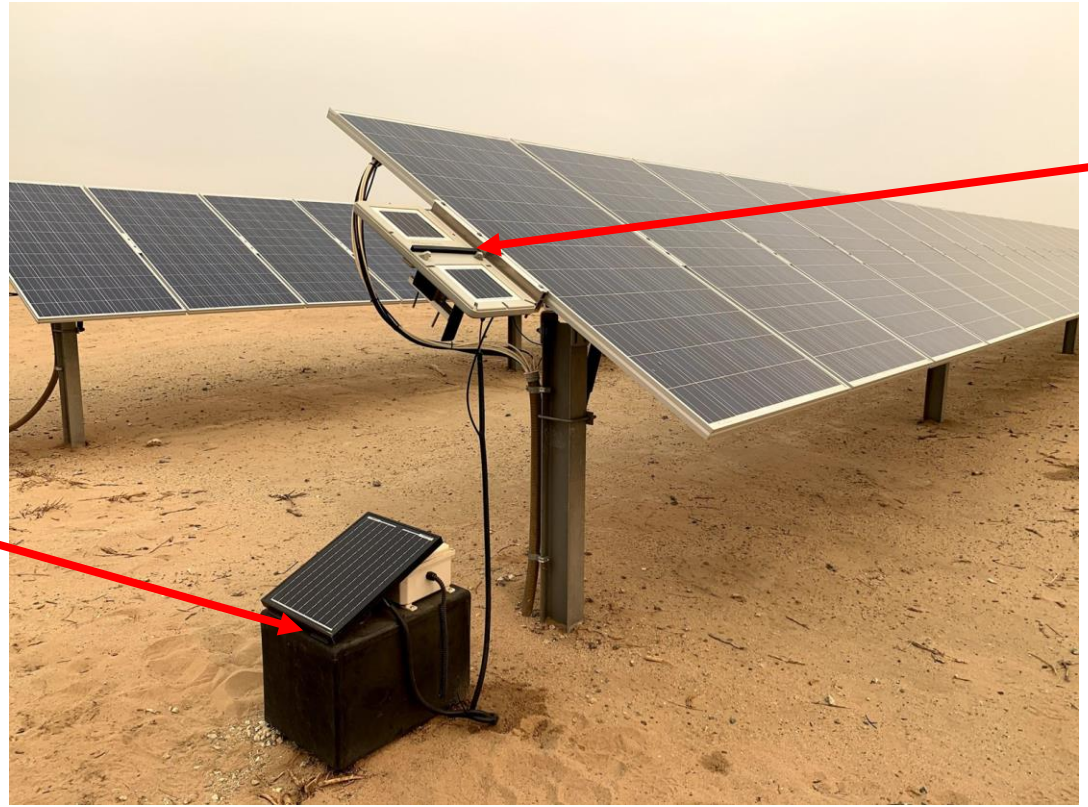
PV Soiling Monitoring Solution

Hardware Overview

ARES and Wash Extension



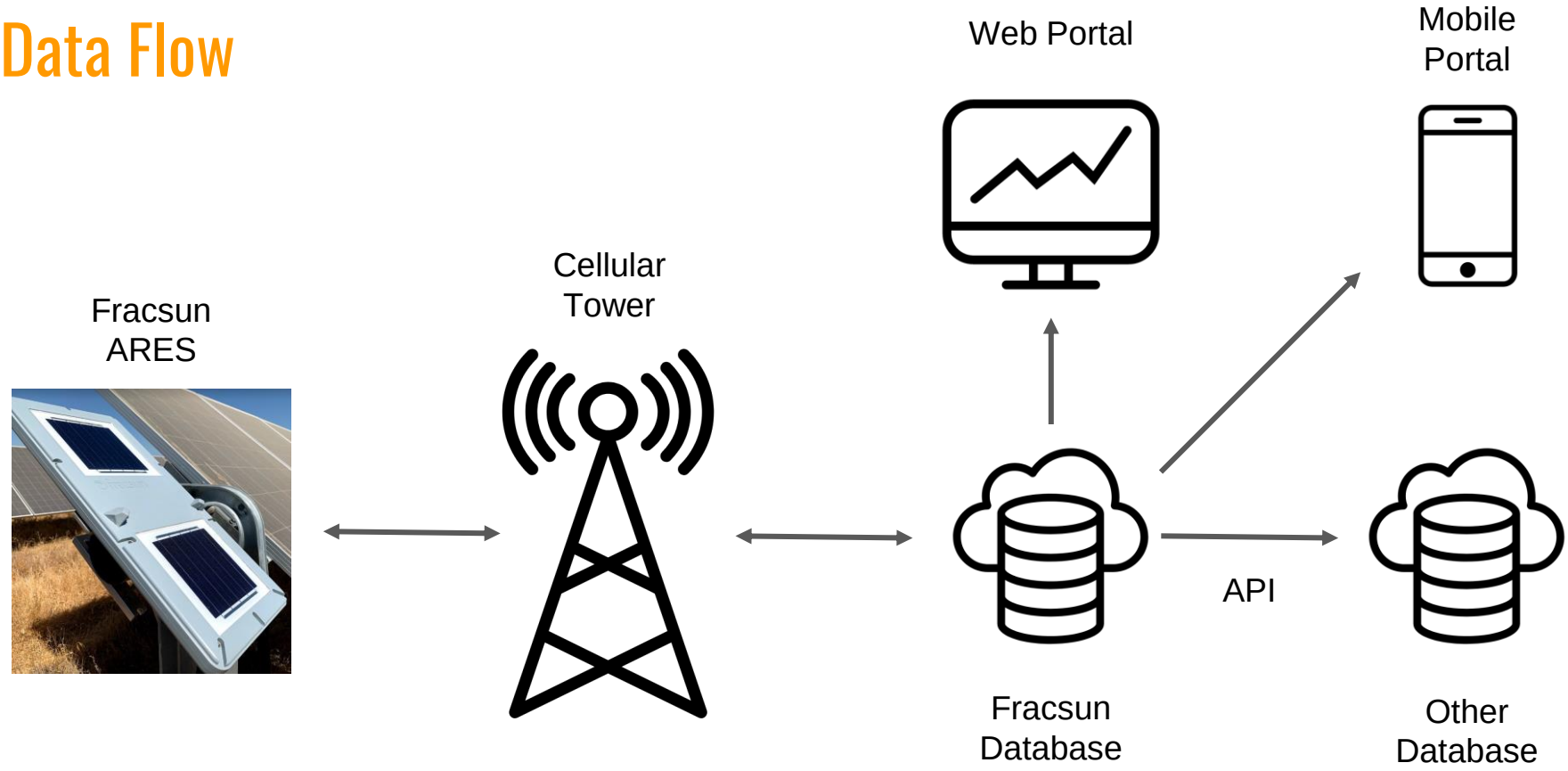
ARES Features

- Matched PV reference cells
- Integrated cellular modem (IoT)
- Dual spray nozzle
- Threaded inserts for universal mounting
- *Fast installation, under 1 hour*

Wash Extension Features

- 16 gallon reservoir
- Solar charged UPS battery system
  - 20W solar module
  - Battery
  - Charge controller
- High pressure spray pump
- Infrared liquid level sensor
- Bottom Mounting bracket w/ ground spikes

