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## Plan Overview

*A Data Management Plan created using DMPonline*

**Title:** Behavioural theory in ABMs about household load shifting

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**Affiliation:** Delft University of Technology

**Template:** TU Delft Data Management Plan template (2021)

### Project abstract:

Broadly: integration of behavioural science and ABM

Specifically: household load shifting (shifting electricity use to another part of the day to prevent congestion of the electricity grid)

Topic of interest: perceived hassle as a psychological barriers to household load shifting

**ID:** 138538

**Start date:** 01-02-2023

**End date:** 01-02-2027

**Last modified:** 17-07-2024

### Copyright information:

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# Behavioural theory in ABMs about household load shifting

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## 0. Administrative questions

### 1. Name of data management support staff consulted during the preparation of this plan.

Nicolas Dintzner

### 2. Date of consultation with support staff.

2024-07-17

## I. Data description and collection or re-use of existing data

### 3. Provide a general description of the type of data you will be working with, including any re-used data:

Type of data	File format(s)	How will data be collected (for re-used data: source and terms of use)?	Purpose of processing	Storage location	Who will have access to the data
Pseudo anonymized survey data of Eneco clients owing solar panels	Excel	Eneco collected the data	to understand how household perceive different kinds of load shifting, and what they perceive as barriers	dedicated U drive (ETLWP1)	me and my promotor (Gerdien de Vries)
pseudo anonymized trial data: emails opened, click trough rates	Excel	Eneco collected the data	to understand how household perceive different kinds of load shifting, and what they perceive as barriers	dedicated U drive (ETLWP1)	me and my promotor (Gerdien de Vries)
pseudo anonymized trial data: smart meter consumption data	Excel	Eneco collected the data	to understand how household perceive different kinds of load shifting, and what they perceive as barriers	dedicated U drive (ETLWP1)	me and my promotor (Gerdien de Vries)

### 4. How much data storage will you require during the project lifetime?

- 250 GB - 5 TB

not sure yet, but will probably on the low side in this category

## II. Documentation and data quality

### 5. What documentation will accompany data?

- Methodology of data collection
- README file or other documentation explaining how data is organised
- Data dictionary explaining the variables used

### III. Storage and backup during research process

6. Where will the data (and code, if applicable) be stored and backed-up during the project lifetime?

- Project Storage at TU Delft

### IV. Legal and ethical requirements, codes of conduct

7. Does your research involve human subjects or 3rd party datasets collected from human participants?

- Yes

8A. Will you work with personal data? (information about an identified or identifiable natural person)

*If you are not sure which option to select, first ask your [Faculty Data Steward](#) for advice. You can also check with the [privacy website](#) . If you would like to contact the privacy team: [privacy-tud@tudelft.nl](mailto:privacy-tud@tudelft.nl), please bring your DMP.*

- Yes

Survey and trial data (perceived barriers to load shifting, intentions to load shift, preference for information). The survey is programmed by me and conducted by Eneco. I will receive pseudo anonymous data. See JCA.

8B. Will you work with any other types of confidential or classified data or code as listed below? (tick all that apply)

*If you are not sure which option to select, ask your [Faculty Data Steward](#) for advice.*

- No, I will not work with any confidential or classified data/code

9. How will ownership of the data and intellectual property rights to the data be managed?

*For projects involving commercially-sensitive research or research involving third parties, seek advice of your [Faculty Contract Manager](#) when answering this question. If this is not the case, you can use the example below.*

see cooperation agreement Eneco / The Behaviouralist / us. Data will be used for publication purposes, no licenses are involved.

10. Which personal data will you process? Tick all that apply

- Gender, date of birth and/or age
- Other types of personal data - please explain below

household energy consumption data

household composition (# of people)

ownership / rental information

Building age (year)

**11. Please list the categories of data subjects**

Eneco clients with solar panels in the Netherlands

**12. Will you be sharing personal data with individuals/organisations outside of the EEA (European Economic Area)?**

- No

**15. What is the legal ground for personal data processing?**

- Informed consent

Eneco has informed consent from clients

**16. Please describe the informed consent procedure you will follow:**

Eneco only includes clients who approve the use of their survey and consumption data for research

**17. Where will you store the signed consent forms?**

- Other - please explain below

Eneco handles the informed consent.

**18. Does the processing of the personal data result in a high risk to the data subjects?**

If the processing of the personal data results in a high risk to the data subjects, it is required to perform [Data Protection Impact Assessment \(DPIA\)](#). In order to determine if there is a high risk for the data subjects, please check if any of the options below that are applicable to the processing of the personal data during your research (check all that apply).

If two or more of the options listed below apply, you will have to [complete the DPIA](#). Please get in touch with the privacy team: [privacy-tud@tudelft.nl](mailto:privacy-tud@tudelft.nl) to receive support with DPIA.

If only one of the options listed below applies, your project might need a DPIA. Please get in touch with the privacy team: [privacy-tud@tudelft.nl](mailto:privacy-tud@tudelft.nl) to get advice as to whether DPIA is necessary.

If you have any additional comments, please add them in the box below.

- Evaluation or scoring
- Data processed on a large scale
- Systematic monitoring
- Matching or combining datasets

Survey data (n= ~4000 Eneco clients with solar panels) will be coupled with trial data (email data, energy consumption data) by Eneco based on a fake client ID.

**19. Did the privacy team advise you to perform a DPIA?**

- No

We met, started the DPIA checklist and Arvin (privacy officer TPM) eventually advised against it

**22. What will happen with personal research data after the end of the research project?**

- Other - please explain below
- Anonymised or aggregated data will be shared with others

With a retention time of 1 year for publication purposes

**23. How long will (pseudonymised) personal data be stored for?**

- Other - please state the duration and explain the rationale below

A retention period of 1 year after the termination of the international project (which means storage until end of March 2027)

**24. What is the purpose of sharing personal data?**

- Other - please explain below

We are not sharing personal data (we are receiving some by Eneco, but we won't reshare it)

**25. Will your study participants be asked for their consent for data sharing?**

- Yes, in consent form - please explain below what you will do with data from participants who did not consent to data sharing

Yes, informed consent is handled by Eneco

## **V. Data sharing and long-term preservation**

**27. Apart from personal data mentioned in question 22, will any other data be publicly shared?**

- All other non-personal data (and code) underlying published articles / reports / theses

Data from survey question and intervention emails (click through etc) will be published on aggregated level

**29. How will you share research data (and code), including the one mentioned in question 22?**

- All anonymised or aggregated data, and/or all other non-personal data will be uploaded to 4TU.ResearchData with public access

when published under DOI

**30. How much of your data will be shared in a research data repository?**

- < 100 GB

**31. When will the data (or code) be shared?**

- At the end of the research project
- As soon as corresponding results (papers, theses, reports) are published

**32. Under what licence will be the data/code released?**

- CC BY

## **VI. Data management responsibilities and resources**

**33. Is TU Delft the lead institution for this project?**

- No - please provide details of the lead institution below and TU Delft's role in the project
- a cooperation is set up between The Behaviouralist (TB), Eneco and TUD. TB is in the lead.

**34. If you leave TU Delft (or are unavailable), who is going to be responsible for the data resulting from this project?**

My promotor (Gerdien de Vries) , or head of department of MAS within TPM when she leaves TUD.

**35. What resources (for example financial and time) will be dedicated to data management and ensuring that data will be FAIR (Findable, Accessible, Interoperable, Re-usable)?**

No extra costs on storage or software or publication are foreseen yet