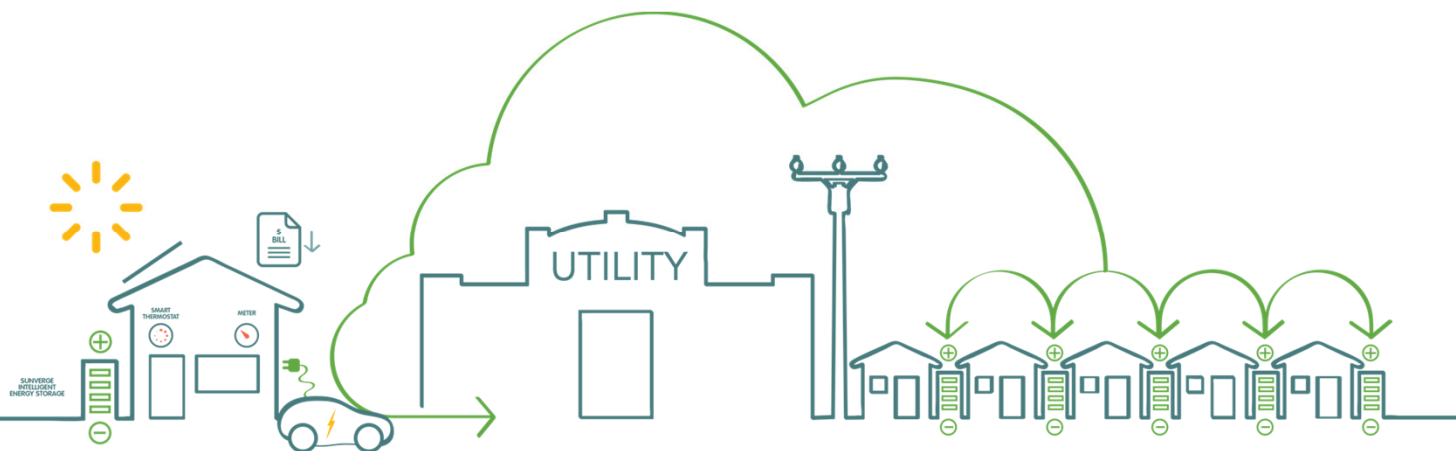




**Hawaiian Electric
Maui Electric
Hawai'i Electric Light**

Modern Grid Technology & Leading Practices Workshop

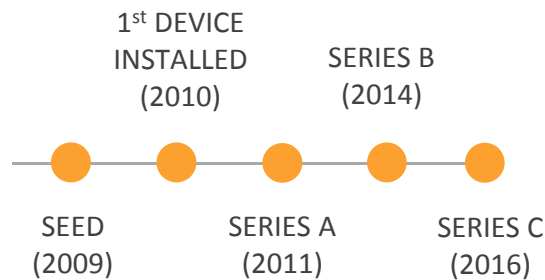
May 10, 2017



Company Background – Proven Track Record

FOUNDED
2009

HEADQUARTERED IN
SAN FRANCISCO



90

EMPLOYEES



CUSTOMERS

North America
(AZ, CA, HI, KY, NY,
NV & Canada)
New Zealand
Australia
South Korea
Germany

