## **OEO Developer Meeting #21**

## Pads:

• Pad to this meeting: <a href="https://etherpad.wikimedia.org/p/oeo-dev-21">https://etherpad.wikimedia.org/p/oeo-dev-21</a>

• Pad for next meeting: <a href="https://etherpad.wikimedia.org/p/oeo-dev-22">https://etherpad.wikimedia.org/p/oeo-dev-22</a>

• Notes from last meeting: <a href="https://etherpad.wikimedia.org/p/oeo-dev-20">https://etherpad.wikimedia.org/p/oeo-dev-20</a>

Date: 15.07.2021, 10:00 -- 12:00

Participants: Martin, Carsten, Hedda, Simon, Kai, Mirjam, Ulrich

moderator:

- · main reporter:
- protocol:
- next meeting organisier: Simon

## **Preparation:**

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

## Agenda

- terms from oeo-dev-markets meeting (june 25th) that needs to be discussed with Ulrich
- markup / markdown --> needed?
  - a virtual amount added or deducted to/from an assumed or historical price to predict a price in a different context
  - A markup is an economic value that indicates a virtual amount added to an assumed or historical price to predict a price in a different context.
  - A markdown is an economic value that indicates a virtual amount deducted from an assumed or historical price to predict a price in a different context.
- product
  - something that is marketed or sold as a commodity
  - service: A service is a process that is an intangible actitvity performed by some agent for the benefit of another agent.
  - commodity: A commodity role is a role that inheres in something that is used in commerce and is exchangeable with other commodities of the same type.
    - alternative term: product
- **input / output power** need to be discussed
  - <a href="https://github.com/OpenEnergyPlatform/ontology/issues/737">https://github.com/OpenEnergyPlatform/ontology/issues/737</a>
  - Description of the issue:
    - This originally came from #736 and was about axioms connecting artificial objects to power wrongly (see section Original issue). However, the discussion shifted to a possible distinction between input power and output power.
      - Do we need this distinction?

- How would this affect our current concept of power?
- How should we connect power to energy transformations?
- 3 concepts: energy, power and energy transformation -> they need to be connected
- rdfs:comment: power is the derivative of energy transformation over time
- this issue needs more preparation and people
- Is in every energy transformation a material entity participating?
  - https://github.com/OpenEnergyPlatform/ontology/issues/714
    - Discussion in issue #673 went off-topic as a longish discussion started on whether in every energy transformation a material entity participating. There are different views on whether such an axiom energy transformation has participant some material entity.
    - Pro: The class energy transformation itself is very abstract and hence the axiom
      must be abstract. But the subclasses are less abstract and hence the derived axioms
      for the subclasses will be less abstract. The inclusion of the axioms ensures that for
      every energy transformation one has to think not only about the energy side but also
      on the material side.
    - Con: The proposed axiom is very abstract. Hence it seems not to be directly useful in the energy modelling domain / in energy economics.
  - the axiom in question: <u>`energy transformation has participant some material entity`</u>
  - What kinds of material entities are participating in energy transformations?
    - solar energy transformation: photons (included in the OEO as a material entity) -> is this relevant in practice?
    - material entities are not always relevant in practice, but always exist
  - (A) We could add the axiom, but only specify it further for processes where this is relevant
    - e.g. biomass -> electrical energy has participant some biomass
    - consequence for reasoning: for photovoltaic energy transformation, an anonymous individual would be added (without much meaning)
  - (B) We could not add the axiom for energy transformation, but for certain subtransformations
    - more complicated workflow
  - conclusion: choose option (A)