



SUNSPEC  
— ALLIANCE —



*Orange Button Data Standards for Solar  
Financing: Using common data formats and  
analysis tools to increase efficiency and  
reliability of PV deployment*

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# Agenda

- Solar financing challenges today
- Orange Button program to improve efficiency and reduce cost
- XBRL financial data standard
- Orange Button taxonomy
- How to get involved

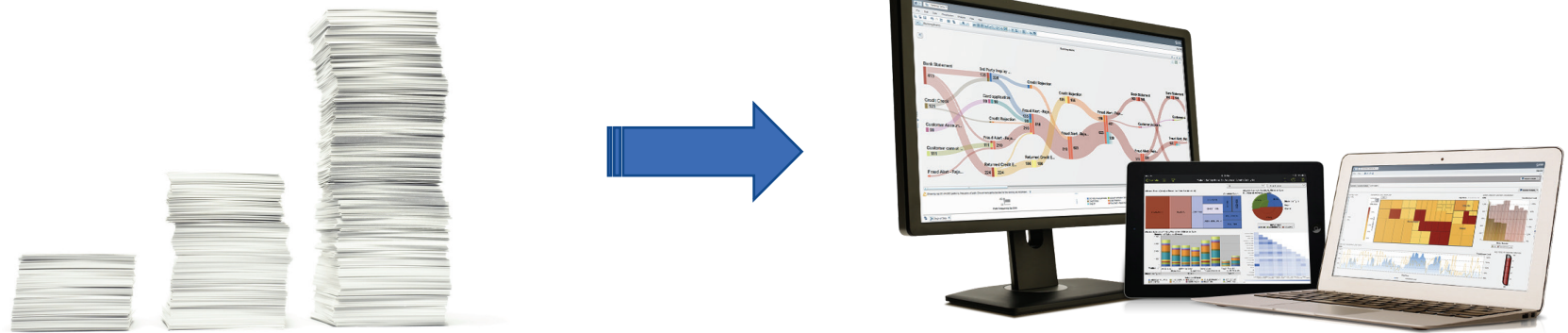


# Standards



# Data standards

Lower cost, increase accuracy, make data more timely



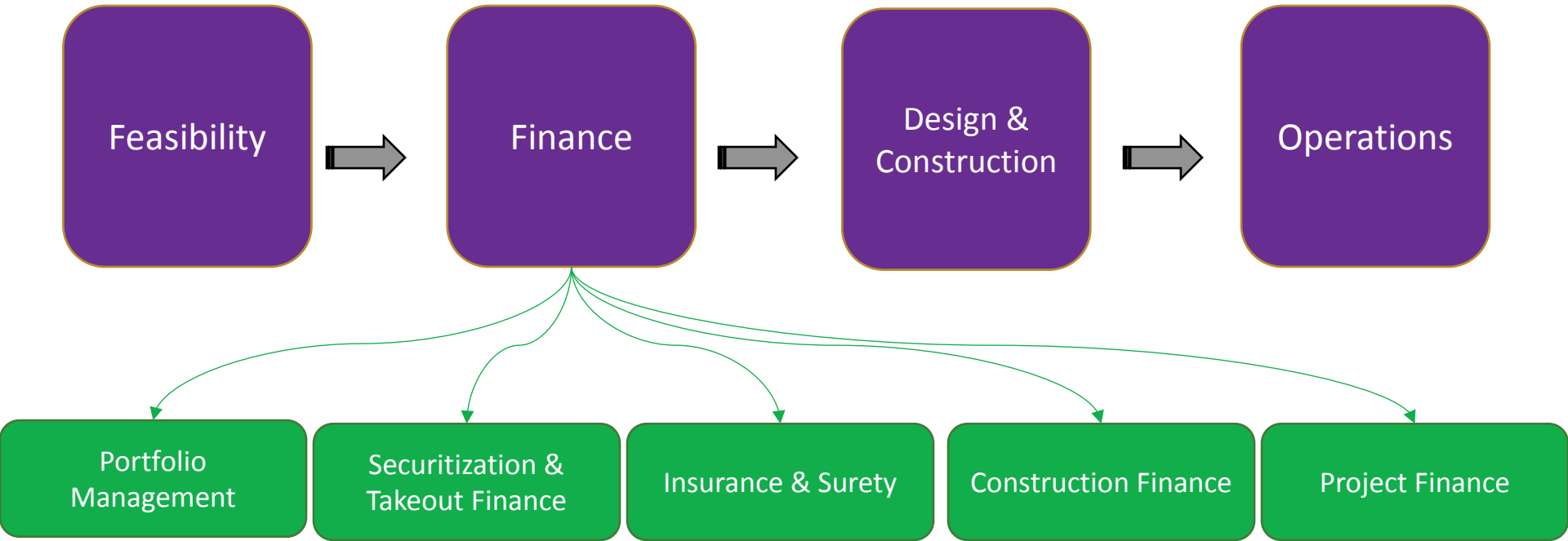
