UNITED STATES OF AMERICA

FEDERAL ENERGY REGULATORY COMMISSION

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CONSENT MARKETS, TARIFFS AND RATES - ELECTRIC :

CONSENT MISCELLANEOUS ITEMS :

CONSENT MARKETS, TARIFFS AND RATES - GAS :

CONSENT ENERGY PROJECTS - HYDRO :

CONSENT ENERGY PROJECTS - CERTIFICATES :

DISCUSSION ITEMS :

STRUCK ITEMS :

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1032nd COMMISSION MEETING

Thursday, November 17, 2016

Commission Meeting Room

Federal Energy Regulatory Commission

888 First Street, NE

Washington, DC 20426

The Commission met in open session at 10:57 a.m., when were present:

CHAIRMAN NORMAN BAY

COMMISSIONER CHERYL LaFLEUR

COMMISSIONER COLETTE HONORABLE

PRESENTERS:

E-1, Michael Herbert, (OEP)
Rajiv Raja, (OEMR)
Heidi Nielsen, (OGC)
Anuj Kapadia, (OER)

E-2, Emma Nicholson, (OEPI)
Anne Marie Hirschberger, (OGC)
Dillon Kolkmann, (OE)
Pamela Quinlan, (OEMR)

E-4, Nneka Frye, (OGC)
Christopher Macfarlane, (OGC)
Mark Hershfield, (OGC)

H-1, Tara DiJohn, (OGC)
& Carolyn Clarkin, (OGC)
H-3 Norman Richardson, (OED)
Nicholas Jayjack, (OEP)

A-3, Todd Hettenbach, (OE)
Jeremy Medovoy, (OE)
Jamie Marcos, (OE)
Stephen J. Williams, (OE)
James Burchill, (OE)

PRESENTERS:

A-4, Bill Allerton, (OEP)
Kevin Griebenow, (OEP-CRO)
Doug Johnson, (OEP-PRO)
David Capka, (OEP)
Wayne King, (OEP-ARO)
John Spain, (OEP-NYRO)
Frank Blackett, (OEP-SFRO)

P R O C E E D I N G S

(10:57 a.m.)

SECRETARY BOSE: The purpose of the Federal Energy Regulatory Commission's open meeting is for the Commission to consider the matters that have been duly posted in accordance with the Government in the Sunshine Act.

Members of the public are invited to observe, which includes attending, listening, and taking notes; but not include participating in the meeting or addressing the Commission. Actions that purposely interfere or attempt to interfere with the commencement or conducting of the meeting or inhibit the audience's ability to observe or listen to the meeting, including attempts by the audience members to address the Commission while the meeting is in progress are not permitted.

Any persons engaging in such behavior will be asked to leave the building. Anyone who refuses to leave voluntarily will be escorted from the building. Additionally, documents presented to the Chairman, Commissioners, or staff during the meeting will not become part of the official record of any Commission proceeding, nor will they require further action by the Commission.

If you wish to comment on an ongoing proceeding before the Commission, please visit our website for more

information. Thank you for your cooperation.

CHAIRMAN BAY: Good morning everybody. This is the time and place that has been noticed for the opening meeting of the Federal Energy Regulatory Commission to consider the matters that have been duly posted in accordance with the Government in the Sunshine Act. Please join us in the Pledge of Allegiance.

(Pledge of Allegiance)

CHAIRMAN BAY: Since the October 20 meeting, the Commission has had a very busy month. We've issued 54 notational orders since the October open meeting.

I have one announcement to make. I wish to acknowledge that one of my advisors, Jeff Hobday, will be leaving my office to become the Acting Division Director of the Division of Investigations in the Office of Enforcement.

Jeff has been an outstanding advisor. I very much appreciate his assistance, unfailing good humor, and high energy over this past year, as he has been one of my advisors. And I also wish to tell you that replacing Jeff will be Emma Nicholson.

Emma is currently in OPI and has been one of the team leads on any number of price formation matters, but very much looking to work with Emma and wish to give a great big thanks to Jeff Hobday for all the help that he's provided me over this past year.

Colleagues, do you have any other opening statements or announcements?

COMMISSIONER LAFLEUR: Well, just to also congratulate Jeff.

(Protester)

COMMISSIONER LAFLEUR: I would just like to second you in congratulating Jeff on his well-deserved new position and warmly welcoming Emma to the floor.

CHAIRMAN BAY: Thank you, Cheryl. Colette.

COMMISSIONER HONORABLE: Thank you, Mr. Chairman. I'm delighted to see so many of you here with us today. I, too, would like to congratulate Jeff, welcome Emma, and also to mention that I had a wonderful, but very busy week.

Last week I was in three different cities. One was going to meet with doctoral students at the Energy Institute at Carnegie Mellon. I believe that our work can be so much better informed by what's happening in academia. I attended a meeting of the Richmond Chapter of ABE and also I had a wonderful opportunity to engage with young, bright minds in Houston, Texas, where they're focused on stem curricular. And so I was really encouraged about what I saw with the young people there. Thank you.

CHAIRMAN BAY: Thank you, Colette.

Madame Secretary, I think we're ready to proceed to the consent agenda.

SECRETARY BOSE: Good Mr. Chairman, good morning Commissioners. Since the issuance of the Sunshine Act Notice on November 10, 2016, no items have been struck from this morning's agenda. Your consent agenda is as follows:

Electric Items: E-3, E-5, E-6, E-7, E-8, E-9, E-10, E-11, E-12, E-13, E-14, and E-15.

Hydro Items: H-2, H-4, and H-5.

Certificate Item: C-1

We will now take a vote on this morning's consent agenda. The vote begins with Commissioner Honorable.

COMMISSIONER HONORABLE: Thank you, Madame Secretary. I vote aye.

SECRETARY BOSE: Commissioner LaFleur?

COMMISSIONER LAFLEUR: Aye.

SECRETARY BOSE: And Chairman Bay?

CHAIRMAN BAY: Aye.

SECRETARY BOSE: We are now ready to move onto the discussion and presentation portion of the meeting.

The first presentation item will be E-1. This is draft notice of proposed rulemaking concerning the electric storage participation in markets operated by RTOs and ISOs and electric storage participation in regions with organized electric markets.

There will be a presentation by Michael Herbert from the Office of Energy Policy and Innovation. He is

accompanied by Rajiv Raja from the Office of Energy Market Regulation, Heidi Nielsen from the Office of the General Counsel, and Anuj Kapadia from the Office of Electric Reliability.

STATEMENT OF MICHAEL HERBERT

MR. HERBERT: Thank you, Secretary. Good morning, Mr. Chairman and Commissioners.

Item E-1 is a Draft Notice of Proposed Rulemaking or NOPR, in Docket Numbers 8016-20-000 and RM16-23-000. This item proposes to amend the Commission's regulations under the Federal Power Act to remove barriers to the participation of electric storage resources and distributed energy resource aggregations and the capacity, energy, and solar service markets operated by Regional Transmission Organizations or RTO and Independent System Operations or ISOs.

This Draft NOPR is a continuation of the Commission's efforts to promote competition in the organized wholesale electric markets by removing barriers to the participation of new technologies. Requiring the RTOs and ISOs to revise their tariffs so that electric storage resources and distributed energy resource aggregations can provide all of the services that they are technically capable of providing will help to ensure that the organized wholesale electric markets produce just and reasonable

rates.

