

# Expanding Your Grid Modernization Toolbox

## Hosting Capacity Analyses for DERs

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**Regulatory Director**



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Regulatory Reform

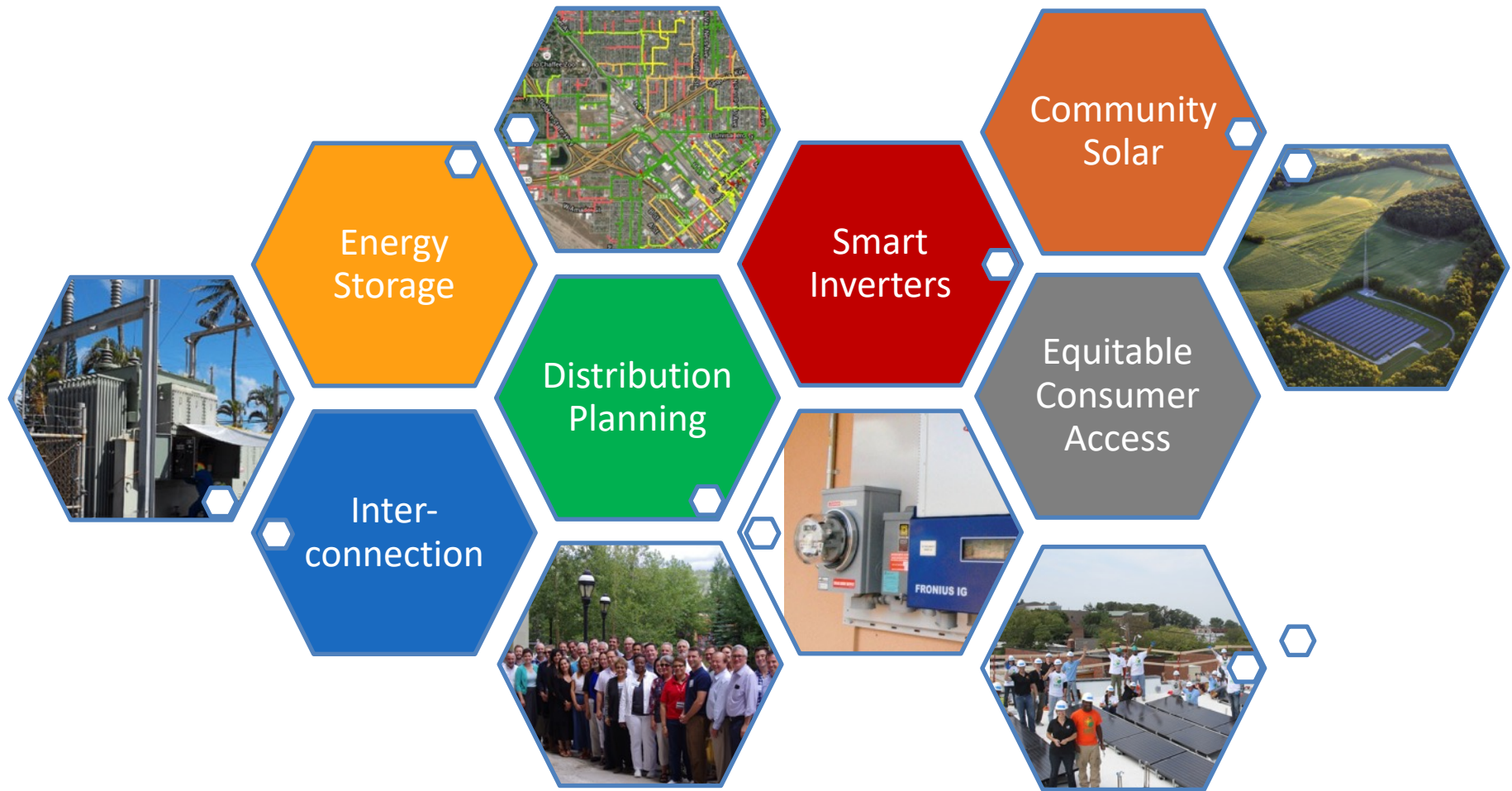


Quality Workforce



Consumer Empowerment

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

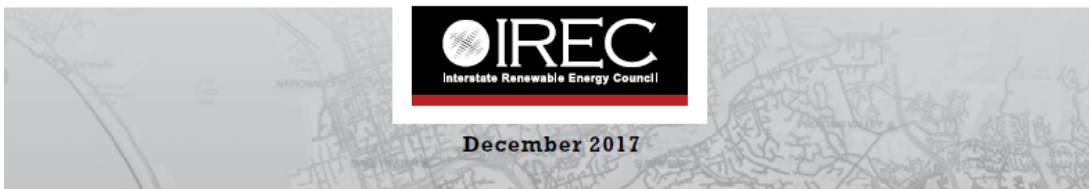




