

# Optimizing the Grid

## Hosting Capacity Analyses for DERs

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Regulatory Reform

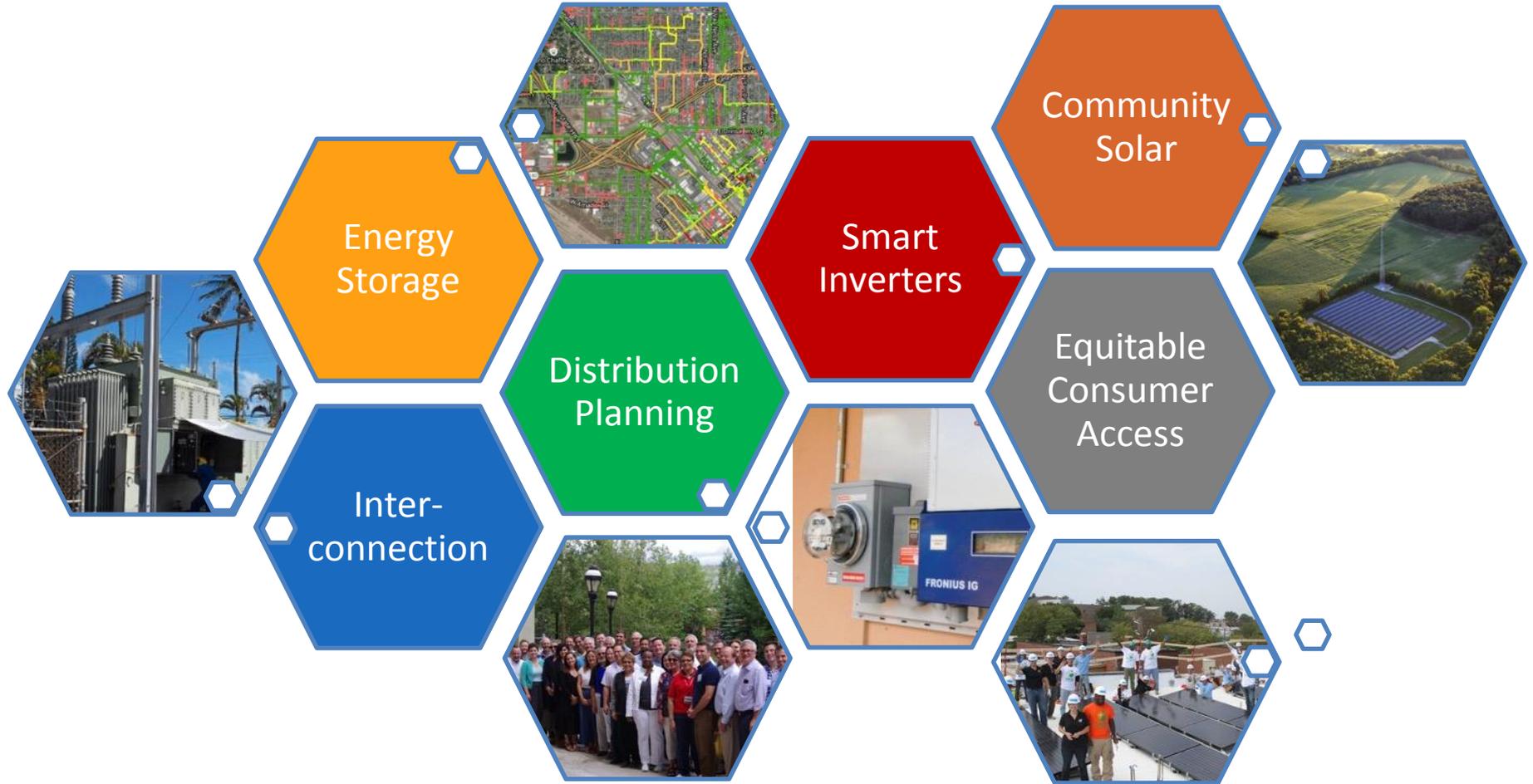


Quality Workforce



Consumer Empowerment

*Independent, national non-profit | Est. 1982*





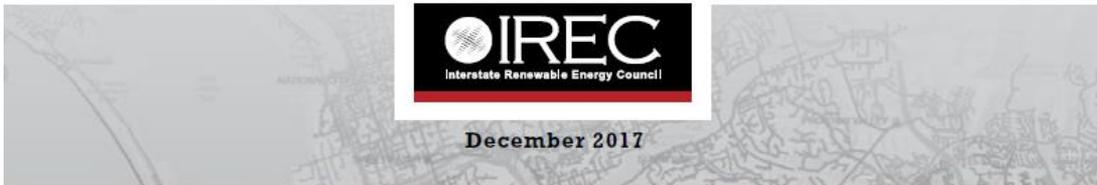
# OPTIMIZING THE GRID

A REGULATOR'S GUIDE TO

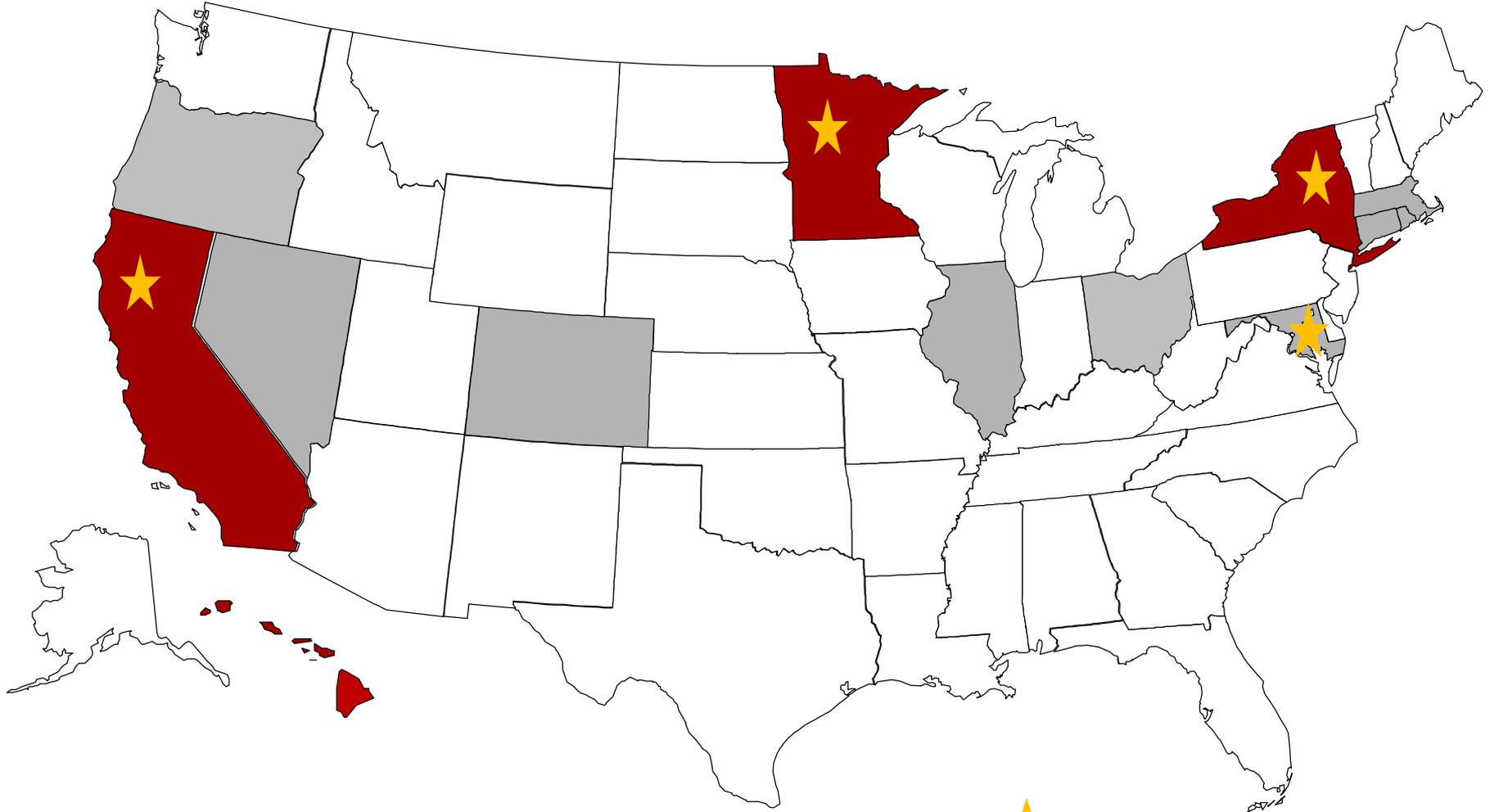
Hosting Capacity Analyses for Distributed Energy Resources



