

# Integrated Grid

Developing a benefit-cost framework  
and putting it to the test

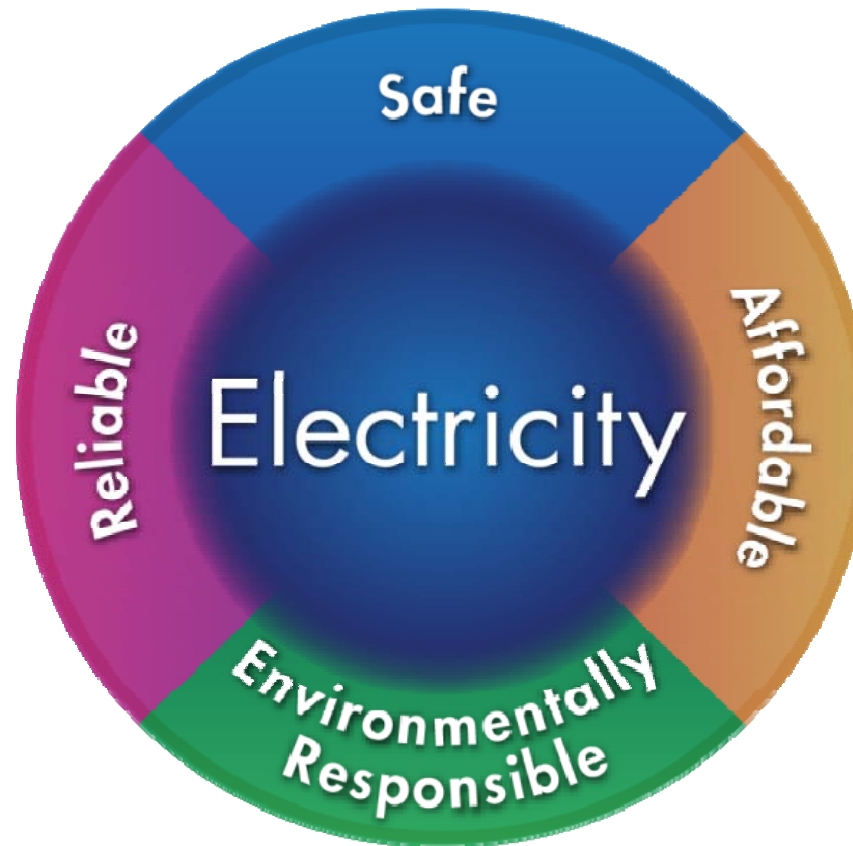


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Technology Assessments**

**MADRI Working Group Meeting #38**

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# Electric Power Research Institute

