

Solar Display Driver

The Solar Display Driver accompanies the EnergyFlow for Tesla driver. Together they enable Control4 to integrate with Tesla energy products.

Configuration

Prerequisites

- 1. Configure the EnergyFlow for Tesla driver.

Initial configuration

- 1. Add this display driver to the project.
- 2. Go to **Connections** and find the EnergyFlow for Tesla driver.
- 3. Connect this driver to one of the `Solar State Out` bindings.

When properly configured, you can view the current Solar state in the readonly properties, including current power in watts and last updated time.

Properties

- `Cloud Status` Indicates if the license is activated, expired, or if updates are available.
- `Automatic Updates` If 'On', automatically install updates when they become available.
- `Driver Version` Numeric version of the driver.
- `Debug Mode` When 'On', print debug messages to the 'Lua' tab, and also log to the Control4 debug log.
- `Last Updated` The date and time when the Solar state was last updated. This is the last time the EnergyFlow for Tesla driver sent an update. If this is not updating, ensure the Solar Display driver is properly bound to the EnergyFlow for Tesla Solar State Out connection.
- `Solar Power (Watts)` The current power production from solar.

Programming

Events

Events will fire once when the conditions are met. For example, if current solar usage is 0 and then the solar starts producing, `Starts producing power` event will be triggered. It will not be triggered again until the solar stops producing and begins producing again. Still, it is possible for solar state to change rapidly (partly cloud says, for example) and events may fire multiple times per day.

Depending on how you program with the events you may need to debounce alerts. Users likely do not want a push notification 20 times per day as solar usage changes. However, there are other programming cases where you may want to know each and every time solar state changes.

- `Starts producing power`
- `Stops producing power`

Conditionals

Conditionals allow you to create advanced programming logic based on solar production. Available conditionals include:

- `Solar is Producing Power [True/False]` - Check whether solar panels are actively producing power
- `Solar Power in Watts is [LOGIC] [VALUE]` - Compare solar power production using logical operators with a numeric value from 0 to 30000 watts

Example uses: Trigger notifications when solar production starts or exceeds certain levels, automate device usage during peak solar production hours, or create reports based on production thresholds.

Variables

- `SOLAR_POWER_WATTS`
- `SOLAR_LAST_UPDATED`

Support

We hope you have a trouble-free experience with this driver. If you encounter problems, please contact Driver Central support as a first step. If they're unable to resolve your problem they will escalate the problem to Blessing Innovations LLC.

If there are additional features you would like to see in this driver, please submit them by creating an issue at [https://gitlab.com/dblessing/c4-](https://gitlab.com/dblessing/c4-energyflow-for-tesla/-/blob/main/solar_display/www/documentation.md?ref_type=heads)