750

Systems Under
Management
Globally



Consumer: the Agent of Change and Disruption

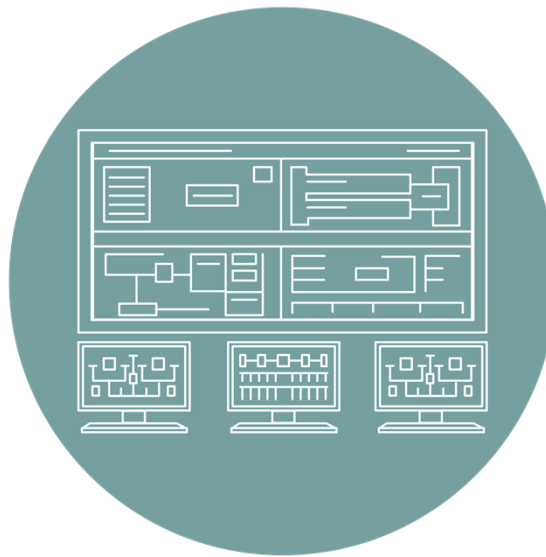


CONSUMERS

Driving change with increasing adoption of DERs and

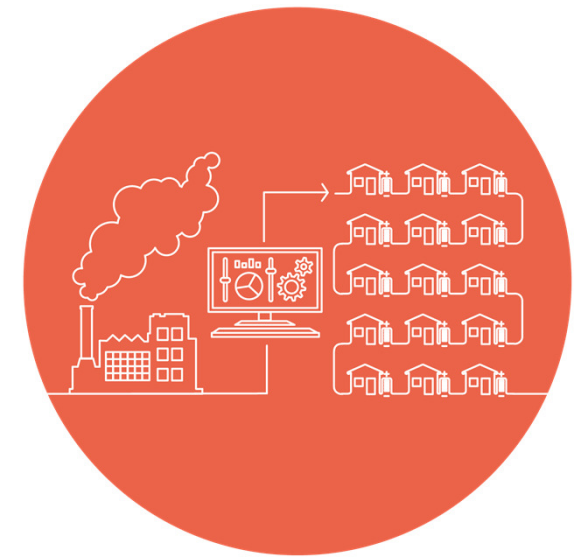


bidirectional grid



AGGREGATORS

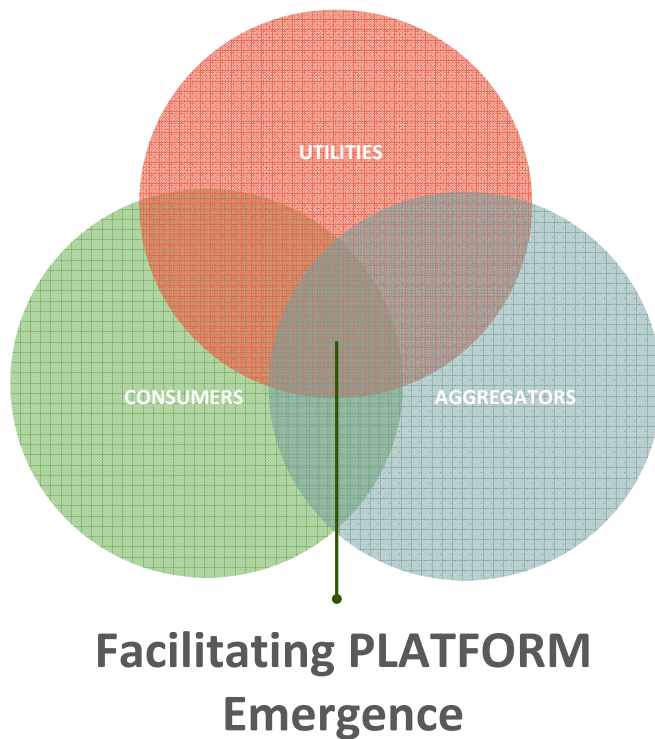
Seek new and recurring growth drivers



UTILITIES

Face demand and cost challenges

Emerging Platform in Interdependent Energy Ecosystem



DER platform Benefits and Value

CONSUMERS		AGGREGATORS		UTILITIES
Residential	Commercial	DER	Demand Response	
Maximize PV investment		Aggregate PV and storage	Distributed storage as a DR resource	Peak Load, Load Reduction & Shifting
Bill Management		Provide VPP offerings to utilities	Better Customer comfort & Increase participation	Meet Renewable Goals
Backup Power		Create additional services revenue streams	Location-aware and targeted DR	Frequency Regulation Voltage Management
Demand Charge Reduction		Wholesale Markets participation	Maximize Utilization & Capacity	Distribution asset upgrade Deferral