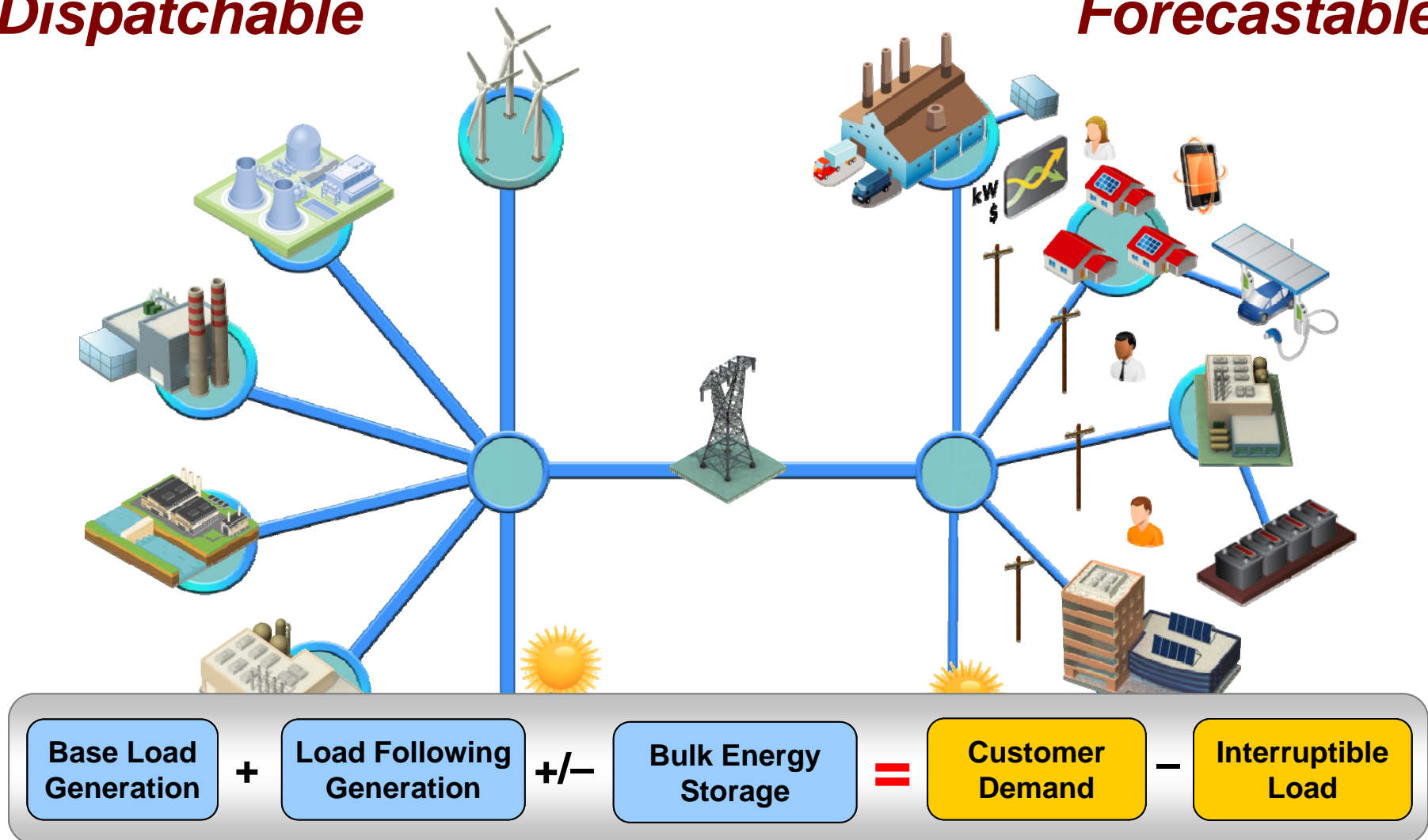


*Together...Shaping the Future of Electricity*

# The Power System: “Yesterday”

*Dispatchable*

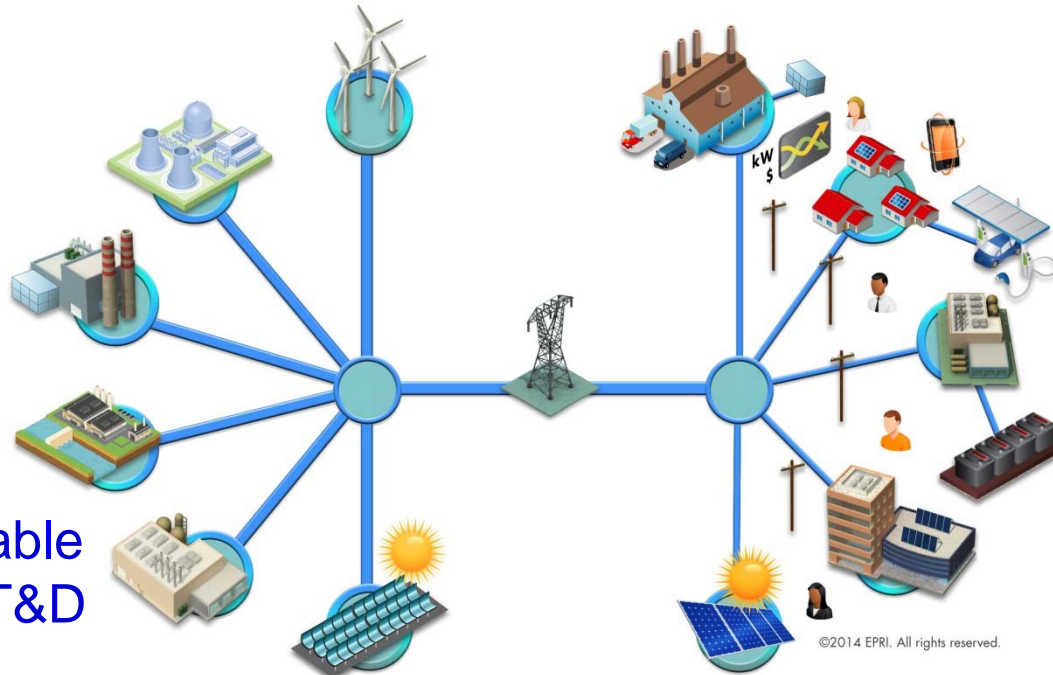
