



Distributed generation

Framing the debate

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Principal and Chief Economist

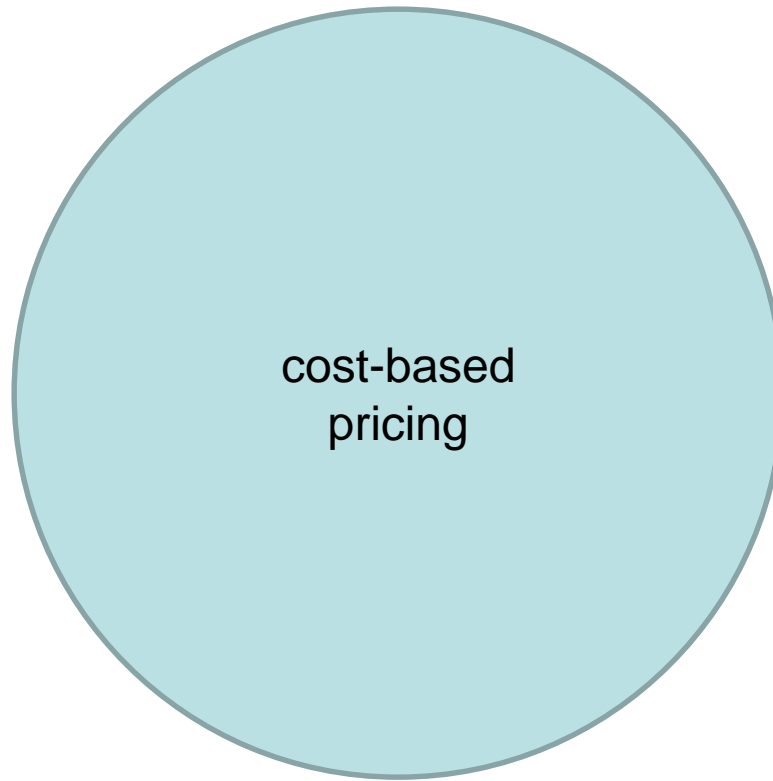
Energy Center of Wisconsin

3rd Annual Market Transformation Conference

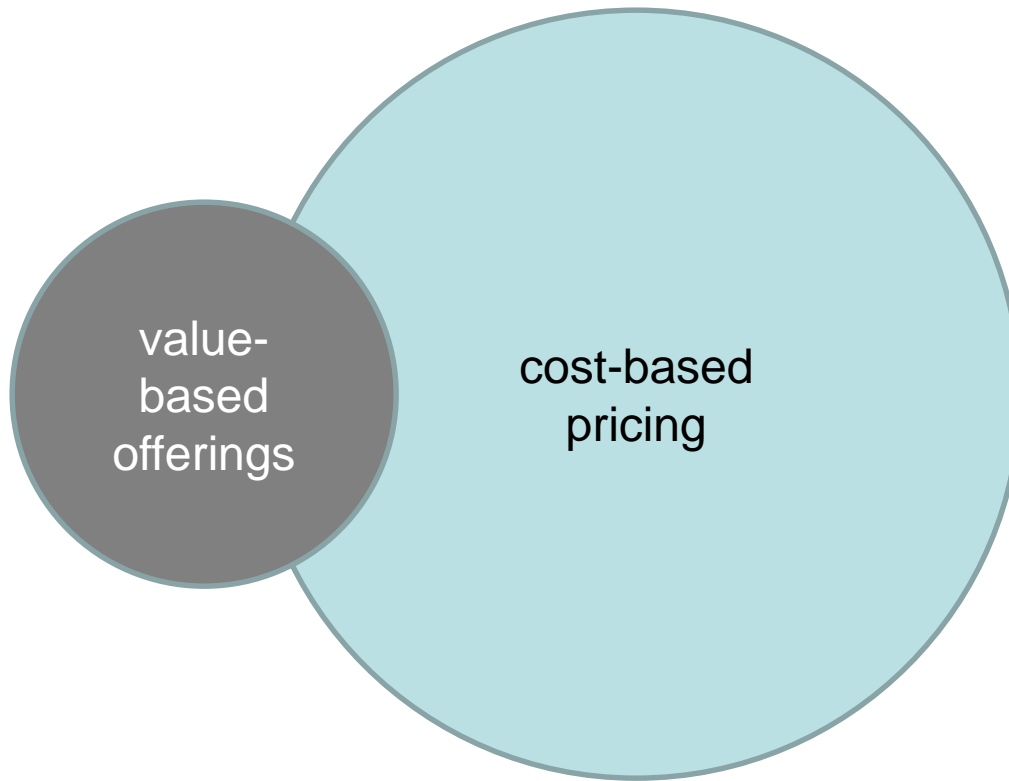
July 29, 2014

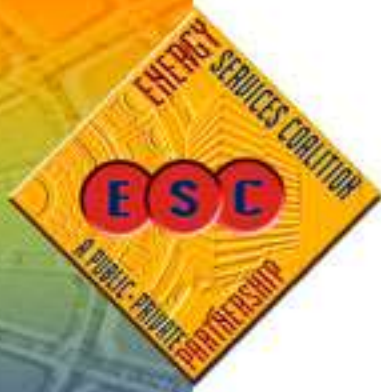
St. Paul, MN

cost-based regulation...



...is being partially eclipsed by
value-based market forces





A value proposition

- Brand A
 - Price = \$346 per year
- Brand B
 - Price = \$1 per year



A value proposition

- **Bottled water**
 - Price = \$346 per year
- **Tap water**
 - Price = \$1 per year

The logo for the Energy Services Coalition (ESC) is a yellow diamond shape. It features the letters 'ESC' in three red circles in the center. The text 'ENERGY SERVICES COALITION' is written along the top edge, and 'A PUBLIC-PRIVATE PARTNERSHIP' is written along the bottom edge.

Fun fact

25% to 40%

The estimated amount of bottled water that is tap water.