The proposals in the Draft NOPA are largely based on information collected in response to the data requests issued to the RTOs and ISOs and the request for comments issued earlier this year in 8016-20-000. The six RTOs and ISOs responded to the data requests and 44 other entities responded to the request for comments. The comments identified a number of potential barriers to the participation of electric storage resources in the organized wholesale electric markets.

The Draft NOPR proposes to acquire each RTO and ISO to revise its tariffs to, first, establish a participation model consisting of market rules that recognizing the physical and operational characteristics of electric storage resources, accommodates their participation in the organized wholesale electric markets.

And second, to find distributed energy resource aggregators as a type of market participant that can participate in the organized wholesale electric markets under the participation model that best accommodates the physical and operational characteristics of its distributed energy resource aggregation.

Specifically, the proposed participation model for electric storage resources must (1) ensure that electric surge resources are eligible to provide all capacity energy

and ancillary sources that they are technically capable of providing in the organized wholesale electric markets; (2) incorporate bidding parameters that reflect and account for their physical and operational characteristics of electric storage resources; (3) ensure that electric storage resources can be dispatched and can set the wholesale market clearing price as both a wholesale seller and wholesale buyer consist with existing market rules that govern when a resource can set the wholesale price; (4) establish a minimum sized requirement for participation in the organized wholesale electric markets that does not exceed 100 kilowatts and (5) specify that the sale of energy from the organized wholesale electric markets to an electric storage resources that the resource then resells back to those markets must be at the wholesale locational marginal price.

In addition, the Draft NOPR proposes to require each RTO and ISO to revise its tariff to allow distributed energy resource aggregators to participate directly in the organized wholesale electric markets. Specifically, the Draft NOPR proposes to require each RTO and ISO to establish market rules concerning (1) the eligibility to participate in the organized wholesale markets through a distributive energy resource aggregator; (2) locational requirements for distributive energy resource aggregations; (3) distribution factors and bidding parameters for distributive energy

resource aggregations; (4) information and data requirements for distributive energy resource aggregations; (5) modifications to the list of resources in a distributive energy resource aggregation; (6) metering a telemetry requirements for distributive energy resource aggregations; (7) coordination between the RTO or ISO, the distributive energy resource aggregator and the distribution utility and lastly, market participation agreements for distributive energy resource aggregators.

Comments on the Draft NOPR will be due 60 days after it is published in the Federal Register. Thank you for having us and we're happy to answer any questions you might have.

CHAIRMAN BAY: Thank you, Michael, Heidi, Anuj, and Rajiv for the presentation, as well as all other members of your team.

This topic is an important and timely one as we continue to see significant declines in the costs of electric storage resources and advancements in technologies it's important that we remove barriers to participation of those technologies in our electricity markets.

As we know, electric storage resources have unique characteristics. Unlike traditional generation and load resources, storage resources have the ability to both charge and discharge electricity. Storage resources can

also be designed to provide a variety of grid services and it's important that we be able to optimize their benefits to the grid. The Commission has been following the development's energy storage for some time now, at the Commission meeting last November a year ago. So a year ago, we hosted an energy storage panel.

As Michael just mentioned, earlier this year we issued data requests to the RTOs and ISOs and a request for comments on barriers to participation of electric storage resources in organized wholesale electric markets. And just last week, we hosted a technical conference to explore issues related to the compensation of storage resources for transmission services and multi-use applications.

I strongly support today's NOPR and believe that it is an important step towards promoting competition and economic efficiency in our markets, thereby helping to ensure just and reasonable rates to consumers. Thank you.

COMMISSIONER LAFLEUR: Thank you, Mr. Chairman. I'd also like to thank the whole team for their work on this proposed rule, which I think is a very important one.

Over the last several years, the Commission has taken a number of steps to try to make sure that all technologies that are capable of providing services that customers need can fully and fairly participate in the organized markets that we oversee and today's proposal is

such a step.

Storage resources, which obviously are very much growing in importance, have the potential to further reliability, promote affordability by shaving peaks on the grid, and helping to integrate carbon-free resources. And I think the rule does a good job of recognizing the unique attributes of storage and proposing tariff provisions around those attributes.

I'm going to be posting a separate statement on my website, focusing on the part of the rule on distributed energy resource aggregations and asking specifically calling out a request for comments on that. I do think that distributed resources we all know are posed to play a very important part in our resource mix and a more critical role in the future, but I also think they present unique issues because they're on the customer side of the meter, on the distribution side of the grid, and I believe will require coordination efforts among the RTO or ISO that's calling on them, the aggregator that's bid them in and the distribution control center or operator that's overseeing the grid to which they are connected to make sure that the reliability and safety, both of the transmission grid and the distribution grid are protected.

So I would really call on the people who are there working on this to propose how we structure that

coordination. I mean I can imagine software enabled, real-time communications or communication protocols, but it's above my pay grade. I've been in a lot of distribution control centers, but I've never run one, but I think it's important that we get this right.

I'd also just like to note that earlier this month Becky Robinson and I were out in California at CREPS and we heard a lot from the California PUC and the California ISO about their efforts to more utilize distributed resources under the tariff that CAISO's put in place. I know we're going to be getting an information report shortly from CAISO and I think it's important that we learn from what they're doing and that'll inform our next steps on this proposed rule. Thank you.

CHAIRMAN BAY: Thank you, Cheryl. Colette.

COMMISSIONER HONORABLE: Thank you, Mr. Chairman. And if I may, I wanted to pause and take a moment to acknowledge that we just celebrated Veterans Day and we had a wonderful program here at the Commission and Major General Furman, who happens to be the father of our own Carl Furman, was our speaker and he was a wonderful speaker, but I wanted to acknowledge and thank the members, past and current, of our Military Service for all you do to ensure our freedom and security here and abroad. Thank you.

And so now I will get on with my comments

regarding the storage NOPR. First, I want to thank Michael and thank the team for work that's been ongoing and it's really been -- I've learned a lot in this journey that we've undertaken together and I really have to applaud our Chairman, Norman Bay, for his leadership in raising to the forefront these issues that we are seeing happening. As Commissioner LaFleur mentioned, so much of what is happening traditionally on the customer side and now how that's interacting with work over which we have jurisdiction and it is a new day.

Some of you have heard me speak about storage, I say, and other technological advances in the integration of renewables. We aren't on the cusp of change. We're in the midst of it. So I want to thank our staff for your work and how you've been very diligent. I've learned so much on this journey; particularly, since a year ago when we were in this room and heard such an encouraging report regarding what's occurring across the country and abroad with regard to the development of storage and the role that it can play to support ensuring reliability and field diversity, resource diversity, and our ability to be nimble and flexible, to respond and support changes in technology and advancements that must be made and also our attempts to remove barriers to achieving those objectives.

I do believe that storage has so much potential

that, to me, it's clear. I've appreciate a number of stakeholders that have come in to brief, not only me, but my colleagues about what you're doing, the Energy Storage Association, a number of you across the stakeholder spectrum, Public Power and Co-Op folks that are very busy in this space along with investor-owned utilities. And I have to mention the RTOs and ISOs for your work because we are grappling with new and different things.

I often say that I do believe storage is the next big game changer and so it really is incumbent upon all of us to be very focused here and get it right it right. And I want to applaud Commissioner LaFleur and Becky, who were out in California, the work that's happening out there. Oftentimes, California they're the first ones to step out into the new world and we're learning from that. We'll see how it goes, but I'm very hopeful about the potential that that program, the (0:18:26l.3) Program, in particular, brings.