*Forecastable*



# The Power System: Today and *Looking Forward*

- **More Flexible Generation**

- **More Controllable and Resilient T&D**

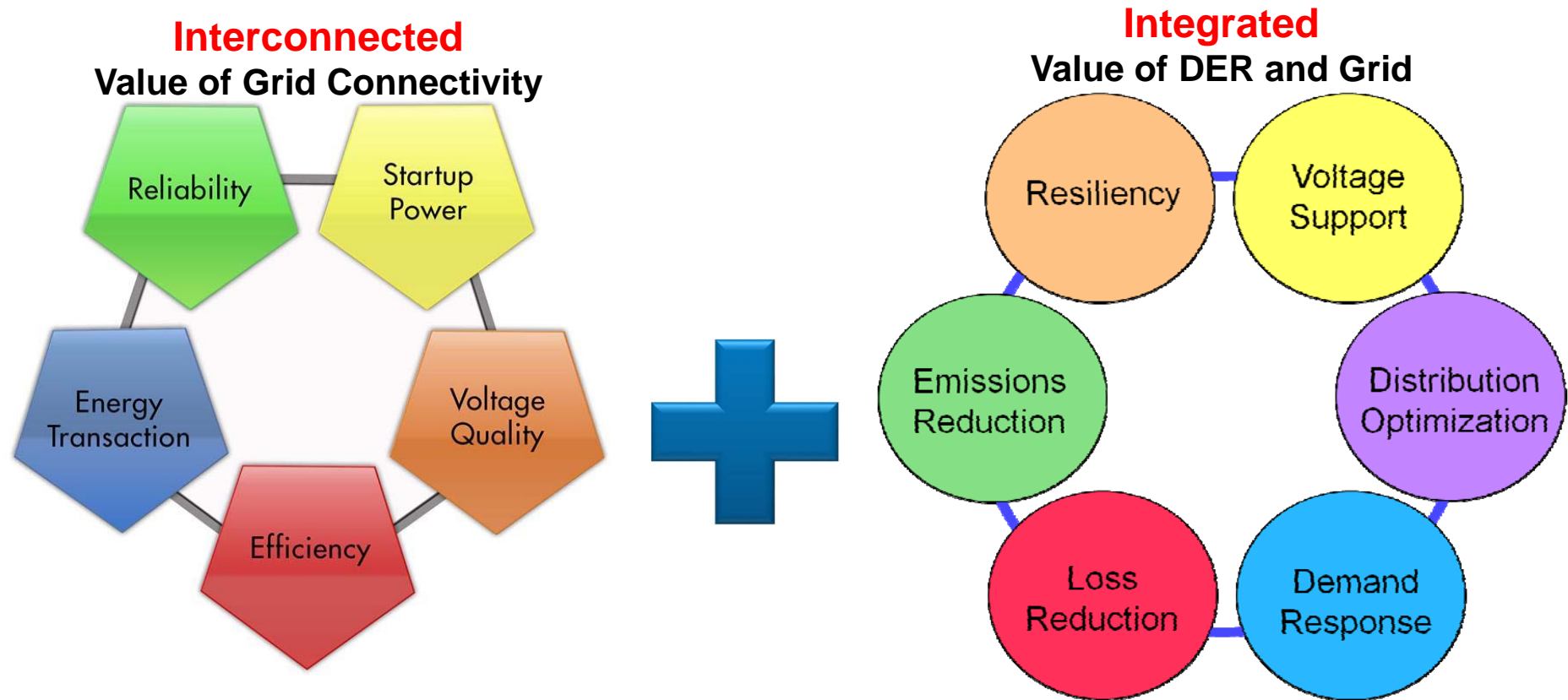