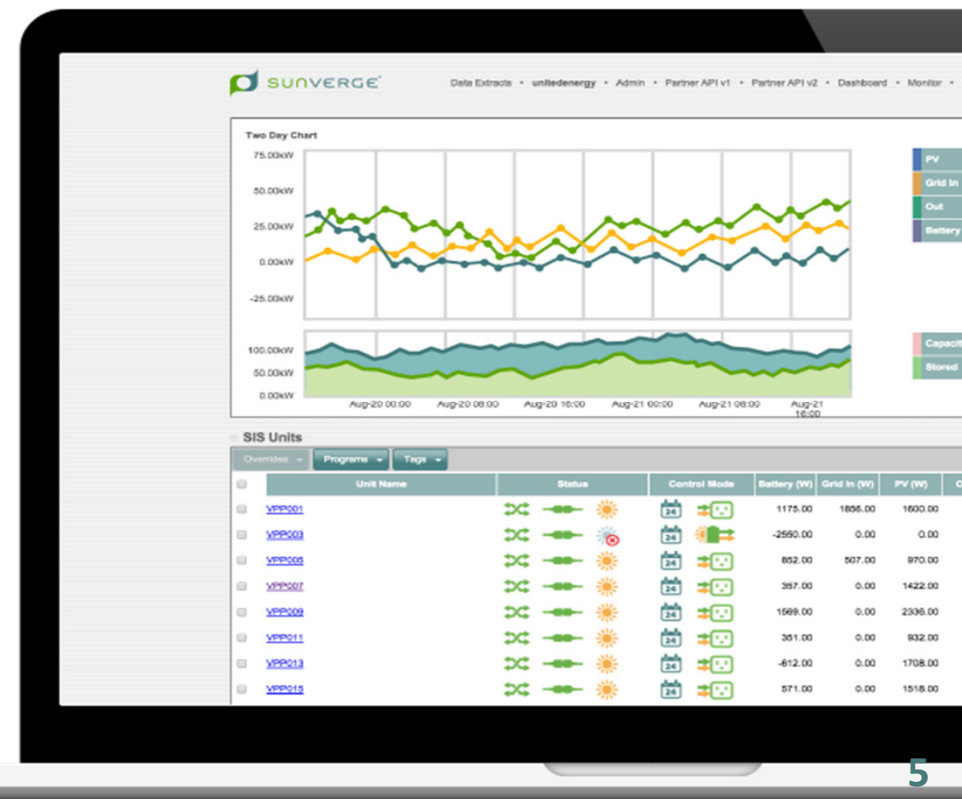
The Sunverge Platform

Intelligent platform facilitating and enabling energy transactions between Consumers, Utilities, and Aggregators

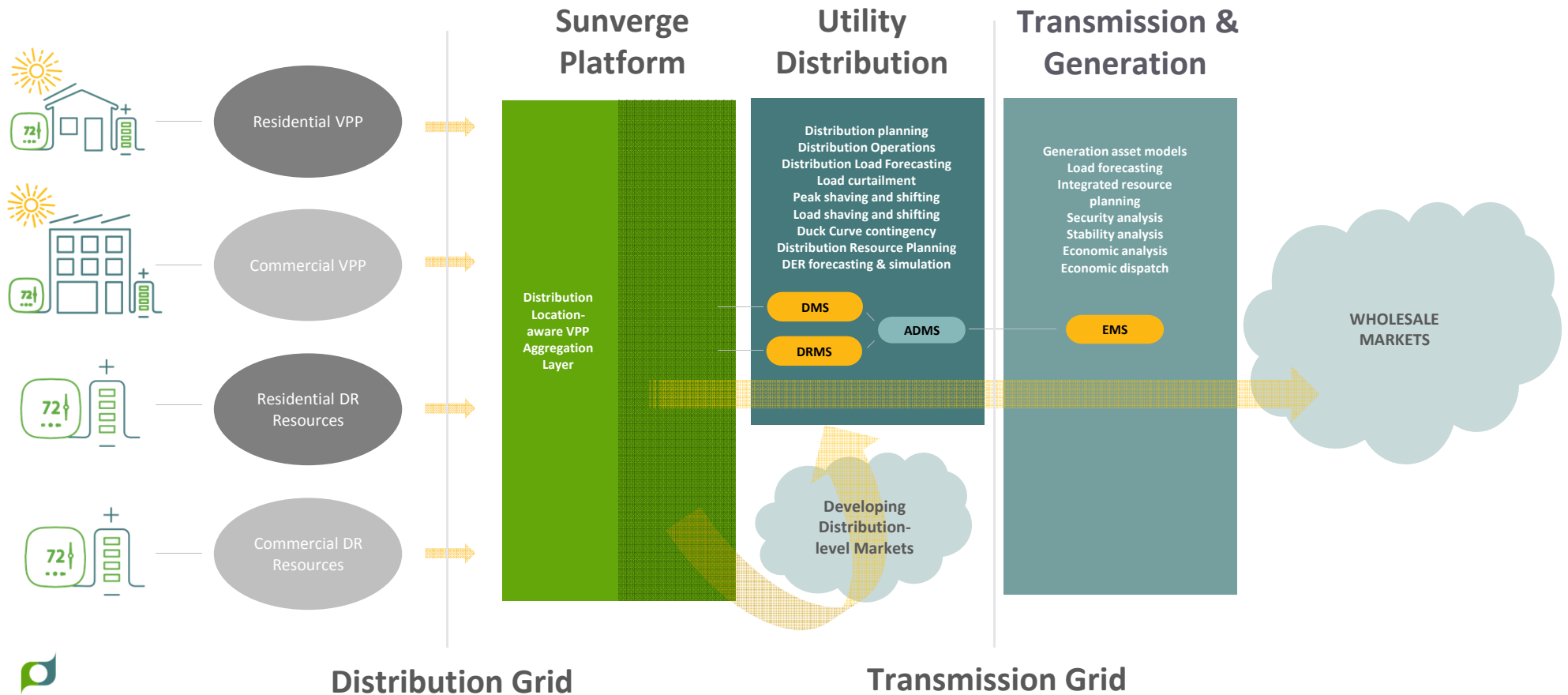
- End-to-end managing, controlling, aggregating and orchestrating portfolios of Distributed Energy Resources (DERs) and smart home devices
- Aggregating residential and commercial Distributed Energy Resource (DERs) into Virtual Power Plants (VPP) generation assets overlaid on Utility Distribution Grids
- Control and optimize use of VPP assets to better manage dynamic T&D network and supply events
- Manage and facilitate bidding of excess and emergency energy supply into wholesale Markets
- Facilitate an array of ancillary services and ecosystems for behind and in front of the meter
- Enabling Integration of Demand-Side Management and Grid Management
- **Capacitate the emergence of Distribution level transactional Markets and tangential ancillary service markets**



