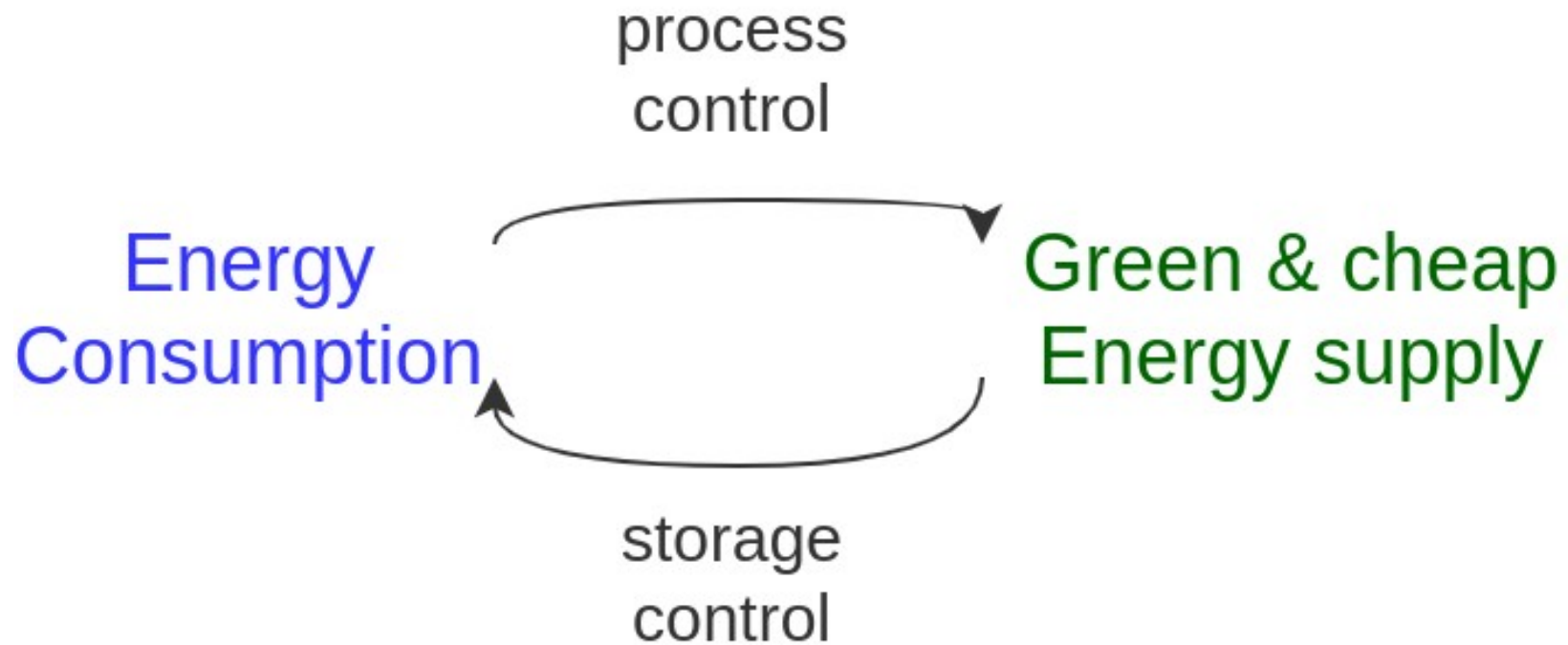# FlexMeasures Technical Steering Committee

June 27, 2024

Agenda

- Welcome & Short introduction to FlexMeasures

- What's new in v0.22?

- Roadmap for v0.23 and 1.0

- Q&A

The matching challenge

process
control

Energy
Consumption

Green & cheap
Energy supply

storage
control

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FlexMeasures is the intelligent & developer-friendly EMS to support <u>real-time energy flexibility apps</u>.

Go green in daily operations, stay in control.

- Smart industry
- Smart city

FlexMeasures - simple

Use case: SteerOnCO₂ at Rijnland Water Board

We help water board Rijnland to only run their centrifuges for sludge dehydration when the CO_2 footprint in the grid is low.

Use case: SteerOnPrice & SteerOnSolar at V2G@Home

We optimize (dis)charging of Nissan Leaf cars with Wallbox chargers to save costs and use solar power, with zero user interaction needed.

Version 0.22 is almost out

- Bootstrap 3->5

- Flex context (e.g. prices) as asset fields

- Asset audit log

- Small fixes (see link below)

https://github.com/FlexMeasures/flexmeasures/milestone/48?closed=1

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Editing flex context

Asset audit log

History of actions for asset Toy Battery

Show 10 ⌄ entries

Search: [　　　　　　　]

▾Event Datetime	⇕Event Name	⇕Acting user
5 hours ago	Updated asset 'toy-battery': 3 fields: Field name: name, Old value: toy-battery, New value: Toy Battery	toy-user (Id: 1)

Showing 1 to 1 of 1 entries

Previous **1** Next

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Scheduling: State of the art

Done

- Storage: Battery
- Storage: Heat
- Processes

Next

- Sites (start: PR#855, #1065)
- Imbalance
- Sector coupling
- Grid services
- VPP

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Ideas for version 0.23

Focus (currently):

- More information on sensor page (and histogram
- Speed up asset and account pages (#988)
- RelaxedStorageScheduler

(see also https://github.com/FlexMeasures/flexmeasures/milestone/49)

Ideas for milestone v1.0

- **Site optimization (multi-asset).** Why? Fulfill crucial milestone of mission. Current solution? Optimize flexible assets in sqeuence. Progress? Good, needs projects/testing.

- **Editable flex-model and context.** Why? Ease of use & maintenance for non-developers. Current solution? Send all info in API. Progress? PoC for flex-context (prices) but big design question remains - store on data model (use API & SQL features) or JSON (more flexible in usage and extension, needs own schemas)?

Q&A

- What are you working on?

- What is unclear?

Roadmap – Big goals

- [2022 - mature] Model & pilot e-mobility optimization (price-based, V2G)
- [2023 - started] Model & pilot heating optimization (price-based, also with heat buffers)
- [2024] Multi-asset scheduling
- [2024] Imbalance market support
- [2025] Sector coupling (optimize e-mobility and heating in one site)
- [2025] Congestion support (e.g. for DSOs in GOPACS)

Resources – do get in touch!

- https://github.com/FlexMeasures/flexmeasures/
- https://www.flexmeasures.io
- https://lists.lfenergy.org/g/flexmeasures
- https://fosstodon.org/@flexmeasures
- LF Energy Slack: #flexmeasures

FlexMeasures - integration