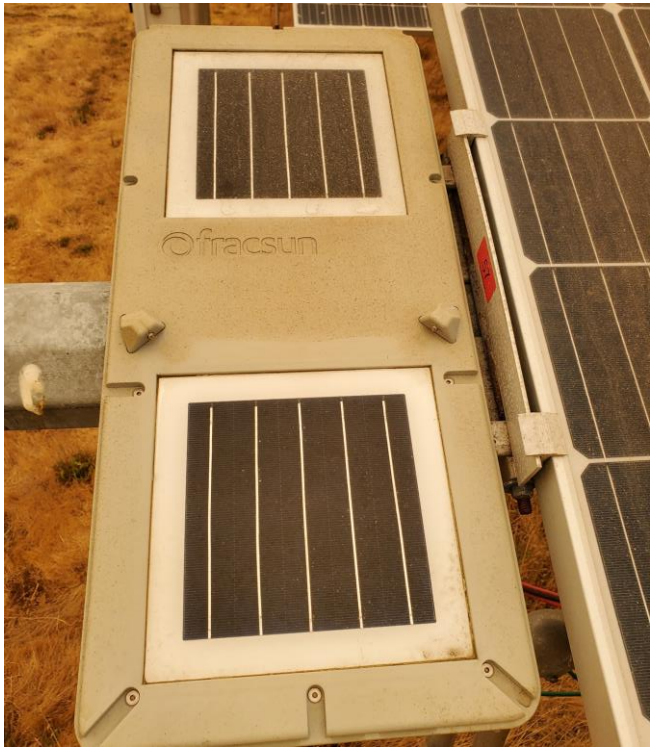
Data Flow



* Modbus RTU serial communication is available

Ofracsun

Example of a dry-brush (waterless) cleaning method



Soiling measurement of ash from a distant wildfire.

Purlin Bracket Kit

For mounting to various purlin types.

(most fixed-tilt systems)

HSAT Bracket Kit

For mounting to most tracker torque tubes.

Circular M12 connection

In typical setups, connects to the Wash Extension device to transfer data.

Also used as a Modbus RS-485 connection to an external data logger or SCADA system.