# Solar Financing Standards



Simplify solar financing data to reduce costs and streamline processing



# Orange Button Coverage





# Global standard

June 2015

60 Countries

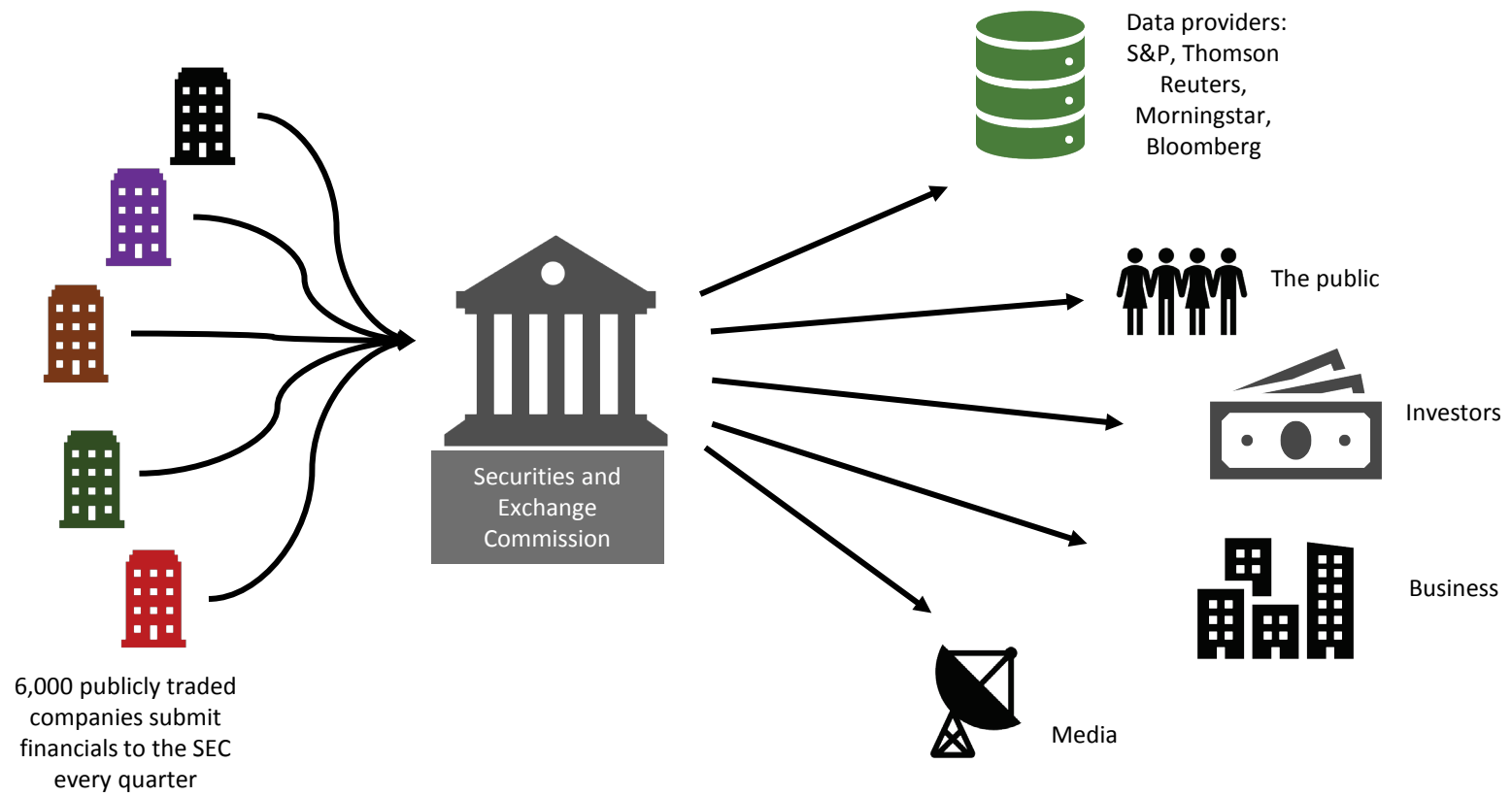
100+ Regulators

10M + Companies

United States:  
8,000 Banks report to FDIC  
6,000 Public companies report to the Securities and Exchange Commission (SEC)  
Mutual funds and credit rating agencies to the SEC

Outside the U.S.:  
Public companies: South Korea, Iran, Israel, China, Japan, Taiwan  
Private companies: UK, Spain, Denmark, South Korea, Italy, Belgium, Germany  
Banks: Peru, Panama, Chile  
Government: Netherlands, Australia