- **Energy Producing Consumers**

- **Interactive and Dynamic Loads**

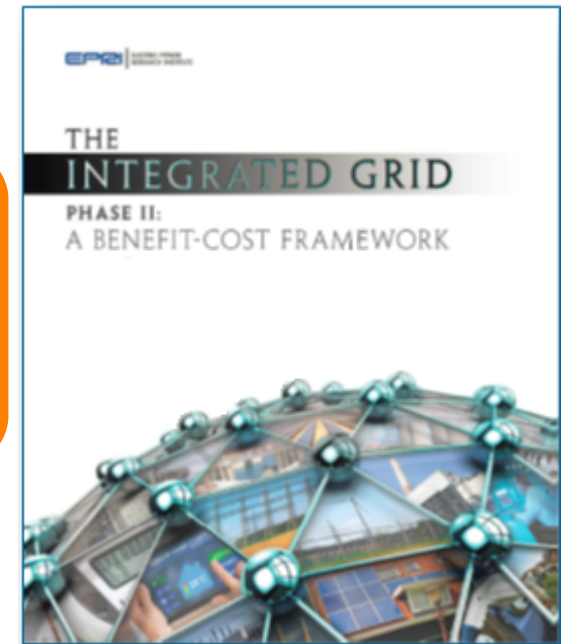
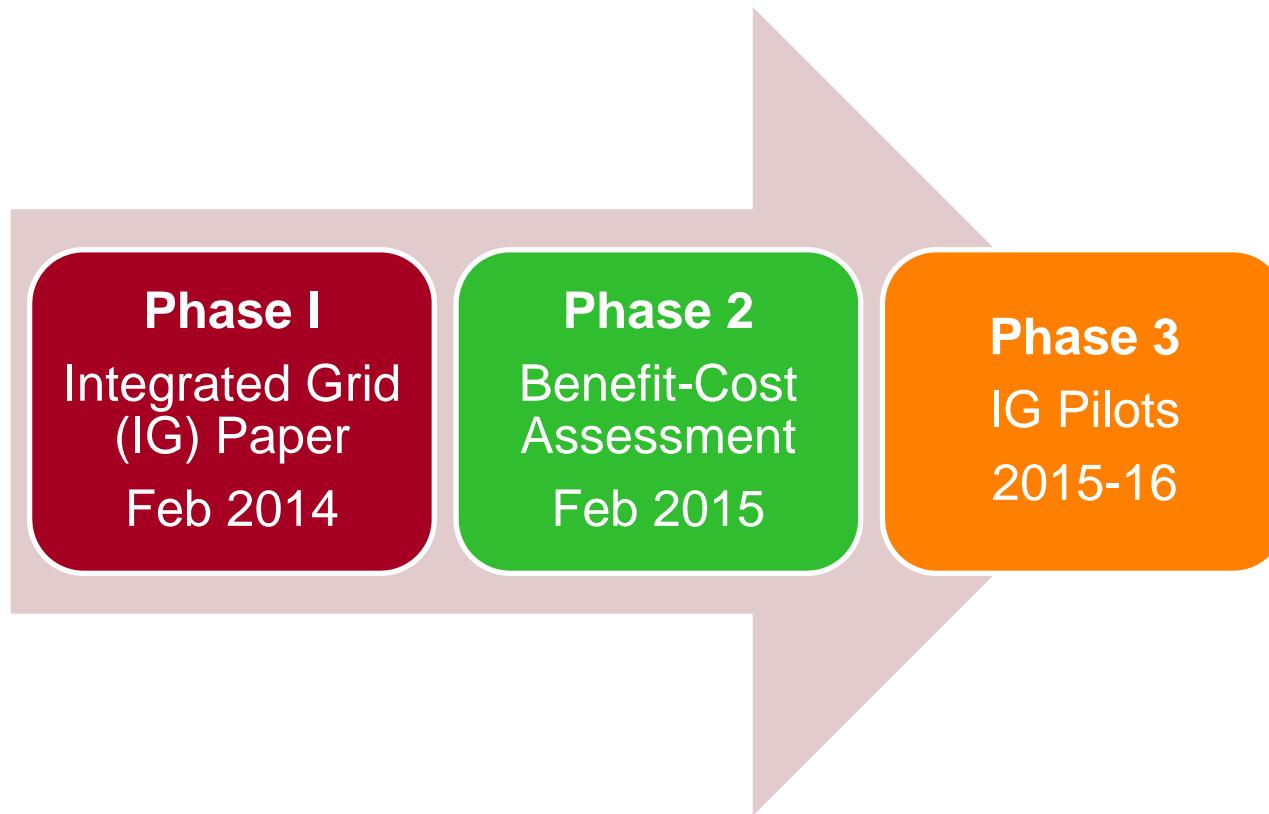
**A More *Dynamic* End-to-End Power System**

