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Behavioral Demand Response at Consumers Energy

with Brett Feldman, Navigant, and Rich Philip, Duke Energy, with guests Jill Powers, California ISO, Doug Smith, ISO New England, and Peter Langbein, PJM
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Summary

This dialogue explored what the electric utility industry can expect to happen next after the U.S. Supreme Court's decision upholding the Federal Energy Regulatory Commission's (FERC) authority to regulate demand response programs in wholesale markets. On Monday, January 25, 2016, in a 6-2 decision, the justices ruled the agency was within its authority under the Federal Power Act when it issued Order 745, which set standards for demand response practices and pricing in wholesale markets and brought the practice under the agency's jurisdiction.

Dialogue

Ed Thomas: Thank you for joining us today for this PLMA Demand Response Dialogue. This will be a 30 minute conversation without PowerPoint slides. But we've arranged for this GoToWebinar link, which allows you to type your questions and comments at any time. But now let me turn the conversation over to Rich Philip with Duke Energy, who is the chair of PLMA.

Rich Philip: Thanks, Ed, and welcome everyone to this DR dialogue. The goal of this dialogue is to kind of cover at a high level what happened with FERC 745 this week. I'll start by giving you a little background on how we got there and then what happened.

Joining our Dialogue today, we have Brett Feldman from Navigant Research as well as representatives from three Regional Transmission Organizations: Doug Smith of ISO New England. Jill Powers from California ISO and Pete Langbein from PJM. And we will ask them about their thoughts and impressions based on what is known so far, and then we have questions that have been submitted already by you, the participants in this Dialogue.

In addition, you can use the questions box in the GoToMeeting application to submit more questions to us. And we hope to cover a fair amount of ground here in the next half hour or so. So with no further to ado, FERC's Order 745 was issued in March of 2011.

Its title was "Demand Response Compensation in Organized Wholesale Markets". The real upshot of it was that it determined that grid operators were to pay full locational marginal price (LMP) for economic DR resources in the real-time and day-ahead markets. This wasn't received real well by those who own electric generation assets.

About the Authors:

Brett Feldman
Navigant

As a senior research analyst, Brett focuses on demand response programs and their implications for the global power industry. Prior to joining Navigant Research, Brett was a Principal for demand response at Constellation Energy, where he served as the chair of the NYISO Price Responsive Load Working Group, the vice chair of the ISO-NE Demand Resources Working Group, and the co-chair of the Northeast Energy and Commerce Association Energy Efficiency and Demand Response Committee.

Rich Philip
Duke Energy and PLMA Chair

Rich Philip is Duke Energy's Manager, Products & Services for Demand Response Programs in the states of Indiana, Ohio and Kentucky. emand response totals over 600 megawatts of resources throughout Duke's three-state Midwest service area. Rich has experience in load research, electric rates, marketing research, and market management as well as product management. Rich is in his 33rd year with Duke and predecessor companies, having started his career with Public Service Indiana, which became part of Cinergy Corp. in a 1994 merger and later became part of Duke Energy as part of the Cinergy/Duke merger in 2006.

And guests:
- **Jill Powers**, California ISO
- **Doug Smith**, ISO New England
- **Peter Langbein**, PJM Interconnection

And so, The Electric Power Supply Association, which is the trade organization for those who own generation in competitive markets, filed suit against that order. Their main argument was really saying that, from an economic theory standpoint, instead of four full LMP, DR should really be LMP less the variable cost of generation (LMP-G), which would make it look more like an even playing field with the generators.

That was the first part of their argument. The second part of the argument is they even threw a little mud on the fact that they weren't sure of whether DR was really a wholesale product, and therefore FERC may have been encroaching in the retail markets (that are regulated by state utility commissions according to the Federal Power Act).

In May of 2014, the US District Court in the District of Columbia heard the case and issued a 2 to1 split decision order that took the side of EPSA, saying that Order 745 should be vacated and that FERC was outside of its authority.

And that really kind of carried the day with that. Obviously, that was a very big change in how people were operating and thinking, particularly since they took the point of view that FERC shouldn't be in the DR space, ruling that DR was a retail product, not wholesale. That led to a series of market players, including FERC, to go through the process of getting this appealed to the Supreme Court.