Source: Natural Resources Defense Council

Consumer Reports recommendations



- Drink tap water
- Buy a reusable bottle

Source: “Bottled doesn’t mean better,” *Consumer Reports*, 2011.

The logo for the Energy Services Coalition (ESC) is a yellow diamond shape with a circuit-like pattern. It contains the letters 'ESC' in three red circles and the text 'ENERGY SERVICES COALITION' and 'A PUBLIC-PRIVATE PARTNERSHIP'.

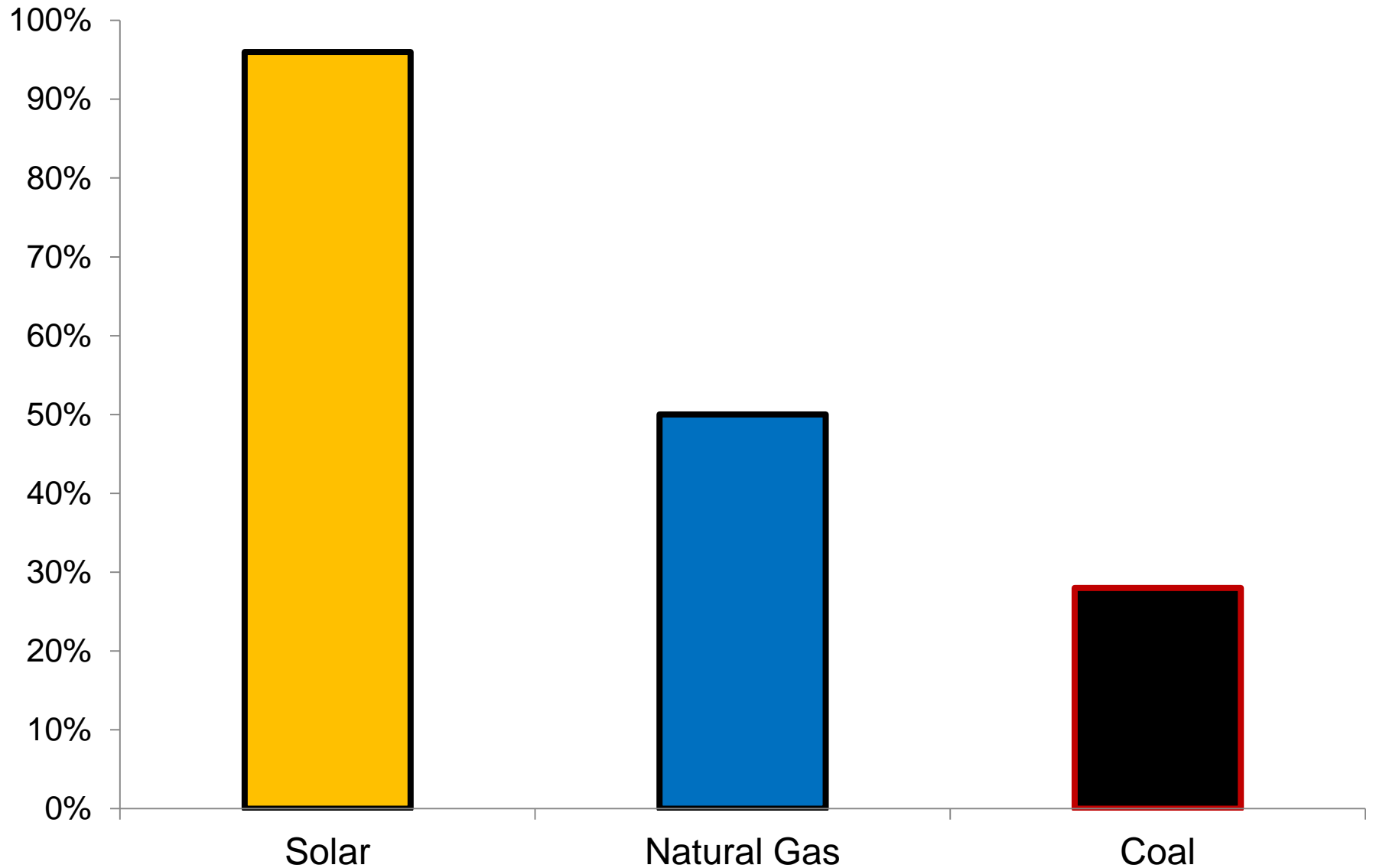
Per-capita U.S. bottled
water consumption in 2013

32 gallons
(and growing)

Source: Chris Hogan, “Bottled Water Trends for 2014,” *Food Manufacturing Magazine*, January/February 2014.

Preference for Fuels Used to Generate Electricity

Source: Stanford University



Wal-Mart

Expects to meet **20%** of its power needs through distributed generation by 2020.

Rebecca Smith & Cassandra Sweet, "Companies Unplug from the Electric Grid, Delivering a Jolt to Utilities," *Wall Street Journal*, Sept. 17, 2013.



