Regulating Offshore Grids

Research Data Summary

List and describe all datasets or research materials that you plan to generate/collect or reuse during your research project. For each dataset or data type (observational, experimental etc.), provide a short name & description (sufficient for yourself to know what data it is about), indicate whether the data are newly generated/collected or reused, digital or physical, also indicate the type of the data (the kind of content), its technical format (file extension), and an estimate of the upper limit of the volume of the data.

Dataset name / ID	Description	New or reuse	Digital or Physical data	Data Type	File format	Data volume	Physical volume
		Indicate: N(ew data) or E(xisting data)	Indicate: D(igital) or P(hysical)	Indicate: Audiovisual Images Sound Numerical Textual Model SOftware Other (specify)		Indicate: <1GB <100GB <1TB <5TB >5TB NA	
Open-source energy system models	Open-source energy system models (e.g., Pypsa-EUR/Calliope)	E	D	Model, Software	Miscellaneous files (.py; .jl)	<1GB	NA
Input data	Data obtained from different sources (e.g., ENTSO-E/Elia/IEA)	E	D	Numerical, Textual	Miscellaneous files (.xlsx; .csv; .pdf)	<1GB	NA
Post-processing input data	Data obtained from different sources (e.g., ENTSO-E/Elia/IEA)	N	D	Numerical	CSV files (.csv)	<1GB	NA
Models	Models developed as part of the different work packages	N	D	Model	Julia files (.jl) / Python files (.py)	<1GB	NA
Documentation of the models	Documentation of the developed models	N	D	Textual	Text files (.txt)	<1GB	NA
Model results	Simulation results consistent with the results published in papers and the thesis	N	D	Numerical	CSV files (.csv)	<5GB	NA
Intermediate reports, papers, final reports	All papers and written reports	N	D	Textual	PDF files (.pdf)	<1GB	NA
Presentations	All presentations (e.g., internal, conference)	N	D	Textual	PowerPoint files (.pptx)	<1GB	NA

If you reuse existing data, please specify the source, preferably by using a persistent identifier (e.g. DOI, Handle, URL etc.) per dataset or data type:

· Details will be further specified throughout the PhD.

Are there any ethical issues concerning the creation and/or use of the data (e.g. experiments on humans or animals, dual use)? If so, refer to specific datasets or data types when appropriate and provide the relevant ethical approval number.

- No

Will you process personal data? If so, please refer to specific datasets or data types when appropriate and provide the KU Leuven or UZ Leuven privacy register number (G or S number).

- No

Does your work have potential for commercial valorization (e.g. tech transfer, for example spin-offs, commercial exploitation, …)? If so, please comment per dataset or data type where appropriate.

- No

Do existing 3rd party agreements restrict exploitation or dissemination of the data you (re)use (e.g. Material or Data transfer agreements, Research collaboration agreements)? If so, please explain in the comment section to what data they relate and what restrictions are in place.

- No

Are there any other legal issues, such as intellectual property rights and ownership, to be managed related to the data you (re)use? If so, please explain in the comment section to what data they relate and which restrictions will be asserted.

- No

Documentation and Metadata

Clearly describe what approach will be followed to capture the accompanying information necessary to keep data understandable and usable, for yourself and others, now and in the future (e.g. in terms of documentation levels and types required, procedures used, Electronic Lab Notebooks, README.txt files, codebook.tsv etc. where this information is recorded).

- Each work package will have a dedicated folder containing all relevant documentation, including input data, model files, results, and reports.
- A README.txt file will be created for each work package, describing the data collection process, the content of the datasets/models and references to other important documents. The structure of the README files follows the example documentation provided by KU Leuven (README files — Research Data Management)
- A standardized file naming convention will be used to name raw and analyzed data.
- All code files will have explanatory comments to facilitate their understanding and future use.

Will a metadata standard be used to make it easier to find and reuse the data?
If so, please specify which metadata standard will be used.

If not, please specify which metadata will be created to make the data easier to find and reuse.

- No

Metadata will be created manually by the researcher containing all relevant data. An excel table will be generated for each file. This table will contain the following metadata:

- Title
- Author
- Subject
- Description
- Date
- Type
- Format
- Source
- Language
- Extra

Data Storage & Back-up during the Research Project

Where will the data be stored?

- Sharepoint online
- Other (specify below)

OneDrive (KU Leuven)

How will the data be backed up?

- Standard back-up provided by KU Leuven ICTS for my storage solution

Is there currently sufficient storage & backup capacity during the project?

If no or insufficient storage or backup capacities are available, explain how this will be taken care of.

- Yes

How will you ensure that the data are securely stored and not accessed or modified by unauthorized persons?

Access is protected by two-factor authentication, only the account owner can access the account drive.

What are the expected costs for data storage and backup during the research project? How will these costs be covered?

The costs for KU Leuven storage are financed by the KU Leuven.

Data Preservation after the end of the Research Project

Which data will be retained for 10 years (or longer, in agreement with other retention policies that are applicable) after the end of the project?

In case some data cannot be preserved, clearly state the reasons for this (e.g. legal or contractual restrictions, storage/budget issues, institutional policies...).

- All data will be preserved for 10 years according to KU Leuven RDM policy

Where will these data be archived (stored and curated for the long-term)?

- Other (specify below)

Shared network drive (K-drive)

What are the expected costs for data preservation during the expected retention period? How will these costs be covered?

Costs are limited and will be covered by the researched group.

Data Sharing and Reuse

Will the data (or part of the data) be made available for reuse after/during the project?
Please explain per dataset or data type which data will be made available.

- Yes, as restricted data (upon approval, or institutional access only)

If access is restricted, please specify who will be able to access the data and under what conditions.

The data will be available for reuse by other researchers within the research group. Everything can be retrieved from the archive drive of the research group. Researchers from outside the research group can request specific data via email.

Are there any factors that restrict or prevent the sharing of (some of) the data (e.g. as defined in an agreement with a 3rd party, legal restrictions)?

Please explain per dataset or data type where appropriate.

- No

Where will the data be made available?

If already known, please provide a repository per dataset or data type.

- Other (specify below)

Final data files will be archived on the “(K:)” network drive of the research group.
All peer reviewed articles will be deposited in the trusted repositories, e.g. Lirias.
When academic journals require data files for reproducibility, these will be shared with them.

When will the data be made available?

- Upon publication of research results

Which data usage licenses are you going to provide?

If none, please explain why.

- MIT licence (code)

Do you intend to add a persistent identifier (PID) to your dataset(s), e.g. a DOI or accession number? If already available, please provide it here.

- No

What are the expected costs for data sharing? How will these costs be covered?

No costs are expected for data sharing.

Responsibilities

Who will manage data documentation and metadata during the research project?

Floor Serrien

Who will manage data storage and backup during the research project?

Floor Serrien

Who will manage data preservation and sharing?

Floor Serrien

Who will update and implement this DMP?

Floor Serrien