



FPS Economy, S.M.E.s, Self-employed and Energy

ECOFLEX

Report on market schematic and stakeholder mapping

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Abstract for dissemination (PU)

This document presents the steps that were followed to map the most relevant stakeholders of the ECOFLEX project. The mapping is based on the most recent schema of the solution to be built.

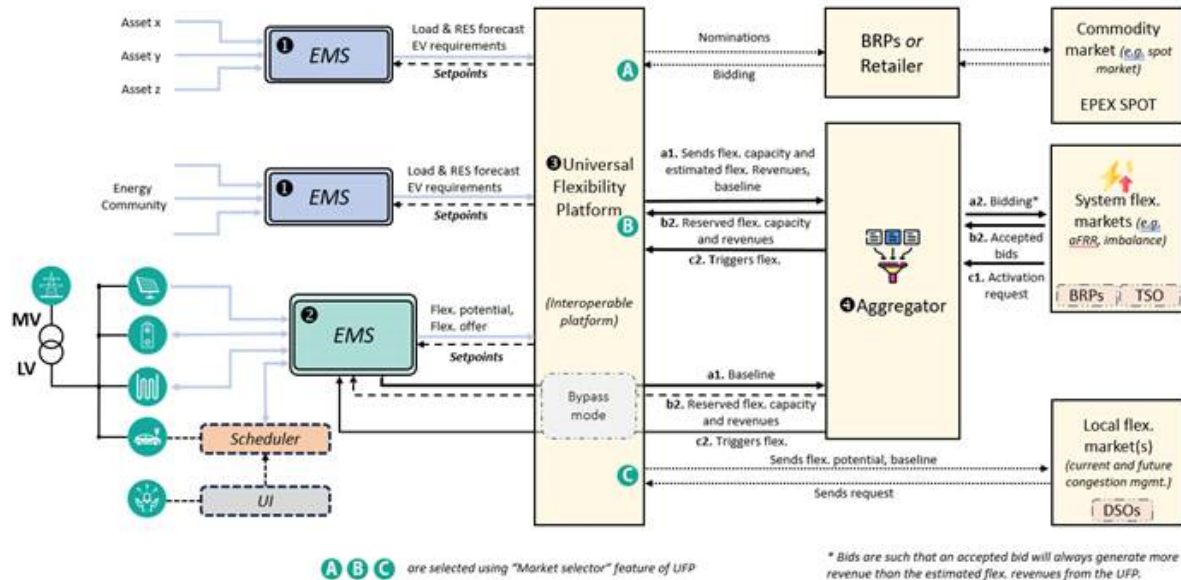
Contents

1. Schema of the Ecoflex solution.....	3
2. Goal of stakeholder mapping.....	3
3. Stakeholder mapping and engagement overview	3
4. Stakeholder mapping details.....	4
4.1. Asset owners.....	4
4.2. EMS systems (products and operators)	5
4.3. OEM's (products with integrated EMS).....	6
4.4. Aggregators	6
4.5. Distribution system operators.....	7
4.6. Energy suppliers/BRPs.....	7
4.7. TSO as frequency flexibility market party	7
4.8. Regulators.....	7
4.9. Policy makers (federal, regional)	8
4.10. The public.....	8

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1. Schema of the Ecoflex solution

The ECOFLEX project will deliver a platform to unlock flexibility of assets on the distribution grid. These assets will be managed by an existing EMS or by a new-to-be-built EMS system, that maximises flexibility of assets like e-charging stations. The overall solution looks like this.



2. Goal of stakeholder mapping

Stakeholders are listed, consulted and engaged in flexibility. Their needs, interests and expectations will be gathered using surveys and translated into general 'objectives' for the flexibility solution.

3. Stakeholder mapping and engagement overview

Stakeholder mapping

Based on the solution schema and the interactions with existing actors, the following stakeholders are investigated:

- Asset owners
- EMS systems (products and operators)
- OEM's (products with integrated EMS)
- Aggregators

The previously described stakeholders seem to be the most specific ones to target within the Ecoflex project. They will be convinced to participate in the new flexibility ecosystem, by providing their assets, configure their EMS or use the provided services as aggregator.

Then we have the Flexibility Requesting Parties, who will use the provided flexibility. In the first project phase they will be connected via aggregators.

- Distribution system operators
- Energy suppliers/BRPs

- TSO as frequency flexibility market party

At last we have the other stakeholders in the overall energy system.

- Regulators
- Policy makers (federal, regional)

Engagement

For each group of stakeholders a questionnaire will be build, to discover their ideas, needs and motivation to be involved in the ecosystem.

The idea is to test the questionnaire with a couple of actors from each category, during a meeting or call. This is planned for December 2023. In January 2024 more actors of the same category will be queried.

One year later, when the new system (of at least a demo version) is available, the system will be presented and feedback is requested. From each category some actors will be engaged at this moment.