December 2017



# State Hosting Capacity Analysis Activity



 **Advanced regulatory activity on hosting capacity analyses**

 **Early stages of activity on hosting capacity analyses**

 **Featured case studies in IREC's *Optimizing the Grid***

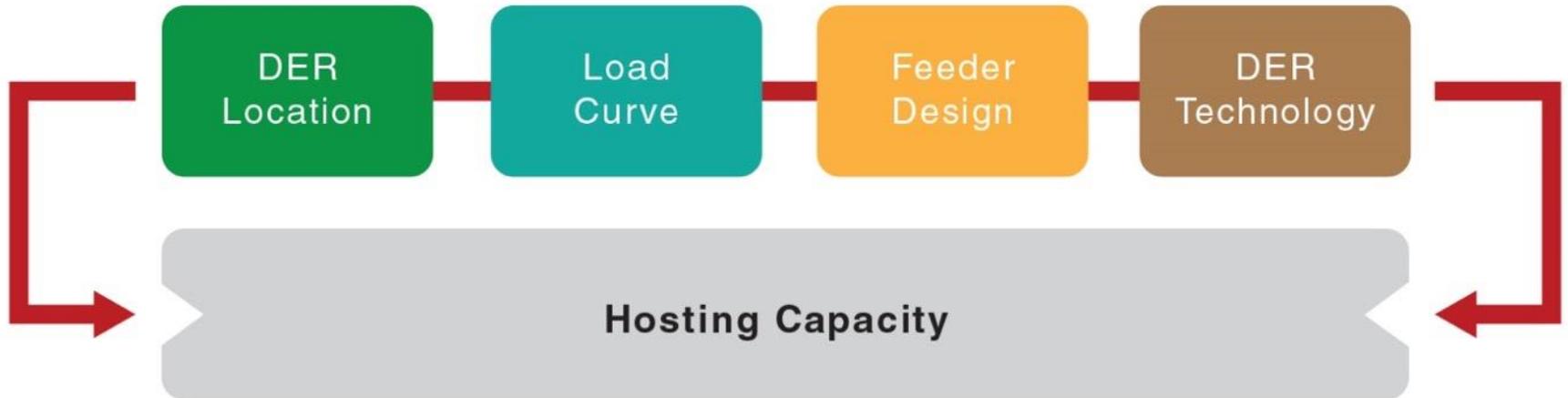
# Today's discussion

- What is 'Hosting Capacity'?
- Why does it matter?
- What are the key process steps to develop a hosting capacity analysis?
- Q&A and discussion