I want to encourage the stakeholders to provide comments to us because you are on the frontlines, if you will, and you will certainly inform our work in this docket, in particular. So thank you in advance for the comments that you will submit. Thank you.

CHAIRMAN BAY: Thank you, Colette.

Madame Secretary?

SECRETARY BOSE: We will now take a vote on this item. The vote begins with Commissioner Honorable.

COMMISSIONER HONORABLE: Aye.

SECRETARY BOSE: Commissioner LaFleur?

COMMISSIONER LAFLEUR: Aye.

SECRETARY BOSE: And Chairman Bay.

CHAIRMAN BAY: Aye.

SECRETARY BOSE: The next item for presentation and discussion this morning is E-2. This is a Draft Final Rule concerning offer caps in markets operated by RTOs and ISOs. There will be a presentation by Emma Nicholson from the Office of Energy Policy and Innovation. She is accompanied by Anne Marie Hirchberger from the Office of the General Counsel, Dillon Kolkmann from the Office of Enforcement and Pamela Quinlan from the Office of Energy Market Relations.

STATEMENT OF EMMA NICHOLSON

MS. NICHOLSON: Thank you and good morning Mr. Chairman and Commissioners.

Item E-2 is a Draft Final Rule addressing caps on incremental energy offers in markets operated by regional transmission organizations and independent system operators. This Draft Final Rule is the second final rule in the Commission's ongoing Price Formation Initiative. The Draft Final Rule adopts the Commission's Notice of Proposed

Rulemaking proposal with modifications and clarifications.

Presently, five RTOs and ISOs have a $1,000 per megawatt hour offer cap. Those are the California ISO, the ISO New England, the Midcontinent ISO, the New York ISO, and the Southwest Power Pool, one RTO, PJM Interconnection currently requires that all incremental energy offers above $1,000 be cost based and caps incremental energy offers at $2,000 per megawatt hour when calculating locational marginal prices for LMPs.

The Offer Cap Reform set forth in the Draft Final Rule would ensure clearing prices in RTOs and ISOs are just and reasonable and would advance the Commission's price formation goals for several reasons.

First, the reforms would ensure that resources with short-run marginal costs above $1,000 could recoup those costs. Second, the reforms would better enable LMPs to reflect the marginal cost of production when fuel costs increase dramatically.

Third, the reforms would enable RTOs and ISOs to dispatch the most efficient set of resources when several resources have short-run marginal costs above $1,000 because the RTOs and ISOs would be able to see the underlying costs of each resource. Fourth, the reforms would encourage resources to offer supply to the RTO and ISO energy markets when it is most needed. And finally, adopting the same

offer cap structure in each RTO and ISO would avoid seams issues that potentially arise if offer caps differ materially across markets.

To ensure just and reasonable rates, this Draft Final Rule sets forth three requirements. The first requirement is the offer cap structure requirement. Under this requirement an RTO or ISO would cap each resource's incremental energy offer at the higher of $1,000 per megawatt hour or that resource is verified cost-based incremental energy offer.

The first requirement would also modify the proposal in the NOPR by directing RTOs and ISOs to cap verified cost-based incremental energy offers at $2,000 when calculating LMPs. A resource for short-run marginal costs above $2,000 would be eligible to recover those costs through an uplift payment.

The second requirement is a verification requirement. This requirement is intended to protect customers for paying unjust and unreasonable rates. The Draft Final Rule would clarify the NOPR proposal and explain that under the verification requirement the RTO or ISO or the monitoring unit would verify that any cost-based incremental energy offer above $1,000 per megawatt hour reasonably reflects the associated resources actual or expected short-run marginal costs. If a resources'

incremental energy offer above $1,000 is not verified prior to the market clearing process that offer could not be used to calculate LMPs; instead, if dispatched, that resource would be entitled to an uplift payment based on its actual verified short-run marginal costs.

The third requirement is the resource neutrality requirement. Under this requirement, any resource, regardless of type, would be eligible to submit a cost-based incremental energy offer above $1,000. As a result of this Final Rule, RTOs and ISOs would treat a resource's incremental energy offer differently, depending on the level of the offer. An incremental energy offer below $1,000 would be treated the same as it is today. An incremental energy offer at or above $1,000 may be submitted, but only if it is cost-based. That is, if it reflects the resource's actual or expected short-run marginal costs.

Additionally, for an incremental energy offer above $1,000 per megawatt hour, the RTO or ISO or the market monitoring unit must verify that the offer is cost-based before using it to calculate LMPs. And an incremental energy offer above $2,000 per megawatt hour would also be subject to a hard cap. That is, it would be capped at $2,000 for purposes of calculating LMPs. Nonetheless, a resource that submits such a verified cost-based incremental energy offer above $2,000 would be eligible to receive an

uplift payment, if dispatched.

Thank you. This concludes our presentation and we'd be happy to address any questions that you have.

CHAIRMAN BAY: Thank you, Emma, Pam, Anne Marie, and Dillon. I also want to thank all the other members of the Price Formation teams that are working on a series of price formation issues.

I'm pleased to support today's Final Rule and believe it is an important part of the Commission's ongoing work on price formation. I think the Final Rule strikes an important balance between promotion price transparency and market efficiency as well as ensuring resources can recoup their costs while also protecting consumers from unjust and unreasonable rates.

As Emma stated, this Final Rule would cap each resources' incremental energy offers at the higher of $1,000 per megawatt hour or that resource is verified, and I stress the word "verified" cost-based incremental energy offer and would cap verified cost-based incremental energy offers at $2,000 per megawatt hour for purposes of calculating LMP locational marginal price. This is known as the hard cap.

A resource with verified short-run marginal costs above $2,000 per megawatt hour would be eligible to recover those costs through "make hold" payments.

I'm very pleased to support this Final Rule, as I

mentioned, because I think it strikes an important balance between furthering market efficiency and transparency while also ensuring that consumers are protected, so thank you team for your good work on this one.

COMMISSIONER LAFLEUR: Thank you, Norman and thank you team and everyone that's working on price formation.

As I've said before, I think it's very important that market prices reflect what it takes to keep the lights on because that's how you're going to get the right prices. And today's order on offer cap is another step in that direction to help ensure that market prices reflects what it takes at a time when there's unusual fuel costs or circumstances that result in unusually high prices. At the same time, the requirement of verification of costs over $1,000 ensures that customers are protected.

When we started on this price formation journey some time ago, I think we all realized or it became quickly clear to me that it was a pretty complex and multifaceted effort. There was no one silver bullet that would make the prices perfect. And because there are so many different elements that impact market prices and I'm really happy that we're concluding one more step and thank you very much for making that happen.

CHAIRMAN BAY: Thank you, Cheryl. Colette.

COMMISSIONER HONORABLE: Thank you, Mr. Chairman. I'd like to thank Emma for your presentation, thank the team sitting here and also the ones who are in the shadows, so to speak. You all have been working very hard for months on this and I'm very pleased that. True to our word and our hope, we are bringing forward yet another part of our continued work with regard to price formation. And I think it really has been an effort that has been inclusive of, not only our team here, but also a number of individuals who have informed not only what's working well, but what needs to be improved. So I'm very pleased to support today's Final Rule because I think it is taking important steps to increase confidence in our markets and transparency in energy and ancillary service markets.