The Court agreed to hear the case in the Spring of 2015, and it actually heard the case back in the fall of this year, in September 2015, and issued their order on Monday, January 25, 2016. In that order, the SCOTUS determined an order that turned back 180 degrees again, in a 6 to 2 order said, that no, that FERC was within their rights to be issuing rules around demand response. They went so far as to say that wholesale and retail markets, they do have impacts on each other but you cannot "hermetically seal" them to keep them apart. They also affirmed that FERC was acting under their authority in the Federal Power Act. In addition, on the issue about the right way to construct that compensation, they said that the Court's role was to do nothing more than make sure that FERC had given it due consideration, had not acted arbitrarily or capriciously, and therefore was acting within their rights.

Therefore, by that order, 745 stands as written by FERC in 2011 and really the rules of the market continue to be what we've grown to be accustomed to in those types of structured markets. So Brett Feldman, who's senior research analyst at Navigant Research, what does that mean to those of us who are out actively working in the DR markets?

Brett Feldman: Yeah, thanks, Rich, for the background. Good to be here, and so it's like a little bit of a bittersweet moment, it's been fun having DR put in the spotlight and getting up to Supreme Court. Now, maybe it'll just move back into obscurity to some degree that this ruling came out and this is certainly a best case scenario for a lot of the demand response providers and the markets out there that are offering demand response.

It was interesting to see this 6 to 2 ruling, there was a lot of concern that it might be a split vote, but then there was a little bit of movement towards the first sign. I'll just mention that we did ask FERC to join us on this call. And just due to the issue that there's still some other open cases related to this case, they're unable to comment at this time.

FERC's certainly following, but they aren't able to publicly speak about it yet. As Rich said to me, this outcome basically maintains the status quo. It's not necessarily that there are new opportunities, although they are different in parts of the market, the RTOs and the ISOs; they can continue to make some enhancements, but I don't think there's anything specific from this ruling that adds anything new.

I really thought of this case as more of a defensive battle for DR. The alternative outcome had a much more dire down side than any kind of upside necessarily for this outcome. So I think that's the main take-away, there's still a lot of other forces that play in the wholesale energy markets and rule changes and just changing the dynamics.

So I think those will be more important to future of the DR in those markets than FERC 745 itself.

Rich: Thanks, Brett. We're fortunate to have with us representatives from three of the major structured markets. And so first, I'll start with Jill Powers from Cal ISO. Jill, what impacts does this Supreme Court ruling have in Cal ISO and how they're thinking about going forward?

Jill Powers: Yeah, this is Jill. At this point, we first just wanna say we're very pleased that the Court has upheld the FERC jurisdiction over demand response as part of the wholesale markets. At this point, we are reviewing the decision. We're trying to get a better understanding of what guidance it has.

We don't believe there's much implication and we continue to make enhancements to the DR participation in our market. We're continuing to have initiatives that enable load participation, including the participation of smaller loads across multiple customers in terms of aggregation. And even during this time of uncertainty, we've moved forward with the initiatives to enhance that capability.

In fact in the last year, we implemented the ability for DR to participate in our spin ancillary services. So again, we're very pleased, it really hasn't had, from what we see, an impact on what we're moving toward. And I keep hearing reference. Just full steam ahead in this area and we have had in the past year many initiatives that continue to open the door and to make improvements, both systematically and in our market design, to enable the demand response participation.

But again, very pleased, we're taking a look at the decision. We're seeing if there is additional guidance we need to take from that. But in terms of an implication at this point in time we don't see a major implication for us.

Rich: Thanks Jill. Also joining us today is Doug Smith who leads the demand resource area at ISO New England.

Doug, anything that you want to share as far as how this may impact your RTO in particular?

Doug Smith: Thank you Rich, can you hear me okay?

Rich: Yes.

Doug: Okay, well, it impacts us but it really puts us back on track. Back in 2011, we put forward market rules to fully integrate price response of demand into our co-optimized energy and reserves markets, original target date of June 1 of 2017.

There's an interim period that began in 2012 where they could participate to a limited degree but weren't part of the clearing algorithms and weren't providing reserves. But, last fall we filed a deferral of the June 1, 2017 date by one year to June 1 of 2018 for full integration.

Because it's a relatively massive undertaking to control all of our systems such that demand response resources can offer and be cleared in the same way as generators. And because of the amount of IT changes to systems and connectivity between systems. Now we have 28 months to implement, and now we're all getting fired up about finalizing business requirements and starting to engage with our IT groups.