# What is Hosting Capacity?

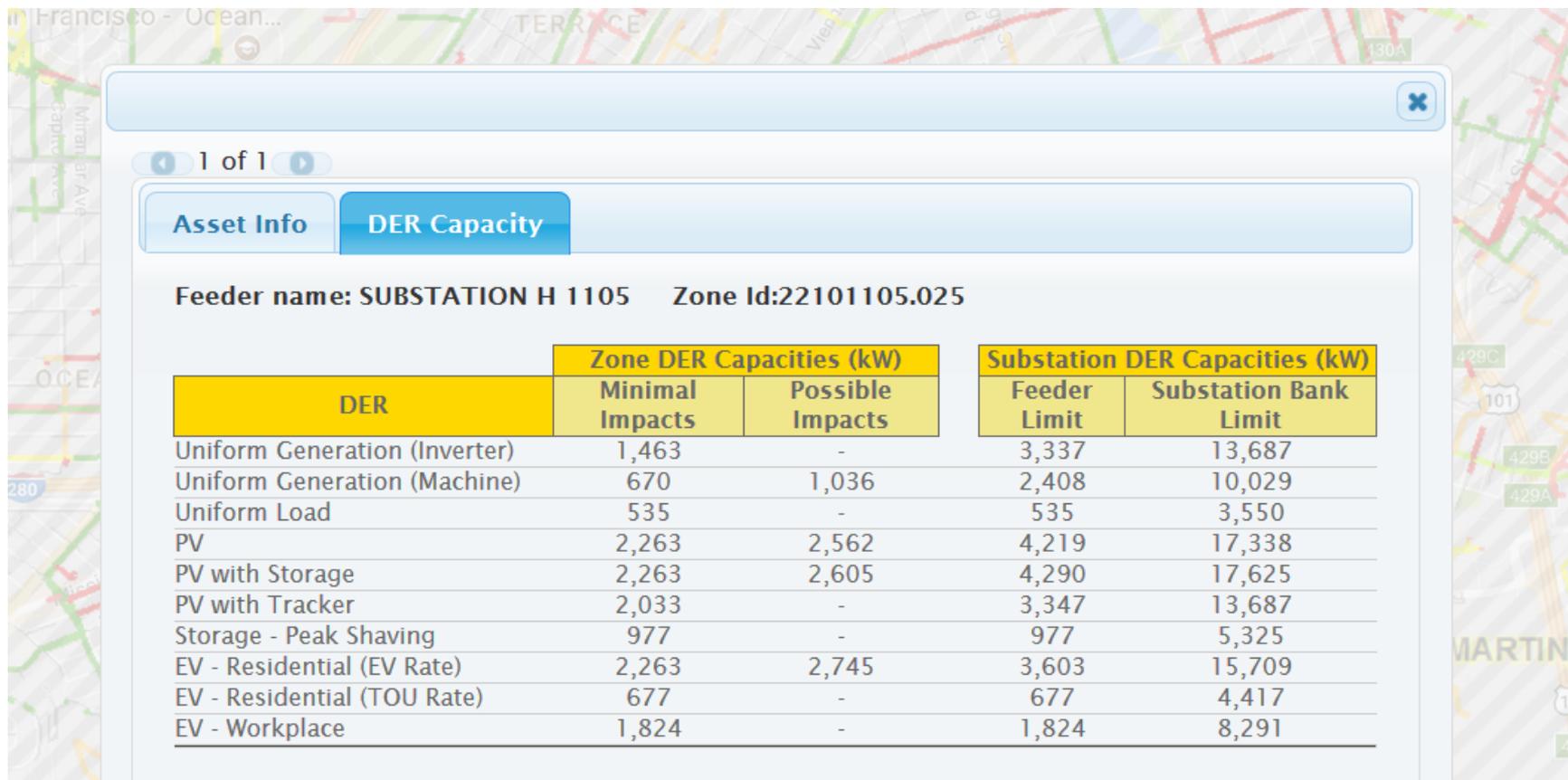
**The amount of distributed energy resources that can be accommodated on the distribution system under existing grid conditions and operations without adversely impacting operational criteria or requiring significant infrastructure upgrades.**