And yes, this Final Rule speaks to market conditions we rarely see. We don't expect -- I should say I don't expect legitimate offers to exceed $1,000 per megawatt hour very often; however, the polar vertex was unusual and it certainly tested the ways of the market in ways we didn't quite anticipate. And I think, as we should, our work in evolving continues to attempt to address issues that we may not expect, but that could arise.

And I think we've learned valuable lessons. As I always say, when we know better we do better. And indeed, I agree with my colleagues that a market's purpose is to form

prices that accurately reflect supply and demand fundamentals, absolutely compensating resources for the value that they provide. And I do believe that price formation should work during ordinary and extraordinary times. And in fact, it's during the extraordinary times that we often see faults that material and I do also believe that this rule address extraordinary circumstances by allowing offers and LMPs when appropriate to reflect legitimate short-run marginal costs.

I'm also very pleased about the consumer protection element inherent in today's Final Rule because it does protect consumers from paying unjust and unreasonable rates. I will stop there. So much of what I would've said has been covered by my colleagues, so I scratched a couple of things here in the interest of time. Thank you and I know our work will continue, but thank you so much.

CHAIRMAN BAY: Thank you, Colette.

Madame Secretary.

SECRETARY BOSE: We will now take a vote on Item E-2. The vote begins with Commissioner Honorable.

COMMISSIONER HONORABLE: Aye.

SECRETARY BOSE: Commissioner LaFleur?

COMMISSIONER LAFLEUR: Aye.

SECRETARY BOSE: And Chairman Bay?

CHAIRMAN BAY: Aye.

SECRETARY BOSE: The next item for presentation and discussion this morning -- items, I should say, Item E-4 and M-1. E-4 is a Draft Final Rule amending the Commission's regulations to implement the requirements of the FAST Act. And M-1 is a Draft Final Rule in which the Commission amends its regulations to implement the requirements of the FOIA Improvement Act and clarifying FOIA regulations.

There will be a presentation by Nneka Frye and Christopher MacFarlane from the Office of the General Counsel. They are accompanied by Mark Hershfield from the Office of the General Counsel.

STATEMENT OF NNEKA FRYE

MS. FRYE: Thank you. Good morning Chairman Bay and Commissioners.

Today we will be presenting on agenda items E-4 and M-1. Agenda item E-4 is a Draft Final Rule in which the Commission amends its regulations to implement the requirements of the Fixing Americas Surface Transportation Act as set forth in Section 215(A)(d)(2) of the Federal Power Act.

The Draft Final Rule also amends the Commission's existing critical energy infrastructure information procedures. These changes are intended to comply with the FAST Act as well as improve the overall efficiency of the

Commission's procedures for certain infrastructure information that is submitted to or generated by the Commission.

On June 16, the Commission issued a Notice of Proposed Rulemaking to amend its regulations to implement the provisions of the FAST Act pertaining to the designation, protection, and sharing of CEII. The proposed amendments included, among other things, the creation of criteria and procedures for designating information of CEII, a specific prohibition on unauthorized disclosure of that information, sanctions for knowing and willful unauthorized disclosure of CEII by certain federal personnel, a process for voluntary sharing of CEII, and changes to the existing process for requesting CEII. In response to the NOPR, 19 entities filed comments and 2 entities filed reply comments.

The Draft Final Rule largely adopts the amendments proposed in the NOPR. In addition, the Draft Final Rule modifies or otherwise clarifies certain proposals made in the NOPR based on the review of the comments.

STATEMENT OF CHRISTOPHER MACFARLAND

MR. MACFARLAND: Good morning, Chairman Bay and Commissioners.

Now we will be providing a brief summary of agenda item M-1, which is a Draft Final Rule in which the Commission amends its regulations to implement the

requirements of the FOIA Improvement Act of 2016.

The Draft Final Rule also clarifies the General Counsel's authority to respond to administrative appeals of FOIA determinations. On June 30, 2016, President Obama signed the Freedom of Information Act Improvement Act of 2016. The Act addresses a range of procedural issues, including the requirements that agencies establish a minimum of 90 days for requesters to file an administrative appeal and that agency provide dispute resolution services at various times throughout the FOIA process.

The Act, among other provisions, also codifies the Department of Justice's foreseeable harm standard and creates the 25-year limit on the deliberative process privilege. Congress directed agencies to review their existing FOIA regulations and where appropriate make revisions to implement the provisions of the Act within 180 days, which would be before December 27, 2016.

After undertaking a review of the Commission's regulations in accordance with the Act this Draft Final Rule revises the Commission's FOIA regulations; specifically, 18 CFR, Sections 388, 106-110. Additionally, consistent with the current FOIA administrative field provisions, the Draft Final Rule also clarifies in other parts of the regulations that the General Counsel is officially authorized to issue final determinations on administrative FOI appeals.

This concludes our presentation and we are happy to take any questions.

CHAIRMAN BAY: Thank you Nneka, Christopher, and Mark.

I support today's final rules implementing the requirements of the FAST Act and the FOIA Improvement Act. By amending our regulations to improve and strengthen the procedures for securing and sharing information, including sensitive infrastructure information, the final rules strike an important balance between transparency in securing the nation's critical electric infrastructure. Not only do these final rules comply with Congress's mandates, they also improve the efficiency of the Commission's protections and procedures.

I would note that Congress directed FERC to finalize its regulations relating to the FAST Act by December 4, 2016 and we've done that. I know that has occurred only through the very hard work of staff as well as the support of my colleague on the Commission. And so for all those reasons, I'm very pleased to support both of these rulemakings. Thank you. Cheryl.

COMMISSIONER LAFLEUR: Thank you, Norman. I'd also like to thank the team for all your work on these final rules. I know Steven and I have been very active commenters and I appreciate your forbearance as we worked through it.

I'm very glad we're meeting the congressional deadlines in issuing these regulations. You know we're a creature of statute and Congress doesn't pass new laws very often and it's important we do our work promptly when they do.

I'd particularly like to highlight all the efforts that the Commission has taken, and some of them are outlined in the rule, to assure that we have in place strong procedures to protect CEII, and as required by the new law, to ensure there are appropriate sanctions in place for current or former Commissioners or Commission employees who violate those procedures.

I think the final rule does a good job outlining the important steps we've taken, including those to carry out and build on the reports of the Inspector General in 2015. And I want to personally thank the people who worked on that in general and administrative law and the rest of the Office of General Counsel, the Office of Executive Director, and the Office Energy Information Security, Energy Infrastructure Security, maybe, and everyone else across the Commission. Thank you.

CHAIRMAN BAY: Thank you, Cheryl. Colette.

COMMISSIONER HONORABLE: Thank you, Mr. Chairman. Thank you all, thank you Nneka and Christopher for your presentations. Mark, I certain you and your colleagues in

your respective divisions have worked equally hard on this effort. And I also wanted to thank the many entities that submitted comments for those matters.

Each year over 7,000 documents are submitted to this Commission's E-Library system with CEII treatment requested. And also each year we receive about 200 requests to access material with CEII treatment requested. And I believe that as we've demonstrated -- and I also want to acknowledge the Chairman and Commissioner LaFleur because we've been working very hard on these items to ensure this important step in securing and sharing sensitive infrastructure information where appropriate as well as improving the overall efficiency of the Commission's procedures for handling such information.

