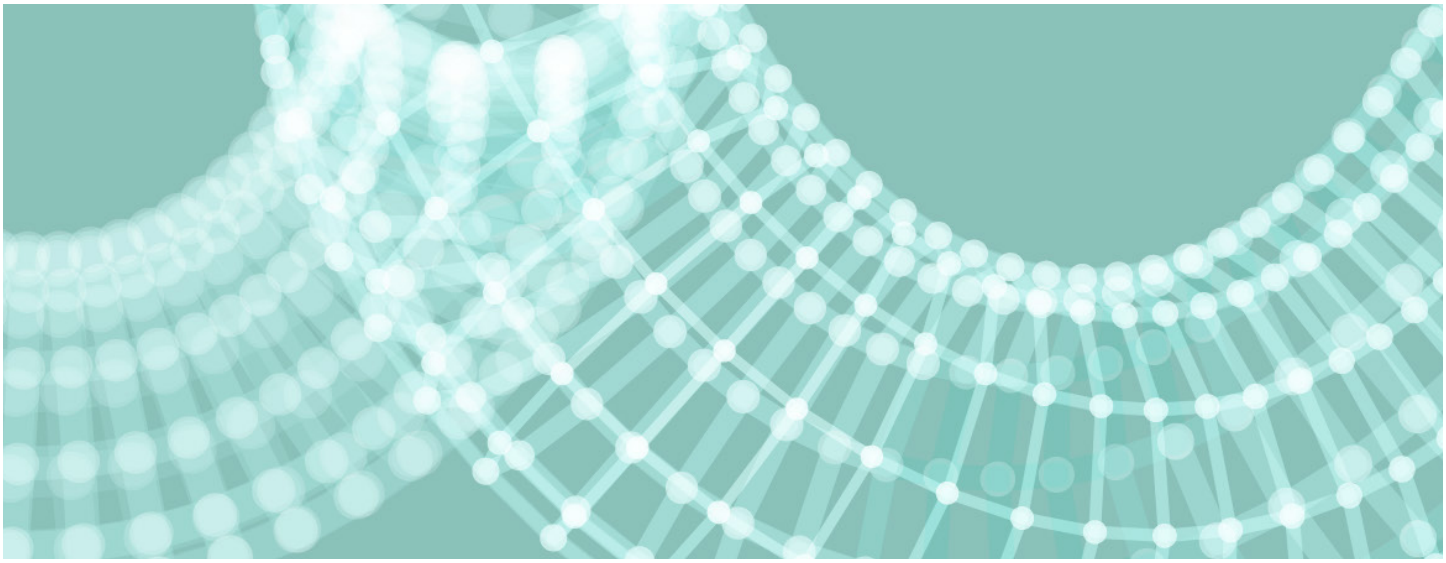


State Collaboration Could Strengthen Pathways to Decarbonize New England's Electrical Grid

Todd Schatzki — 5 MIN READ

Centralized approaches to achieving decarbonization goals in New England could be key to coordinating efforts, lowering costs, and significantly reducing greenhouse gas (GHG) emissions.

New England states all have aggressive decarbonization goals, but so far, each state has chosen its own path to reach those goals. The result not only lacks interstate coordination – it misses the opportunity to use centralized, market-based approaches to lower costs, and it creates risks for New England's organized, wholesale electricity markets.

To explore the benefits and trade-offs of alternatives for regional decarbonization, the New England Independent System Operator (ISO-NE) commissioned an **Analysis Group study** comparing potential policy pathways to reducing the region's carbon emissions 80% below 1990 levels by 2040. Each pathway involves different levels of interstate collaboration, and different market-based approaches to achieving decarbonization.

Under the **Status Quo**, the six states continue with current policies authorizing bilateral, multi-year contracts with generators to procure clean energy that helps meet their own state's decarbonization goals.

The **Forward Clean Energy Market (FCEM)** is a centralized, regional forward market for "clean" (i.e., zero carbon emissions) energy supplies needed to meet state decarbonization goals. In effect, the FCEM offers a carrot to clean energy sources to increase their supply with the promise of a market that only rewards clean energy supplies.