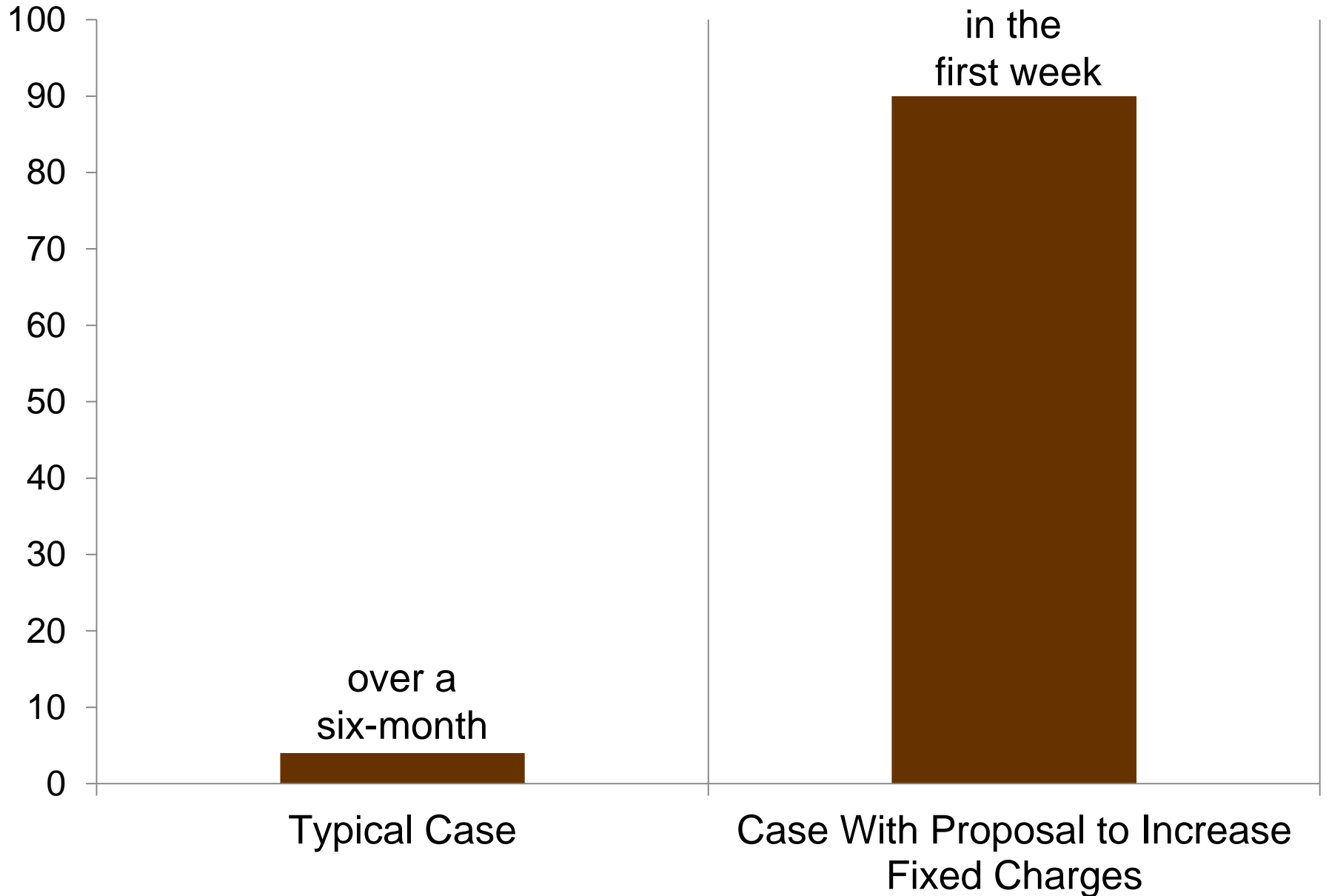
Iowa Supreme Court



Third-party solar development should be encouraged because it helps to achieve the **use of energy efficient and renewable energy sources.**

Eagle Point Solar v. Iowa Utilities Board, 2014.