Recognizing the sensitive nature of this information, E-4 also establishing sanctions for the knowing and willful violation or on disclosure of information that isn't authorized and I believe these sanctions are, indeed, an appropriate deterrent to unauthorized disclosures. M-1 is another important order in my mind because -- and I must say I'm so proud of our agency in the ways in which we continue to adhere to the law. We make providing the information requested a priority. And I can tell throughout all levels of this organization that we take our role here seriously. We are a public entity and I'm pleased to know

that having come from other governmental entities that we carry out this role with every bit of attention that it requires.

We are ensuring that our FOIA regulations are in compliance with new statutory mandates, but more importantly, in my opinion, we're providing greater transparency to the public, which is both important and necessary. Again, thank you to you and the team for your important work.

CHAIRMAN BAY: Thank you, Colette. Madame Secretary?

SECRETARY BOSE: We will now take a vote on Items E-4 and M-1. The vote begins with Commissioner Honorable.

COMMISSIONER HONORABLE: I vote aye.

SECRETARY BOSE: Commissioner LaFleur?

COMMISSIONER LAFLEUR: Aye.

SECRETARY BOSE: And Chairman Bay?

CHAIRMAN BAY: Aye.

SECRETARY BOSE: The next items for presentation and discussion this morning are H-1 and H-3. H-1 is a Notice of Inquiry seeking comment on the Commission's current methodology for calculating annual charges for the use of government lands for hydropower projects in Alaska. H-3 is a Notice of Inquiry seeking comment on the Commission's policy for establishing license terms for

hydroelectric projects located at non-federal dams. There will be a presentation by Tara DiJohn and Carolyn Clarkin from the Office of the General Counsel. They are accompanied by Norman Richardson from the Office of the Executive Director and Nicholas Jayjack from the Office of Energy Projects.

STATEMENT OF TARA DIJOHN

MS. DIJOHN: Good morning Mr. Chairman and Commissioners.

H-1 seeks comment on the Commission's current methodology for calculating annual charges for the use of government lands for hydropower projects in Alaska.

The purpose of the Notice of Inquiry is to evaluate an alternative proposal raised in a petition for rulemaking. The petition asks the Commission to use a modified, statewide average per acre land value to calculate annual charges for the use of federal lands in Alaska.

The Federal Power Act requires hydropower licensees that use federal lands to compensate the United States through payment of an annual fee established by the Commission. Since 2013, the Commission has used a fee schedule to calculate annual charges for use of federal lands. The Commission publishes the fee schedule annually. The fee schedule identifies a per-acre fee for each county or geographic area. Each fee is the product of four

components: a per-acre-land value, an encumbrance factor, a rate of return, and an annual adjustment factor.

The per-acre-land value for each county or geographic area is based on land values published in the National Agricultural Statistic Service Census. The Agricultural census is conducted every five years. 2016 was the first year that the Commission used data from the 2012 census to calculate its federal land use charges. Because the State of Alaska does not use the county designation, the Agricultural census identifies five geographic areas for Alaska. Due to per-acre land value increases in the 2012 census, the 2016 land rates for hydropower projects located in certain geographic areas in Alaska increased compared to the rates assessed in 2015.

On June 6, 2016, a group of six hydropower licensees with project in Alaska petitioned the Commission to conduct a rulemaking to revise its methodology for calculating federal land use charges for projects in Alaska. The Petitioners contend that the use of an average per-acre land value statewide, with the exception of the Illusion Islands area would result in a more accurate per-acre land value for federal lands in Alaska.

H-1 seeks comment on whether the Commission should use a statewide average per-acre land value rather than a regional per-acre land value to calculate federal

land use charges for hydropower projects in Alaska. If a statewide average per-acre value is preferred, the Commission also seeks comment on whether the statewide, per-acre value should be applied to all projects in Alaska or only to projects in certain geographic areas and which geographic areas should be used to calculate the statewide average.

Finally, H-1 seeks comment on alternative proposals for determining a reasonably accurate per-acre land value for federal lands in Alaska. This concludes our discussion of H-1. My colleague, Carolyn Clarkin, will now brief you on agenda item H-3.

STATEMENT OF CAROLYN CLARKIN

MS. CLARKIN: Good morning.

The Draft Notice of Inquiry on Item H-3 seeks comment on whether, and if so, how the Commission should revise its policy for establishing license terms for hydroelectric projects located at non-federal dams. Under Part 1 of the Federal Power Act, the Commission issues original licenses to hydroelectric projects subject to its jurisdiction and new licenses, commonly called relicenses, thereafter.

The Commission is authorized to issue original licenses for a term that does not exceed 50 years and new licenses for a term that the Commission determines to be in

the public interest, but not less than 30 years or more than 50 years. For projects located at non-federal dams, it is current Commission policy to set a 30-year term where there is little or no authorized development, new construction, or environmental mitigation and enhancement, a 40-year term for a license involving a moderate amount of these activities, and a 50-year term where there is an extensive amount of such activity.

The purpose of this policy is to ease the economic impact of new costs and promote balanced and comprehensive development of renewable power generating resources. Determining whether the measures required under a license are minimal, moderate, or extensive is highly case sensitive and largely based on a qualitative analysis of the record before the Commission.

In establishing the appropriate license term, staff initially examines the nature and extent of the required measures and the context of the project at issue and then uses the costs of measures as a check on a qualitative conclusion that measures required under a new license are minimal, moderate, or extensive. Further, the Commission's policy is to take a forward-looking approach such that measures adopted under a previous license term are not considered.

It has also been the Commission's policy to set

license terms that coordinate, to the extent feasible, the license terms for projects in the same river basin to maximum future consideration of cumulative impacts at the same time the projects are due to be relicensed. The Draft NOI seeks comment on whether, and if so, how the Commission should revise its current policy.

The Draft NOI outlines five potential options that Commission staff has identified for establishing license terms. Number (1) the Commission could retain the existing license term policy; (2) the Commission could consider measures implemented during a prior license term; (3) the Commission could establish a 50-year default license term; (4) the Commission could include a more quantitative cost-base analysis and (5) the Commission could establish the license term based on the term negotiated in a settlement agreement when appropriate.

The Draft NOI seeks comment on each option, generally, and in response to posed questions. Further, the Draft NOI encourages the suggestion of any other alternatives. While the Draft NOI solicits comments for the Commission's consideration, the Commission is not obligated to take further action.

This concludes our presentation and we are happy to answer any of your questions.

CHAIRMAN BAY: Thank you Tara, Carolyn, Nicholas,

and Norman.

I support issuance of these two Notices of Inquiry. In my view, the represent an example of how the Commission is willing to take a step back and to examine whether various aspects of its regulatory policies need to be modified in light of changing conditions or to improve the efficiency of what we do.

In particular, with respect to H-3, I would note that there may be a surge of relicensing requests for hydro powered facilities over the next few years and so I think it's a particularly good time for us to be examining our policies with respect to relicensing and so I'm very please to support both of these NOIs and encourage all stakeholders to provide us with their comments on each of them, so thank you team. Cheryl.

COMMISSIONER LAFLEUR: I'd also like to thank the team. We don't do too many hydro items on opening meeting, even though it's actually the longest standing part of our jurisdiction, but perhaps it's appropriate when we have the team from all the hydro regional offices here. We'll be hearing from them a little later that we're doing two hydro NOIs.

I strongly support both of these Notices of Inquiry and I hope we get a broad range of comments. One of them is quite specific. I'm relating to the particular

characteristics of land in Alaska, but I believe important to the folks there. The other quite general and would impact all of the hydro licensees before the Commission.