# OPTIMIZING THE GRID

A REGULATOR'S GUIDE TO

**Hosting Capacity Analyses for Distributed Energy Resources**



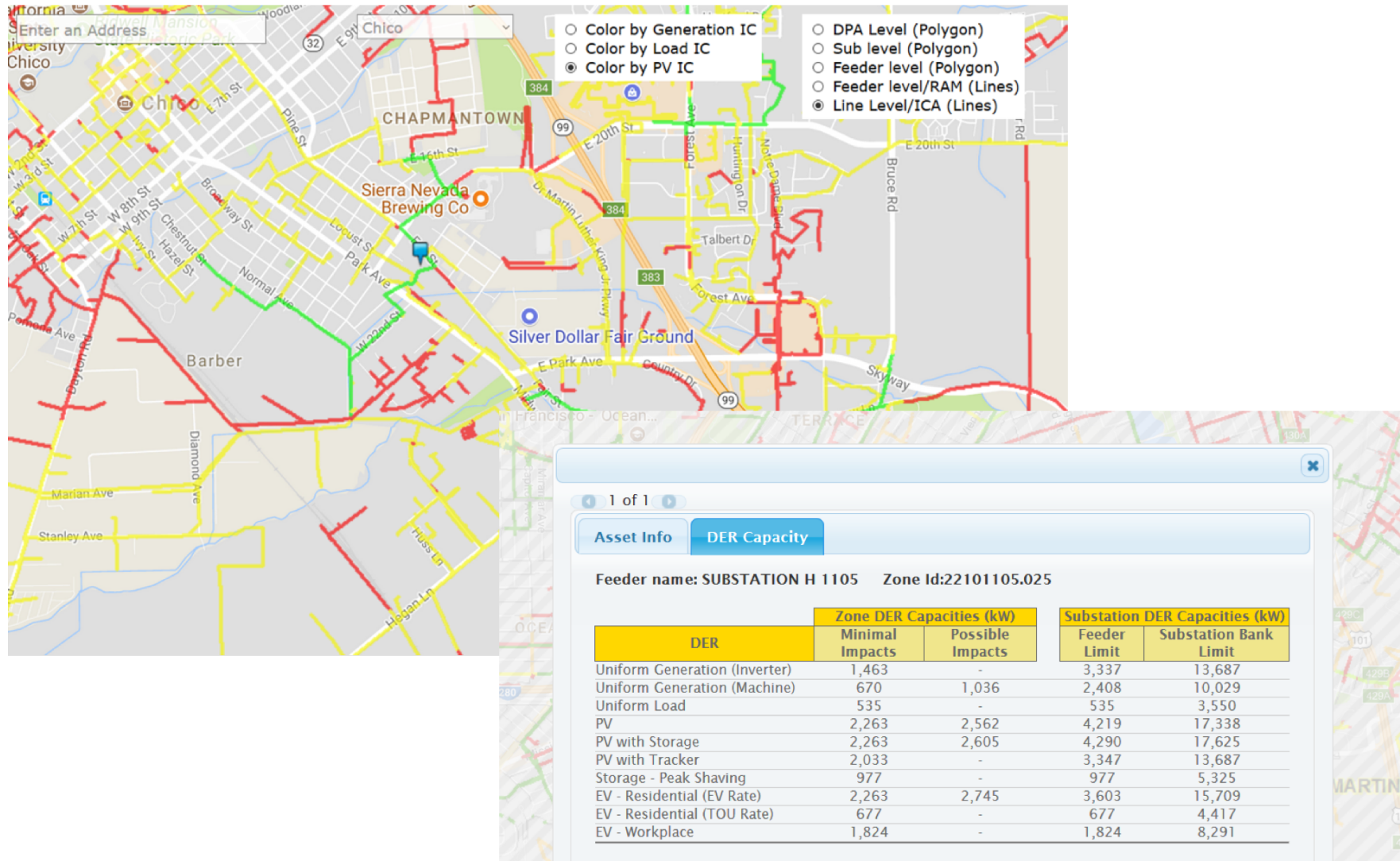
December 2017



# What is Hosting Capacity?

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

# Hosting Capacity Maps



From PG&E Demonstration A ICA Map, available at:

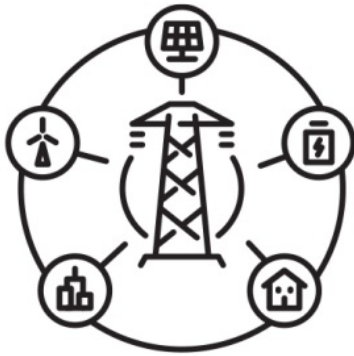
<https://www.pge.com/b2b/energysupply/wholesaleelectricssolicitation/PVRFO/DemoAMap/DemoA.html>