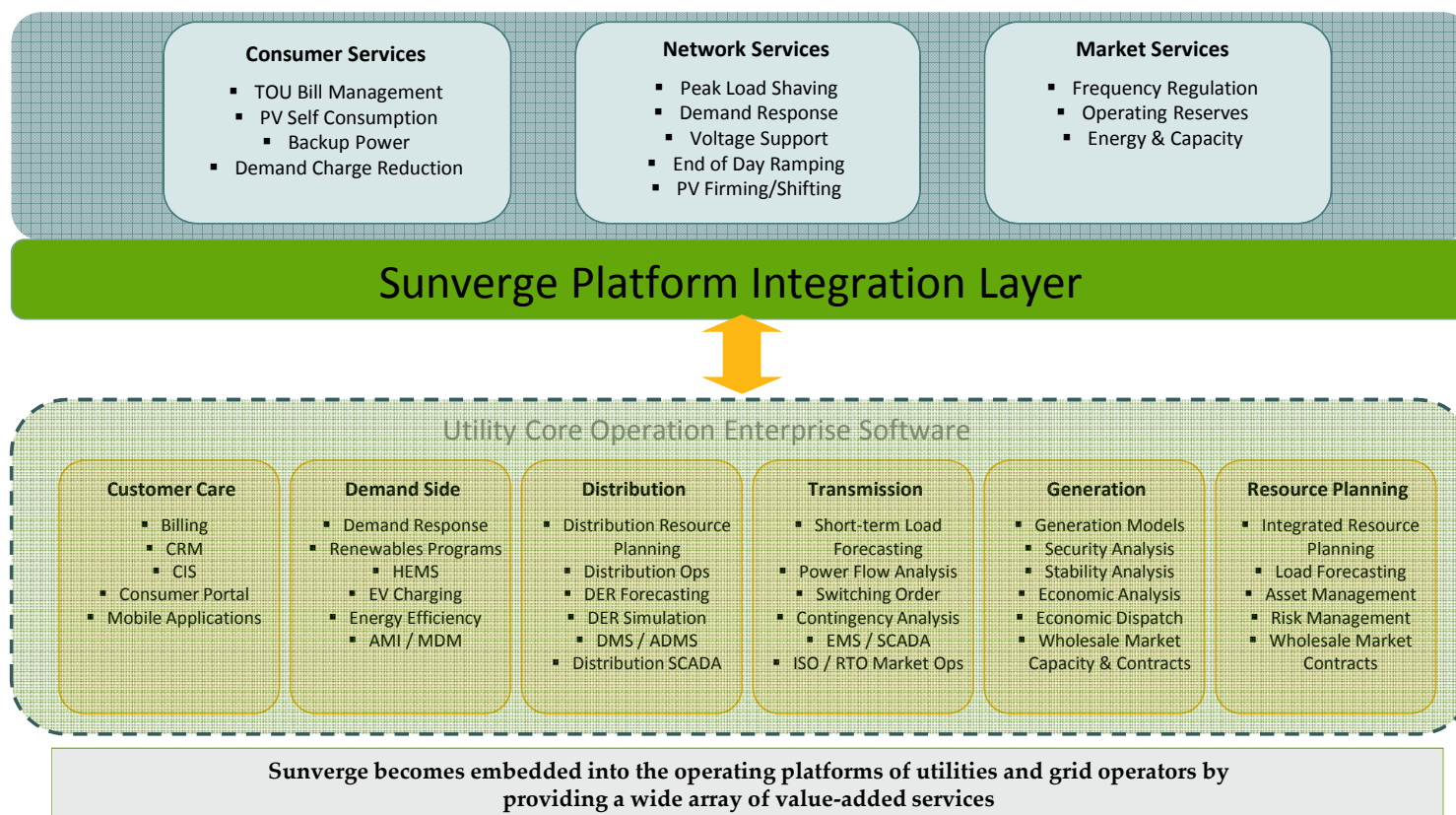
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