

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



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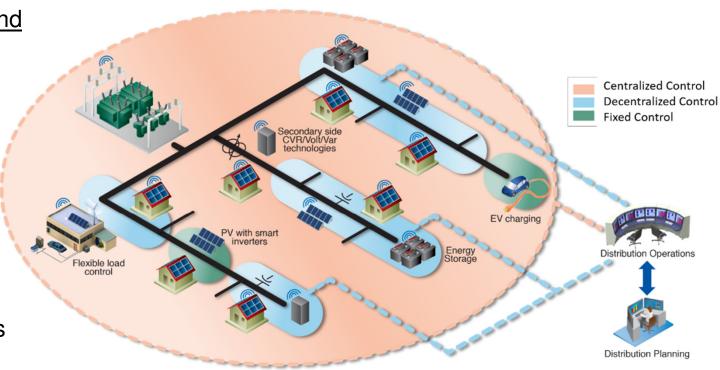
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# Hybrid Solutions for Modernizing the Distribution Grid and Enabling DER

**Hybrid Integration Solutions** 

<u>Leverages, coordinates, and</u> <u>optimizes</u>

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

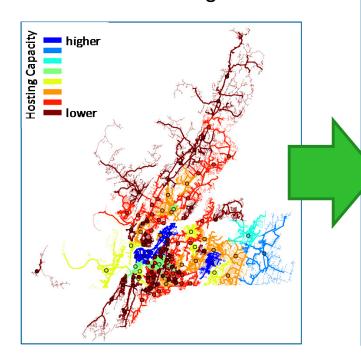


Hybrid Integration Solutions – Control, Technologies, Analytics



# Hybrid Solutions for Modernizing the Distribution Grid and Enabling DER

#### Accommodating DER



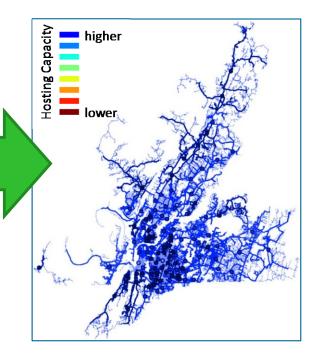
Existing Hosting Capacity

## Hybrid Integration Solutions

Leverages, coordinates, and optimizes

- DER and inherent capabilities
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- 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 <u>efficiently</u> and <u>effectively</u> evaluate the technical impacts of DER on distribution systems using new analytical methods

#### Capabilities

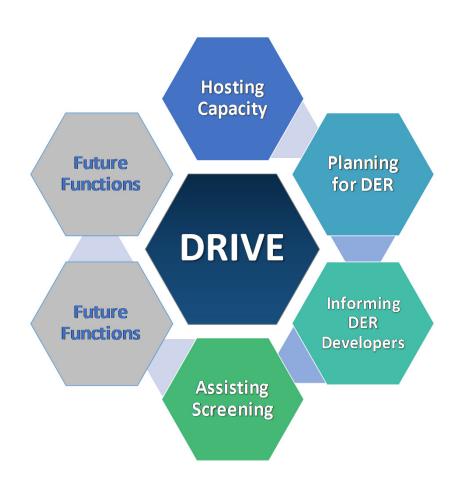
- Voltage, thermal, and protection analysis
- Multiple DER technologies
- Location-specific, node-by-node analysis
- Automated, distribution system-wide analysis

#### 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**





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