I want to just note that I think that it's extremely sensible that we're considering the issue of hydro terms. A lot has happened in terms of the costs and scope of licensing proceedings since we put the current policy in place many decades ago and I think it's an extremely appropriate time to take a fresh look and I look forward to a lot of comments. Thank you.

CHAIRMAN BAY: Thank you, Cheryl. Colette.

COMMISSIONER HONORABLE: Thank you, Mr. Chairman, thank you, Tara, thank you, Carolyn, and the team.

And I have to note that I'm very pleased with the way that a number of divisions within our office continue to work well together on the issues that we are facing. I want to thank you for the ways in which you've worked together to bring two important issues to the forefront.

With regard to H-1, I know that a number of parties are concerned that our existing method is not working as it should in Alaska, in particular, and I want to thank the six hydropower licensees who petitioned for further examination. And I agree that it's always healthy for us to examine our own work and improve it where it is needed to respond to changes that are occurring in the

industry.

And I certainly realize that Alaska is unique and poses special challenges to calculating reasonable fees and I think this NOI along acknowledges that we don't believe one size fits all and we do have to take the needs of consumers and local communities into account, but also the taxpayers who own the land. And I believe that we need to arrive at a formula that is not only manageable, but consistently produces fair results. So I encourage anyone with ideas about our best way to go about that to chime in.

With regard to H-3, this is an important time to ask these questions because I, too, believe we may well receive a number of relicensing requests in the next few years. And while we're granted discretion by Congress under the Federal Power Act to determine the length of license, we certainly want to make sure that we're exercising discretion appropriately and even more importantly, transparently so that the stakeholders and folks in industry have some idea of where we're headed and why.

I also understand that these projects can have broad affects on the environment and on the public and it is incumbent upon us to balance a number of important interests. So I also encourage interested parties to submit comments here. And I want to thank the team in advance for the work you'll continue to do on these items. Thank you.

CHAIRMAN BAY: Thank you, Colette. Madame Secretary?

SECRETARY BOSE: We will now take a vote on Items H-1 and H-3 together. The vote begins with Commissioner Honorable.

COMMISSIONER HONORABLE: Aye.

SECRETARY BOSE: Commissioner LaFleur.

COMMISSIONER LAFLEUR: Aye.

SECRETARY BOSE: And Chairman Bay.

CHAIRMAN BAY: Aye.

SECRETARY BOSE: The next item for presentation and discussion this morning is A-3. This is the 2016 report on enforcement. There will be a presentation by Todd Hettenbach, Jeremy Medovoy and Jamie Marcos from the Office of Enforcement. They are accompanied by Stephen Williams and James Burchill, also from the Office of Enforcement.

STATEMENT OF TODD HETTENBACH

MR. HETTENBACH: Good morning Chairman Bay and Commissioners.

Today the Office of Enforcement is releasing its 10th annual report on enforcement. As in previous years we, staff, prepared this report to provide the public with information on the activities of all four OE divisions, Analytic and Surveillance, Audits and Accounting, Energy Market Oversight, and Investigations.

It describes both public and non-public enforcement activities. The portions about public activities include summaries of audit reports, market reports, market surveillance and data analysis, litigation filings, and Commission-approved settlements. Thee portions about non-public activities includes summaries of closed investigations and self-reports in which the names of the subjects have been masked to maintained confidentiality. We hope that the public will find the report to be a useful tool in better understanding what the Office of Enforcement does, what our priorities, and the factors that have lead our office to pursue or to close certain matters.

This year in addition to presenting highlights from the annual report itself the report team is joined at the table by two of our enforcement colleagues, Jamie Marcos and Jeremy Medovoy, to discuss two white papers that we, staff, prepared regarding market manipulation and effective energy trading compliance practices.

A major theme reflected in this year's annual report is the consistency in the Commission's enforcement program. OE's four priorities have not changed over the past few years nor has it general approach toward the work addressing those priorities. Among other things, DOE opened 17 new investigations in fiscal year 2016. Of those 17 new investigations, 12 involve potential market manipulation.

It closed 11 investigations with half closed because staff concluded that the evidence was insufficient to support a finding of a violation and the other half closed through settlement, the settlements addressing market manipulation, violations of Commission-approved reliability standards, and tariff violations.

Interestingly, after the Commission approved one of those settlements, one of the settling companies pleaded guilty to a violation of the Federal Power Act -- a criminal violation of the Federal Power Act.

The most significant shift in the nature of DOI's work this prior fiscal year was the amount of time that it spent litigating in Federal District Court. As you know the Commission issued two penalty assessment orders under the FPA this past year, which the subjects elected not to pay. Consistent with statutory procedures, staff filed petitions in Federal District Court to enforce those order on behalf of the Commission and then litigated those filings.

It also continued litigating four other petitions from previous years and continued its work at the Commission level regarding an earlier ALG initial decision in an NGA matter finding violations of the Natural Gas Act.

In total, counting all pending Federal Court matters and the NGA matter, staff sought to recover in fiscal year 2016 over $567 million in civil penalties and

$45 million in disgorgement through its litigation work. But not all of DOI's litigation work is directly tied to penalties. It sometimes has to litigate ancillary matters supporting its investigations. This past year DOI staff, working jointly with the Justice Department's Civil Division, successfully defended in a Federal District Court in Texas, among other things, the Commission's jurisdiction to adjudicate violations under the NGA.

OE's other divisions also maintain their focus on the four priorities. Among other accomplishments, the Division of Audits and Accounting completed 14 audits of oil pipelines, public utilities, and natural gas year in fiscal year 2016. The audits included findings addressing market reporting deficiency issues and transparency issues, among others. The audits generated 214 recommendations for corrective action and directed refunds and recoveries totaling $5.3 million.

The Division of Market Oversight continued to monitor the jurisdictional markets to identify market anomalies and inadequate or flawed market rules. Among its highlights, Market Oversight issued an updated version of the Commission's popular Energy Primer Handbook, which I'll note the United States Supreme Court cited in the EPSA decision.

It also presented the Commission's annual state

of the markets report and seasonal market and reliability assessments, provided briefings for policymakers outside the Commission, contributed to the Commission docketed items and rulemakings and reviewed compliance with the Commission's filing requirements. Also, Market Oversight conducted ex-post analysis of market data to determine whether any participants may be exercising market power without effective mitigation.

Finally, in fiscal year 2016, DASS analyzed market and other data in more than 40 investigations and it continued to exercise and enhance its market surveillance capabilities. In particular, using large trader report data from the CFTC, data provided by RTOs and ISOs, E-tag data, and other sources, staff performed daily, weekly, and monthly screening of the wholesale natural gas and electricity markets to identify trading anomalies. It then analyzes anomalies using other tools and information and referred potential market misconduct to DOI.

In addition to this analytic and surveillance work, DAS, along with other Commission offices, also developed a Notice of Proposed Rulemaking regarding collection of data from market-based rate sellers and others. If adopted as a final rule, this updated data collection NOPR will eliminate duplication and streamline MBR reporting requirements, provide additional information

for surveillance, and modernize staff's data collection all while making the information that the Commission collects more usable and accessible.

Copies of the annual report and the white papers are now available on the Commission's website.

This concludes my portion of the presentation and now I'll turn it over to Jamie and Jeremy.