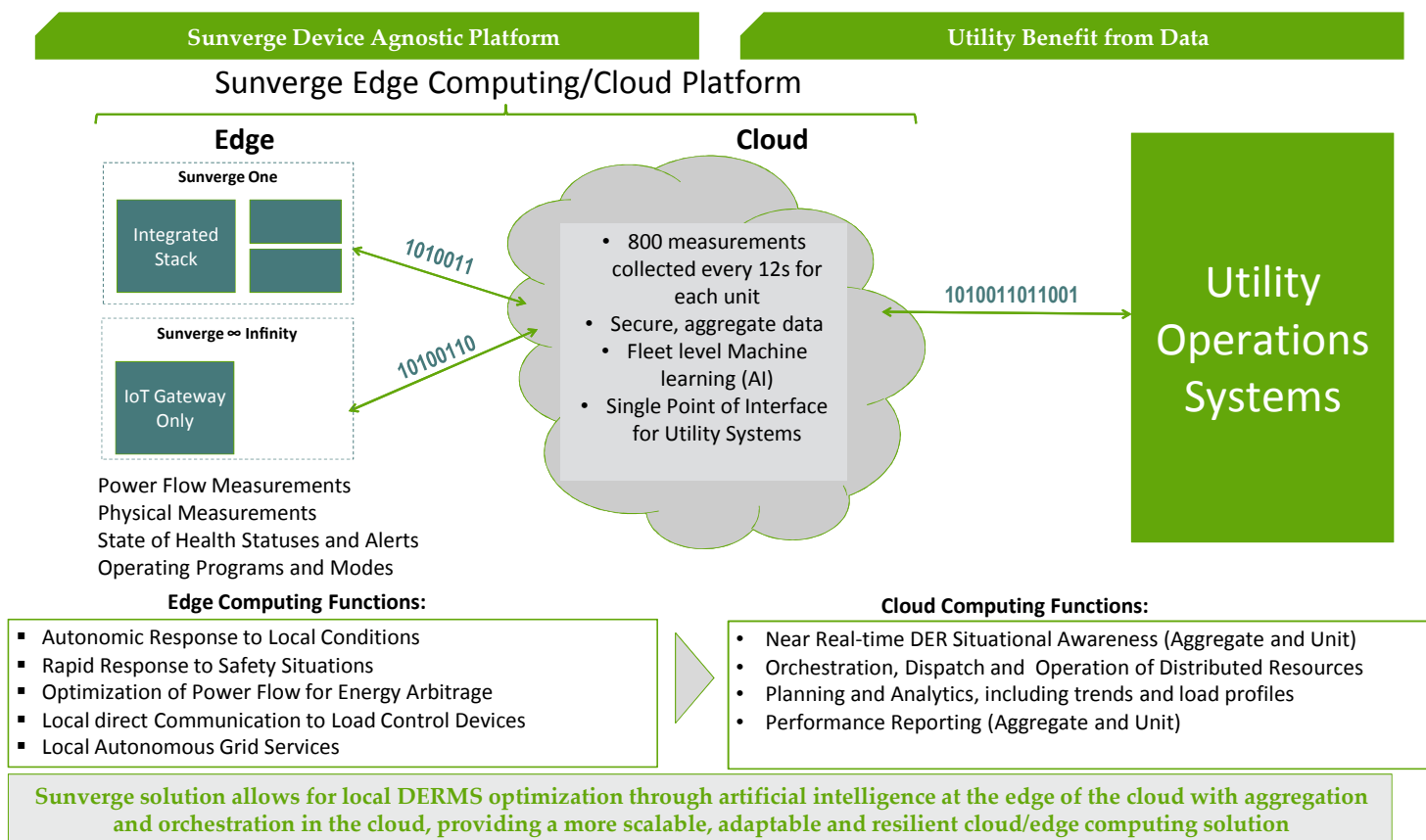
The Sunverge Platform



