HOW-TO
Integration into Electric Vehicle Charge Controller EVCC

Important Note

Services like REST API and MQTT require a license.

Please visit www.whatwatt.ch/pricing for more information.

Version	1.0
Date	10/03/2025

whatwatt.ch
info@whatwatt.ch

whatwatt

1.   Introduction

To integrate the whatwatt Go device with the EVCC (Electric Vehicle Charge Controller) system for monitoring power consumption, follow the steps outlined below.

2.   Prerequisites

- **EVCC Installation** · Ensure that EVCC is installed on your system. Detailed installation instructions are available in the EVCC documentation.
- **Network Connectivity** · Verify that the whatwatt Go device is connected to your local network and that you can access its REST API.
- **Authentication Details** · If the whatwatt Go device requires authentication, have the necessary credentials ready.

3.   Configuration Steps

- **Locate the EVCC Configuration File** · The main configuration file for EVCC is typically named evcc.yaml. Locate this file on your system. If it doesn't exist, you can create one based on the sample configuration.
- **Edit the Configuration File** · Open the evcc.yaml file using a text editor of your choice.
- **Add the Meter Configuration** · Insert the following configuration under the meters section to define the whatwatt Go device as a meter:

```
meters:
  - name: whatwatt_meter
    type: http
    usage: grid
    uri: http://<whatwatt_go_ip>/api/v1/report
    method: GET
    headers:
      authorization: "Basic <encoded_credentials>"
    jq: ".report.instantaneous_power.active.positive.total"
    timeout: 5s
    scale: 1
    interval: 15s
```

Explanation of Parameters

- **name** · A unique identifier for the meter within EVCC.
- **type** · Specifies the communication method; in this case, http indicates that EVCC will communicate with the meter via HTTP requests.
- **usage** · Defines the purpose of the meter. Set to grid to indicate that this meter monitors power consumption from the grid.
- **uri** · The URL endpoint of the whatwatt Go device's API. Replace <whatwatt_go_ip> with the actual IP address of your whatwatt Go device.
- **method** · The HTTP method used for the request; typically GET for retrieving data.headers: HTTP headers required for the request. If the whatwatt Go device requires Basic Authentication, replace <encoded_credentials> with the base64-encoded string of your username:password.
  - **Encoding Credentials** · To encode your credentials, you can use the following Python script:

    ```
    import base64
    credentials = „username:password"
    encoded_credentials = base64.b64encode(credentials.encode()).decode()
    print(f"Basic {encoded_credentials}")
    ```

    Replace username and password with your actual credentials. Run the script to obtain the encoded string and insert it into the Authorization header.
- **jq** · A filter expression used to extract the desired data from the JSON response. The specified path .report.instantaneous_power.active.positive.total targets the current power consumption value.

- **timeout** · Specifies the maximum time to wait for a response from the whatwatt Go device.

- **scale** · A factor to scale the retrieved value, if necessary.

- **interval** · Determines how frequently EVCC polls the meter for data. In this example, EVCC will request data every 15 seconds.

4.   Finalizing the Configuration

- **Save the Configuration File** · After adding the meter configuration, save and close the evcc.yaml file.

- **Restart EVCC** · For the changes to take effect, restart the EVCC service. The method to restart the service depends on your operating system and how EVCC was installed.

5.   Verification

- **Check EVCC Logs** · Monitor the EVCC logs to ensure that the whatwatt Go meter is being queried correctly and that data is being received without errors.

- **Access the EVCC User Interface** · Open the EVCC web interface in your browser to verify that the power consumption data from the whatwatt Go device is displayed as expected.

6.   5. Additional Resources

- **EVCC Documentation** · For more detailed information on configuring meters and other components, refer to the EVCC documentation.

- **whatwatt Go Documentation** · Consult the whatwatt Go documentation for specifics on the device's API and configuration options.

By following these steps, you can successfully integrate the whatwatt Go device into the EVCC system to monitor your household's power consumption.