# Hosting Capacity Analysis



A tool in your grid modernization toolbox

# HCA Use Cases



Interconnection of DERs



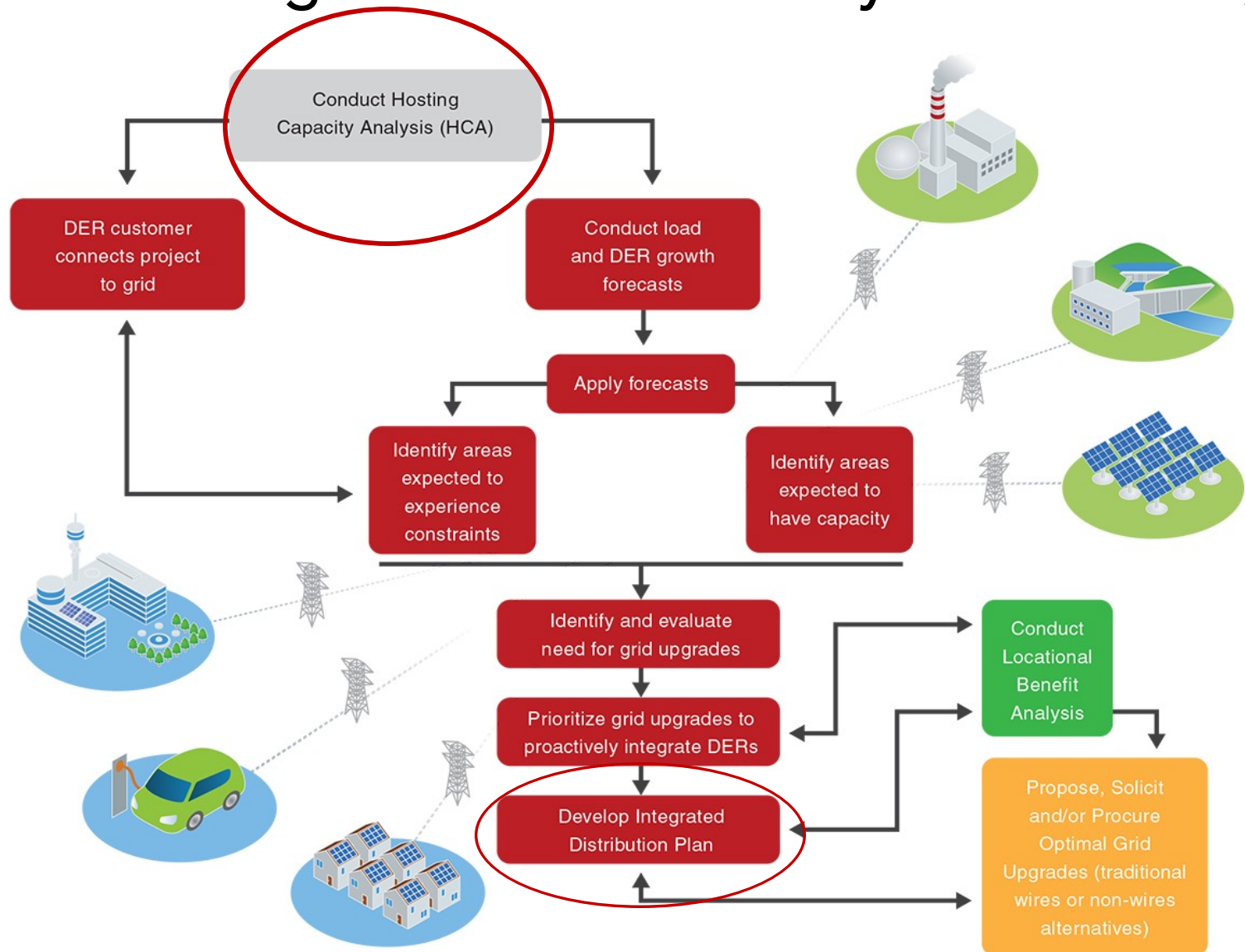
Distribution Planning



Locational Value of DERs

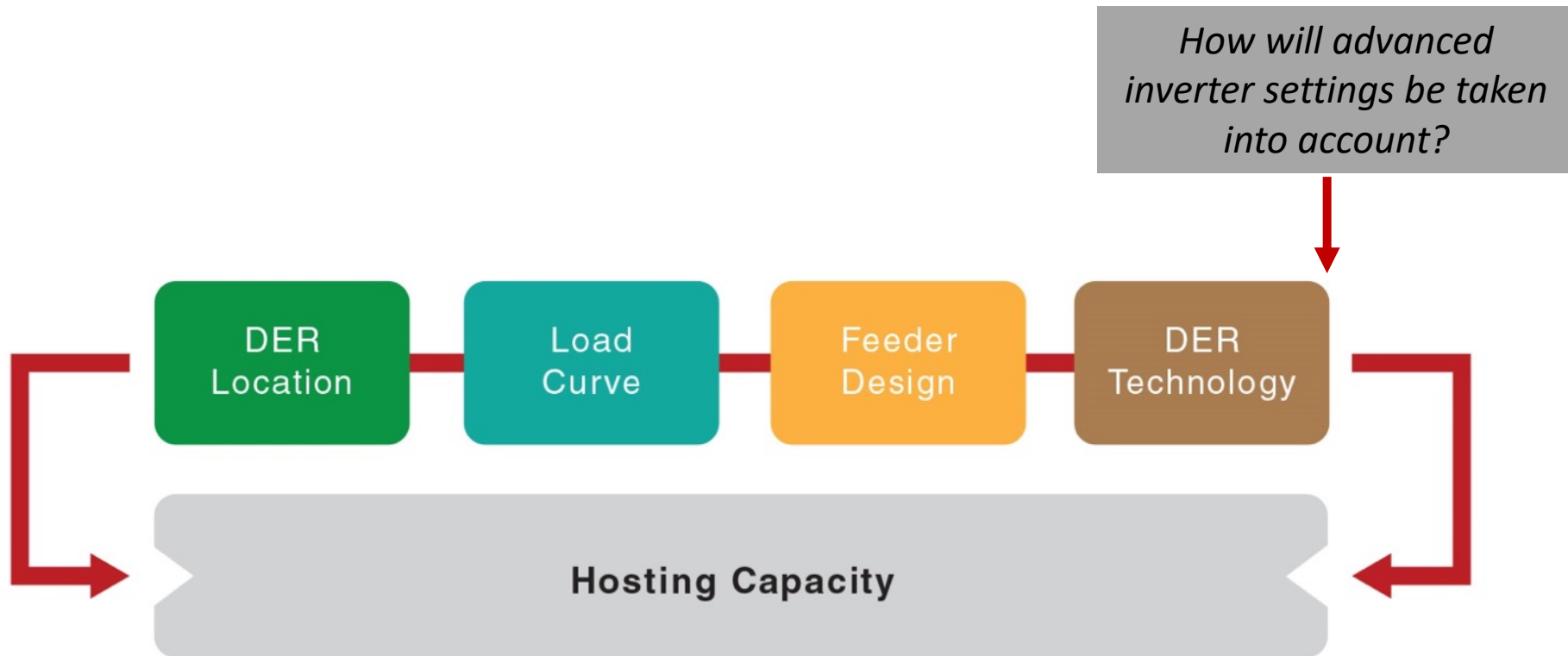
Hosting Capacity Use Cases

