

D.C. Circuit Kills Demand Response Compensation: Now What?

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The day before my first appellate argument, at the Ninth Circuit in April 1989, I went to court to observe. One pair of opponents, having finished before the judges, continued arguing in the hallway. We could keep arguing too, for the months and years that will pass while the full D.C. Circuit and the Supreme Court review the D.C. Circuit panel's May 23, 2014 opinion. Or we can bear down and find ways to make demand response work. This month's essay proposes some actions, categorized according to who can take them: generators, FERC, retail utilities, states, municipalities and Congress.

Background

In Order 719, FERC ordered regional transmission organizations, when operating hourly energy markets, to treat demand response bids from retail customers (or their aggregators) on a basis comparable to wholesale generators' bids. This RTO obligation does not apply to bidders from states that prohibit demand response participation in RTO markets.

In Order 745, FERC set the compensation for this demand response, at the locational marginal price (LMP) for the place and time the demand response is offered. Compensation was available only if the demand response (a) helped balance supply and demand; and (b) was "cost-effective"; meaning, FERC explained, that "reductions in LMP from implementing demand response results in a reduction in the total amount consumers pay for resources that is greater than the money spent acquiring those demand-response resources at LMP."

FERC based its orders on demand response's two benefits. It improves reliability; and it lowers wholesale prices—directly (by causing the wholesale demand curve to intersect the supply curve at a lower point), and indirectly (by pressuring wholesale generators to lower their price bids).

On May 23, 2014, a panel of the U.S. Court of Appeals for the D.C. Circuit voted 2-1 to invalidate Order 745 (not Order 719), on two distinct grounds. (Read the opinion [here](#).) First, by ordering compensation for demand response from retail customers, FERC was regulating retail electricity markets—a power denied to FERC and reserved to states by Section 201(b)(1) of the Federal Power Act. Second, in setting the compensation at LMP, FERC acted "arbitrarily and capriciously" by failing to explain itself, and failing to address arguments from wholesale generators and from dissenting Commissioner Moeller. (Technically, the Court did not hold that LMP compensation was necessarily unlawful, although it described Moeller's arguments as "persuasive.") Judge Edwards dissented, asserting, among other things, that FERC had jurisdiction because retail demand response directly "affected" wholesale rates (which were indisputably within FERC's jurisdiction), and that FERC had explained its choice of LMP adequately.

Given the likelihood of *en banc* and U.S. Supreme Court appeals, we might not know the law for two years—during which time we will forego millions of dollars in savings from demand response if RTOs have to kill compensation. There are disagreements over FERC’s and the Court’s legal analyses, but there is not disagreement on this: *We over-consume electricity because we lack a market structure and a compensation scheme that elicit all cost-effective demand response.* The resulting energy waste is bad for everyone (except those generators who lose profits due to competition from demand response). So all consumers, whether wholesale or retail, and all regulators, whether federal or state, have a stake in getting this right, fast, so that we can cease using existing generation inefficiently and can avoid building new generation capacity unnecessarily. While the courts sort out the law, what can the rest of us do to induce economical demand response?

Generators

They should be careful what they wish for. If demand side bidders can’t participate in organized wholesale markets, FERC has found (in statements the Court left untouched), the generation prices produced by those markets won’t be “just and reasonable,” as required by the Federal Power Act. That means every generating company now risks having its market-based pricing authority revoked, in favor of regulated prices. Regulated prices are limited to prudent costs plus FERC-set returns on equity, all established through an expensive, humorless and *public* process in which FERC auditors and consumer consultants probe the seller’s internal records and cross-examine company executives. Faced with that alternative, the rational generating company will stop celebrating its court victory and start thinking about how to get all cost-effective demand response into wholesale markets.

FERC

1. Rather than *give an order to the RTOs*, FERC could *impose a condition on the wholesale generators*. That is, rather than order the RTOs to pay compensation to retail customers (an order that the Court said was outside FERC’s jurisdiction), FERC could *condition the wholesale generators’ right to charge market-based rates* in RTO markets on the existence of sufficient demand response participation in those markets. FERC first would have to find that absent demand response participation, the wholesale generators’ rates would not be just and reasonable. Then the Court’s jurisdictional problem would disappear, because FERC *would not be ordering the RTOs to pay compensation to retail customers*. FERC would not be entering the states’ exclusive domain; FERC would be acting within its own exclusive domain—establishing the market conditions for just and reasonable wholesale rates. That was FERC’s jurisdictional rationale for encouraging demand response to begin with: Demand response bidding from retail customers is a necessary condition for just and reasonable wholesale rates. FERC will still need to justify LMP to the Court’s satisfaction. But the RTOs’ current practice—treating retail customers’ demand response bids comparably to wholesale generators’ bids—can remain in place, as a voluntary action, which the wholesale generators

need (and will rationally request), if they want to continue selling at market-based rates rather than endure cost-based rates.

2. FERC can order RTOs to accept demand response bids from *wholesale* purchasers (i.e., load-serving entities), and to compensate those bids at the same LMP price paid to generators, subject to Order 745's balancing and cost-effectiveness criteria. Each load-serving entity would have a "baseline" demand (such as an historic five-year average), and receive compensation based on demand reductions from that baseline. That prospect of compensation would induce them to find ways to dampen retail demand. The retail demand relationship, between LSE and retail customers, would remain within the state jurisdiction, untouched by FERC. The Court's jurisdictional concerns would disappear, because FERC would be ordering compensation to the wholesale customers (the LSEs) rather than to retail customers. We would still have to address whether LMP is over-compensation (although with the nation's best economists taking opposite positions, courts should defer to FERC's decision if explained sufficiently). Regardless of the compensation level, this step would give us an organized market. If the Court's retail jurisdiction analysis holds up, non-utility aggregators still could participate, not as independent aggregators but as agents for the load-serving entities. See also #1(c) under "States" below.

