Persuading users to align energy consumption with green power availability and grid status

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MOTIVATION

Using energy at the right time to achieve positive effects for the environment by providing access to high-quality forecasts about the future status of green energy supply and grid capacity.

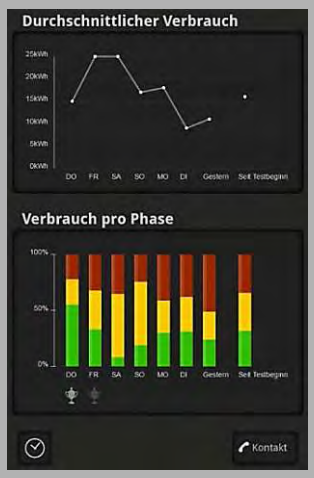
DESIGN SOLUTION

The **FORE-Watch** (**F**orecast **O**f **R**enewable **E**nergy – **Watch,** figure left**)** provides unobtrusive access to a forecast of green energy availability or alternatively grid status for the near future.

A detailed forecast for the next hour which differentiates data into 3 subcategories (different shades of red, yellow or green) is shown as a colored circle on the outer rim of the clock face. Forecast data for the next 24h is shown on a timeline using a traffic-light scheme. Statistics on past energy consumptions are available (figure left bottom).
The ambient display a regular Android tablet PC can be integrated into the consumers living space.

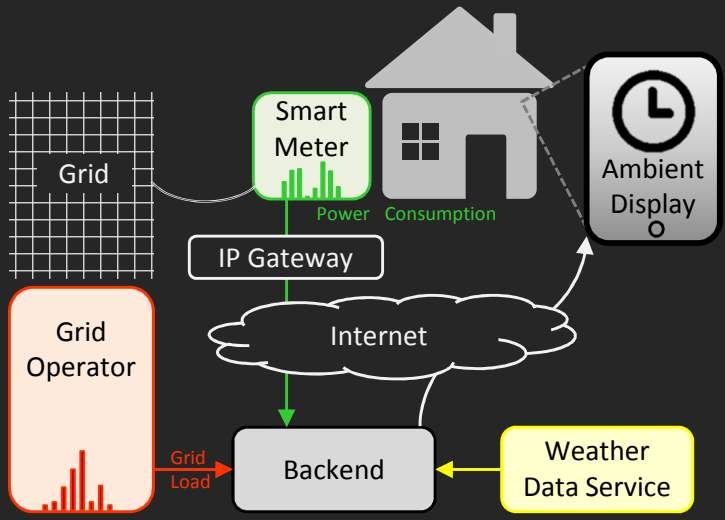
SYSTEM OVERVIEW

The display is connected via Internet to the system backend.



The backend:

- Receives forecast data on grid status from grid operator
- Alternatively an estimation for green power availability is calculated based on weather forecast data provided by a data service
- Processes data for forecasting
- Data is updated every 6h in order to avoid frequent changes in the forecast



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