# HCA and Integrated Distribution System Planning





# Hosting Capacity Components



# Key HCA Process Steps

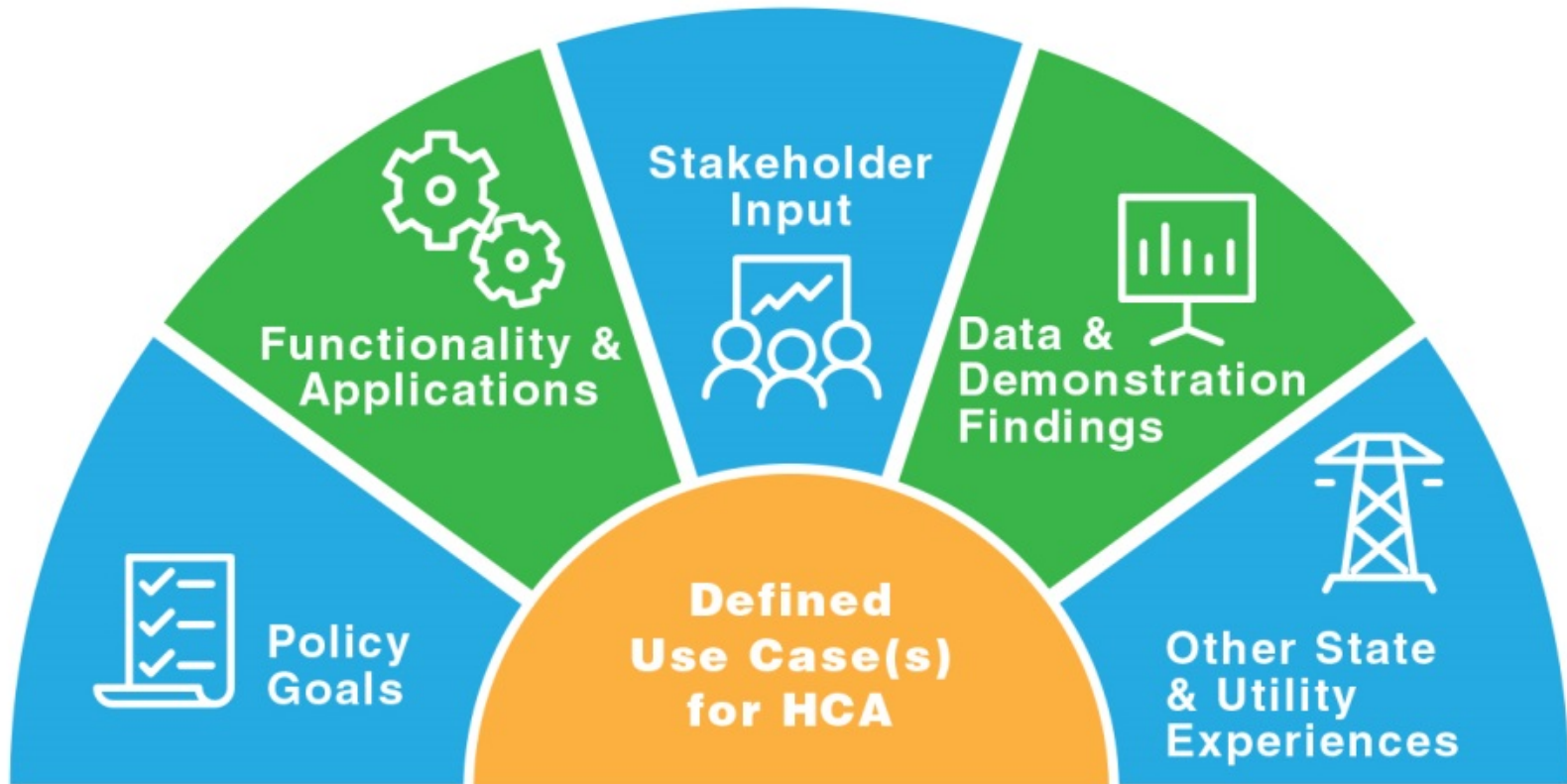
- Establish a stakeholder process
- Select and define use cases
- Identify criteria to guide HCA implementation
- Develop HCA methodology
- Validate results
- Share HCA data
- Track, Learn & Evolve

