

# Enhancing Planning Methods and Tools to Modernize Distribution Systems and Enable DER

**Jeff Smith**

Manager, Distribution Planning and  
Operations

**Modern Grid Technology & Leading  
Practices Workshop**

May 10, 2017  
Honolulu

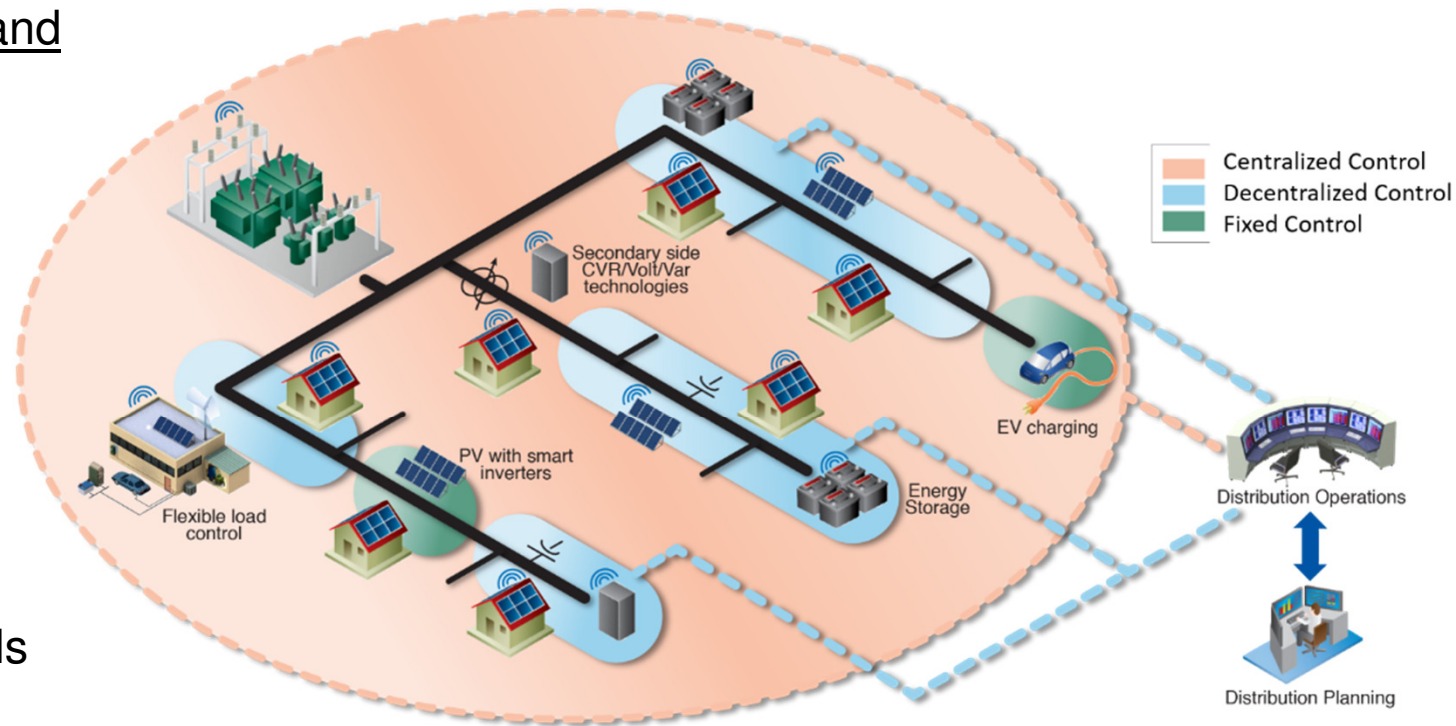


# Hybrid Solutions for Modernizing the Distribution Grid and Enabling DER

## Hybrid Integration Solutions

Leverages, coordinates, and optimizes

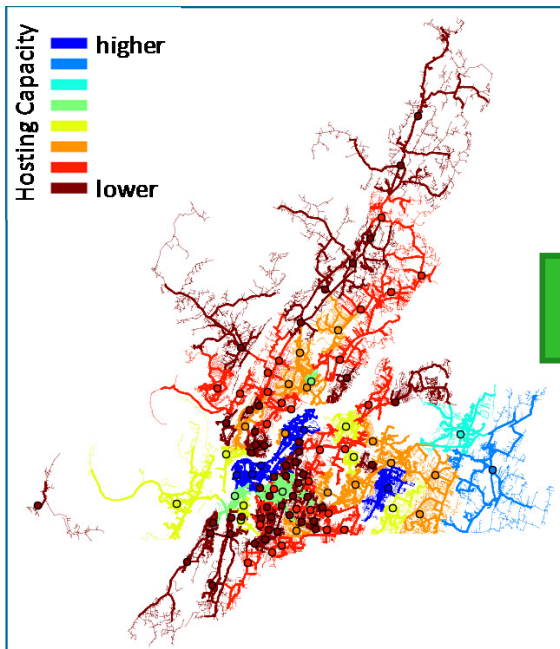
1. DER and inherent capabilities
2. Existing assets and control capabilities
3. New integration technologies
4. Centralized and decentralized controls



