

# ORANGE BUTTON



# FACT SHEET

## ORANGE BUTTON DATA STANDARD

### SIMPLIFYING THE EXCHANGE OF SOLAR PROJECT DATA

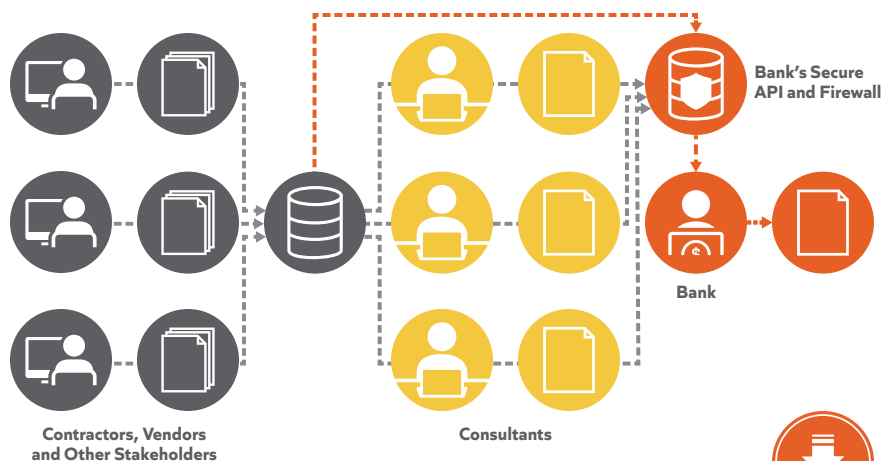
Collecting and reporting project data contributes up to 30% of solar project costs, making data exchange more expensive than solar hardware. With funding from the U.S. Department of Energy, SunSpec Alliance joined with Smart Electric Power Alliance, National Renewable Energy Laboratory, kWh Analytics, Solar Energy Industries Association, and more than 500 industry practitioners to simplify the exchange of solar project data using the Orange Button data standard.

Orange Button minimizes data transaction costs by making project data machine readable. Compatible with XBRL, a widely used standard for business information reporting, Orange Button links financial and operational data points with a uniform set of project terms taken from manufacturer product information, contracts, and other source documents.



#### PROJECT FINANCE INFORMATION FLOW

WITH ORANGE BUTTON, PROJECT DOCUMENTS USE A COMMON DATA LANGUAGE, ELIMINATING TIME-CONSUMING REVIEW AND VALIDATION AT EACH HAND-OFF



Source: Wells Fargo

The first version of the Orange Button standard, released in April 2018, contains about 4,500 solar-specific data fields and 5,000 U.S. Generally Accepted Accounting Principles (GAAP) financial terms.

In September 2018, kWh Analytics released Orange Button Translate, software that can instantly convert proprietary data into Orange Button-compliant JSON and XML files.

Orange Button tools are free and available to easily move data from one software program to another.



# A Common Data Language for All Solar Project Partners

## Orange Button Offers

RESTful web services API	More than 4,500 defined solar industry terms
JSON encoding	More than 5,000 defined U.S. GAAP terms
Open source code library on GitHub	Harmonized with XBRL, IEEE, and IEC standards

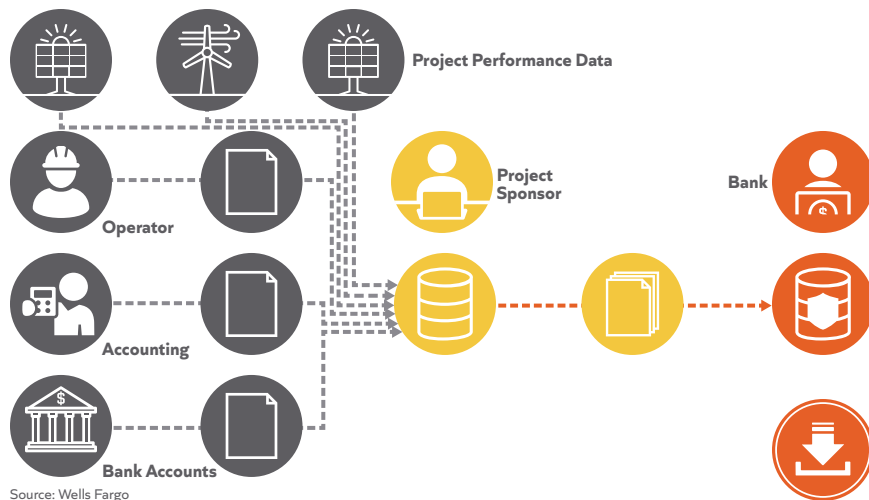
## Orange Button Implementors Network

More than 100 companies have joined the Orange Button Implementor's Network to help develop the standard and connect with business partners who are supporting the project:

- BayWa r.e. Solar Systems
- Blu Banyan Solutions
- The Cadmus Group
- Clean Power Research
- DNV GL
- First Solar
- Fronius
- kWh Analytics
- LG
- MassCEC
- Mercatus
- Oracle
- Phoenix Contact USA
- Power Factors
- REPOWER America
- Salesforce
- Sandia National Laboratories
- Silfab Solar
- SunPower
- Tabuchi Electric
- Texas Instruments
- TUV Rheinland
- Vaisala
- Wells Fargo
- XBRL US
- Yaskawa Solectria Solar

### PROJECT PORTFOLIO MANAGEMENT DATA FLOW

ORANGE BUTTON ENABLES DATA WITH DOCUMENTS WOULD FLOW FROM SYSTEM TO SYSTEM, WITH PEOPLE REVIEWING, INSTEAD OF TRANSCRIBING DATA



## Market Benefits of the Orange Button Data Standard

### Drive Down Soft Costs for Residential, Commercial, and Utility Projects

#### Accessible Project Data

Data standards enable investors, project developers, and asset managers to instantly share data without time-consuming manual data entry and validation.

#### Lower Project Costs

A standardized solar data format significantly lowers the cost of capital by reducing process inefficiency throughout the project development and operational lifecycle.

#### Extensible for New Technologies

Stakeholders can add data fields to extend Orange Button, incorporating energy storage and other distributed energy resources.

[www.orangebutton.io](http://www.orangebutton.io)



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