# Stakeholder Engagement Strategies



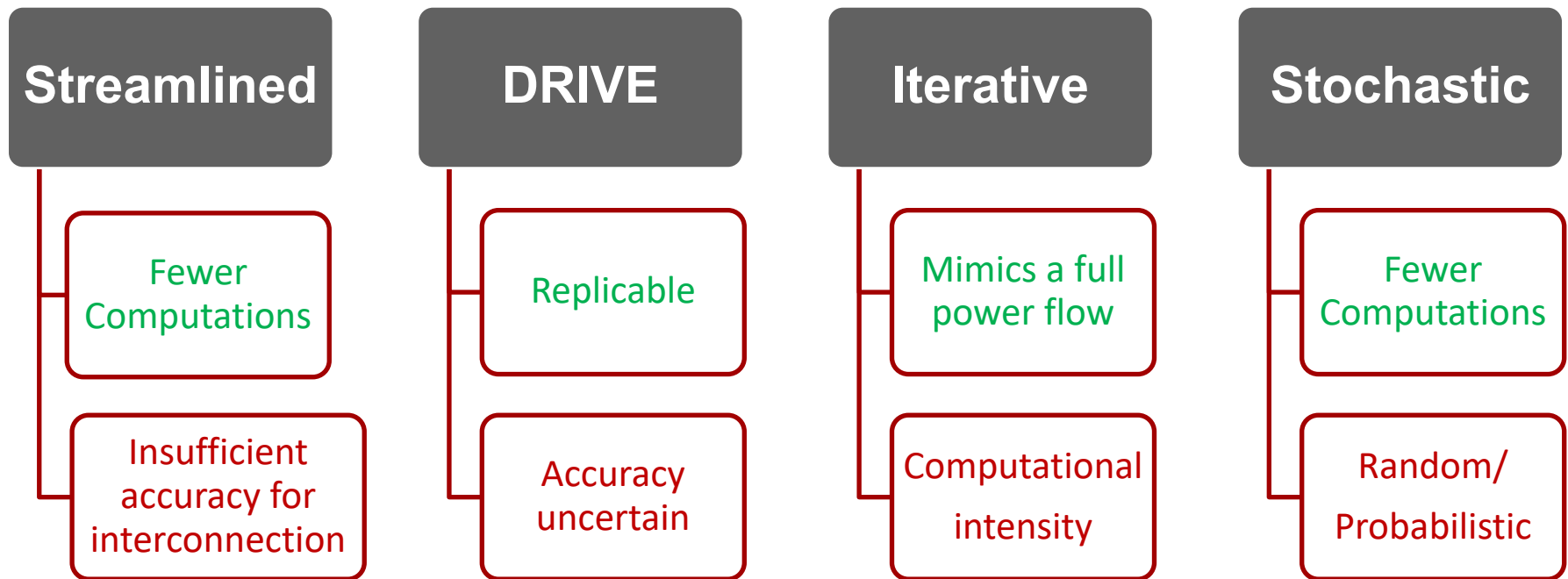
Regulatory Stakeholder Engagement Strategies

# Select Use Cases



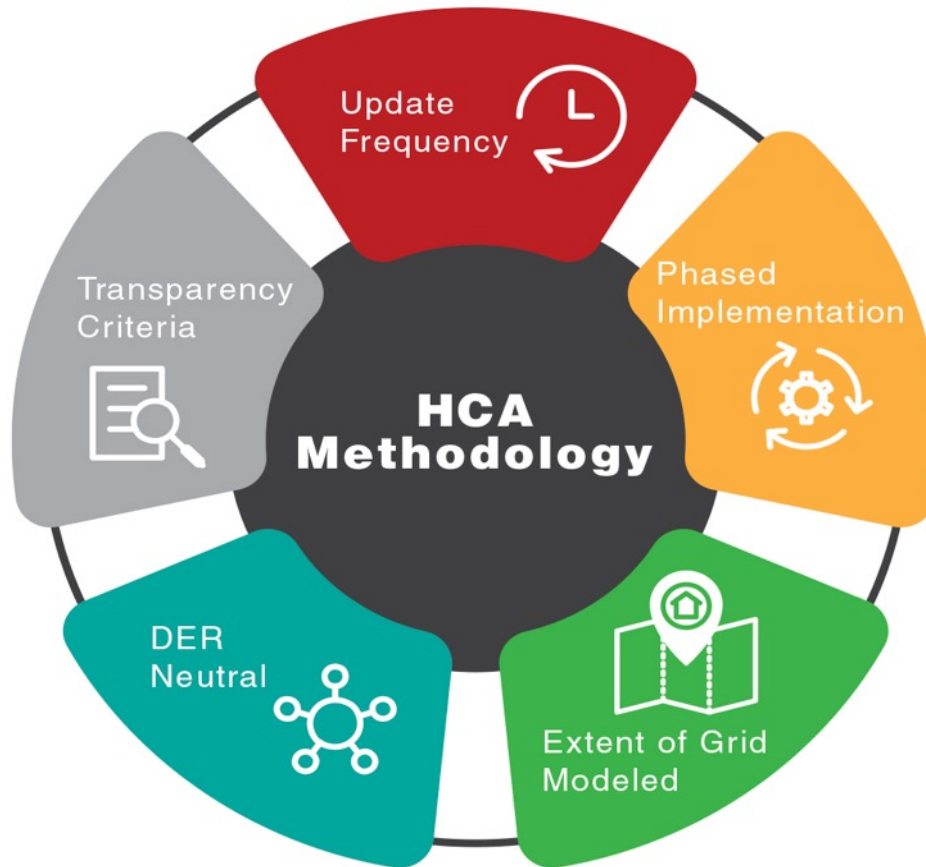
Key Elements to Defining Use Case(s) for HCA

