some renewable. Label: something like **natural hydro energy** --> make marine energy subclasses
        - *Natural hydro energy is hydro energy that results from a water flow that is part of the natural water cycle. --> new issue: define natural water cycle (?)*
          - axiom: uses water body
      - **Pumped hydro energy**
        - *Pumped hydro energy is hydro energy that results from a water flow of pumped water.*
          - axiom: uses pumped water
      - Connect hydro energy transformation to new hydro energy subclasses
      - Add subclasses of hydro electric energy transformation --> is not needed
      - Define new subclass of hydro energy that is hydro energy from pumped water using any electrical energy and thus is not per se renewable.
      - Define something like renewable pumped hydro energy that is hydro energy from pumped water using renewable electrical energy.
      - Problem: We do not have a concept renewable electrical energy yet but it could be defined as an equivalent class electrical energy and has origin some renewable (or even electrical energy and has origin only renewable?
        - conclusion that we do not need a distinction between renewable and non-renewable pumped hydro energy
      - Add axiom: marine current energy has origin some renewable
      - Add axiom: marine tidal energy has origin some renewable
      - Add axiom: marine wave energy has origin some renewable
      - Implementation: Mirjam, help Lukas
    - **geothermal energy has disposition some renewable fuel has to be replaced**
      - ⇒ <https://github.com/OpenEnergyPlatform/ontology/issues/809>
      - ⇒ Proposal: geothermal energy has origin some renewable
- BREAK 10min
- **Focus of the upcoming release 1.7.0 on October 01, 2021 @all**
  - <https://github.com/OpenEnergyPlatform/ontology/milestone/8>
  - 15 open issues, 1 open PR, 1 draft PR
  - Important/urgent issues:
  - Renewables (see above): <https://github.com/OpenEnergyPlatform/ontology/issues/741>
  - Some annotation properties are missing in modules: <https://github.com/OpenEnergyPlatform/ontology/issues/617>

- oil and petroleum products should be restructure (KS has contacted CHK but no response so far): <https://github.com/OpenEnergyPlatform/ontology/issues/811> => need separate meeting, move to release 1.8.0?
- **Potential special meetings:**
  - Missing terms for economic agent-based modelling  
<https://github.com/OpenEnergyPlatform/ontology/issues/839>
  - UF is currently out of office
  - Meta Issue: Collection of new OEO terms originating from LOD-GEOSS
  - <https://github.com/OpenEnergyPlatform/ontology/issues/822>
  - HG could participate on a dev meeting on 07th of October and prepare issue. CHK will also want to attend this meeting. Meeting #26 organisor should contact HG for detailed plan.
- **IAMC Terms Priority List and Term Definitions (MJP)**
  - <https://github.com/OpenEnergyPlatform/ontology/issues/593>
  - spreadsheet at <https://ethercalc.net/=1zgponiz8r>
  - tier 0 (Mandatory) 29 variables and 26 terms
  - tier 1 (Highest Priority) 173 variables and 81 *additional* terms
  - plan:
    - ⇒ find existing classes in the OEO encapsulating those terms
    - ⇒ identify terms that are missing classes (and add to-dos)
    - ⇒ use post-composition (outside the ontology) definitions on existing terms to describe variables
    - ⇒ later move post-composition definitions into the ontology (pre-composition)
  - Tier 0 Terms:
    - ⇒ Biomass:
      - we have solid biofuel and "wood and other"
      - add biomass as concept or as alternative term? --> add biomass (without solid) as alternative term, same for other biofuels
        - *Solid biomass is a portion of matter consisting of organic, non-fossil material of biological origin which may be used as fuel for heat production or electricity generation.*
    - ⇒ liquid combustion fuel: Liquid combustion fuel is a combustion fuel that has a normal state of matter liquid.
      - fossil liquid fuels are missing, but there is already an issue for that (<https://github.com/OpenEnergyPlatform/ontology/issues/811>) --> first solve the issue and than include liquid combustion fuel
    - ⇒ secondary energy production: is a production of secondary energy carriers.
    - ⇒ has quantity value some energy amount
    - ⇒ Nuclear -> nuclear fuel OEO:00000302
    - ⇒ Non-Biomass Renewables: hydro, wind, ocean, solar, and geothermal
    - ⇒ Gas -> gaseous combustion fuel, excluding hydrogen
    - ⇒ new issue for CCS, direct air capture
    - ⇒ new issue for the concept of sector activity (energy consumption)
    - ⇒ new issue monetary price of unit carbon dioxide
    - ⇒ new issue purchase power parity (subclass economic value?)
  - implement Tier 0 including link to the template
  - if that worked, tackle Tier 1