

OEO Developer Meeting #22

Pads:

- Pad to this meeting: <https://etherpad.wikimedia.org/p/oeo-dev-22>
- Pad for next meeting: <https://etherpad.wikimedia.org/p/oeo-dev-23>
- Notes from last meeting: <https://etherpad.wikimedia.org/p/oeo-dev-21>

Date: 29.07.2021, 10:00 -- 12:00

Participants: Simon, Lukas, Hannah, Carsten, Christian, Hedda

- moderator: Simon
- protocol: Hannah, Christian
- next meeting organisier: Christian, Hannah

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

OEO-dev meetings

cancel next one (12.08.2021) @CH Mail to all
next meeting thus is on 26.08.2021

Special meetings

- In dev meeting 17 (<https://etherpad.wikimedia.org/p/oeo-dev-17>) three specialized meetings were proposed:
 - relations - not done
 - structuring oeo-model -
 - <https://github.com/OpenEnergyPlatform/ontology/issues/254> (CollaborativeProgramming)
 - --> ready for implementation
 - <https://github.com/OpenEnergyPlatform/ontology/issues/187> (~~mathematical objective of a model~~)
 - closed
 - <https://github.com/OpenEnergyPlatform/ontology/issues/183> (handles uncertainty)
 - <https://github.com/OpenEnergyPlatform/ontology/issues/179> (crawling from EnArgus/DBpedia)
 - state of EnArgus? --> CH sends an email to openmod/SC
 - response: nothing new
 - at least for a mapping
 - make poll

- decision: no extra meeting for this
 - discuss in a regular meeting #183 and #179
- - economic issues - took place <https://etherpad.wikimedia.org/p/oeo-dev-markets>
 - When should the other meetings take place?

Wind Technology Terms for Annotation of technology data:

- Within LOD-GEOSS we use a small set of technology data sets as a sample.

- Idee: metaissue anlegen und von da aus ein extra treffen ausmachen und die issues (vor) besprechen --> ToDo Hedda
- Categorize yellow color --> ToDo Hedda
 - Ähnlicher Vorgang war bei diesen Metaissues hilfreich:
 - <https://github.com/OpenEnergyPlatform/ontology/issues/376>
 - <https://github.com/OpenEnergyPlatform/ontology/issues/256>
 - In diesem kleineren Treffen dann vordefiniert und diskutiert für weiteren handlungsbedarf: <https://etherpad.wikimedia.org/p/oeo-dev-markets>
- - https://openenergy-platform.org/dataedit/view/model_draft/wind_turbine_domestic_lod_geoss_tp
 - https://openenergy-platform.org/dataedit/view/model_draft/wind_turbine_onshore_lod_geoss_tp
 - https://openenergy-platform.org/dataedit/view/model_draft/wind_turbine_offshore_lod_geoss_tp
 - https://openenergy-platform.org/dataedit/view/model_draft/wind_turbine_nearshore_lod_geoss_tp

We have analysed the collumn headers and need a number of additional terms in the ontology for annotation:

OEO Entsprechungen des Wind-Datensatzes der DEA

Rot:

- Unit --> entity/continuant/independant continuant/unit (andere Definition) --> WindEnergyConvertingUnit? (rot)
- Average --> (rot)
- Annual --> (rot)
- Full-load --> (rot)
- Forced Outage --> (rot)
- Planned Outage --> (rot)
- Space --> (rot)
- Requirement --> (rot)
- Nominal --> (rot)

- Capacity Factor --> (rot)
- Availability --> (rot)

Gelb:

- Equipment -->entity/continuant/generically dependent continuant/
information content entity/Variable/Cost/ (gelb)
- Grid connection -->entity/continuant/generically dependent
continuant/information content entity/Variable/Cost/ (gelb)
- Rent of land -->entity/continuant/generically dependent continuant/
information content entity/Variable/Cost/ (gelb)
- Decommissioning -->entity/continuant/generically dependent
continuant/information content entity/Variable/Cost/ (gelb)
- Other costs -->entity/continuant/generically dependent continuant/
information content entity/Variable/Cost/ (gelb)
- Rotor diameter --> entity/continuant/independant continuant/
material entity/object/EnergyConvertingDevice/Turbine/
WindTurbine (gelb)
- Hub height --> entity/continuant/independant continuant/material
entity/object/EnergyConvertingDevice/Turbine/WindTurbine (gelb)
- Specific power --> entity/continuant/independant continuant/unit/
power unit (gelb)
- Lifetime --> entity/continuant/independant continuant/
immaterial entity/unit/time unit (gelb)
- Construction time --> entity/continuant/independant continuant/
immaterial entity/unit/time unit (gelb)

Grün:

- Capacity --> available under alternative term (declared net
capacity and others)
 - add alternative term `capacity` for all ... capacity classes for
disambiguation
- Investment --> entity/continuant/generically dependent continuant/
information content entity/Variable/Cost/InvestmentCost (grün)
- Fixed O&M --> entity/continuant/generically dependent
continuant/information content entity/Variable/Cost/
FixedOperationCost (grün)
- Variable O&M --> entity/continuant/generically dependent
continuant/information content entity/Variable/Cost/
VariableOperationCost (grün)
- hours --> entity/continuant/independant continuant/
immaterial entity/unit/time unit/hour (grün)

Input / output power

- <https://github.com/OpenEnergyPlatform/ontology/issues/737>
- do we need these concepts?
- how are energy, power and energy transformation related in
general?
 - sum inputs needs to be sum outputs (when there is no
storage)

- may 2 concepts be needed? gesamte umgesetzte leistung und leistung einzelner energiefluss?
- **Original definition:**
- **Energy transformation** is a process in which one or more certain types of energy as input result in certain types of energy as output.
 - 'has physical input' some energy
 - 'has physical output' some energy
 - **'has process attribute' some power (to be added)**
- **New proposal:**
- **Energy transformation** is a process in which input power results in output power
 - "has process attribute" power
 - "has physical input" some energy
 - "has physical output" some energy
- How to relate power to specific inputs and outputs?
- Power is the process attribute that is the amount of energy transformed or transferred per time unit.
 - 'process attribute of' some 'energy transformation'
 - 'has unit' some 'power unit' (axiom missing)
- Power unit: A unit which is a standard measure power or the rate of doing work.
- define subproperties of `has process attribute`:
 - **`has total power`**: A relation between an energy transformation and its total power.
 - not needed: (`has input / output power` : A relation between an energy transformation and one of its incoming / outgoing energy flows.)
- **`has time derivate`**: A relation between an energy and a power where the power describes the flow of energy over a certain time.
- connection between energy transformation and input / output powers: xxx energy transformation has input some xxx energy, xxx energy has time derivate some power
- use `has total power` for relating energy transformation and the sum of its input / output powers

ENVO mapping

- <https://github.com/OpenEnergyPlatform/ontology/issues/636>
- https://docs.google.com/spreadsheets/d/1EJ_c_t1WQhi_hLvAe8RIhUqZ0tdhKpKfce53fwXX44A/edit?usp=sharing
- term pairs which are *not* equivalent are marked in yellow, potentially interesting discussion points in blue
- conclusion from dev meeting 19: use owl:equivalentClass-relation with literals
- suggestion: implement mapping now, open new issues for more complex restructuring tasks arising from this issue
- special session around september for some terms (e.g. various oil products), invite external expert

- @simon implements decisions and creates issues from discussion within table

Prepare for next meeting:

Update of renewable origin (Simon prepares)

- <https://github.com/OpenEnergyPlatform/ontology/issues/741>
- summary of the discussion:<https://github.com/OpenEnergyPlatform/ontology/issues/741#issue-872122638>
- open problems:
 - how to deal with only sometimes renewable classes (e.g. pumped water)
 - Should we / how can we relate energy to origin?