# Select & Refine Methodology

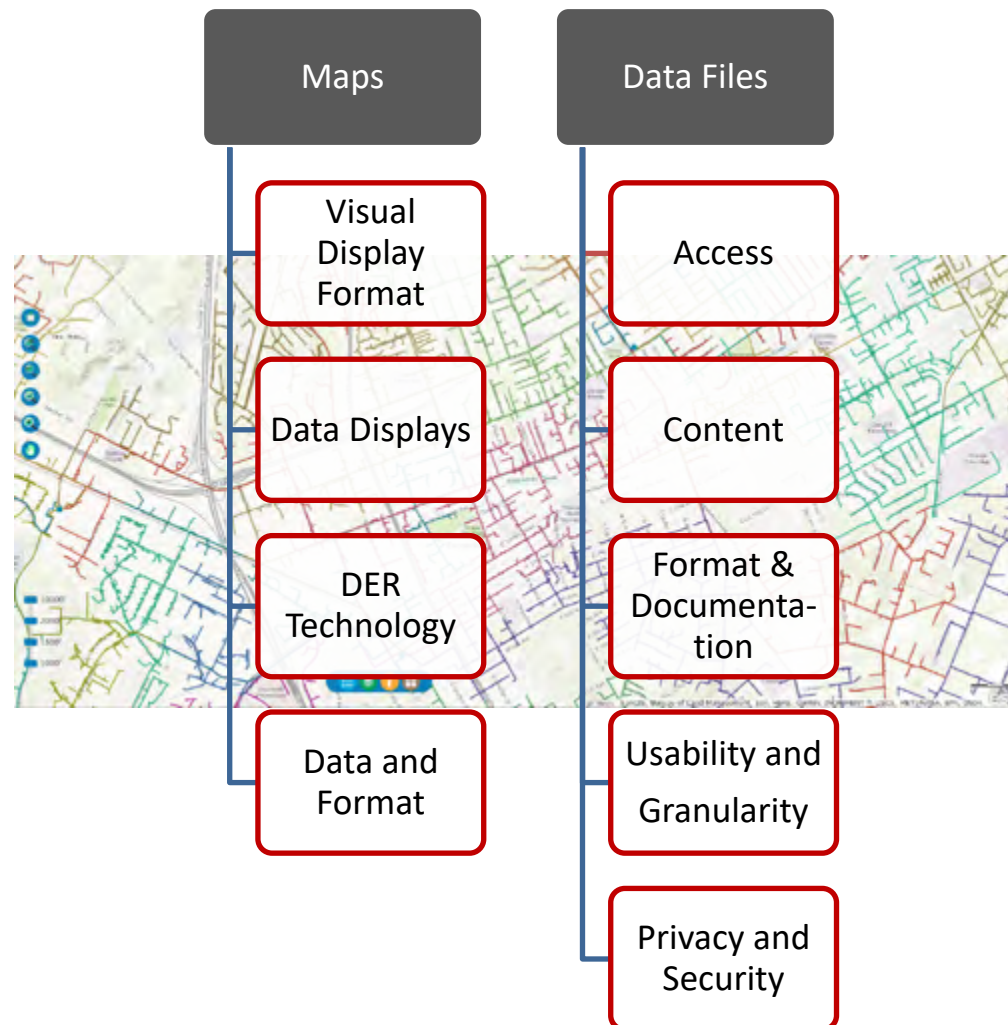




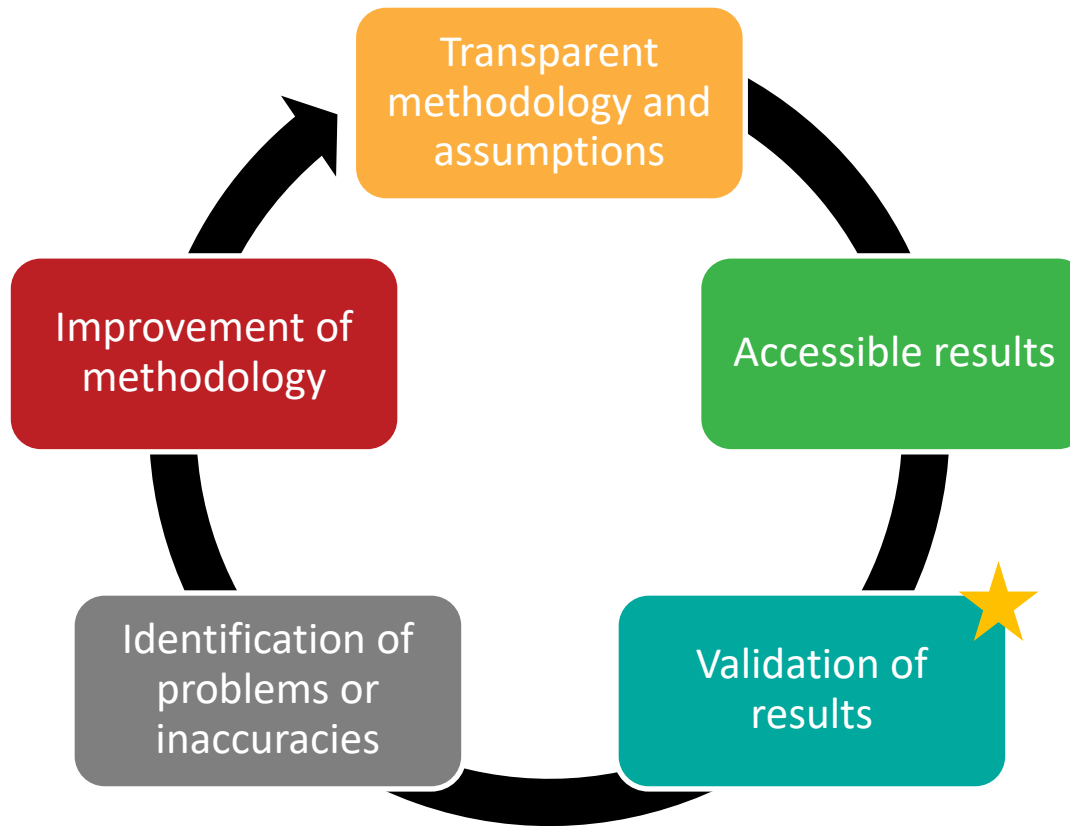
# Criteria to Guide Methodology



# Share Hosting Capacity Data



# Validate Results