# Interconnected but Not Integrated



**Integration Enables Values of all Resources**

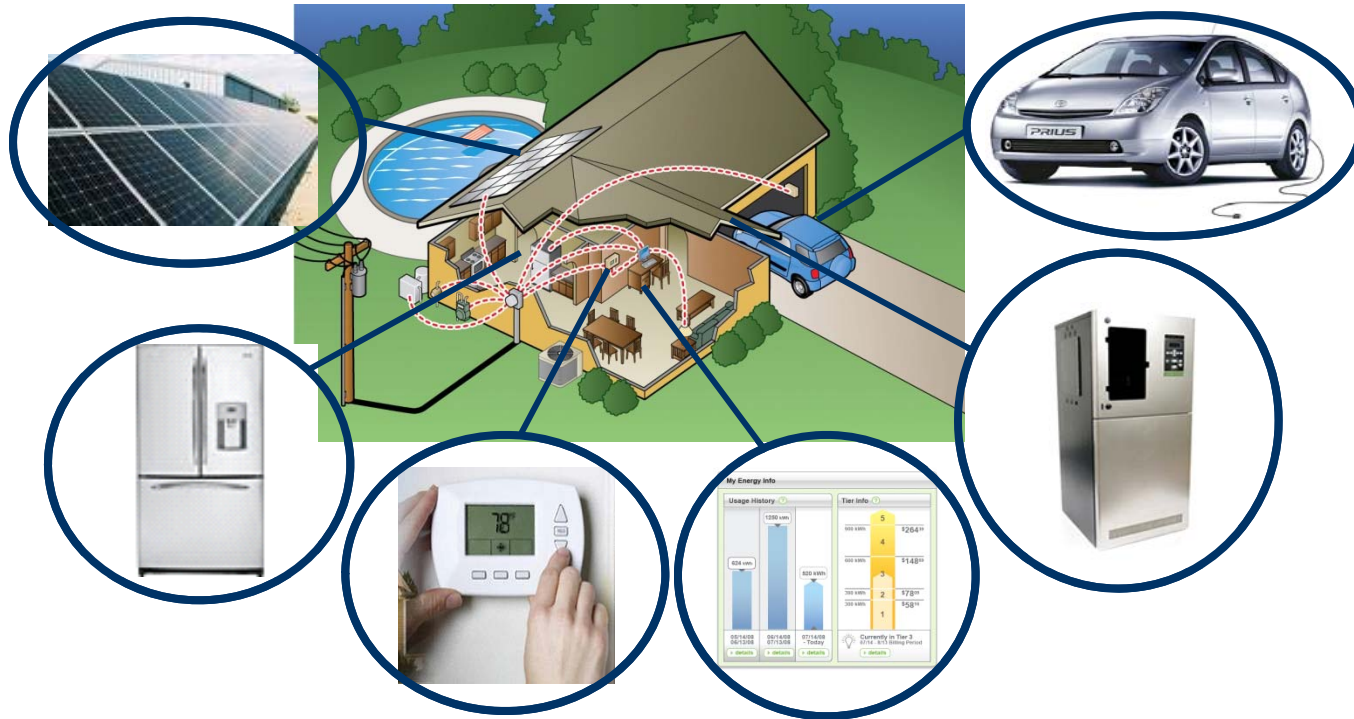
# Integrated Grid...Timeline



**Extensive Stakeholder Coordination in All Phases**

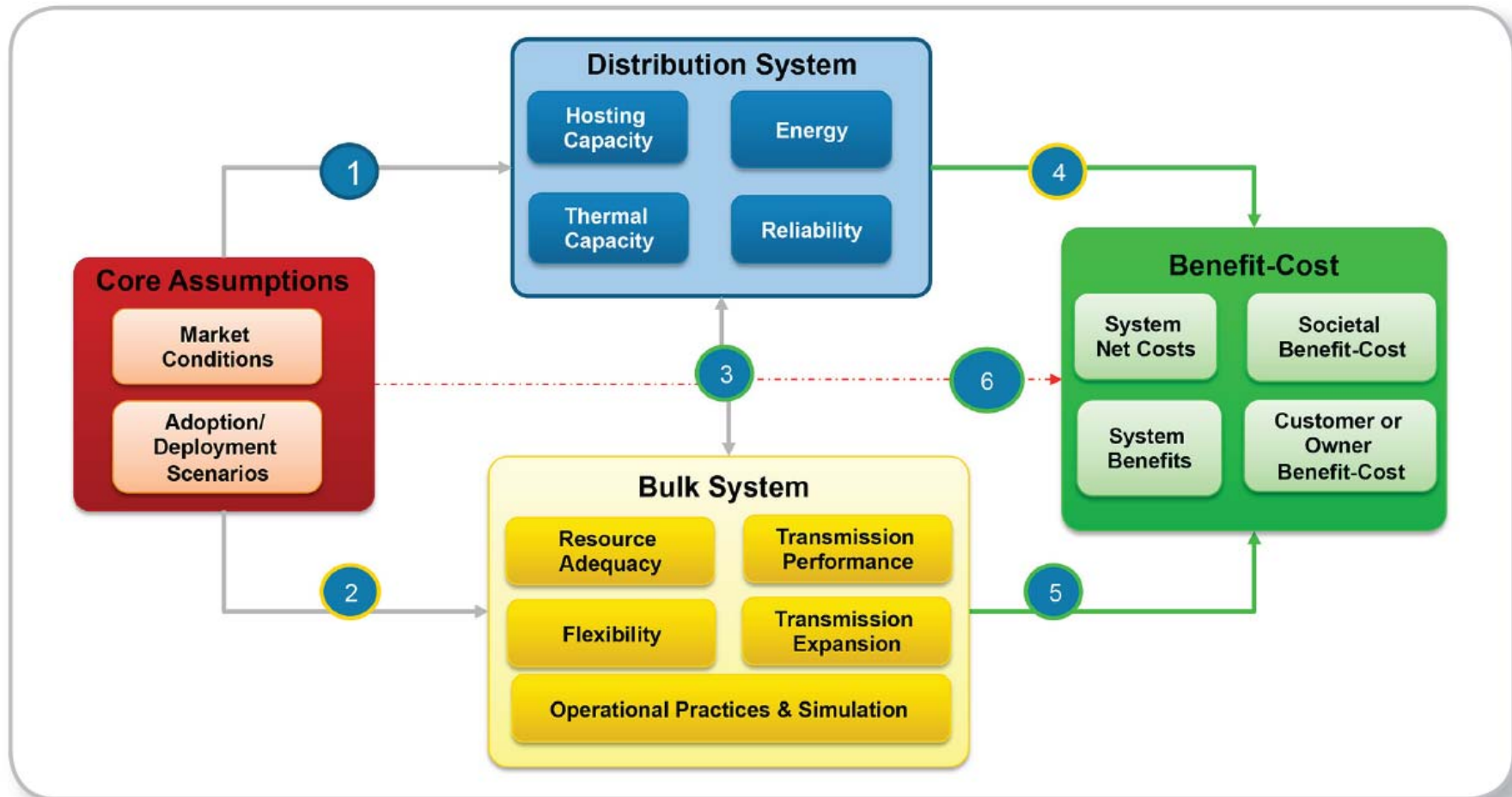


