

WP607 - E1-Load Balancing - Services

Gerd Heilscher, Holger Ruf
Ulm University of Applied Sciences
Meeting #4 – July 03rd to 05th 2012



ENDORSE (Energy DOWnstReam SErvices)

Providing energy components for GMES



Results from User Assessment

Important impact of services

- Increasing the knowledge about the investment needed for the grid planning, due to rising decentralized energy input
- Improve accurate planning
- Improve efficiency of grid planning and grid management processes

Interested in additional outcomes

- Reduce error of load forecast, increase accuracy of local day ahead solar power forecast
- Reduce operational risk
- Increase Return on Invest
- Improve predictability of grid operation

Services

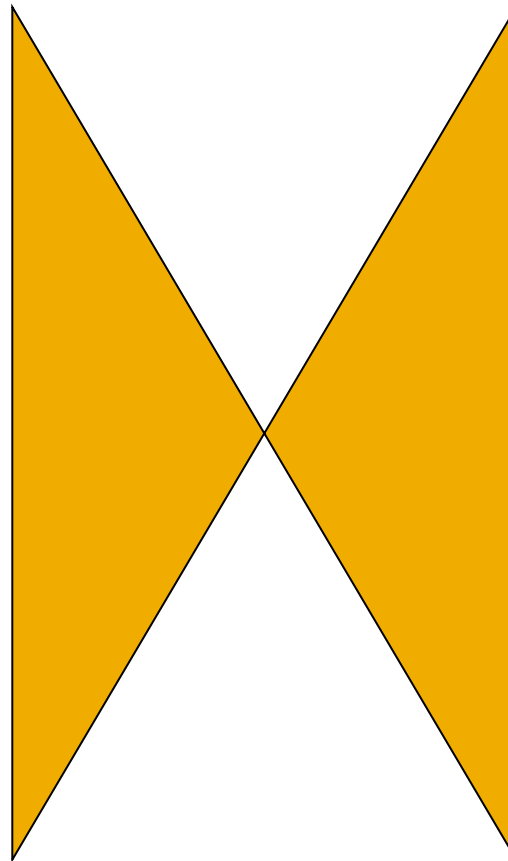


- Strategic and conceptual grid planning
 - How much PV could be installed?
 - What has to be invested into grid infrastructure
 - What is needed for a transformation to an intelligent grid
- EEG accounting / grid balancing
 - Hourly/ quarter hourly energy input from PV next day
- Grid operation (future)
 - How large is the PV power input now?
 - And in 1...3 hours?
 - Input to feed in management

Translation Service

Grid Operator

- Grid planning
- Grid operation
- Grid balancing
- Grid security
- RE Input
- Transformation of the energy system



Remote Sensing

- Reflected sunlight
- Cloud type
- GHI, DNI
- Forecast
- Spatial resolution
- Time resolution
- Spectral channels
- Measurement - models