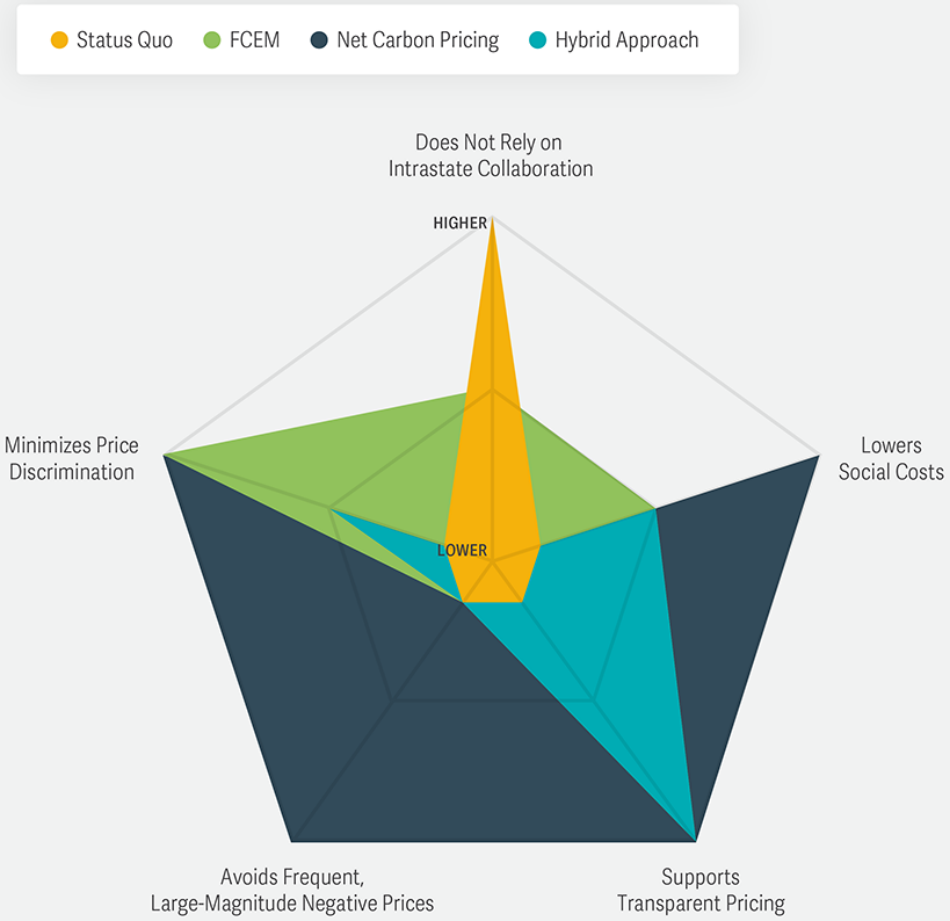
Net Carbon Pricing, by contrast, applies a stick to current fossil fuel generators by imposing a cost on carbon emissions through cap-and-trade or a fixed carbon price. The carbon price increases revenues to clean energy sources through higher energy prices. However, the impact of these price increases on consumers is partially mitigated by crediting them with the payments made by fossil fuel generators.

The **Hybrid Approach** uses both carrot and stick. Waving the carrot from the FCEM, it encourages regional growth in clean energy by crediting new (but not existing) clean energy resources. At the same time, it aims to ensure that the region's largest clean energy sources (certain nuclear plants) remain financially viable by increasing energy prices through carbon prices on fossil fuel generators.

To compare and contrast these pathways, the research team weighed factors such as social costs, the frequency and magnitude of negative prices, price discrimination, transparent price signals, and the extent of coordination required between the six states. The interactive graphic below demonstrates how each pathway might perform through a variety of lenses.

