



# tiko-VPP and HEMS

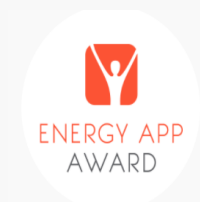
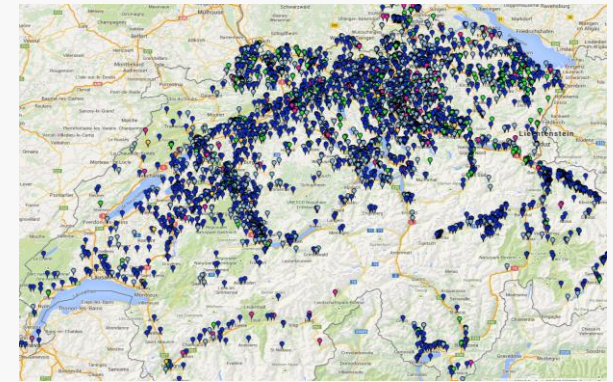
Session: Replicable Energy Storage  
Business Case

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## tiko Energy Solutions: the little Swiss start up operating one of the biggest Smart Grids in the world

- Founded in 2012 under the name « Swisscom Energy Solutions AG », with Swisscom and Repower as main stakeholders
- 37 employees, 13 different nationalities – an agile and international start-up
- Becomes tiko Energy Solutions AG in April 2018 in order to address the international markets.
- The tiko network: more than 10.000 devices connected in Switzerland (more than 7000 households), delivering ancillary services (FCR and aFRR) to the Swiss Grid since 2013, and active international developments making of tiko one of the biggest real-time Smart Grid in the world.
- Systems developed 100% in-house, from the hard- to the software, support tools, customer apps and algorithms. A range of solutions allowing customers to optimize their self-consumption and to save energy, as well as offering prized visualization tools.
- An award-winning app: winners of the Energy Management Award from the European Utility Week in 2016, and finalists of the Energy App Award in 2017.

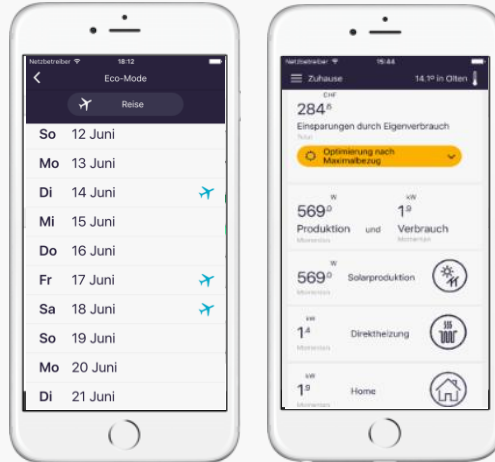


# tiko: a unique, industrial grade, real-time, universal platform



# The value proposition covers most of customer needs

- Control and insight
- Energy efficiency and savings
- Consumer empowerment



## Still some work to be done on the regulatory side

### Clean Energy Package - EMD

- Art. 16 (2a): Local energy communities to become balancing responsible party?
- Art. 17 (3) da): imbalances → It is the very nature of FCR that it does not involve energy, as it is geared to the stabilisation of the frequency.

### Clean Energy Package - EPBD

- Transposition of the EPBD
- Delegated act
- Definition of the Smart Readiness Indicator

### ENTSO-E

- Harmonise pre-qualification criteria
  - Technology agnostic requirements
  - Rely on established global IT standards
  - Common testing procedures
- Future-proof product design
  - Differentiate technical capability of providers, for example, by a pay as performance-based remuneration
  - Including characteristics of providers into design and operation of control loops