Looking forward to being able to implement this in a couple years. It's gonna allow, not an emergency generation type resources (i.e., Load reduction or behind the meter distributed generation that has incremental dispatchable capacity to offer in). And very much the same way as generators, one exception is they won't be able to modify offers same day because there's too much opportunity.

For example, if you have a power outage, obviously, you wouldn't want somebody to change their offer on the basis of the fact that they have no ability to consume, for example. But the other thing we're doing is we're modifying our baseline methodology to a much simpler form than what we've since 2003, so that's project on track to go live in one year.

Rich: Thanks Doug, also with us is Pete Langbein. Pete's led the main demand response operations group there at PJM for a number of years now. As you know, PJM is the largest structured DR program in the world, so Pete, what do you want to share as far as what PJM is thinking relative to the order this week?

Pete Langbein: Great, Rich, can you hear me?

Rich: Yes.

Pete: Great, hey, thank you, Rich, and I appreciate the invitation to join today. So, similar to Jill and Doug, we are very excited with the order that came out. First and foremost that we now have certainty around these important resources and their participation in the market as opposed to having to guess whether or not they would be able to participate in the future and have some sort of retroactive impact in the past.

So we are very excited with the market certainty and also have been very supportive of DR resources and are very glad that we're able to continue down the path that we've been going down. From a simple market-rule standpoint and order 745, since we had already complied with order 745, basically with the existing rules that we have in place, we do not see any changes.

And that's similar to what Brett was mentioning. So the rules that we have in place, and the ability for the robust DR community to be able to participate in a variety of markets, all remains in place as is under our current tariff that we have today, which is a great thing.

Other things, just to anticipate, would be to the extent that some resources may have been holding back, or being conservative waiting to see the outcome of the Supreme Court ruling. Now that that's behind us, we would expect a potential uptake in the type of activity that we have.

Especially in things like the energy market where we have an opportunity today, so very fortunate that we can continue down the path that we have. We had proposed a contingency plan that we had out there to FERC that was called our stopgap filing where we were trying to prepare just in case the opposite was true from the Supreme Court.

It's great that we're not gonna need to go down that path and continue to invest and grow DR in our market.

Rich: Thanks Pete.

Jill: So just to tee off on what Pete was saying that the ISO, also had already complied with order 745. We had the rules in place.

We had the market structure in place. So again, we think the impact is gonna be minimal we're happy that we did have this uncertainty relieved and I did want to also mention that we've had a lot of state support for wholesale participation. And we've had a lot of California Public Utilities Commission rulings that have supported additional participation in the California ISO market.

So in 2015, we have some rulings on DR bifurcation which supported this continued integration of the demand response program market so we just think this further emboldens some of the activities that we have been working toward in the last few years.

Rich: Thanks Jill. I appreciate that.

Brett: Yeah, absolutely.

Brett: Rich, thanks. To all the RTO representatives there, I'm sure you're glad you don't have to worry about your contingency and stopgap plans anymore, you can just get that going on track there. But Rich, I'm curious and I see one question that came in asking if there's anything in the Supreme Court decision regarding another retail authority, and the states being able to run DR programs.

And I don't think there's anything that prohibits that, but I'm curious from a utility and a state perspective, does this outcome in any way inhibit or put less emphasis on developing retail level, distribution level, DR or do you think that it'll get moving ahead as well? I think what the order does is it maintains a competitive market.

Rich: So as an example, in Duke Energy's territory in Ohio, Duke Energy Ohio was competing with other CSP's in the DR market. And that's the best thing for customers and the marketplace, in general. If 745 had been struck down, the odds are that we may have become, within a state program, being the predominant provider, that probably doesn't get as many people involved as having competition.

So yes, practically for Duke Energy we may have had a stronger position in Ohio in the DR market if 745 had been struck down. I've had some potentially positive impacts in some places, yeah, but those are pockets. And I think that, at the end of the day, this is about doing what's best for all of our customers. And I kinda think it may change in the competitive markets and things like that, like 745 is the right way to do that.

Believe me, the people within Duke Energy that manage generation don't necessarily share my view point on all of that. They are really hung up on the idea that economic DR should be compensated with LMP less little "g" they're out of b, b less little g. As far as the compensation part of this, but truthfully, I think that this is the best outcome, and it's one that Duke Energy can work within and I think do well.

