

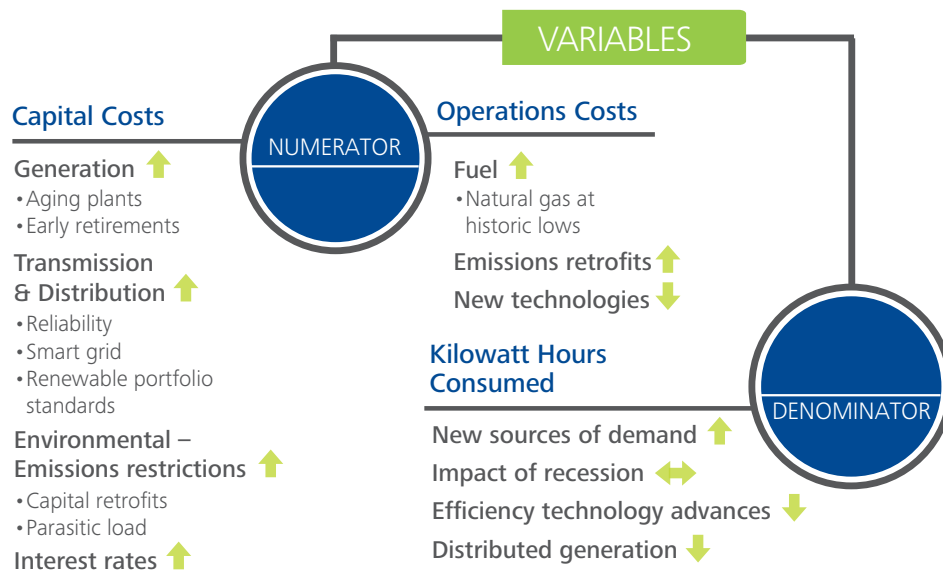
# Solving the equation for disruption to the U.S. electric power industry

## THE MATH DOES NOT LIE

In the simple **equation** that determines the cost of electricity...

$$\frac{\text{Capital Costs} + \text{Operations Costs}}{\text{kWh Consumed}} = \text{Cost per kWh Consumed}$$

...a convergence of factors is putting **pressure** on the variables...



...creating a **dilemma** for electric companies...

$$\frac{\text{Increased Costs}}{\text{Decreased kWh Consumed}} = \text{Higher Cost per kWh}$$

## BEYOND THE MATH

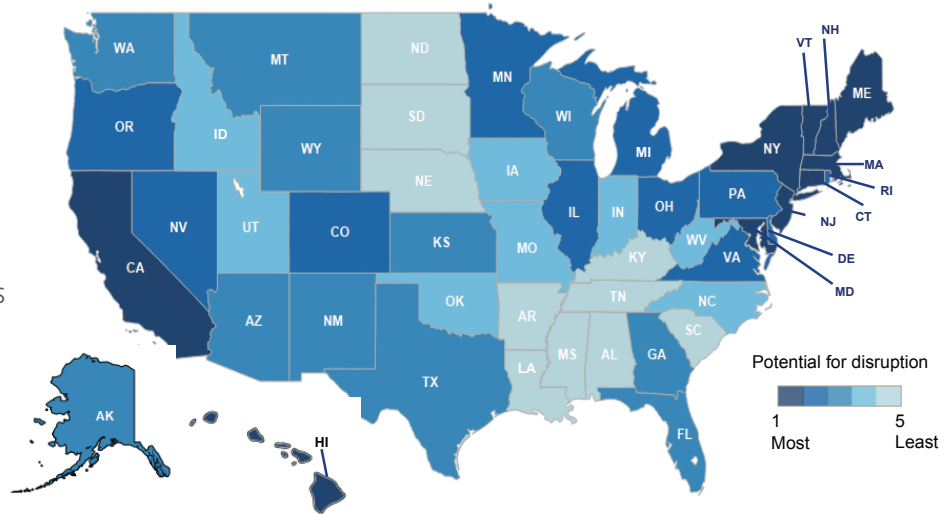
The fundamental shifts occurring in the industry are more than a numbers game. Disruption in the existing electricity business model is happening along five dimensions, with the most disruptive and most likely scenarios matching closely.

FIVE DIMENSIONS OF CHANGE	SCENARIOS		
	1 Most Disruptive	2 Most Likely	3 Least Disruptive
1 Demand (electricity consumption)	Lower	Lower	Higher
2 Technology change	High	High	Low
3 Regulation	More	More	Less
4 Products	New	New	Existing
5 Competition	More	Same	Less

# THE NEW MATH

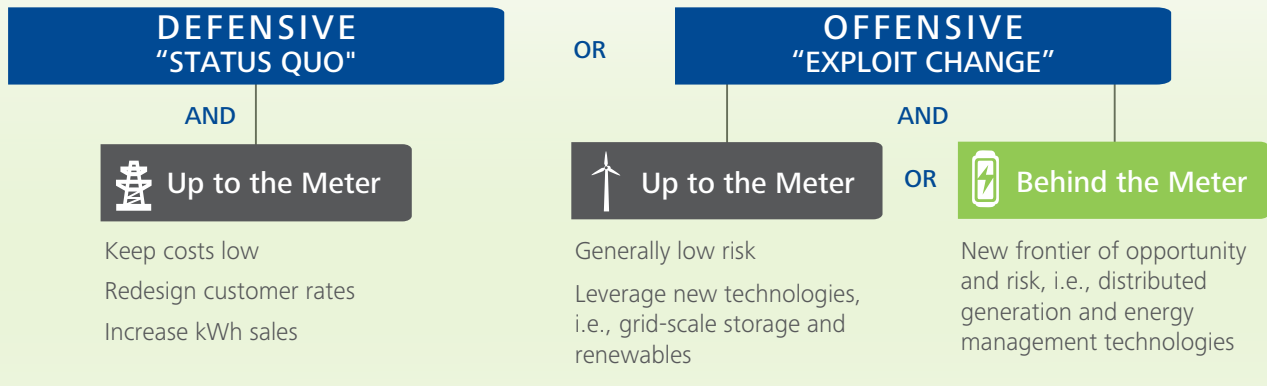
## MAPPING DISRUPTION IN THE U.S. ELECTRIC SECTOR

Disruption will occur at different times and in different ways across the U.S. We modeled it state by state across four dimensions (demand, technology, regulation/policy, and product).



## ADJUSTING TO THE NEW MATH

In the face of dramatic change, electric companies will need to examine a host of potential strategies and associated business models to solve the equation for disruption.



## BARRIERS TO CHANGE



Sources: The Math Does Not Lie (November 2012), Beyond the Math (March 2013), The New Math (March 2014). Find the complete series at [www.deloitte.com/us/thenewmath](http://www.deloitte.com/us/thenewmath).

As used in this document, "Deloitte" means Deloitte LLP and its subsidiaries. Please see [www.deloitte.com/us/about](http://www.deloitte.com/us/about) for a detailed description of the legal structure of Deloitte LLP and its subsidiaries. Certain services may not be available to attest clients under the rules and regulations of public accounting.

Copyright © 2014 Deloitte Development LLC. All rights reserved.  
Member of Deloitte Touche Tohmatsu Limited

Deloitte Center  
for Energy Solutions

**Deloitte.**