

## Bright – Advanced user interface

**Participants:** Bright. Swedish energy retailers that use Bright (August 2019): Fyrfasen Energi, ETC El, Herrfors, Skånska Energi

**IEA categories:** Customer-side systems, Advanced meter infrastructure

**Time plan:** Started in 2016

**Web:** <http://www.getbright.se>

**Contact person:** Camilla Forsberg, Bright

**Location:** No physical location

### Background

Bright is an information platform that originated from the energy retail company Anova Energi. Anova developed an app for their customers, that allowed for the customer to track changes in electricity price and environmental indicators and adapt their energy usage accordingly. Bright has continued developing this app, but instead of offering it to the end customer through their own energy retail company, the digital platform is sold as a whitelabel service, SaaS, to retailing companies that in turn offer it to their customers. This approach sets Bright apart from many similar solutions, that are targeted directly at the end customers.

The software platform gives the end customer extensive data about their energy consumption and can also be used to control for example electrical vehicle charging and other smart appliances. Solar cells placed on the roof are possible to add to the app to follow their energy production. Additionally, the user gets access to forecasts about future electricity pricing and the production mix for upcoming hours, which allows for using electricity when it is cheap and low on CO<sub>2</sub>.

At the time being, the software platform has its focus on electricity retailers, but in the near future additional services will be added for electricity grid owners as well as other infrastructure services.

### Implementation of the project

Energy retailers buy the software platform from Bright and make it available to their end customers. While the application can be tailor-made for each retailer, the basic functions remains mainly the same:

- Extensive data about the customer's electricity usage. This data can either be from smart plugs and appliances installed by the user, or estimates based on data from the smart meter.
- Forecasts for electricity price and source for electricity production. This information allows for the customer to adapt their electricity usage and for example charge their electric vehicle when the price is low or when the share of renewables is high in the production. As low price often coincides with low load on the power grid this incentive the customer to move electricity usage to low load hours, which in turn helps the grid owner by shaving peaks of power usage.
- Apps to control smart appliances can be added and for example allow for the user to schedule charging their electric vehicle when the price is low or when the load is low.
- Real time monitoring of the customer's own small-scale electricity production.

In addition to this, there are functions that makes interaction between customer and energy retailer easier.

### Benefits

Bright benefits the electrical grid by making the end user aware of how they can manage their electricity consumption by presenting pricing and environmental information in a straightforward manner. If pricing and environmental signals makes the customers changing their behaviour, this lowers the load on the power grid during peak load hours. This is even more true when the automation functionality in the app is used, and heavy loads such as EV charging can be scheduled for low load situations or the heat pump can be controlled in a more efficient manner.

### Scalability

The system is highly scalable to power retailers of any size, and in the future can also be integrated with other infrastructure systems such as the power grid itself.

### Interoperability

The system relies on data that is readily available. Additional services such as scheduling EV charging, automated heat pump control and monitoring solar power production is dependent on the availability of a smart interface for the appliance itself.

### Investment horizon

Bright is yet to be used directly by a power grid owner, which makes it hard to predict how a power grid owner could use and benefit economically from using the app. Bright does however have discussions with grid owners in Sweden, that see potential for the system to make the power flows in their system more smooth and avoid peaks in power. This would economically benefit the grid owner as they could utilize the grid in a more efficient way.

### International potential

As Bright is a software platform it can be used internationally. In addition to Sweden, Bright is also integrating the service for one electricity retailer in Finland.