STATEMENT OF JEREMY MEDOVOY

MR. MEDOVOY: Thank you. Good morning Mr. Chairman and Commissioners. I am presenting the staff white paper on anti-market manipulation enforcement efforts 10 years after EPAC 2005, which was prepared by several members of the Office of Enforcement.

In the more than 10 years since the Commission has implemented EPAC 2005 with the enactment of its Anti-Manipulation Rule, Enforcement staff has investigated more than 100 market manipulated related investigations, settling 24, trying 2 before administrative law judges, and closing many others without further action. In addition, Enforcement staff has recommended and pursued 15 manipulation matters in adjudicatory proceedings following the issuance of Orders to Show Cause and has represented the Commission in Federal Court seeking to enforce its penalty assessment in 8 manipulation actions.

The Commission itself has issued many orders

approving market manipulation related settlements, Orders to Show Cause to subjects to respond to allegations of market manipulation by Enforcement staff, and orders assessing penalties for manipulation. These efforts have created a body of law on energy market manipulation, which while continuing to evolve, provides guidance to industry and the public on the types of conduct that constitute market manipulation.

This white paper summarizes that guidance and lessons learned. Specifically, staff offers lessons learned in four main areas. First, the white paper describes factors the Commission and courts have found to be indicative of fraudulent conduct under the Anti-Manipulation Rule. Second, the white paper describes specific types of conduct that the Commission has found to constitute market manipulation under the Anti-Manipulation Rule, including cross market manipulation schemes, gaming, and misrepresentations. Third, the white paper describes mitigating and aggravating factors the Commission has considered in assessing an entity's culpability and sanctions for manipulative conduct. Finally, the white paper discusses examines of market manipulation investigations that staff closed without action and the factors that led to such decisions.

In discussing these lessons learned, we hope that

the white paper provides useful guidance to the industry and public on the developing body of law on energy market manipulation.

STATEMENT BY JAMIE MARCOS

MS. MARCOS: Good morning, Mr. Chairman and Commissioners.

I am presenting the staff white paper on effective energy trading compliance practices, which was prepared by several members of the Office of Enforcement.

The primary goal of the Commission's Enforcement Program is compliance. Over the years, the Commission has provided guidance on developing and maintaining strong compliance programs and has consistently emphasized that there is no one-size-fits-all approach to compliance. Even so, market participants continues to seek more detailed guidance, especially with respect to creating effective Compliance Program geared towards preventing and detecting market manipulation.

The purpose of the Compliance white paper is to respond to those requests for additional guidance by presenting specific examples of compliance practices that, in staff's view, can be effective in detecting and preventing manipulation. Staff used its experience in conducting surveillance and investigations and the input it received through outreach to a variety of industry

representatives to develop this list of effective trading compliance practices.

The effective compliance practices described in the compliance white paper are divided into three categories: designing an effective trading compliance program; establishing, implementing and enforcing effective practices to deter and detect market manipulation and other misconduct, and assessing the performance of the Compliance Program on a regular basis.

The Compliance white paper also includes a discussion of many ineffective trading compliance practices that staff has observed as part of its investigative and surveillance efforts. Staff recognizes that not all of the effective practices discussed in the Compliance white paper will be appropriate for every organization and that there are likely other compliance practices that are also effective or that may be appropriate or effective for a particular organization.

In addition, organizations are not required to utilize any specific practices to receive compliance credit under the penalty guidelines if a violation occurs. However, if an organization utilizes the practices discussed in the Compliance white paper, but nonetheless commits a violation, the use of those practices may factor positively in the Commission's consideration of whether the

organization's compliance program is effective.

While it is for individual organizations to choose which, if any, of the effective compliance practices are appropriate for their situations, we believe that the Compliance white paper will provide useful guidance. Our intent is to assist organizations engaged in trading Commission jurisdictional natural gas and electric products and designing and implementing robust and effective compliance programs that succeed in detecting and preventing market manipulation.

That concludes our presentations. We would be pleased to respond to any questions.

CHAIRMAN BAY: Thank you, Todd, Jeremy, Jamie, Stephen, and James for the presentation. I appreciate your contributions in highlighting the important work that you and your colleagues in the Office of Enforcement perform.

I know this presentation in many ways reflects a group effort by many in the Office of Enforcement and I wish to thank everyone for helping to put together this report and the two white papers.

I also encourage the regulated FERC community to closely read this year's report as well as the two staff white papers. I don't know how much encouragement I have to provide. I'm often told by members of the Energy Bar that the annual report is viewed as a "must read." I think it's

also significant that the Office of Enforcement has just completed its 10th annual enforcement report and I guess that reflects the fact that EPAC 2005 was enacted in August of 2005 and the Anti-Manipulation Rulemaking was completed in early 2006. But the annual report as well as the white papers are intended to demystify the enforcement process and the law and to provide transparency as well as guidance to industry.

And so I, in particular, would encourage industry to examine, to study the Compliance white paper, which as Jamie observed, contains examples of best practices, but also practices to avoid. And the goal of the Enforcement Program is to help the regulated community achieve compliance and I think the saying that an ounce of prevention is worth a pound is cure certainly applies in this context as well.

So I appreciate the work of the Office of Enforcement in doing the annual report as well as the white papers and so keep up the good work. Colleagues?

COMMISSIONER LAFLEUR: Thank you, Norman. Thank you to the team. Happy Anniversary.

I always say every year that the Enforcement Report is required reading for anyone that does business in the competitive markets or anyone that advises anyone that does business, but you know if it's good enough for Justice

Kagan to read these things obviously. But this year I would certainly broaden that assignment to the anti-market manipulation white paper and the compliance paper.

Starting with the compliance paper, I spent a lot of my life designing safety compliance programs and I think that although this is geared to market manipulation it has just sound suggestions for how you design programs and really engage senior management in a way that they get to be incorporate in the cultural that would really apply across any kind of compliance regime.

As far as the anti-market manipulation white paper, I think it's an excellent summary of the emerging body of law that's developed around our market manipulation rules and it really illustrates the trends of market manipulation, starting in the early years with a lot of cross market manipulation. More recently, more cases around actually bidding in the markets, around misrepresentation or gaming, and as well as the types of things we look for in cases. So I think it's very important guidance.

In the interest of time, I'm going to dispense with my question. Everybody gets a free ride today, but thank you for what you do all year long.

CHAIRMAN BAY: Thank you, Cheryl. Colette.

COMMISSIONER HONORABLE: Thank you, Mr. Chairman. Thank you to the team. Happy Anniversary. Wires is

celebrating their 10th Anniversary. There's something about the 10-year mark.

Most of all, what you've demonstrated here is that we are well on the case of carrying out our responsibilities in this area and I applaud the Enforcement staff. We know you work so very hard and you're also providing valuable transparency and these documents really help people understand not only our priorities, but ways to avoid pitfalls and things that we've seen because this isn't a "gotcha" exercise. And I think that the report and the white papers really help folks work well and to engage well in markets. And I agree, it's valuable reading for anyone in the Compliance sphere.

I was very pleased to read both of the white papers. Thank you Jamie and Jeremy for your presentations and the entire team for your work on them because it's yet another step to demonstrate our emphasis on achieving compliance versus issuing penalties. And I think so much of the work throughout the report and the white papers more so than demonstrating where someone might get dinged the many times in which we did not pursue an investigation or did not pursue penalties. Those things are instructive as well.