# Hosting Capacity Components



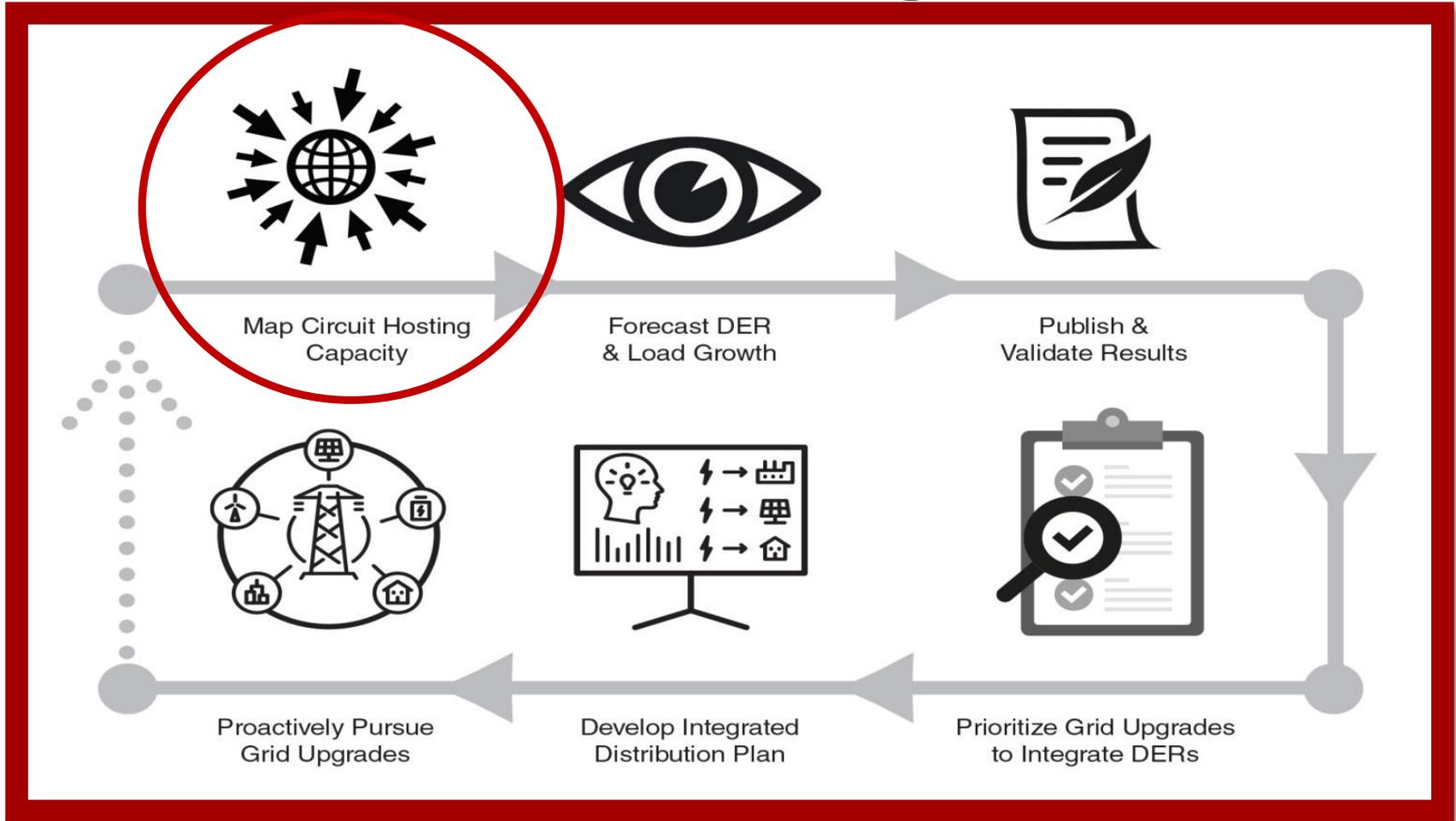


# Hosting Capacity Maps (Cont.)



From PG&E Demonstration A ICA Map, available at:  
<https://www.pge.com/b2b/energysupply/wholesaleelectricsuppliersolicitation/PVRFO/DemoAMap/DemoA.html>

# Integrated Distribution Planning



# Key HCA Process Steps

- Establish a stakeholder process
- Select and define use cases
- Identify criteria to guide HCA implementation
- Develop HCA methodology
- Validate results
- Share HCA data
- Track, Learn & Evolve

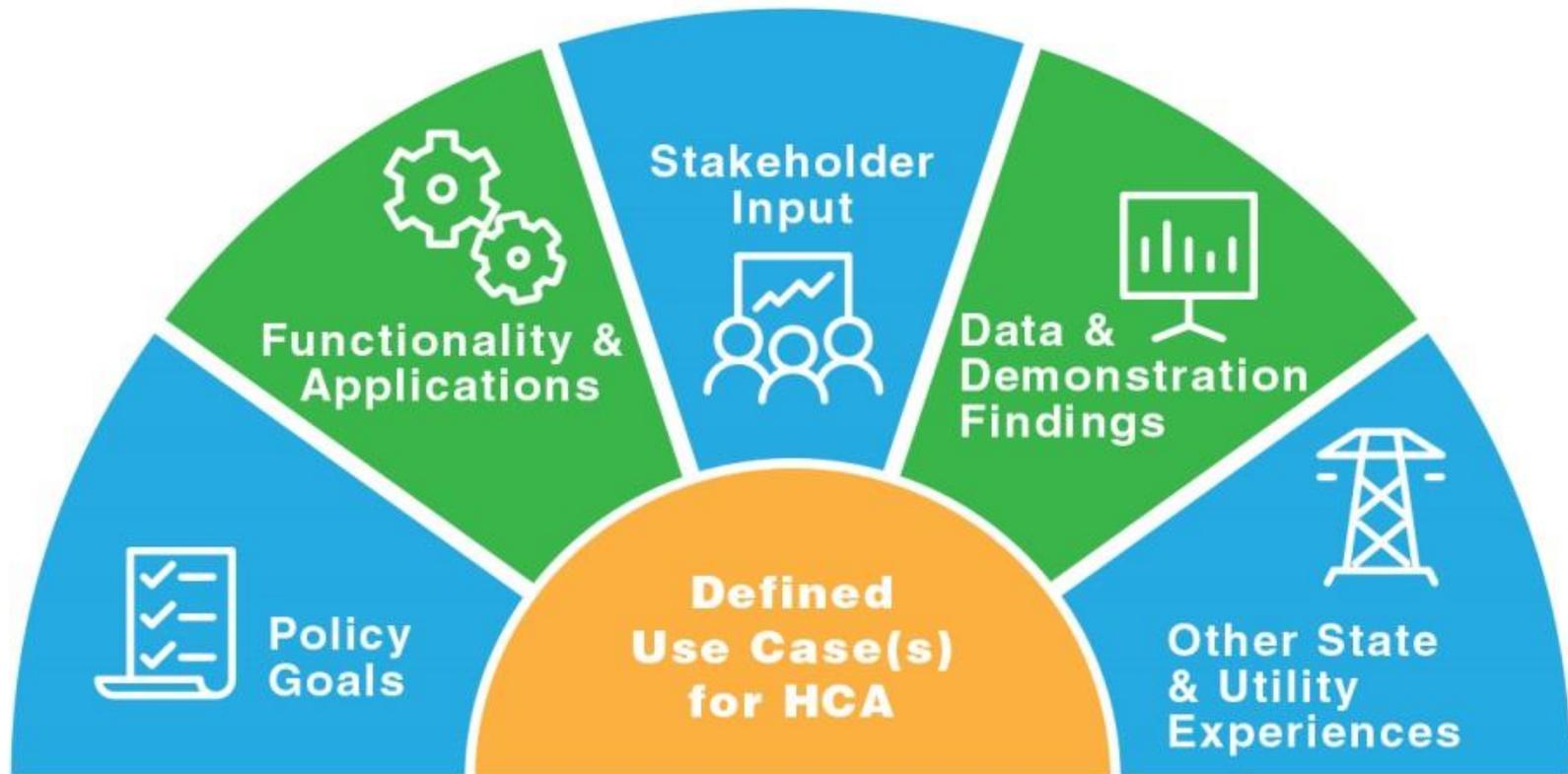
**Download Optimizing the Grid report at:**  
**<https://irecusa.org/publications/>**