# Deploy and Evolve





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**@IRECUSA**

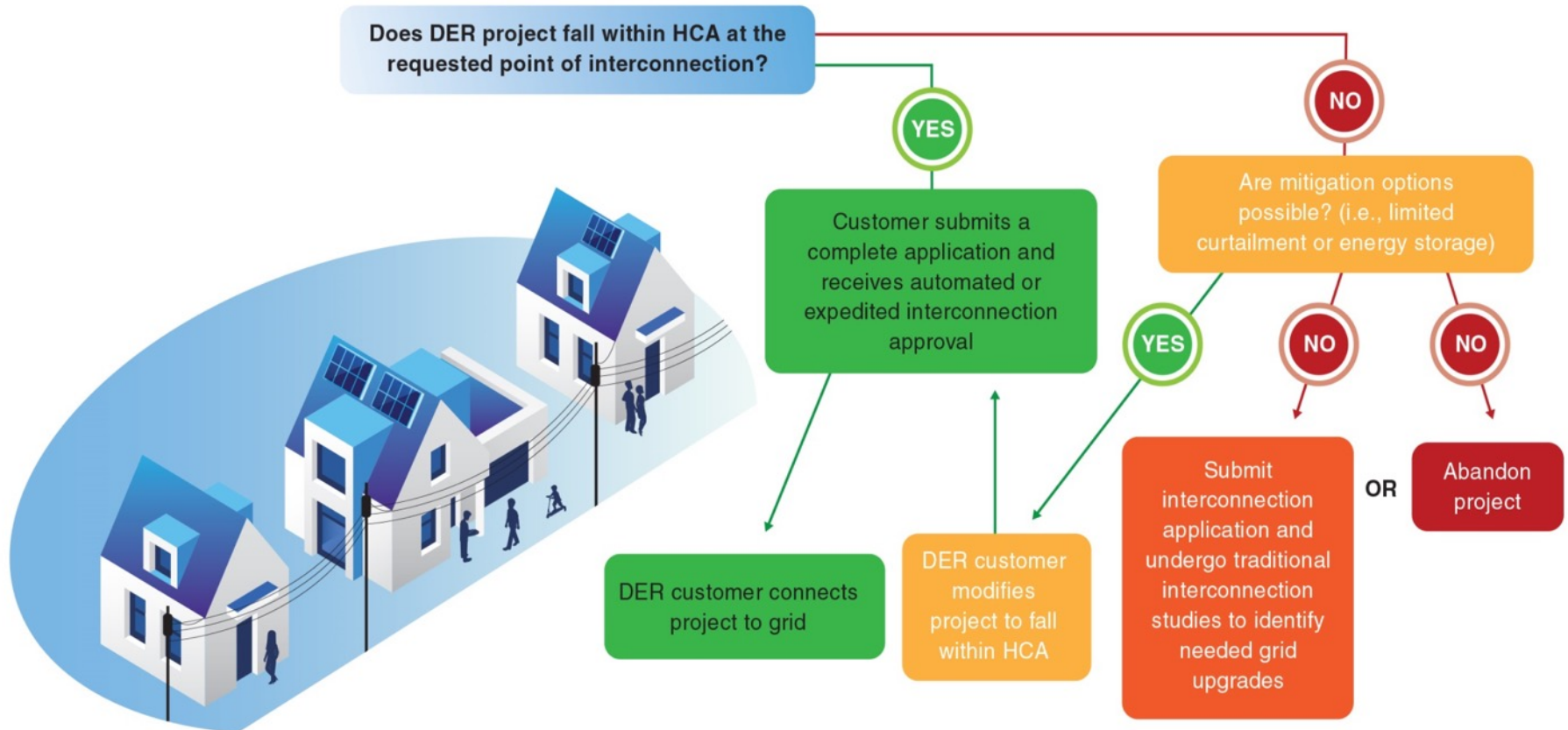
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Energy Council**