Public Comments in Opposition



Preference for Fuels Used to Generate Electricity

Source: Stanford University

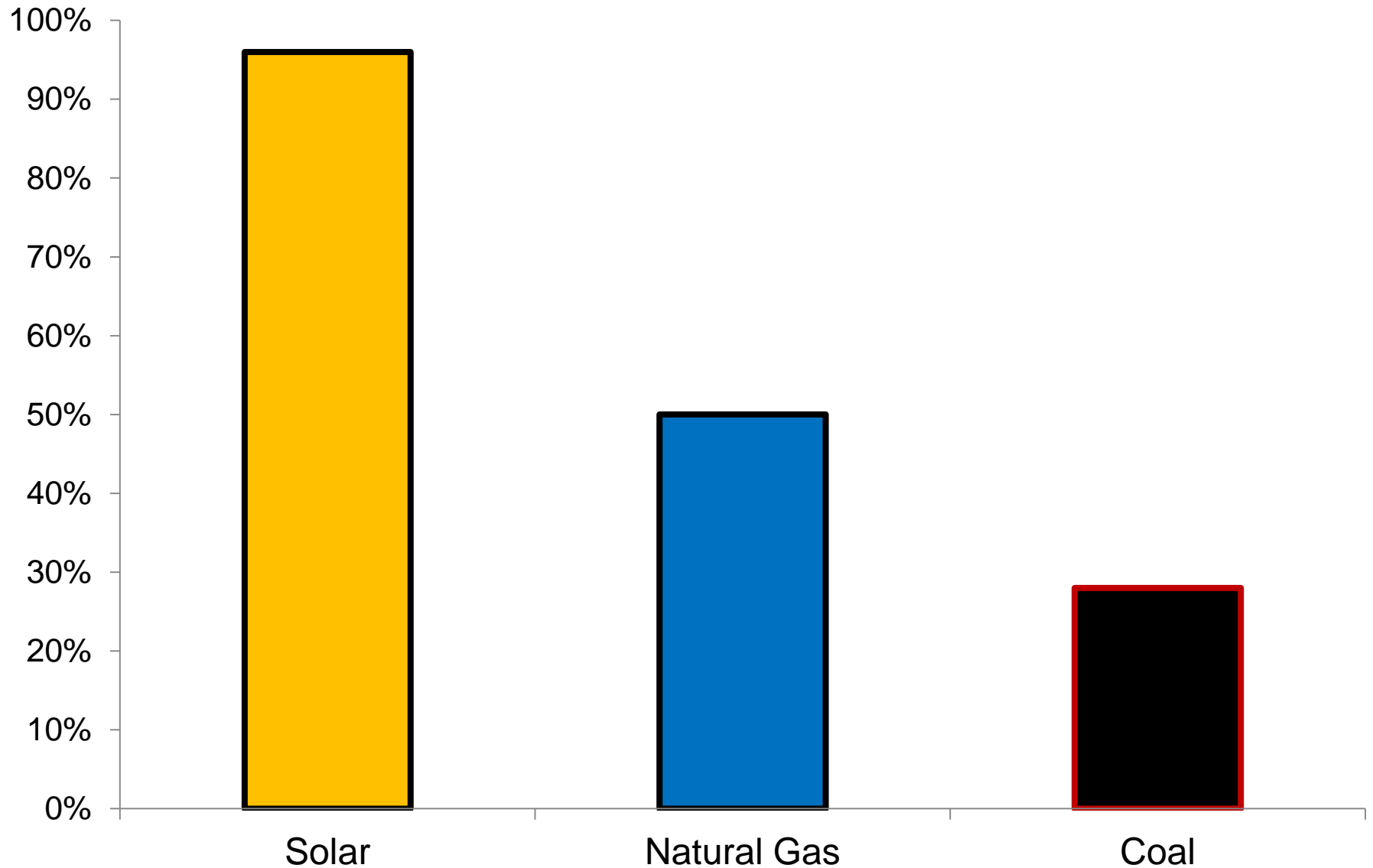
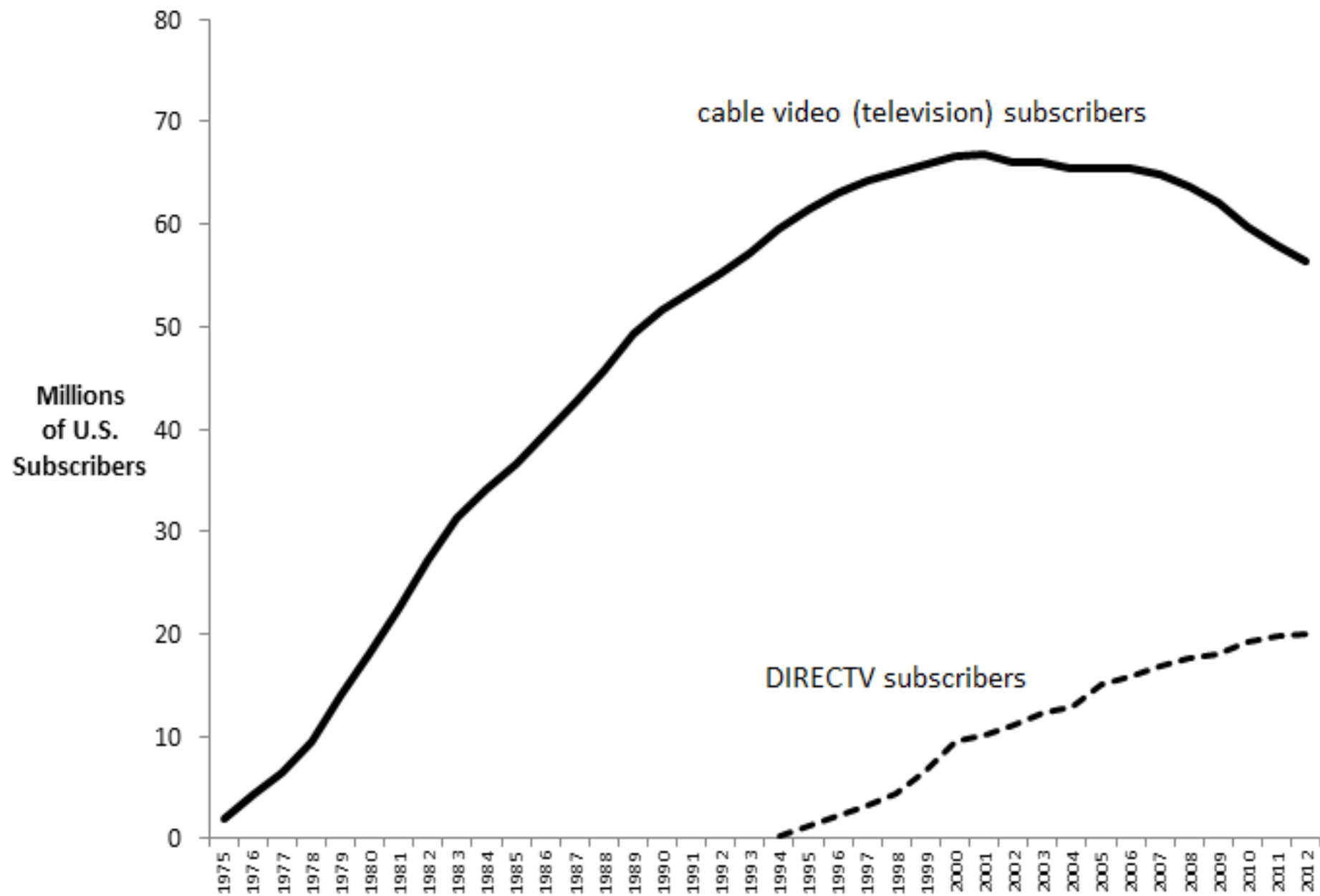
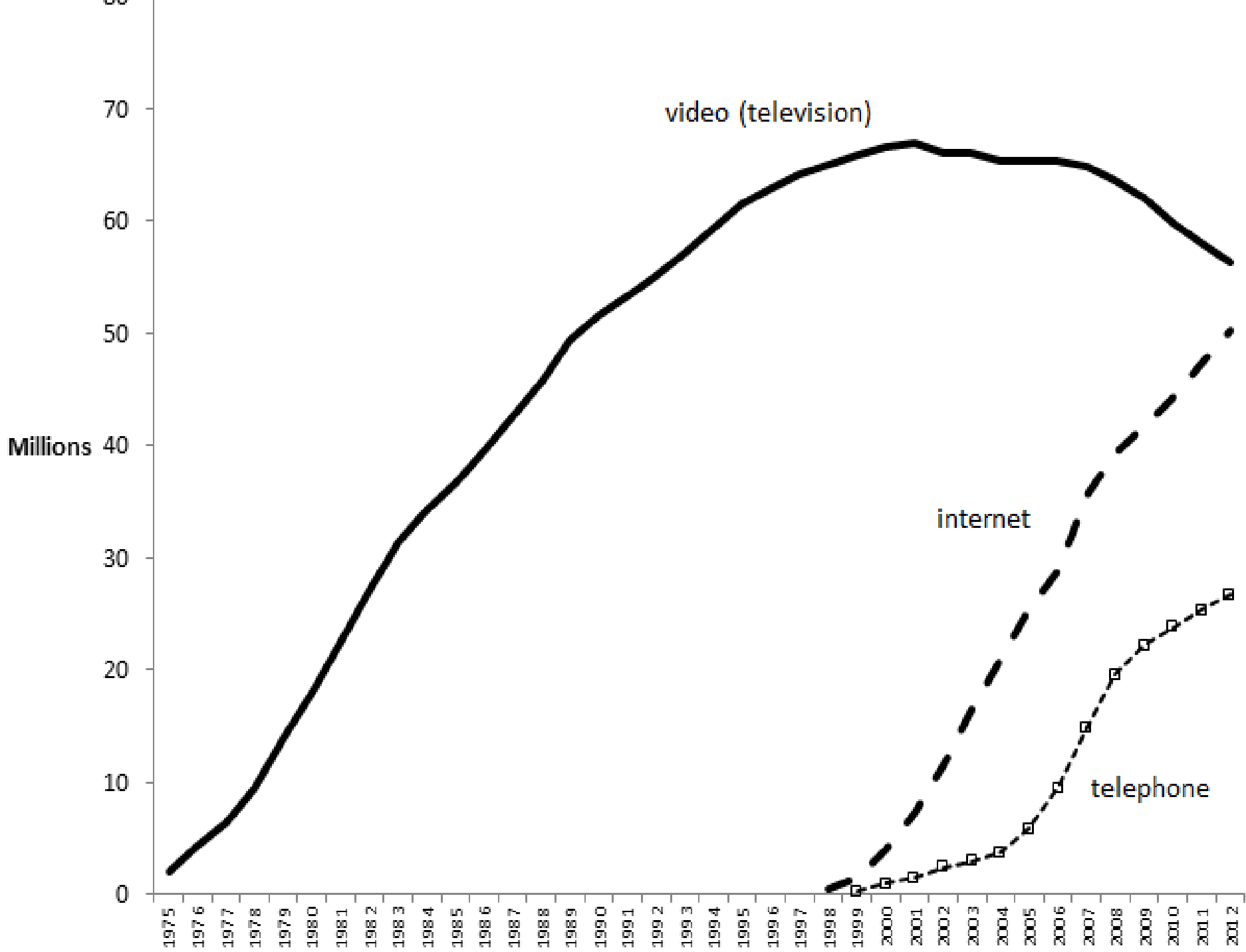