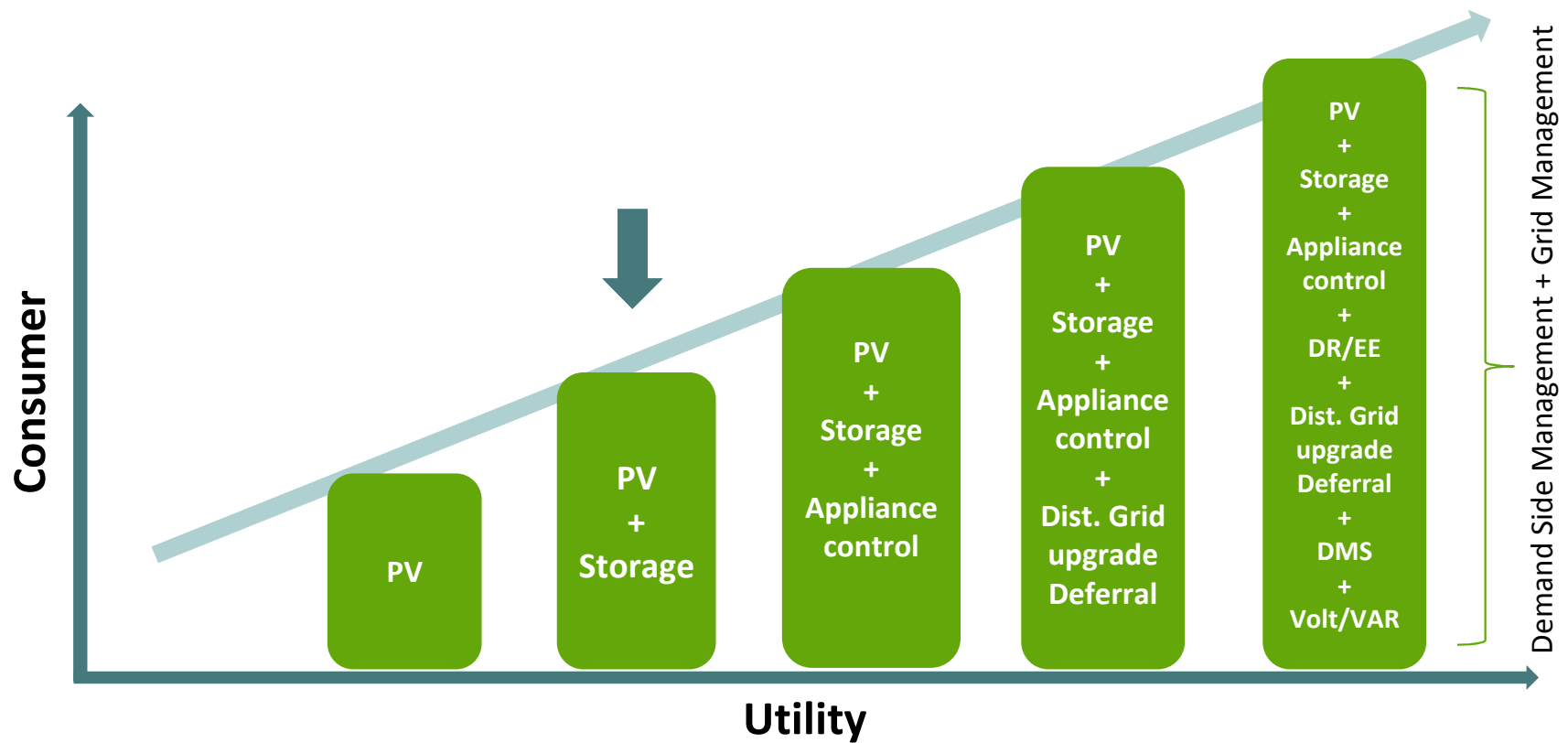
Integrate to Core Utility Operations



Sunverge's Ability to Collect and Process Edge-of-Grid Data is Unparalleled



Value Scale



Distributed Storage: The Missing Link for the Smart Grid & Transactional Energy Markets

Distributed storage delivers greater reliability, customer Satisfaction and less grid stress and congestion than centralized or substation-level storage.