# The Integrated Grid is about Enabling the Customer



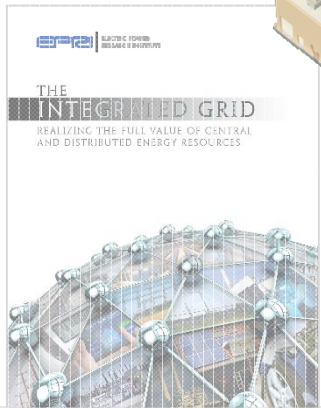
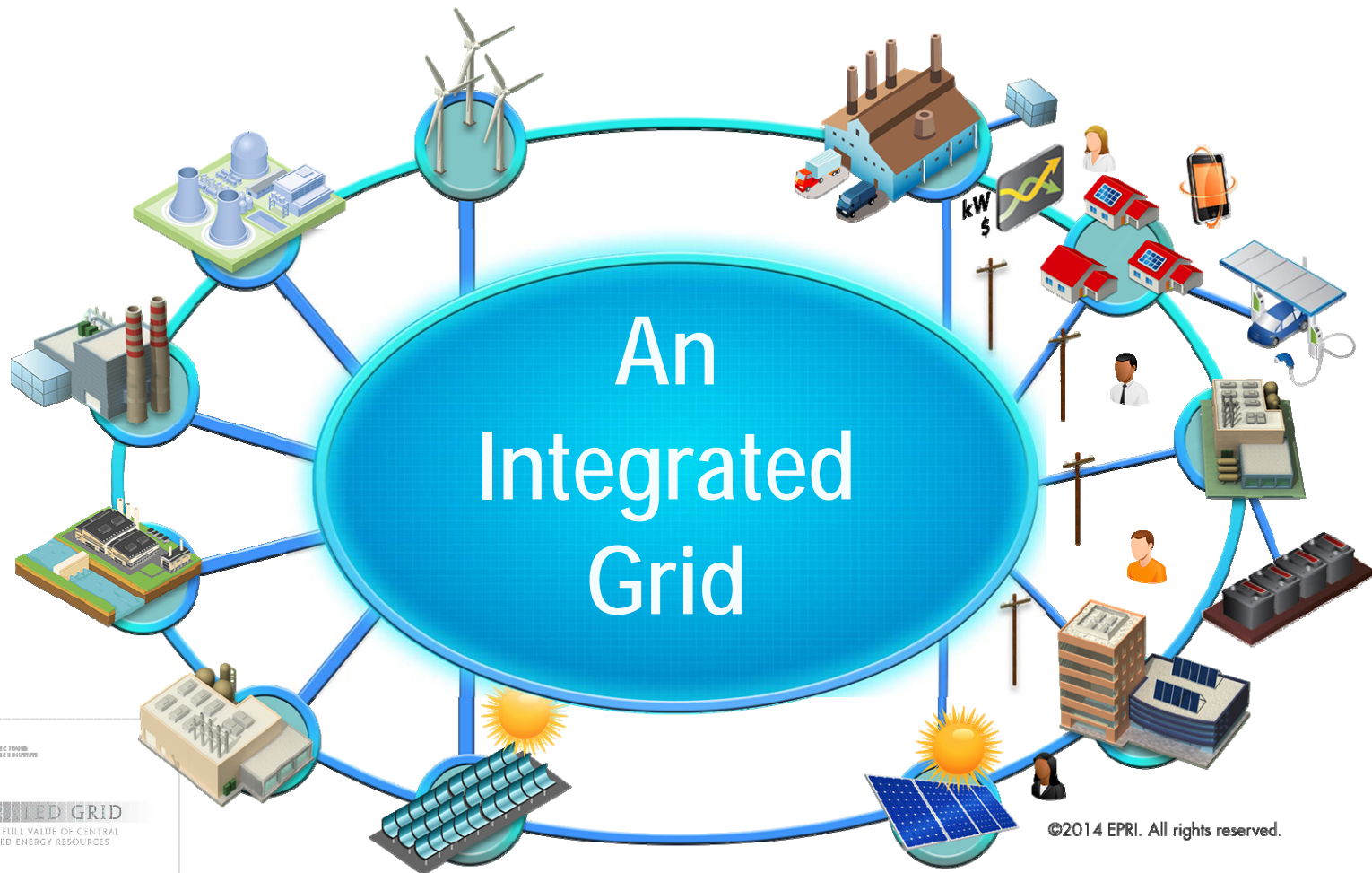
The integrated grid allows **Local Energy Optimization** to become part of **Global Energy Optimization**.

