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# Navigating Disruptions

## Climate

**5X more climate and extreme weather disasters.**

## Technology

**4X more renewable energy annually to achieve Net Zero by 2050.**  
**Millions of new distributed energy resources.**

## Economics

**50.5% rise in global energy prices expected this year, the biggest jump since 1973.**

## Policy

**Up to 60% more electricity needed by 2050 for electrification of industries**

# Navigating Decarbonization



## Utility

Grid stability as power decarbonizes and electrification grows



## Policy Maker

Catalyzing innovation and adaptation to safely accelerate decarbonization.



## Energy Developer

Timely and affordable interconnections for new clean energy resources.



## Advocate

Clean energy affordable for all.



## Energy Buyer

Clean grid-provided energy to achieve ESG goals.

# No-One Has the Complete Picture



Grid data are  
inconsistent,  
incomplete and  
inaccurate.

Insights are  
asymmetrical.

# We Need to Make The Power System Visible

**Energy Resilience, Flexibility, Agility and Equity.**

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**Highly Accurate Digital Models Capable of Forecasting Grid Behavior from Nanoseconds to Years Ahead**

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**All the Energy Made, All the Energy Delivered  
All the Energy *Not* Used  
The Whole System Across Multiple Timeframes**

# Regulate for Innovation, Adaptation & Equity

1

**Design for tech and business model innovation and outcomes**  
not the efficient use of capital.

2

**Support experimentation and encourage responsible risk taking**

3

**Standardize to drive scale and eliminate unnecessary costs in the system**

4

**Support predictability but anticipate faster innovation cycles**

5

**Design the system for the consumer as both a supplier and an end user**

Thank  
you

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