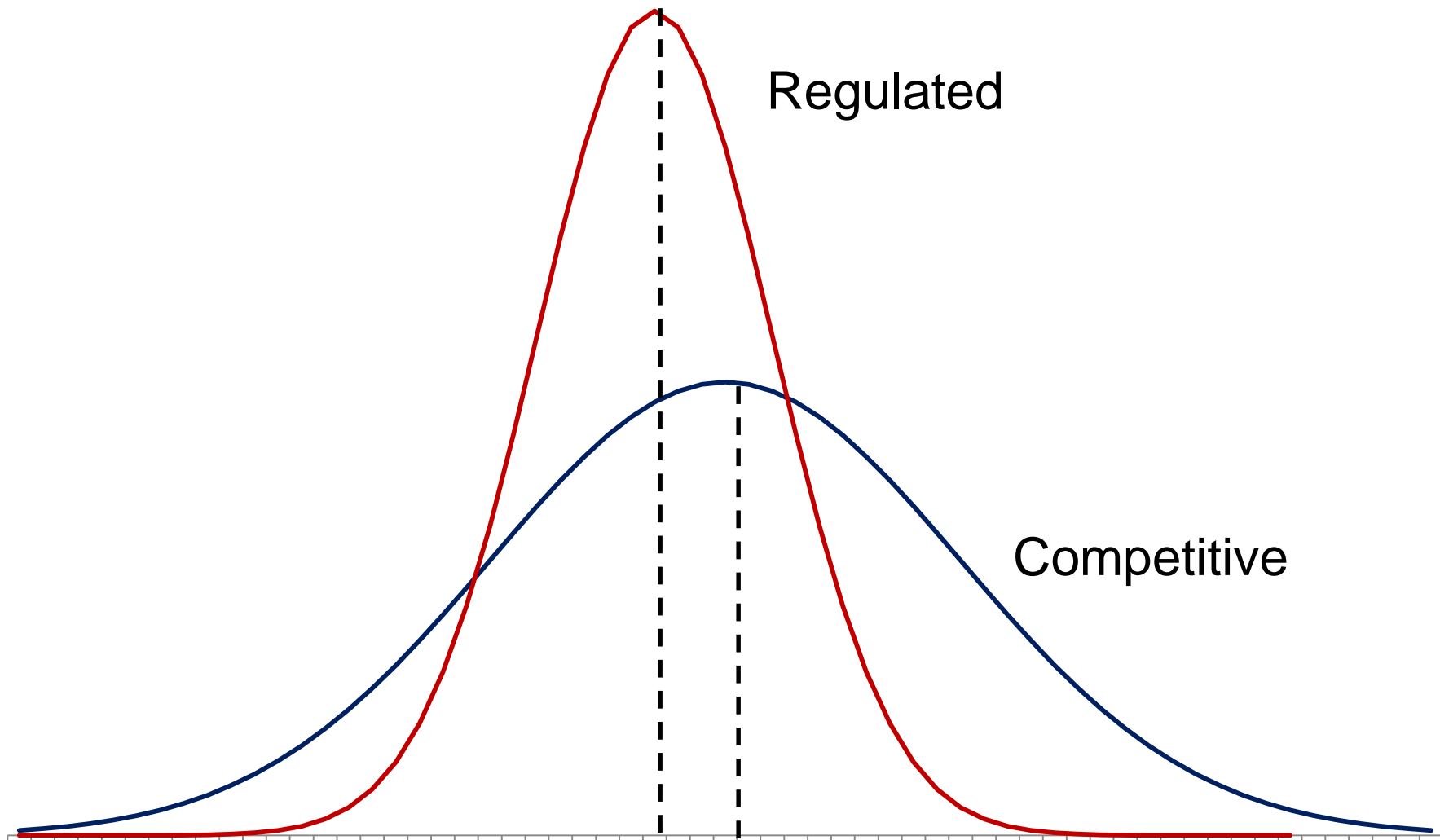
Fig. 6: Satellite TV as a Competitive Threat to Cable TV Providers