3. Investigate whether specific wholesale generating companies should lose their market-based pricing authority for certain hours. (See the discussion above under "Generators.")

Retail Utilities

A utility's retail monopoly franchise comes with an obligation: to provide reliable electric service at just and reasonable rates. Those rates will not be just and reasonable if they reflect infrastructure and fuel costs the utility could have avoided had it pursued cost-effective demand response programs. (Since cost-effectiveness precludes uneconomic bypass, there is no stranded investment concern.) A utility that fails to find demand response opportunities, therefore, risks cost disallowance for imprudence. (See also #2 under "States" below.) Prudent utilities will find ways to elicit all cost-effective demand response.

States

If FERC cannot act on demand response, states must. Consumers expect them to and need them to. Here are several alternative actions. Some overlap; not all will be necessary.

1. Adopt one or more demand response market structures. There are five choices (not counting the non-option of having no program):¹

- a. Utility acts as retail load manager: The utility buys demand response from its retail consumers, using it to manage its own load, without any resale into the RTO market.
- b. Utility acts as aggregator: Utility buys demand response from its retail consumers, then resells the aggregated amounts into the RTO market, passing the proceeds back to the consumers. (See FERC #2 above.)
- c. Non-utility aggregators, acting as the retail utility's agents, buy demand response from retail consumers. Utility then uses this demand response to manage its own load (States #1(a) above), or sells it into the RTO market (States #1(b) above).
- d. Non-utility entities act as independent aggregators, buying demand response from retail consumers, then reselling the aggregated amounts into the RTO market. (It is not clear how this will work if FERC cannot set the compensation, but the option should remain on the table.)
- e. Retail consumer sells demand response into the RTO market directly. (Same comment)

2. Initiate a rulemaking (and if necessary, a prudence investigation) on whether each retail utility in the state has taken all cost-effective actions to induce demand response; and if the utilities have not taken those actions, hold them financially accountable for their customers' exposure to excess wholesale power costs. (See "Retail Utilities" above.)

3. File complaints with FERC against specific generators' market-based prices, where those prices are being set without the discipline of demand response. (See FERC #3 above.)

4. Work with other states to create multistate markets for demand response, in which a given demand is determined for the region, with tradable certificates issued for reductions below that level. The broader the market, the greater the opportunity to meet the desired level cost-effectively.

¹ These options (a)-(e) were described in my paper, "Cost-Effective Demand Response Requires Coordinated State-Federal Actions" (National Regulatory Research Institute, June 2011).

Municipalities

In states where retail utilities and state commissions fail to induce cost-effective demand response, a municipality can self-help. It can consider displacing the existing utility as supplier of retail electricity, to the extent the utility is relying on wholesale purchases through RTO energy markets. The municipality then can sell its residents' demand response into organized RTO markets, acting like the LSEs described in FERC #2 above. The incumbent utilities would forego no profit, because they earn no profit from reselling purchased power anyway. Nor need they suffer from stranded investment, because this option would not apply to that portion of the utility's power supply coming from its own generation. Nor would this be "municipalization," because the municipality need not buy out the utility's physical distribution system. The incumbent can still own and operate that physical system, charging typical state-set rates to retail customers. In short, there would be no stranding of either physical assets or wholesale contract obligations. State statutory change might be necessary, but state legislators should welcome the chance to lower retail rates, even if it means breaking some eggs.

Congress

The electric industry's federal–state jurisdictional relationship is a product of constitutional bargaining in the 1780s and New Deal legislating in the 1930s. Today's commercial and electrical interconnectedness means that actions and inactions in one state affect power costs, reliability and environmental values in other states. The Federal Power Act's allocation of federal and state roles—rigid, outdated, and subject to near-continuous litigation before generalist judges—no longer fits the needs of consumers or producers.² No other nation assigns regulatory authority so disconnectedly from electrical and commercial reality. Some group of thinkers, people with authority, creativity and independence from political pressure, needs to rethink, and persuade Congress to rewrite the Federal Power Act.

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There are disagreements over FERC's demand response jurisdiction and the appropriate compensation. There are no disagreements over the need to make economic use of our scarce resources, to apply the national ingenuity that won World War II to solve the much simpler problem of organizing demand response markets and compensating contributors appropriately. There is no time to waste.

² For more discussion of the dysfunctional federal–state jurisdictional relationship, see Chapter 12 of my legal book, [*Regulating Public Utility Performance: The Law of Market Structure, Pricing and Jurisdiction*](#); and these essays from my book [*Preside or Lead? The Attributes and Actions of Effective Regulators*](#): “[Federal–State Jurisdiction I: Pick Your Metaphor](#),” “[Federal-State Jurisdiction II: Jurisdictional Wrestling vs. Coordinated Regulation](#),” “[Federal-State Jurisdiction III: Jurisdictional Peace Requires Joint Purpose](#),” “[Federal–State Jurisdiction IV: A Plea for Constitutional Literacy](#),” “[Intra-Regional Relations: Can States’ Commonalities Outweigh Their Differences?](#)”