The future of a clean electricity grid will require more decentralization based on clean technology, like solar and energy storage. Large industrial customers are investing in these technologies and also signing up to moderate their electricity demand in response to larger grid needs (i.e. reducing usage when electricity becomes expensive and dirty to produce). Smaller users like homeowners can become part of a bundled, aggregated group that can produce the same effect as a single large user through automated software and payments that encourage reduced demand at key times.

Under an important federal regulation by the Federal Energy Regulatory Commission (FERC) back in 2011, clean tech companies are allowed to sell this aggregated change in demand (called “demand response”) to regional grid operators as a package deal. The reduced demand that these companies bundle helps to alleviate strain on the grid, lower economic costs on the wholesale power market, and reduce pollution in the process.

But as I wrote in October, the future of this arrangement was in doubt: the Supreme Court was considering a major challenge to the legality of FERC’s order 745, which enabled this aggregated demand response. The issue is that states control their in-state retail market, while the federal government through FERC can only regulate the wholesale power market across state lines. When FERC allowed clean tech companies to bundle changes in user demand through retail price signals, and then sell that aggregated change in demand to regional grid operators in the wholesale power market, opponents argued that FERC was overstepping its bounds into areas under state jurisdiction. Think of it like a commerce clause challenge to FERC authority.

Fortunately, the Supreme Court decided today in a 6-2 vote (Alito recused himself, with Scalia and Thomas dissenting) that FERC’s order was a legitimate regulation under the agency’s wholesale market jurisdiction. As Justice Kagan wrote:

> It is a fact of economic life that the wholesale and retail markets in electricity, as in every other known product, are not hermetically sealed from each other. To the contrary, transactions that occur on the wholesale market have natural consequences at the retail level. And so too, of necessity, will FERC’s regulation of those wholesale matters.

The court found that FERC can regulate in areas that directly affect the wholesale power market, as in this demand response arrangement, and that a scheme to provide payments for users to moderate demand and then sell it on the wholesale power market does not constitute a direct setting of in-state retail rates, which would otherwise be under state jurisdiction.

The implications of this decision are critical not just for demand response but for other clean technologies as well. As states look to broaden their clean technology base outside of their boundaries, they're going to need federal regulations to enable interstate coordination, sometimes grounded at the local level. For example, just as customers can now aggregate their retail demand changes to sell to the wholesale power market, they may want to aggregate their on-site energy storage such as using the Tesla PowerWall battery. Or they may want to aggregate power they return to the grid from their plugged-in electric vehicles. Or they may want to share surplus solar power from their roofs across state lines.

The possibilities are myriad and all indispensable to a technology-driven approach to decarbonizing our grid. With the Court's decision today, this innovation can continue, leading to further economic and environmental benefits for all electricity ratepayers.