Source: National Cable & Television Association

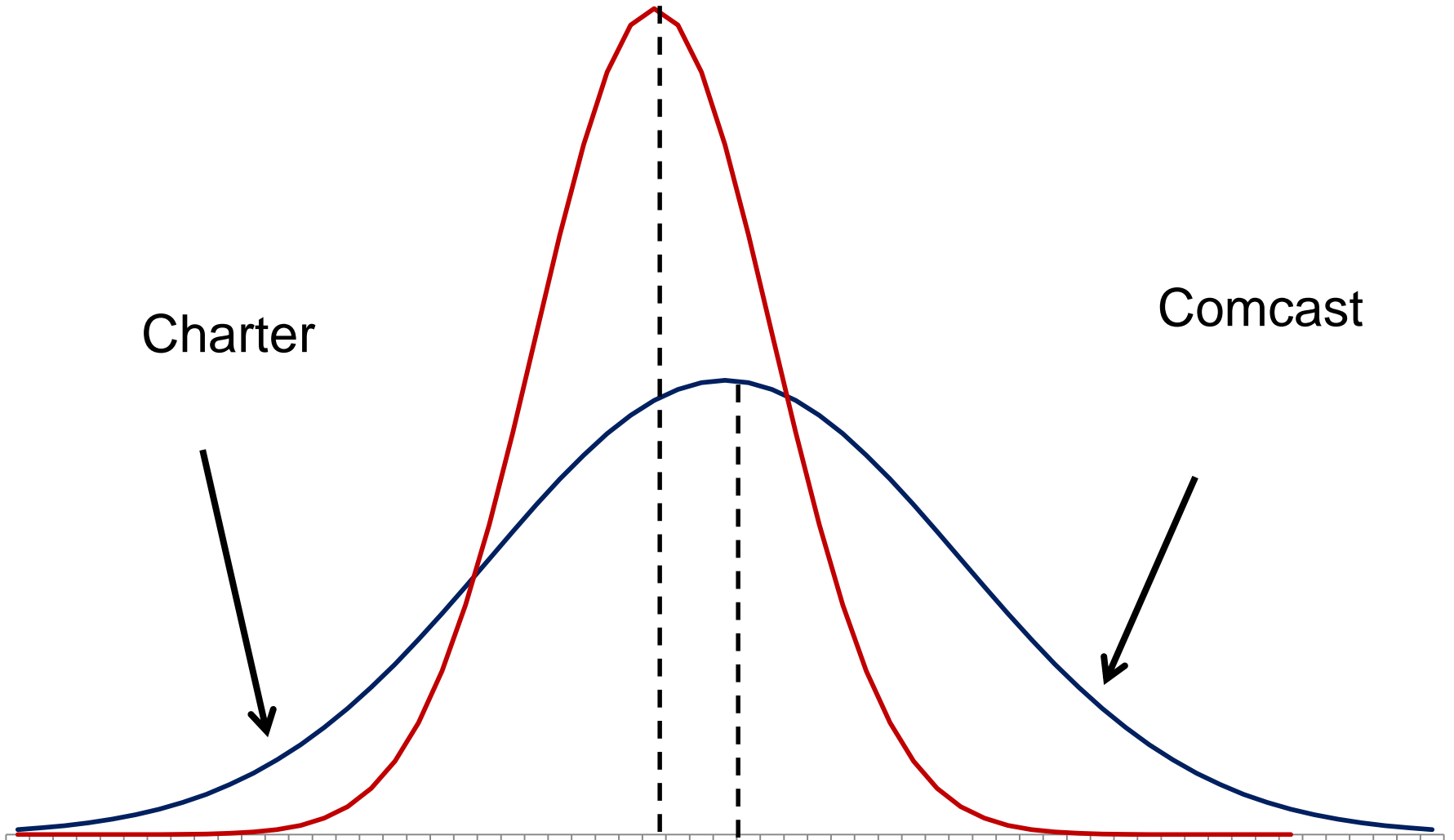




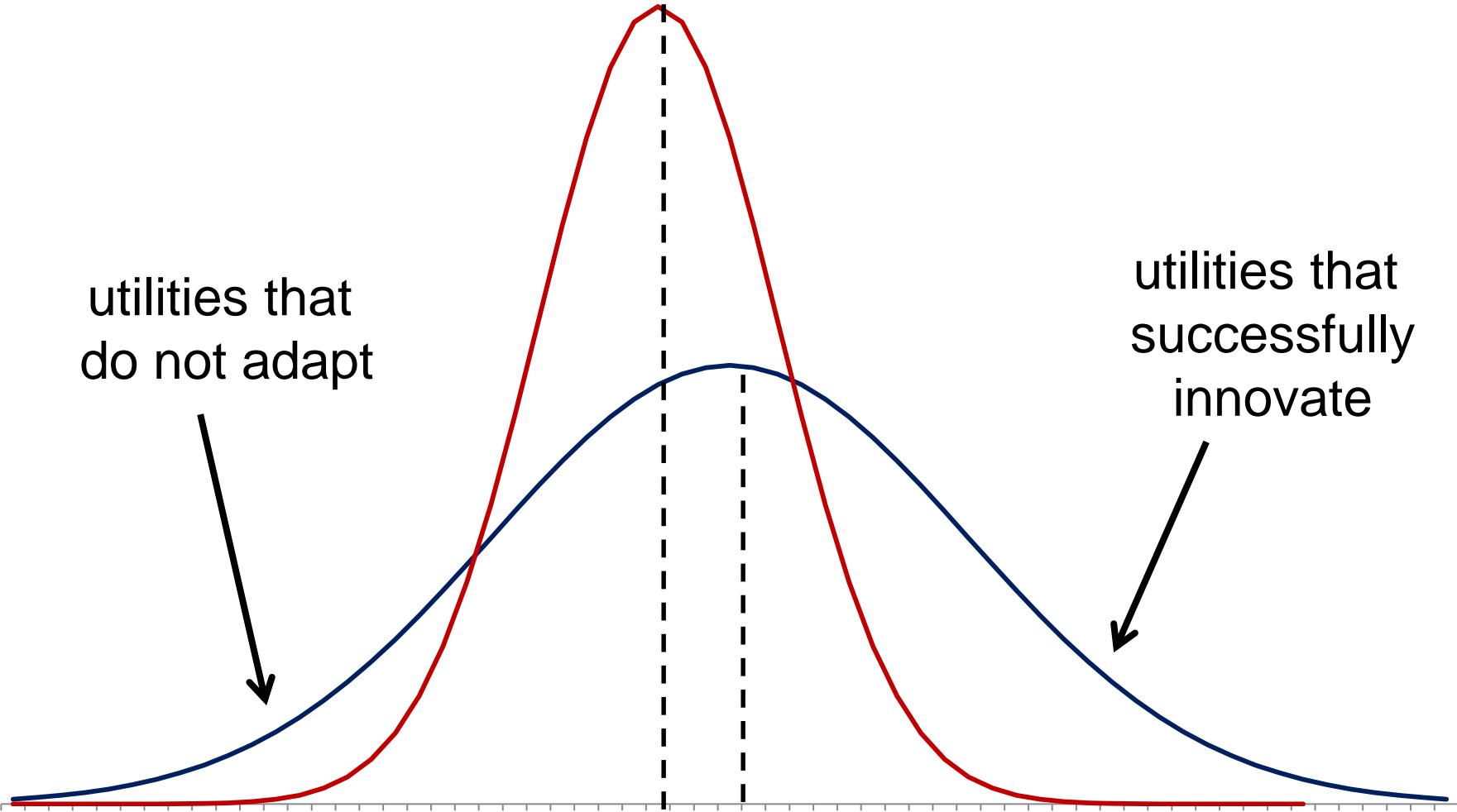