Hybrid Integration Solutions – Control, Technologies, Analytics

# Hybrid Solutions for Modernizing the Distribution Grid and Enabling DER

Accommodating DER

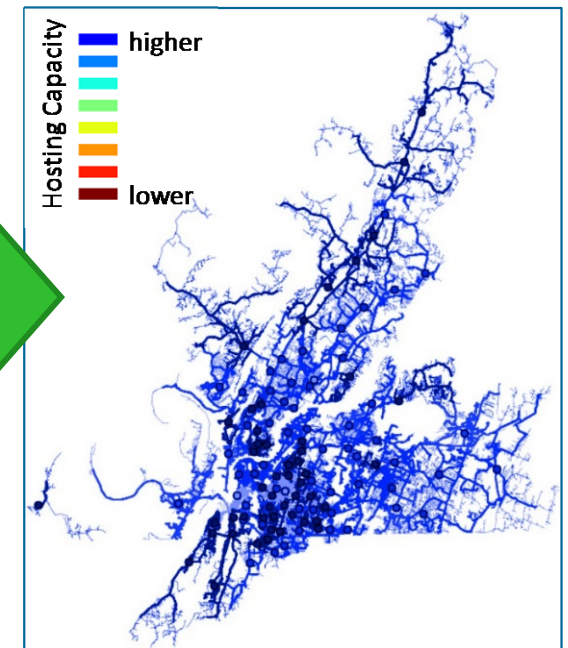


Existing  
Hosting Capacity

## Hybrid Integration Solutions Leverages, coordinates, and optimizes

1. DER and inherent capabilities
2. Existing assets and control capabilities
3. New integration technologies
4. Centralized and decentralized controls

Integrating DER



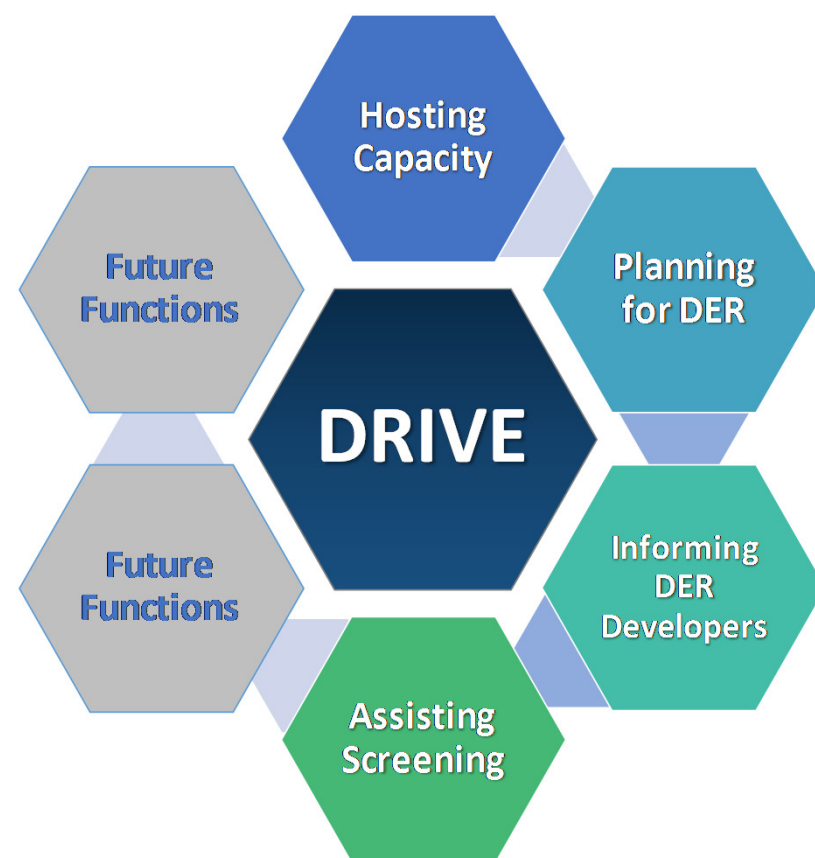
Increased Hosting Capacity

# Enhancing Planning Tools: DRIVE

## Distribution Resource Integration and Value Estimation Tool

Enables planners to efficiently and effectively evaluate the technical impacts of DER on distribution systems using new analytical methods

- Capabilities
  - Voltage, thermal, and protection analysis
  - Multiple DER technologies
  - Location-specific, node-by-node analysis
  - Automated, distribution system-wide analysis
- Compatibility
  - Multi-platform compatibility (Synergi, CYME...)
  - Existing data sets
  - Utility planning thresholds/limits
- Applications
  - Scenario Planning
  - Informing DER developers
  - Assisting interconnection screening
  - Ongoing development: automated mitigation assessment, DER locational value, etc.





# Utility's Currently Leveraging DRIVE





# Together...Shaping the Future of Electricity