# How data is collected and used in the United States





# XBRL for financial data

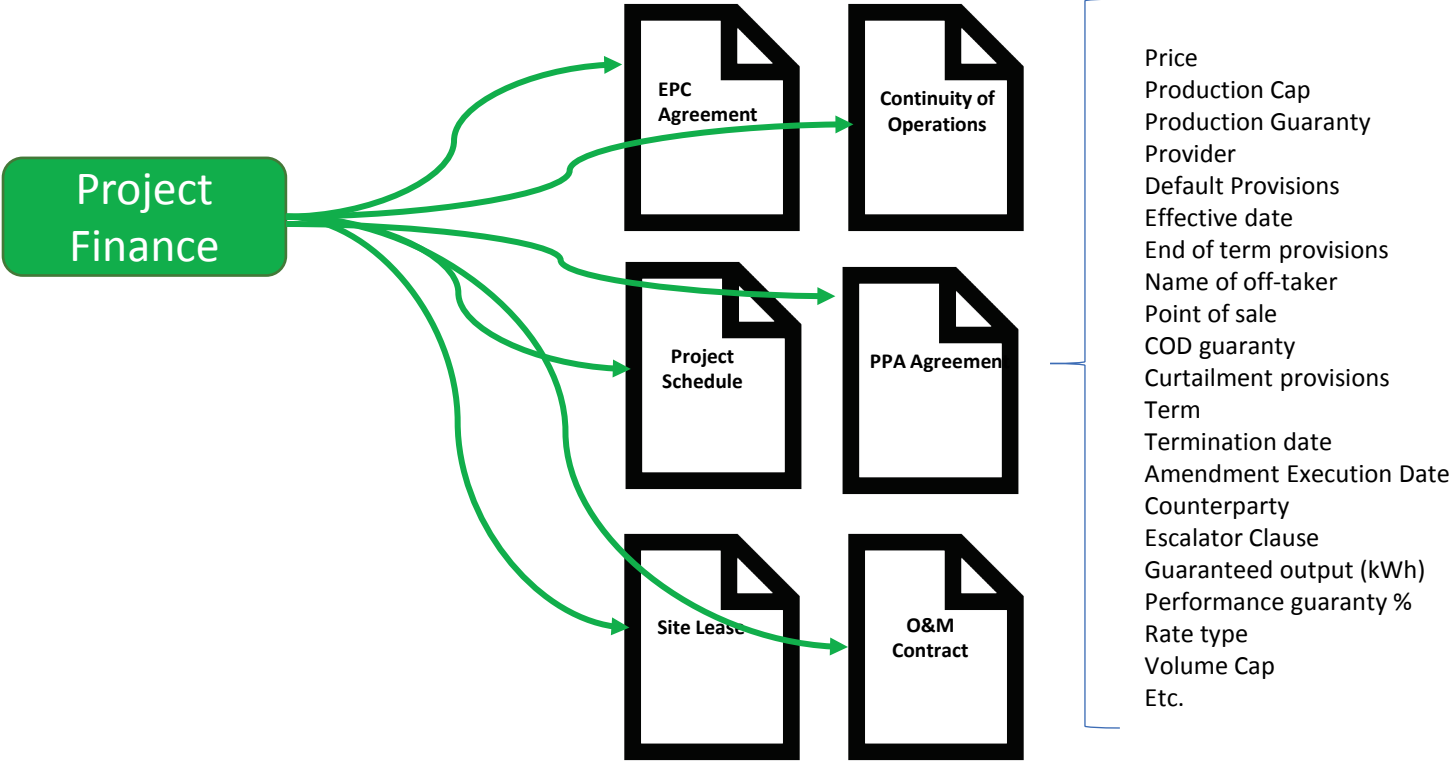


	As of December 31,				
	2015	2014	2013	2012	2011
	(in thousands)				
<b>Consolidated balance sheet data:</b>					
Cash and cash equivalents	\$ 382,544	\$ 504,383	\$ 577,080	\$ 160,080	\$ 50,471
Total current assets	\$ 902,138	\$ 997,616	\$ 785,924	\$ 313,938	\$ 241,522
Solar energy systems, leased and to be leased - net	\$ 4,375,553	\$ 2,796,796	\$ 1,682,521	\$ 984,121	\$ 535,609
Total assets	\$ 7,287,118	\$ 4,551,219	\$ 2,792,120	\$ 1,335,592	\$ 812,703
Total current liabilities	\$ 1,193,362	\$ 566,513	\$ 338,029	\$ 213,939	\$ 246,886
Long-term debt, net of current portion	\$ 1,006,595	\$ 282,789	\$ 231,504	\$ 76,864	\$ 14,111
Convertible senior notes, net of current portion	\$ 894,560	\$ 777,726	\$ 222,827	\$ —	\$ —
Solar asset-backed notes, net of current portion	\$ 395,667	\$ 293,215	\$ 46,824	\$ —	\$ —
Deferred revenue, net of current portion	\$ 1,010,491	\$ 557,408	\$ 410,161	\$ 204,396	\$ 101,359
Financing obligation, net of current portion	\$ 68,940	\$ 73,379	\$ 78,505	\$ 140,639	\$ 61,685
Other liabilities and deferred credits	\$ 279,006	\$ 218,024	\$ 193,439	\$ 114,006	\$ 36,314
Redeemable noncontrolling interests in subsidiaries	\$ 320,935	\$ 186,788	\$ 44,709	\$ 12,827	\$ 22,308
Convertible redeemable preferred stock	\$ —	\$ —	\$ —	\$ —	\$ 125,722
Total stockholders' equity (deficit)	\$ (316,680)	\$ 745,642	\$ 617,598	\$ 183,601	\$ (37,662)
Noncontrolling interests in subsidiaries	\$ 535,062	\$ 409,942	\$ 186,817	\$ 96,793	\$ 100,338