Doug: Just to add to that, this is Doug Smith here. One of the things that the Supreme Court did refer to in the decision, is the fact that there is another order, FERC 719, that specifically gives Retail Regulatory Authorities control over whether or not they're going to allow wholesale DR in the territory that they have jurisdiction over.

So if a state regulator decides that they wanted to do it on their own, for example, or even a municipal utility that is on regulatory, is essentially regulate themselves. They can close in a territory to wholesale DR, and that's something that we implemented. And I'm sure the other ISO just meant to that four or five years ago in Order 719 came out.

So I was pleased that the Supreme Court recognized that ultimately, the separation says a lot in Retail Regulator Control. And most, if not all, in our area, with a few exceptions in some small communities, clearly want there to be wholesale DR in the states and territories that they regulate.

Rich: Thanks, Doug. We're getting a couple of questions and people asking about, are there places where 745 really didn't have an impact, or whatever the case may be? And really, to become under a court jurisdiction and for 745 to be important that, and really going back to 719, this is really more about RTO's and multi-state situations is where this really comes to bear.

Using Duke Energy as a simple example. We operate in Florida where there's no RTO effort in place and in North and South Carolina where there is no RTO. All this conversation that I have, if as I manage the DR in our Midwest states, wasn't very interesting to my peers. But for me, operating both in MISO and in PJM, this was a very big deal to me.

So let's try to get kinda the lay of the land, what this means in different prices. It's a big deal in places like New England and the PJM as well as California and pertinent to Cal ISO. So I think that's where this kind of comes from of course, so this is not a Texas issue, per se, or a Republican Texas, it's not an interstate issue.

So anyways, that's the answer to some of the questions that have been submitted by the audience.

Brett: Well just on that, there can be kind of direct effect and indirect, so I agree with what you're saying. So the areas that are directly affected, let's just talk about ERCOT, I did reach out to a couple people there because they've actually been going through a similar process and integrating DR to their energy markets.

And they've been focusing on the LMP minus G perspective. So I was curious if this ruling would change that process at all, or if they're gonna go forward with that. I haven't heard back, but if there's anyone else has any insights, I'd be interested to hear that, because they're concerned.

Now, if the ruling went the other way, I could see how other ERCOT or Canada or other places would have said, this was FERC. FERC is doing it, maybe we should consider this. But now that it came up this way, I'd still be interested to see how that sways what is doing.

Rich: I appreciate that. Thanks. Brett? Let's see. On the submitted questions side. So we have questions kind of asking what's next that comes out of this? Do we expect market growth? Do we expect some other markets might want to be considering coming together and doing some stuff more on the wholesale level?

Brett, do you have any perspective on those?

Brett: Yeah, I just heard a little bit from each of the RTO representatives, and I'd be happy to hear them again. So I don't see much no direct impact. When the FERC 745 originally came out, there's concern about the really high energy prices at the time, because oil and gas prices were a lot higher.

So it had more of an impact, but where the electricity prices are right now, from what I've seen in the market, I don't think that it'll impact participation directly. But as we've heard, it was more of a barrier. And a lot of things had to be put on hold and delayed at the ISO level.

So they are still focused on adding some more. They do have a lot of plans that were kinda contingent on getting some kind of response here. So I think there will be some new opportunities. I don't know about new markets necessarily. But just continuing to evolve the market rules as they are.

Jill: Yeah, this is Jill from the California ISO. And I have would agree, it's really an evolving of what we have. But as I mentioned before, we had moved toward, had move forward with policy initiatives even in the absence of a decision to really, again, enable the DR participation within our markets.

So there might be some slight modifications now that we have certainty on this. There may be some things that we're cleaning up from our original compliance with 745 that we might be going back with. Based on really, some of the participation that we've seen since we implemented it back in 2010, but just overall it didn't change too much In some of the market design and market initiatives that were currently under way and what we foresee in the near future.

We had always incorporated DR as part of those initiatives and then part of that market design and we don't really see too much changing, other than we have some certainty.

Pete: Yeah, hey this is Pete.

Rich: Thanks.

Pete: This is just Pete at PJM. Similar to Jill, the big thing is, for the things that normally are market rules, will evolve, we will identify things they can enhance, and new issues will be identified.

Some of the DR specific stuff was somewhat a little bit in a holding pattern. Now that this has been resolved, I think we're probably… we'll now start to identify some things that may have been kinda put on the back burner. To try to focus on and, to figure out what do we wanna do moving forward.