Regulated and Competitive Return Distributions



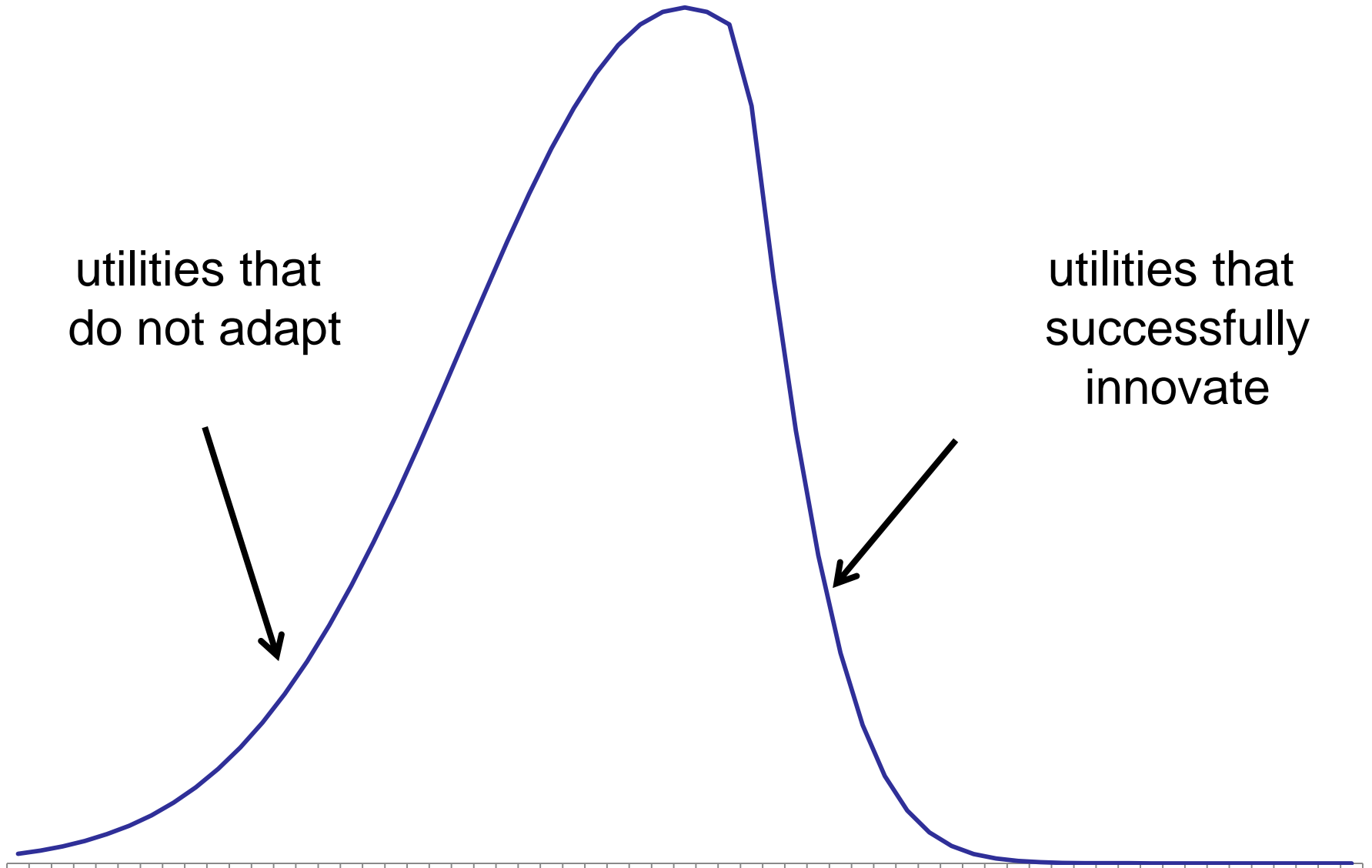
In competitive markets returns reflect managerial success



