READ\_ME\_ENERGY

The excel file ‘Energy data 17.04’ includes interfaces and processors for PES to EC conversion applicable for EU case studies (8 countries) analyzed in D4.2, including: electricity, heat and fuel generation.

The dataset is still in progress and will be updated in the upcoming days (sources, achronyms and paramenters).

The sources of data include Eurostat datasets (e.g. nrg\_101a, sbs\_na\_ind\_r2 ) for top-down accounting and data from report, LCA databases, etc for bottom-up accounting. The sources are detailed in the Appendix 1 of the Deliverable 4.2.

* The spreadsheets ‘hierarchy PES’ and ‘hierarchy EC’ show the semantic relations across the different levels
* The spreadsheets ‘processors PES’ and ‘processors EC’ include:

**Level**: numeric; theoretical for semantic coherence: refers to the hierachical level taken into account according to ‘hierarchy PES’ and ‘hierarchy EC’

**Uuid**: universally unique identifier

**Name**: name of the processor; string; human readable and not necessarily unique

**Categorization**: general name for the activity; string;

**activity S1/F1 details**: string; refers to the hierarchical level of the process and specifies its activity at level 1

**S2/F2 details:** string; refers to the hierarchical level of the process and specifies its activity at level 2

**country geographic-extent**: string; ISO-3166 code

**geographic-reference**: string; e.g. 'national', 'city', 'regional'

**temporal-extent:** string; e.g. 'year', 'day'

**temporal-reference:** string; e.g. '2015' , '05/07/1985'

**parent-uuid:** string; optional and used for hierarchical composition of processors

**dependency-type:** string; optional (when derived from parameters)

**dependency-value-unitary:** numeric; can be hierarchical or sequential (for now only hierarchical dependencies have been included). Specifies how lower-level processes are aggregated into higher level ones (their aggregation values). Numbers are given as unitary percentages.

* The spreadsheets ‘interfaces\_PES’ and ‘interfaces\_EC’ nclude:

**Uuid:** universally unique identifier

**processor-uuid orientation:** string; input or output

**name:** string; human readable and not necessarily unique

**abbreviation:**

**domain:** string; 'human'/'environmental' or 'technosphere'/'biosphere'

**type:** string; flow or fund or stock

**categorization:** string; derived from concatenated values of case-specific categorizations

**value (intensive):** the intensive value of the process, always scaled by the output (the output for which all values are scaled by, in the case of multiple outputs, is the one with a unitary intensive value)

**value (extensive):** extensive values of the process, referring to the specific country and year (= intensive values \* main output)

**unit:** string; preferably an SI unit (without prefix), may also be a unit uuid referenced in a separate 'units' worksheet….'unit's are always in extensive terms, whereby an intensive unit is implicit by the setting of a 'dependency' interface (in this sense similar to 'value')

* The Spreadsheet ‘interfaces functional’:

Presents values derived from top-down statistics (Eurostat), to be compared with the ones derived from bottom-up processor data. Processor values are at the level 0 for electricity and level 1 for refineries and biofuels. These processors can be compared with the ones at the same level of the previous sheet.