# Integrated Grid Benefit-Cost Framework



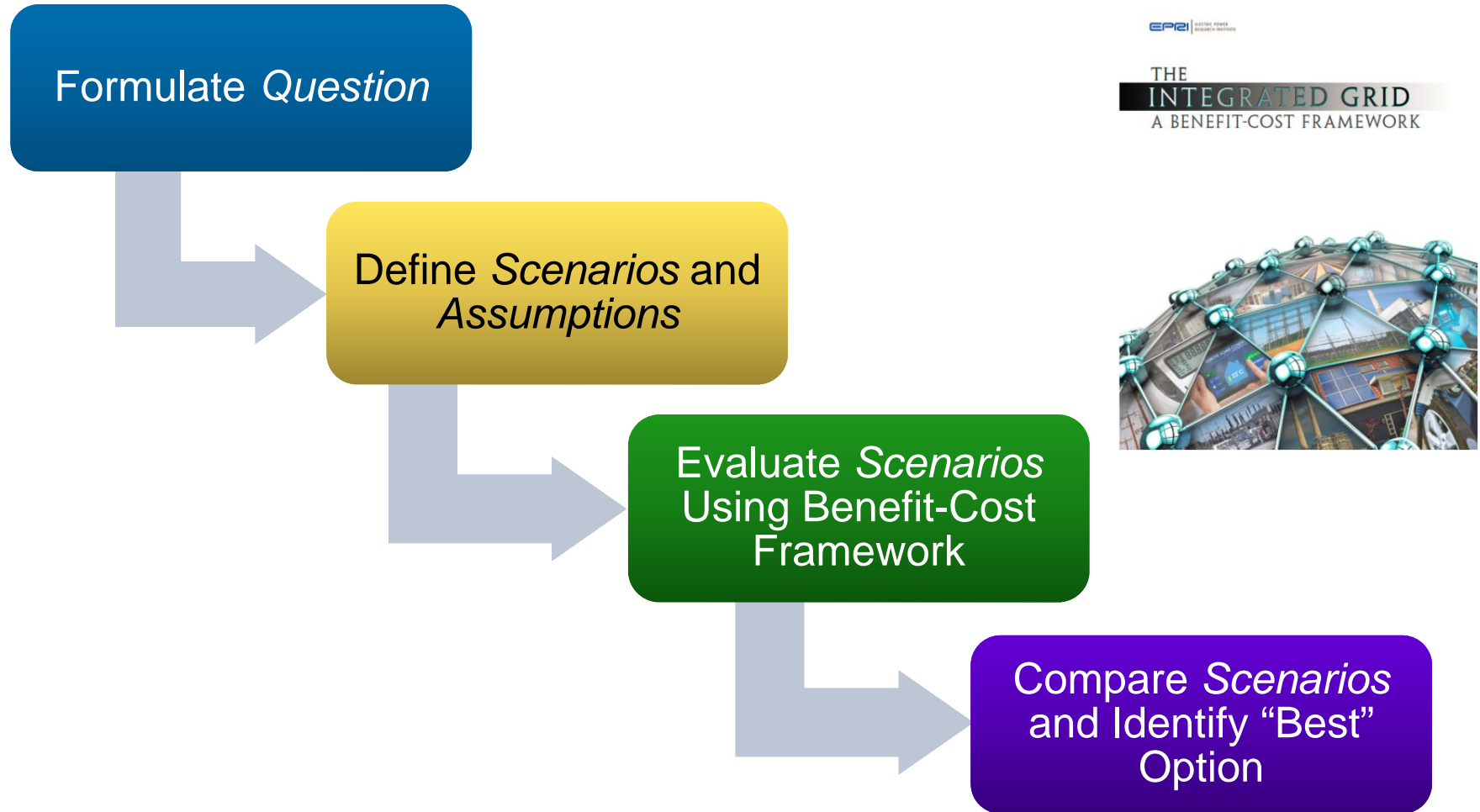


# Integrated Approach



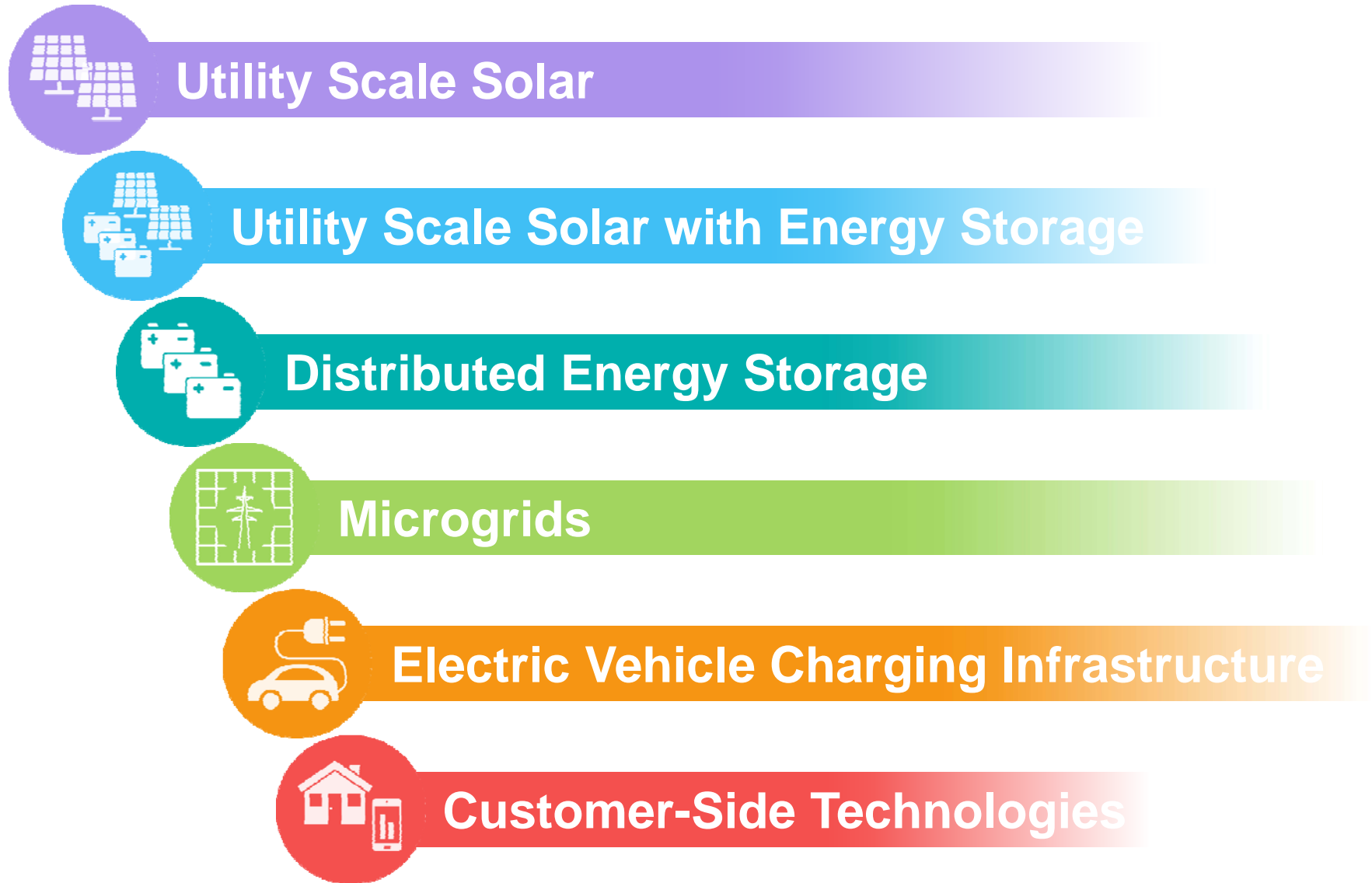
Consistent, transparent framework for assessing benefits/costs of transitioning to an Integrated Grid.

