

Energy Dashboard

Solar Production

Instantaneous display of energy production from roof-mounted solar panels.

An embedded device that will measure and display the real-time power production and consumption of the Penn State Morning Star Home

Energy Balance

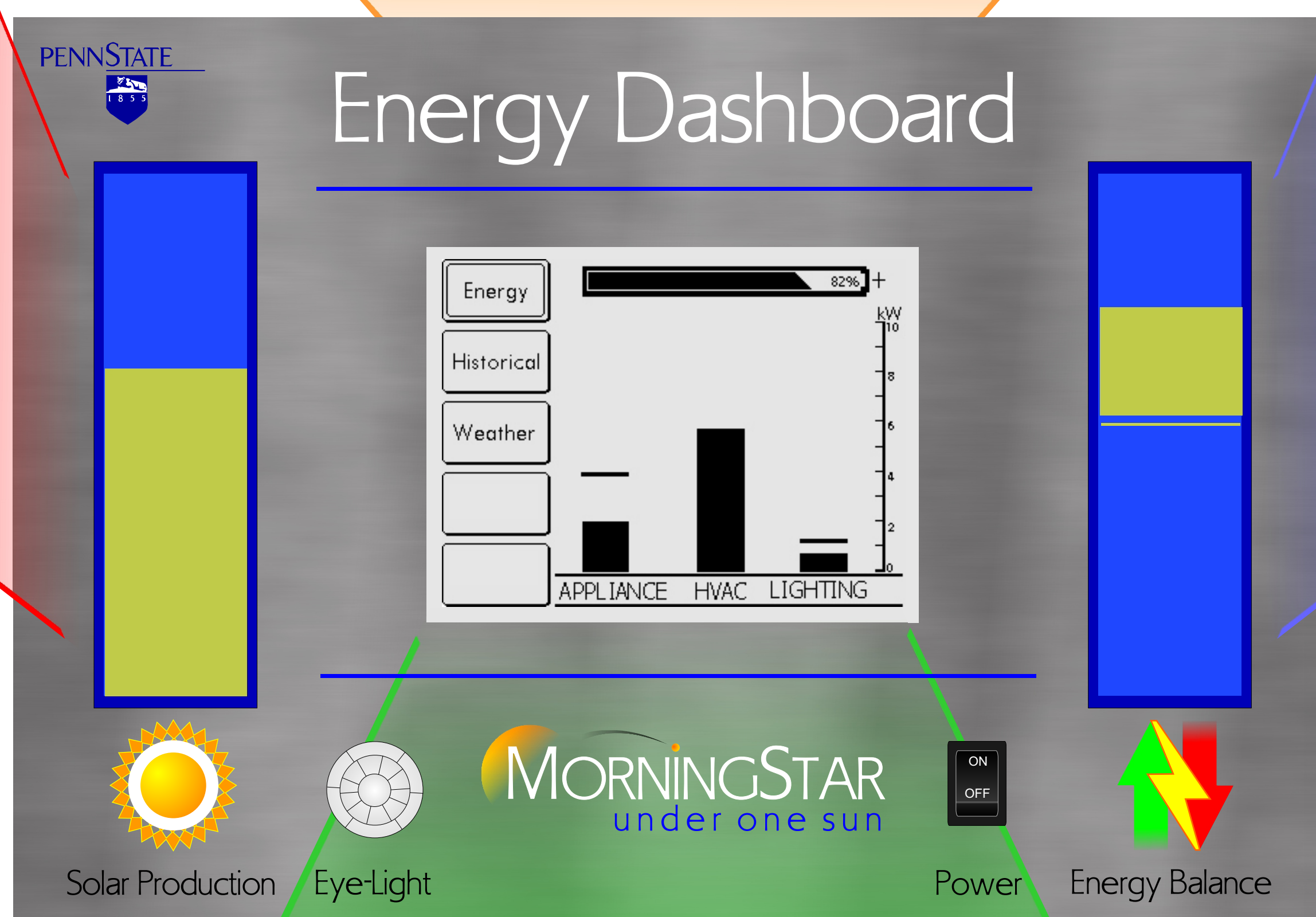
Instantaneous display of energy produced vs. energy consumed by the home.

AccuWeather.com

Updated weather and solar energy production forecasts allow occupants to best use the solar energy produced.

Web Portal

Microcontroller with TCP/IP server for stored usage data



Dashboard Display

Interactive touch screen display
Battery Life
Separated Electrical Loads
Historical Data
Weather and Energy Production

Specifications

Low Power Design
Consumes < 10W
\$0.02 a day!

"EyeLight" Sensor
Reduces power consumption
Turns back lights on only when occupants are present.

Mounts flush in wall

Receives data from external current sensors



GOAL : To design, build, and operate the most attractive and energy-efficient solar-powered home

20 International Universities Competing

Washington D.C. National Mall • October 2007

Organized By the Dept. of Energy & NREL



MorningStar Home