Pathways Comparison

Hover over the legend to view each pathway



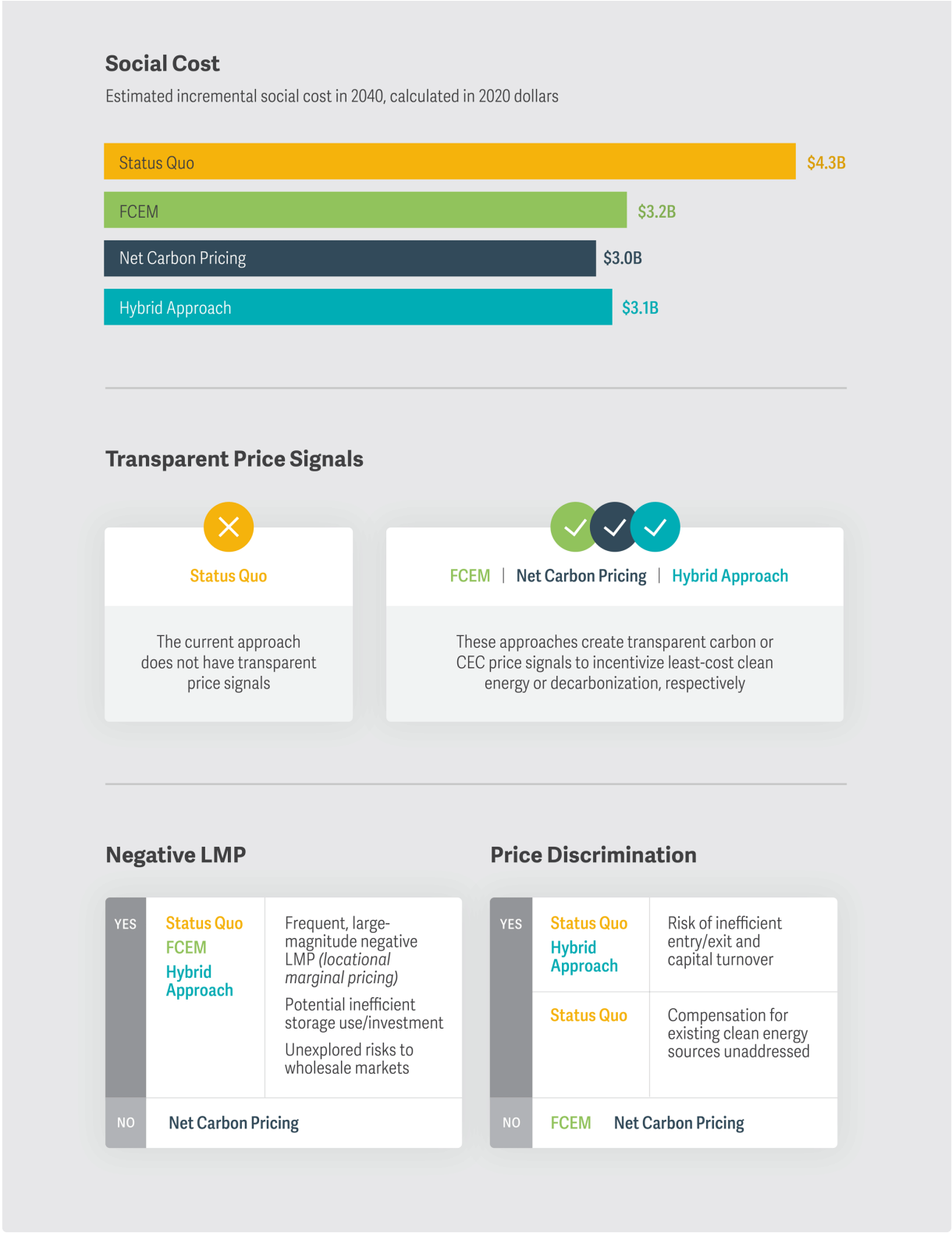
Regional Coordination

The current **Status Quo** approach involves little to no collaboration between states

FCEM implementation will require cross-state consensus on CEC *(Clean Energy Certificate)* product

Net Carbon Pricing will require CO_2 price or target consensus

The **Hybrid Approach** requires consensus on CO_2 price and CEC product



The four pathways explored in this study are not, the researchers emphasize, the only ways forward. However, a regional consensus on the path forward may accelerate New England's ability to reach its decarbonization goals, whether by carrot, stick, or some combination of the two. ■