# Steps to Apply Benefit-Cost Framework



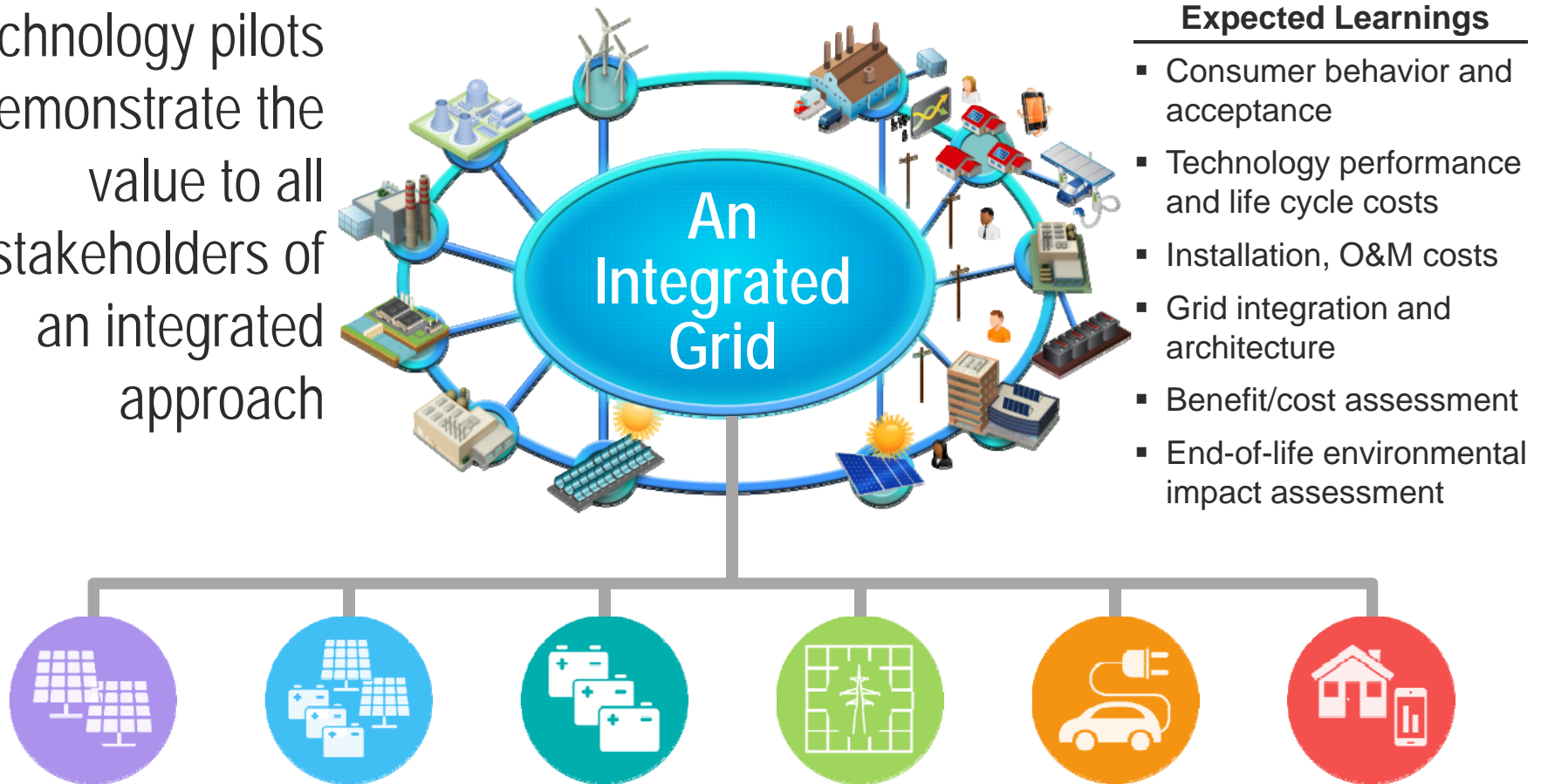
# Putting IG Framework to the Test

## Demonstration Pilots



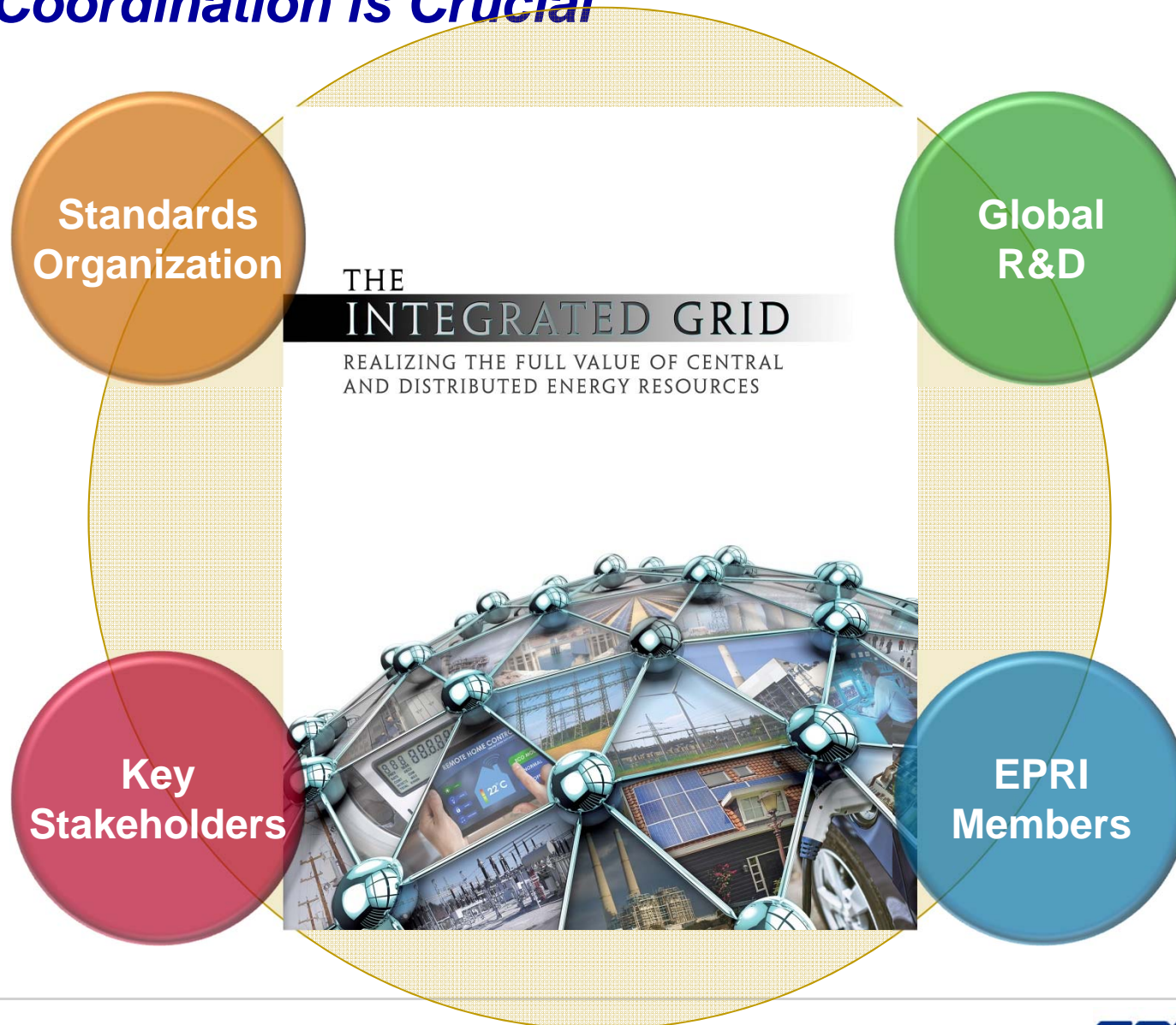
# Outcome of Integrated Grid Technology Pilots

Technology pilots demonstrate the value to all stakeholders of an integrated approach



# Integrated Grid Success

*Wide Coordination is Crucial*







# Together...Shaping the Future of Electricity

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