# Stakeholder Engagement Strategies



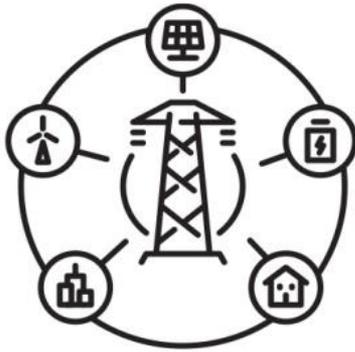
Regulatory Stakeholder Engagement Strategies

# Select Use Cases



Key Elements to Defining Use Case(s) for HCA

# HCA Use Cases



Interconnection of DERs



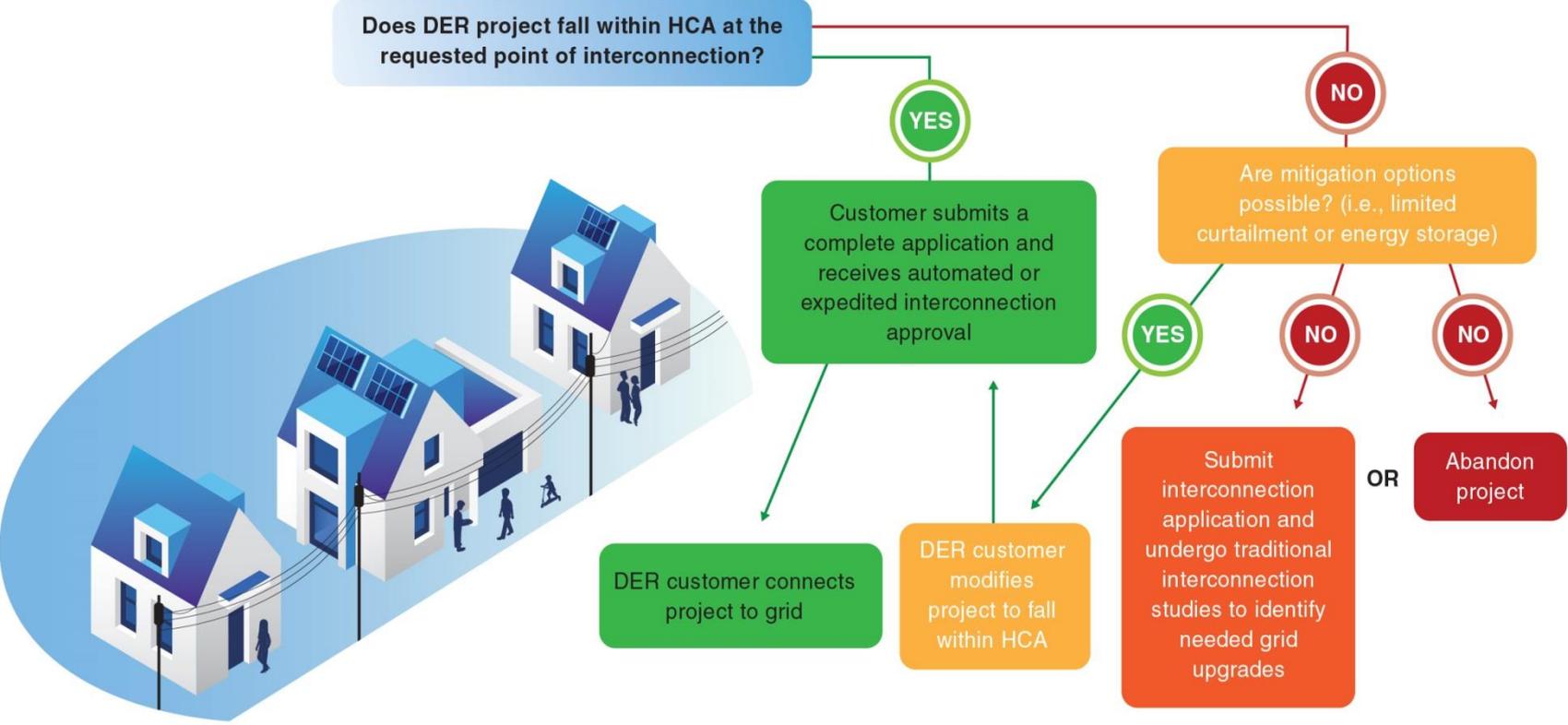
Distribution Planning



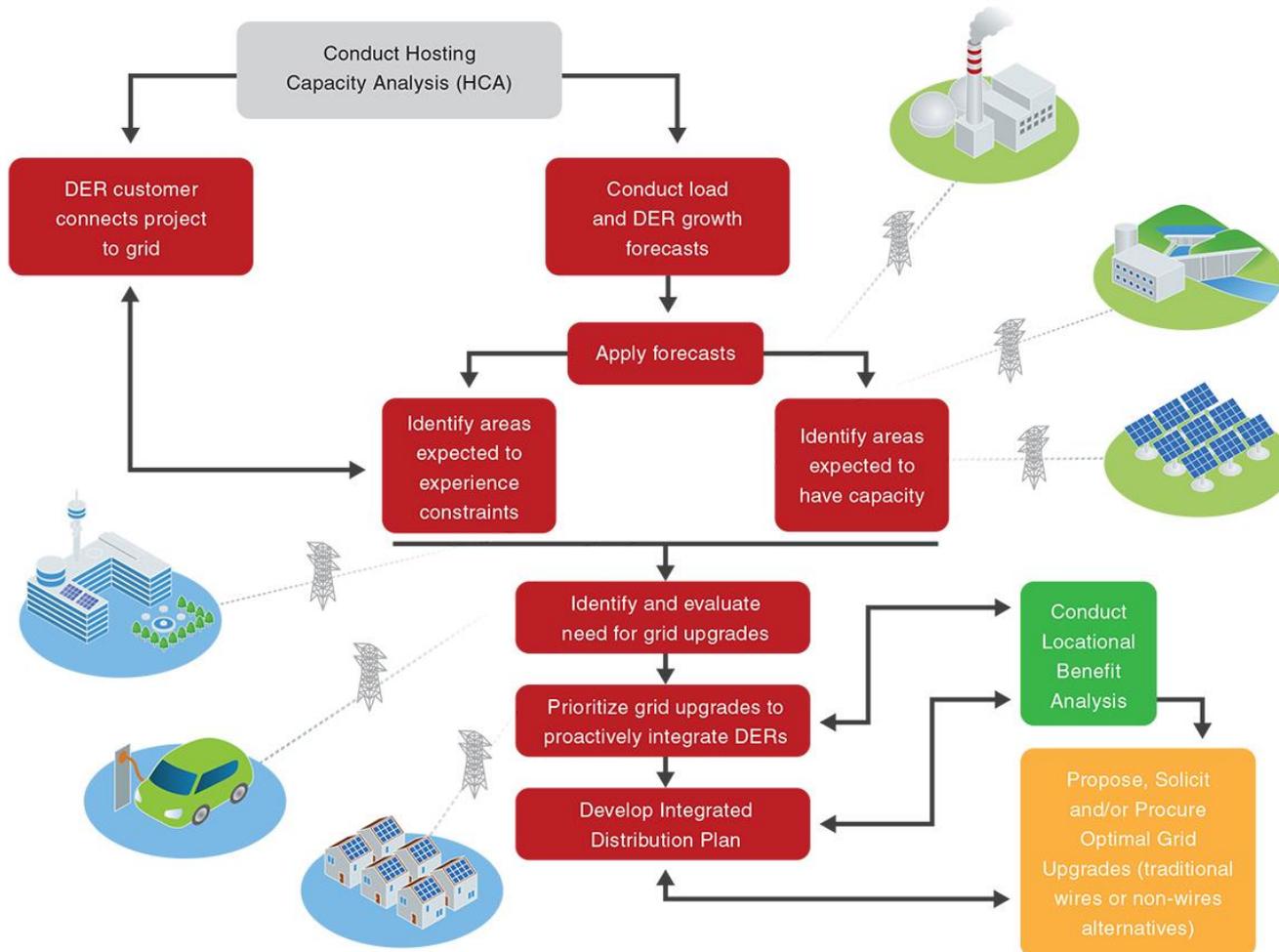
Locational Value of DERs

Hosting Capacity Use Cases