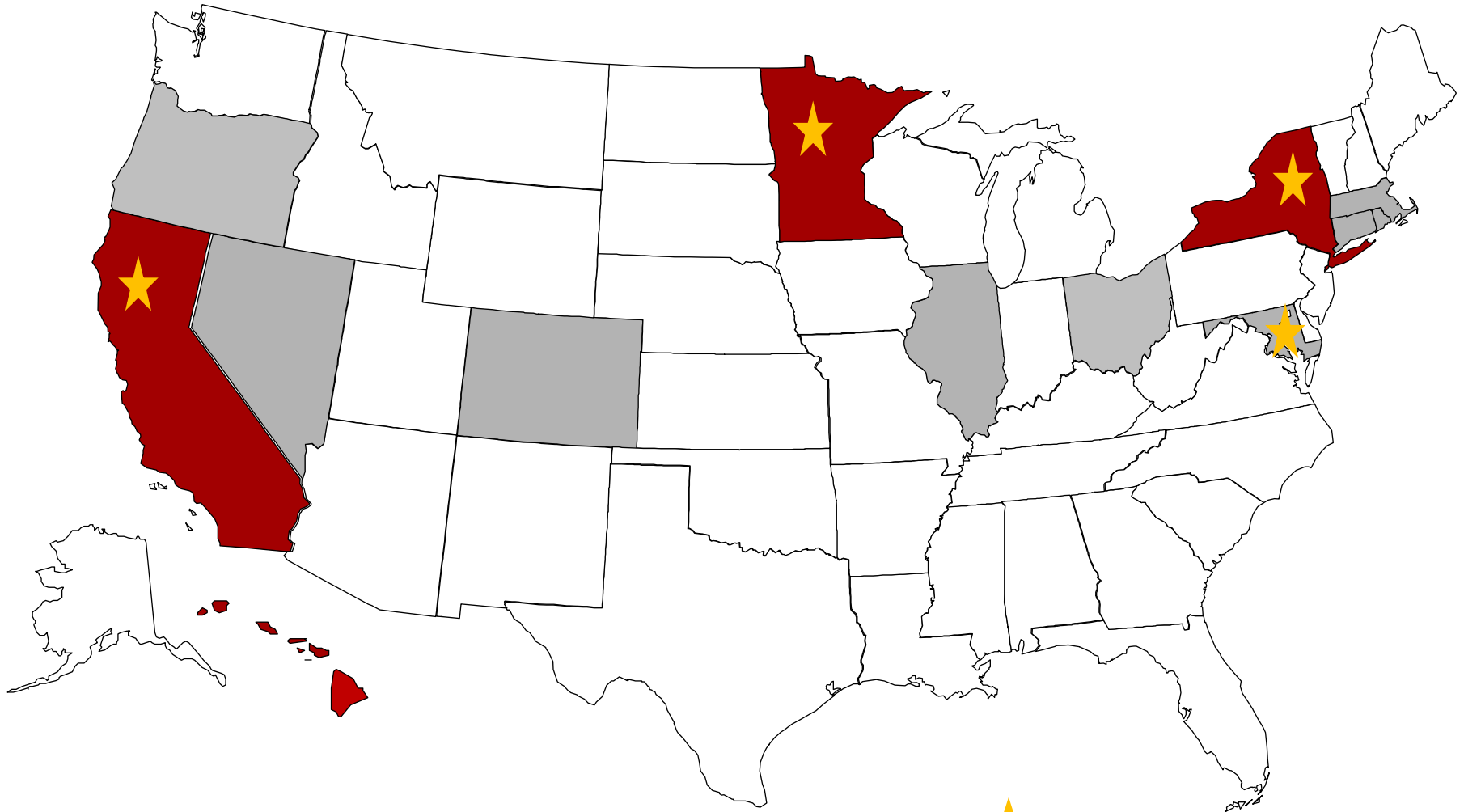
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# Interconnection Use Case



# 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*