4. Stakeholder mapping details

In this section, for each of the stakeholder categories, 3 elements will be listed:

- the goal: why this stakeholder is relevant in the project
- indicative questions: these questions are examples of the topics to discuss or query for
- examples of named actors in this stakeholder category

4.1. Asset owners

- Goal: The consumer must be willing to engage his or her asset(s) in new value propositions where trust and financial incentives play a major role. Determine value propositions which will convince consumers to engage their assets in flexibility services of the energy market
- Indicative questions
 - o Do you understand the growing need for flexibility in the electricity system?
 - o Do you understand the technical flexibility potential of your assets?
 - o Do you want to investigate the potential value of your flexibility?
 - o Are you eager to provide flexibility?
 - o Which elements are hindering you to enter the flexibility markets?
 - Afraid to lose comfort/driving range/functionality?
 - Actual value
 - Technical/legal issues
 - Trust in partner (incl data governance)
 - Flex should be provided by other (larger) players
 - Complexity
 - Too early

- No reference examples
 - Lack of knowledge about procedures
 - Do you have suggestions about how to circumvent these hindering elements?
- Actors in e-charging:
 - CPO's
 - Pluginvest, Bluecorner, Shell Recharge, ...
 - Last Mile Solutions
 - EV Belgium
 - Techlink/Volta (e-charging subgroup)
 - FastNed
 - Ionity
 - Elli (a brand of the Volkswagen Group)
- Actors in business areas (energy communities):
 - Edora (Wallonia),
 - Energy commune (Be-Bxl)
 - (GEP, Negundo)
 - Intercommunales (Leiedal, DDS)
 - Cluster TWEED

4.2. EMS systems (products and operators)

- Goal: To allow consumers to engage his or her asset(s) in new value propositions, the EMS system that controls the assets should allow control to provide flexibility; and this functionality should be configured/operated by someone.
- Indicative questions
 - Does your EMS allows forecasting of loads?
 - Does your EMS allows forecasting of RES production?
 - Is your EMS system capable of communicating a baseline?
 - Is your EMS system capable to communicate available flexibility (series of pairs (time, power) per 15 minutes?
 - Is you system able to adapt to Dynamic pricing (DA)?
 - Is you system able to adapt to a variable maximum power signal?
 - Is you system able to adapt to handle variable maximum power signal?
 - Is you system able to adapt to signals like increase/decrease load/production with 100%, 50%, 20%, -20%, -50%, -100%?
 - Is your system able to take local congestion into account?
 - Do you want to develop such flexibility options in your product?
 - Do you want to configure/operate such flexibility options in your product?
 - Which elements are hindering you to enter the flexibility markets?
- Actors in EMS product developers
 - Smappee, iLumen, bChain, Loxone, Lewis, Jullix, Teletask, Qbus, LifePowr, 2Wire, Energetix, Niko, Flexide energy,
- Actors in EMS configuration/operation
 - Haulogy

- Phoenix Contact

4.3. OEM's (products with integrated EMS)

- Some OEM products have embedded EMS functionality, like: smart EV-chargers, charging app for Tesla, Thermovault, smart storage systems,...
- Goal: To allow consumers to engage his or her asset(s) in new value propositions, the product (asset with integrated EMS system) should allow control to provide flexibility and this functionality should be configured/operated by someone
- Indicative questions
 - Similar to EMS?
- OEM's product developers
 - Thermovault, Flexide energy,
- OEM's configurators/operators
 - Collignon Eiffage

4.4. Aggregators

- Goal: Convince them that a lot of (smaller) assets on the low voltage grid could offer a lot of additional flexibility in their portfolios, when an initial (smart) aggregation has already happened by a service provider.
- Indicative questions:
 - Do you think these assets are a valid source for you?
 - Business charging stations
 - (semi) private charging stations
 - Grouped home charging stations
 - Energy communities
 - Assets of businesses
 - Assets of groups of businesses
 - Individual assets (residential,...)
 - Do you think the initial smart aggregation service provider is an added value?
 - Would you use these services?
 - What would hinder you to use those services?
 - Sharing the value with an extra partner
 - Better to do it by yourself
 - Market of charging stations is not ready yet
 - Too much work for too less capacity
- Aggregators
 - Flexcity, Centrica, Yuso, Next Kraftwerke, ...
- Aggregators/suppliers:
 - Electrabel, Eneco, Luminus, TotalEnergies, RWE

4.5. Distribution system operators

- Goal: Convince them that a lot of (smaller) assets on the low voltage grid could offer a lot of flexibility to handle local congestion.
- Indicative questions:
 - o Do you think these assets can play a valuable role for you to handle local flexibility?
 - o Do you have already a congestion service specification defined?
 - o Do you think the development of a Congestion service provider (CSP) within the Ecoflex project is valuable for you too, as a pilot?
 - o What specifications exist/should apply to such a CSP service?
- DSO's
 - o Fluvius, Sibelga, RESA, ORES (6 in total in Wallonia - see www.cwape.be)

4.6. Energy suppliers/BRPs

- Goal: Convince them that a new type of aggregator (providing flexibility with only low voltage assets) could offer a lot of additional flexibility in their portfolios, to address the Commodity markets Epexspot DA, Epexspot ID
- Indicative questions:
 - o ...
- Eneco, Engie Electrabel, EDF Luminus, Ecopower, TotalEnergies, ...

4.7. TSO as frequency flexibility market party

- Goal: Convince them that a new type of aggregator (providing flexibility with only low voltage assets) could offer a lot of additional flexibility to their products, to address the frequency balance, like FCR, AFRR, MFRR
- Indicative questions:
 - o ...
- Elia

4.8. Regulators

- Goal: Convince them of the additional value of a new type of aggregator (providing flexibility with only low voltage assets) for the electric distribution/transmission system.
- Indicative questions:
 - o ...

- Brugel, CWaPE, VREG, CREG

4.9. Policy makers (federal, regional)

- Goal: Convince them of the additional value of a new type of aggregator (providing flexibility with only low voltage assets) for the electric distribution/transmission system
- Indicative questions:
 - ...
- FPS Economy, Brussels Economy and Employment, WPS Energy,

4.10. The public

- To assess societal impact, if any