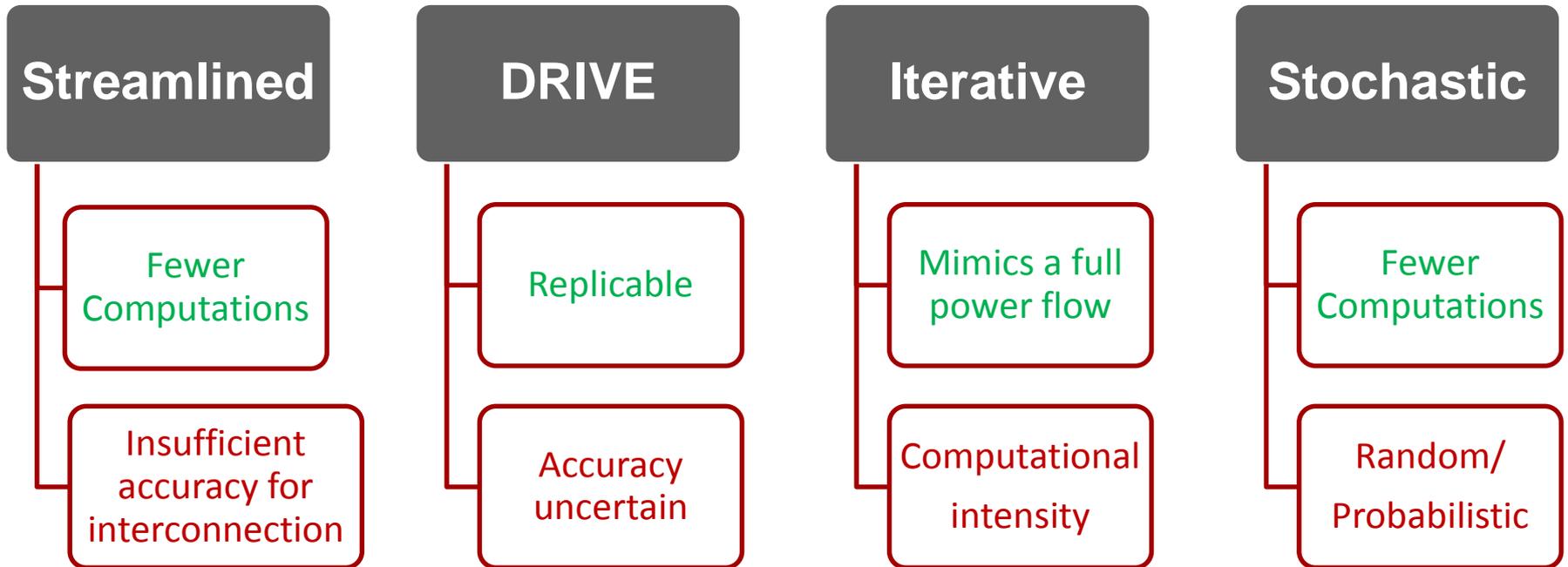
# Interconnection Use Case



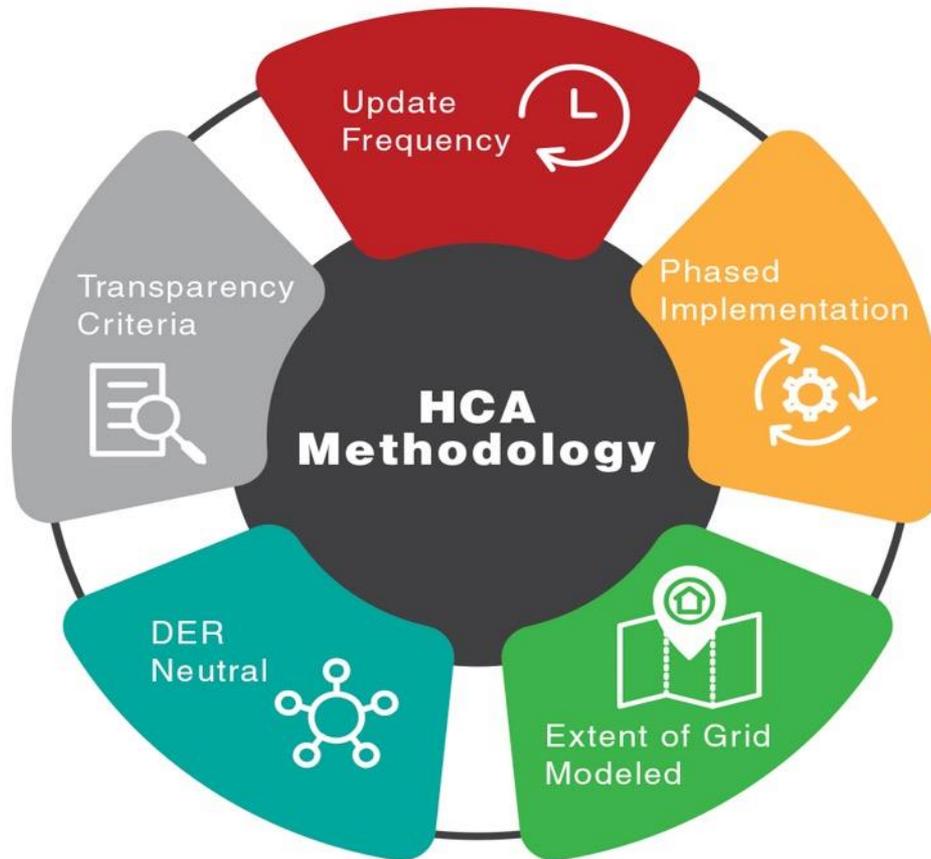
# Planning Use Case



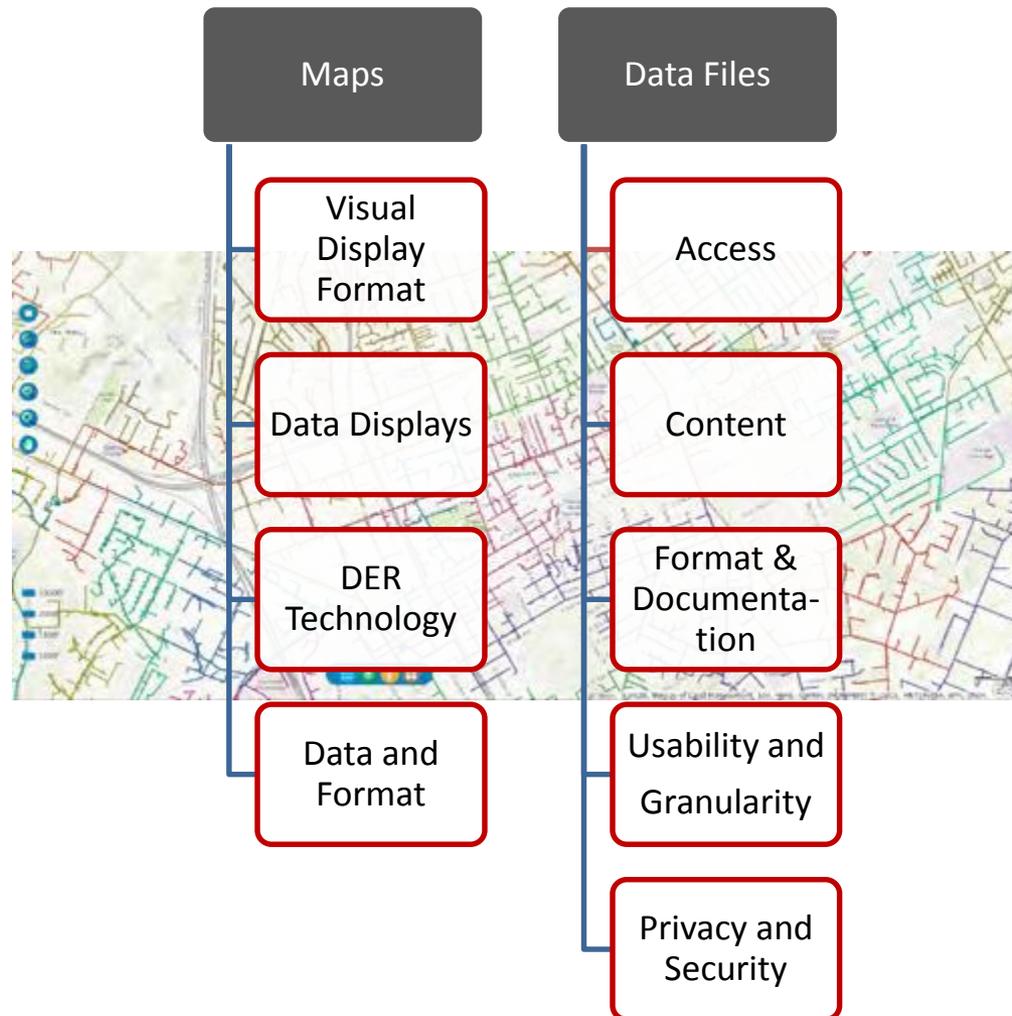
# Select & Refine Methodology



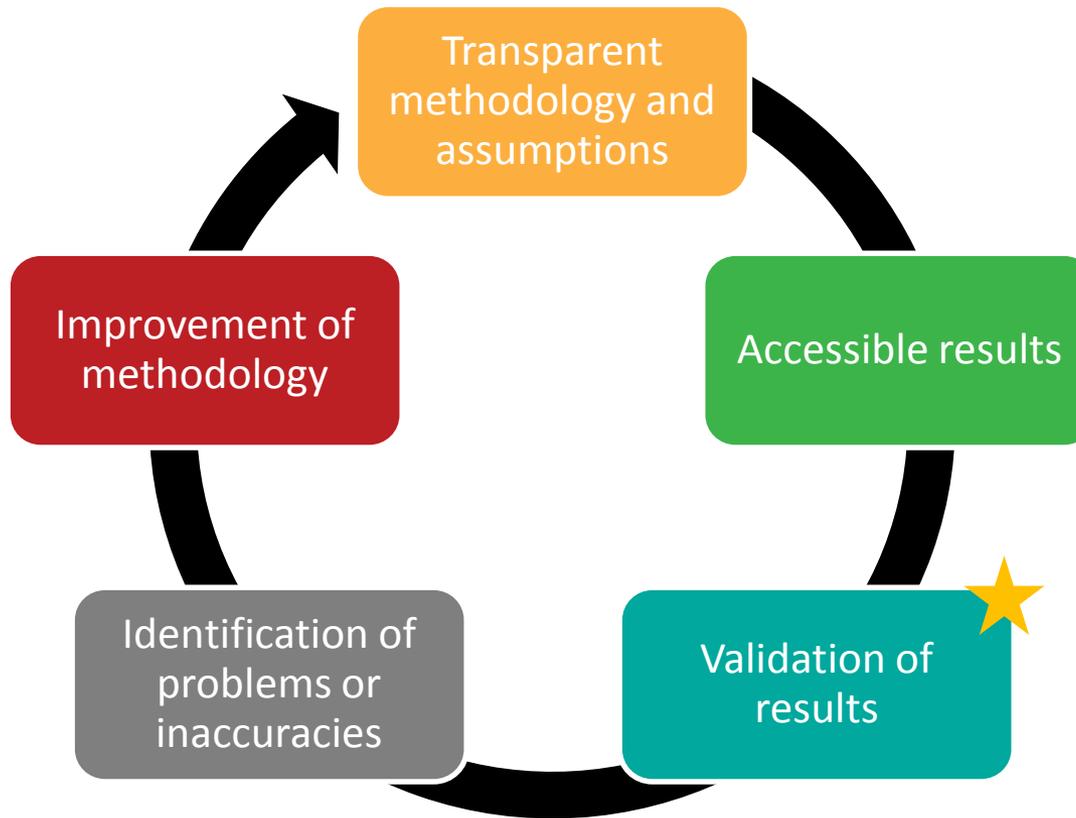
# Criteria to Guide Methodology



# Share Hosting Capacity Data



# Validate Results



# Deploy and Evolve



# Thank you! Questions?

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