So with DR, since it's continuously growing and evolving, that means we will now look to as with our stakeholders, what those opportunities are and what kind of changes may come and may be beneficial in the future.

Rich: Thanks, Pete. Let's see, I had something. Let's, and I lost it.

Go ahead, Brett.

Brett: Yeah, there are some questions about what this means for other types of behind the meter resources because it didn't necessarily just impact DR. It could be energy efficiency or storage or distributed generation. So I think a lot of those other types of resources that are growing and taking more prominence especially in places like California.

They were definitely waiting to see the outcome here, because for those new types of resources, it did have a bigger impact than on the existing DR portfolio. So I would say that, and you've seen some of the recent results of the auction mechanisms in California, and getting more, as Jill talked about, integrated into the ISO Market and we see things going on in New York with the REV, so I think it does open up opportunities for more of these newer technologies and integrating a lot of these different types of systems behind the meter.

Jill: Yeah. And this is Jill, again. As I mentioned, we did have a couple of initiatives this year. I mean, we were moving forward, and we were looking at these behind the meter resources.

And we had a couple of initiatives. One was called our distributed energy resource provider, it was kind of under a title expanding, metering and telemetry options that distribute energy resource provider. We've also been looking at a lot around energy storage. And we have an initiative called Energy Storage and Distributed Energy Resource, ESDER as we affectionately called it, and really this kind of was just something more, we were moving forward.

You know we're looking at this. We're looking at DR. We're looking at DER all in the same light, and trying to put in the frameworks and capabilities for aggregation of distributed energy resources that we currently have rules and framework around for demand response. We are trying to also incorporate that for distributed energy resources.

But, there was always kind of this uncertainty with our stakeholders. It was more of our stakeholders would bring up the fact that this still was an issue. This was hanging out there. But we recognized it within our initiatives, but it didn't really keep us from moving those forward.

I think that's all I wanted to say, yeah.

Rich: Yep, thanks, Jill, I appreciate that. We're getting close on time in a moment here. So Doug, is there anything else you wanted to share or thoughts? Jill covered some ground that we had a couple questions submitted on relative to the how distributed energy resources as we go forward in more of a stay the course order from the Supreme Court, how we look forward into kinda the new things that technology is enabling.

Doug: No, not really. We're really excited about moving forward with the plans that we've actually made, to fully integrate. I think that if we can pull this off, it'll be really interesting, we're sort of a small enough market that I think the other markets may look at what we're doing in terms of fully integrating and hopefully it'll move the ball forward for all of us and we'll let it run.

And we, I'm sure like the others are saying, we're going to keep making improvements as we go along to try to provide more and more opportunities for flexible load.

Rich: Thanks. Pete, one last opportunity. Is there anything else you wanna share with the group?

Pete: That's it, it's just a great day. That's all I have to reiterate, thanks.

Rich: I understand, it would have allowed disruption in the marketplace if 745 had been vacated. And so along those lines, this really is the smoothest results for those of us already operating in the marketplace. History means something and you can kind of work, you work from some knowns.

And as far as what happened in the past, may help you with the future. If they had been turned down, we would have more knowns and unknowns in some cases would have been pretty hectic for awhile. We're at time, Brett any final things that you wanna share?

Brett: Well, just from an analyst and consulting perspective, sometimes you like that disruption and uncertainty more, but I understand in general the certainty, well it's much, better for the market.

Rich: Okay. Thank you. Guys at this point in time we're at the end of our time slot. Gonna send out a link to this so people can hear at their leisure for any of your teammates miss this or whatever that's an opportunity that goes with that. We'll field the questions and try to get back with people on through email over the course of the next day or so.

I'm going to take this opportunity to thank Brett and Pete and Doug and Jill for spending their time with us and sharing their perspectives and I hand it all back to Ed.

Ed: Thanks, I do regret we are out of time. But I do think we should set a new land speed record for producing a dialogue.

I wanna thank all of you for your prompt and your professional responses. We will keep the dialogue going though, through the recording and of course into our spring conference this April in San Francisco. To learn more about upcoming DR dialogues and archives of past recordings and information about our conferences, you can see that all at peakload.org.

Thank you all for joining us today. This concludes our DR dialogue.

Resources:

To hear this PLMA Demand Response Dialogue, presenter contact information and access additional resources, follow the below instructions:

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