# XBRL for financial data

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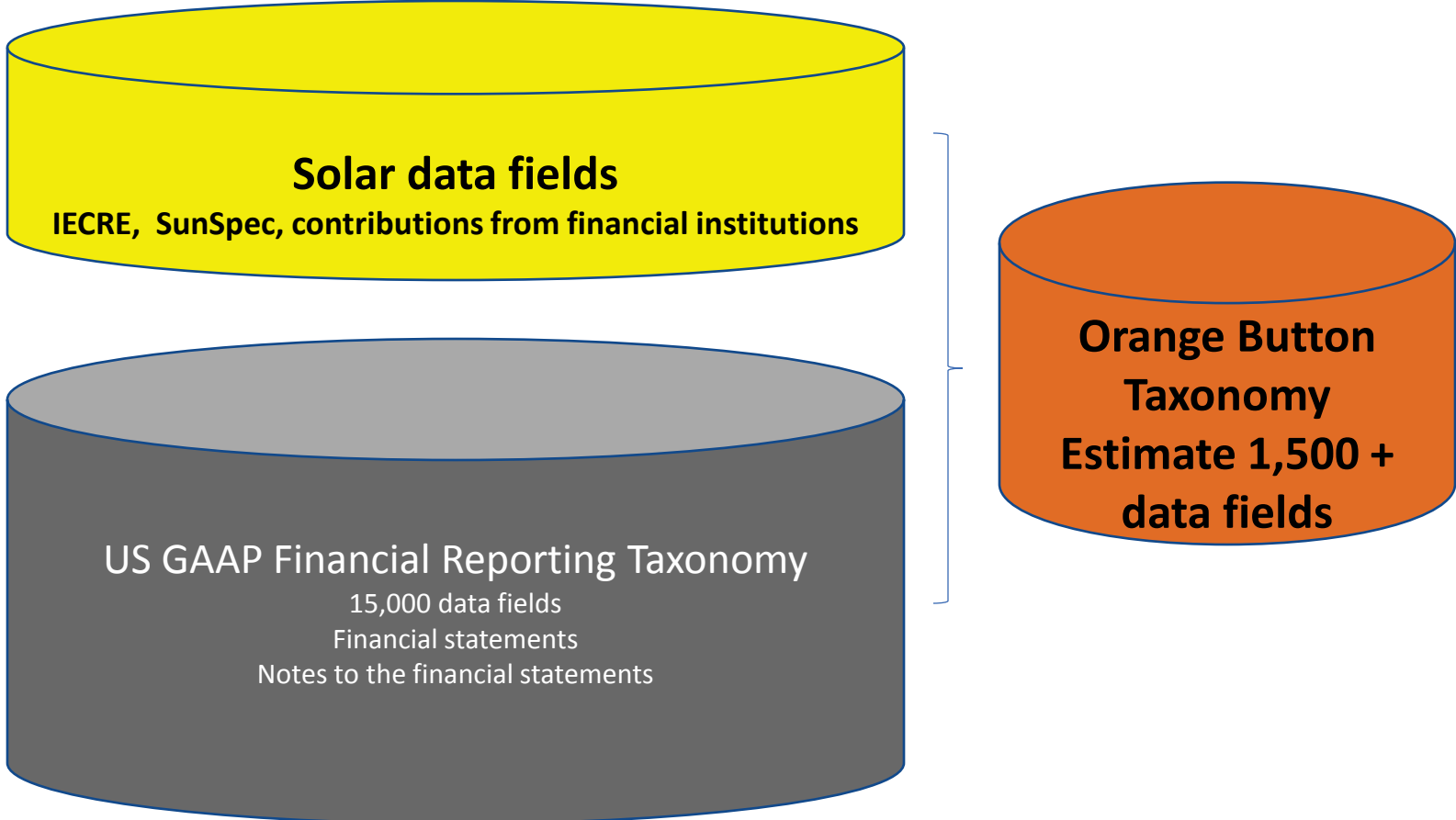
# Applying standards in Orange Button



# How to build effective standards

1. Establish a solid governance structure
2. Create a development plan
- 3. Identify stakeholders**
- 4. Develop core content with subject matter experts and technical experts**
- 5. Expose content to stakeholders**
6. Test
7. Conduct public review
8. Incorporate revisions
9. Finalize and publish
10. Establish support and maintenance plan

# Building the Orange Button Taxonomy



## Next steps

- Continue refining the taxonomy
- Need further review and input from solar finance experts
- Need more examples of reports
- Conduct public review

## Why get involved?

- Incorporate **your own** process and data fields into the standard for solar financing

# Questions?

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