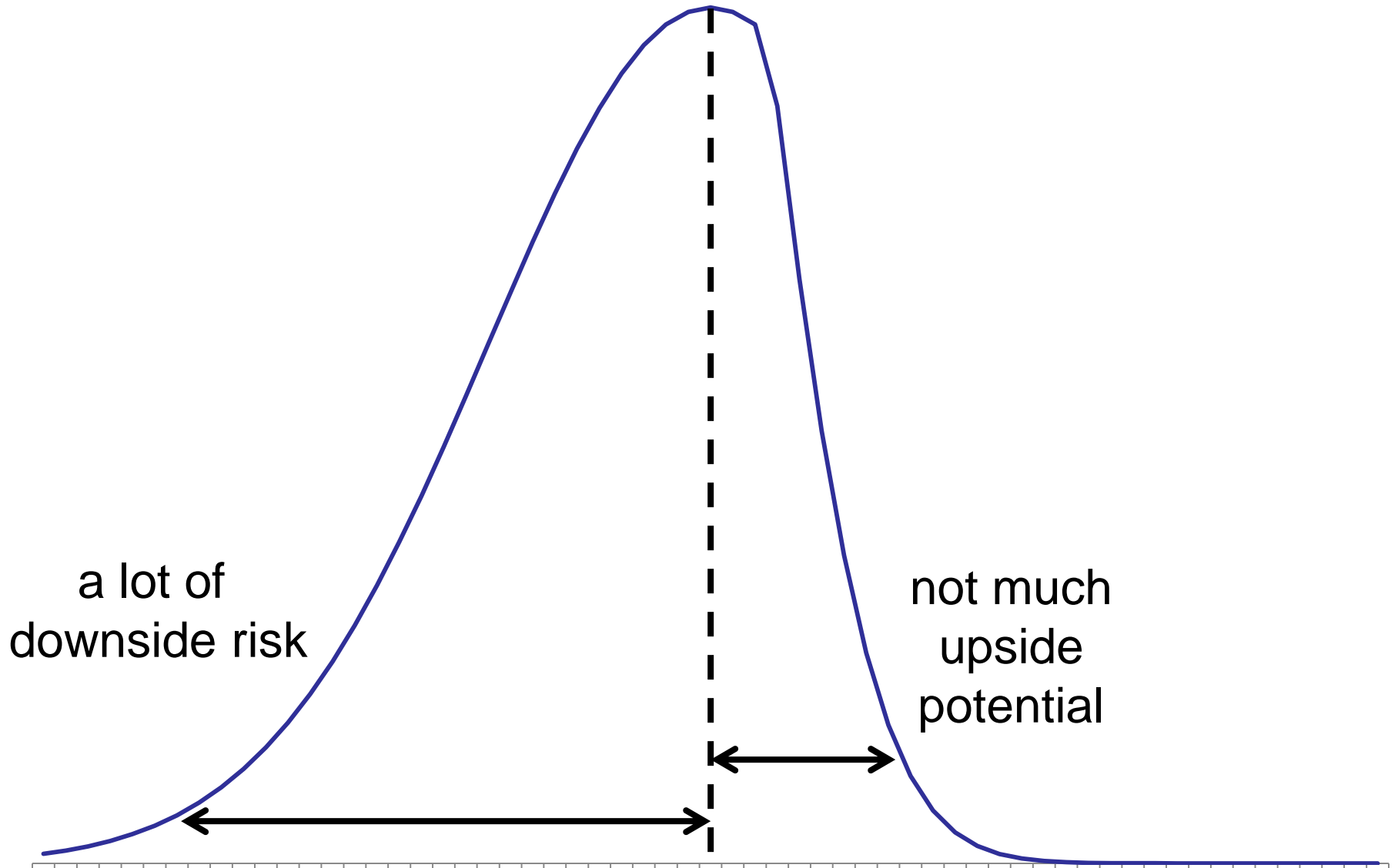
**As customers seek value propositions,
utility returns, too, should reflect value created**



Unfair asymmetric return distribution

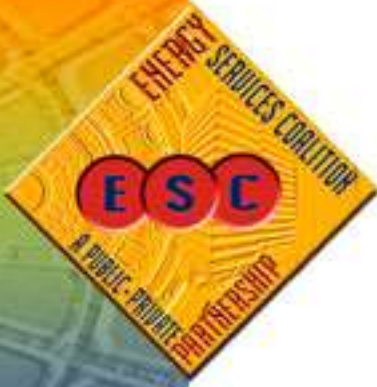


Unfair asymmetric return distribution

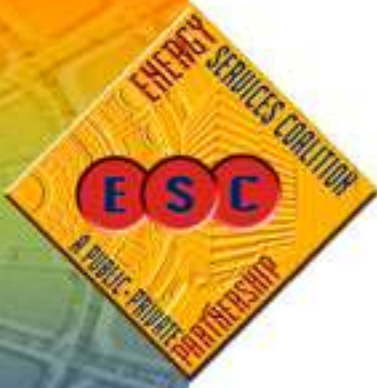


Framing the issue

- Value, not cost, is the frame
- Investor rewards should depend on success in creating value



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