

# Making energy prices salient to consumers: The energy traffic light

## Motivation

Modern utilities (e.g., Tibber) now offer “real-time” tariffs based on the current market price of electricity. This might help to shift load to times when energy is abundant and cheap (e.g., lot of energy produced by renewable sources). To take full advantage of such flexible energy tariffs, households need to be aware of current energy prices in their daily lives and adapt their energy consumption accordingly.

## Task

The student shall build a "traffic light" device (Arduino/microcontrollers based) that monitors and compares energy prices for households and displays in a salient way whether now is a good time to consume energy. The thesis should also include estimations on the saving potential of such a device.

**Level:** Bachelor thesis

## Methodology

- system design, programming

## Special prerequisites

- solid programming skills, interest in work with microcontrollers

## Contact:

carlo.stingl@uni-bamberg.de