I applaud the staff's effort to share best practices. And more importantly, I'm very pleased to continue to see the benefit to consumers. Todd referenced

several examples of that in his presentation. For example, the work of the Division of Audits from which over 3.7 million was directed to be refunded to ratepayers and an additional 1.6 million was prevented from being inappropriately included in transmission plant and wholesale formula rates and so I appreciate your work. It's very difficult day in and day out.

I do have a question that I would like to ask. Thank you, Commissioner LaFleur, for your graciousness.

COMMISSIONER LAFLEUR: I yield my time.

COMMISSIONER HONORABLE: You yielded your time? Thank you.

So on page 38 of the report, you discuss audits regarding natural gas index pricing reporting and FERC Form Number 552. I'm interested in this area because I've been hearing from stakeholder about this issue. I recently accepted an invite to go BP and learn more about indexing and reporting and potential issues that could arise there. And I believe that the audits uncovered common deficiencies that lead to unreported transactions to index publishers, so I think part of this liquidity decline may stem from trading patterns and more companies trading at index rather than at fixed prices.

So I wanted to inquire if any of you can shed light on this question. If you can tell me more about your

audits and what you learned and what liquidity changes you've seen. Thank you.

MR. WILLIAMS: Thank you for the question, Commission.

DAA's energy reporting audits focused on the transaction reporting accuracy to price index publishers and for the FERC Form Number 552 the audits entailed an examination of the processes and procedures used to ensure that all reportable transactions were reported to the indexes in the FERC Form 552. DA's audits specifically -- in a specific instance found unreported transactions and determined that the impact of these transactions were less than the rounding error used by the index for their calculations and therefore it was unlikely that it had any significant influence on the price index.

One observation, as you noted, that we did note was that a significant majority of the trading right now was at the index price for both daily and monthly transactions and are not at fixed prices.

COMMISSIONER HONORABLE: Well, thank you for your work in that area and I look forward to seeing what comes out of it in the future. Thank you.

CHAIRMAN BAY: Thank you, Colette. Madame Secretary.

SECRETARY BOSE: Thank you team. We're now ready

to move to the next and last item, presentation and discussion this morning, which is A-4, a presentation on the Commission's Dam Safety Program. There will be a presentation by Bill Allerton and Kevin Griebenow and Doug Johnson from the Office of Energy Projects. They're accompanied by David Capka, Wayne King, John Spain, and Frank Blackett from the Office of Energy Projects. There will be a PowerPoint presentation on this item.

STATEMENT BY BILL ALLERTON

MR. ALLERTON: Good afternoon, Mr. Chairman and Commissioners. Thank you for allowing the Division of Dam Safety Inspections, D2SI, to make a presentation to you today about some of the very important work we do.

First, I would like to describe the mission of the Division, the projects that we oversee, and our regional office. This will be followed by two presentations by my staff on recent construction of two hydroelectric projects.

The Division's mission is to protect life, health, property, and the environment of hydroelectric projects within the Commission's jurisdiction. We do this through implementation of the Commission's dam safety, physical security, cyber security, and public safety programs. There are over 1600 non-federal hydroelectric projects, including over 2500 dams regulated by the Commission. This represents 55,800 megawatts of

hydroelectric capacity, which is just over half of all hydroelectric capacity in the United States.

Our dams are classified by their hazard potential. This rating does not reflect the dam's stability, but rather the potential loss should the dam fail. A dam is rated as high hazard if its failure could cause a loss of life, as a significant hazard if its failure could cause economic loss, environmental damage or disruption of lifeline facilities such as drinking water, and low hazard if it would result in low economic and environmental damage.

The charts shows that 805 dams are classified as high hazard, 173 are classified as significant hazard, and 1545 are classified as low hazard. Those rated as high or significant are inspected annually. Those rated low are inspected every three years. The inspections are performed to ensure the dams meet the Commission's safety standards, which are laid in our engineering guidelines.

The critical mission of D2SI is the safety of dams under the jurisdiction of FERC Hydropower Program. We are focused on the performance of the structures and through regular inspections identify potential dam safety issues such excessive seepage, stability problems, or security vulnerabilities. We continually assess if the critical loading conditions such as flood or seismic are appropriate,

review the general health of the dams by careful evaluation of the instrumentation and monitoring programs, review the design of new or remediated hydropower projects and perform regular site inspections to ensure good engineering practice is being used during construction.

We also used an independent board of consultants, a group of technical dam safety experts to provide expert oversight on unique or difficult projects. Board members are selected based on their technical expertise in relation to the issues at a specific project. Instances can occur which provide very little to no warning, which may threaten the integrity of the structure and we are always at the ready to respond to emergency situations by providing our technical expertise and guidance to licensees.

The Commission's Dam Safety Program is carried out through its five regional offices as well as through staff here in Washington, D.C. The regional offices are located in Chicago, New York, Atlanta, and San Francisco and Portland. The map shows the states covered by each regional office.

Two members of my staff are here to discuss two recent construction projects. One is a construction of hydroelectric power plant and the other the expansion of existing hydropower project. I would now like to turn it to Kevin Griebenow. He's a civil engineer in our Chicago

regional office.

STATEMENT OF KEVIN GRIEBENOW

MR. GRIEBENOW: Thank you, Bill. Good afternoon, Mr. Chairman and Commissioners.

My presentation is about the construction of the Meldahl Project, a joint venture between the City of Hamilton, Ohio and the American Municipal Power, or AMP. Between 1988 and 2008, four licenses were issued to construct and operate new hydroelectric projects at the U.S. Army Crops of Engineers Lock and Dams on the Ohio River. These were the Smithland, Cannelton, Meldahl, and Willow Island Projects, which were the first major new hydro projects constructed in several decades in the U.S. Together these projects will provide more than 300 megawatts of clean, renewable power.

The work for us in the civil engineers in the Division of Dam Safety and Inspection started immediately after the license for Meldahl was issued on June 25, 2008. Our job was to review and approve a multitude of submitted plans to ensure the project's designs and specifications met the safety requirements of our engineering guidelines. These plans included geotechnical investigation plan, a physical hydrolytic model study, flood plain study, cofferdam and powerhouse designs, quality control and inspection plans, dam safety surveillance and monitoring

plans, and a temporary emergency action plan.

To give a sense of scale of the project, this illustration presents a view of the powerhouse if it was cut in half right down the middle. Inside the circle shows a little black mark, which represents a person in the basement of the powerhouse. With a footprint about the size of a football field, the powerhouse is 260 feet long, 210 feet wide, and 110 feet high. If it was a typical 10-story office building, it would have 500,000 square feet of space, in essence, our 888 building that we are in right now.

However, this is not a typical office building. It is punctured by three large holes or tunnels through which the water will flow pass the three turbines shown as a large red bulb in the illustration, which then, in turn, spins the generators to produce electricity. Before you can build a powerhouse, a temporary cofferdam is constructed in the river and dewatered. In this case it equals the size of a football stadium or something maybe more familiar to me, Wrigley Stadium.

To build the stadium, about 400,000 cubic yards of earth was excavated. The final portion of the excavation was blasting and removing weathered limestone to provide a solid foundation for the powerhouse. The total amount of time to complete this temporary cofferdam structure was about 15 months. During construction D2SI's staff conducted

numerous inspections during the critical phases of work. These inspections were to review construction progress, evaluate adequacy of quality control, and discuss any problems that arose.

By being on site staff, we are able to confirm the project was being constructed in accordance with the plans and specifications and this also helped to keep the lines of communication active and effective with the licensee.

With the Meldahl Project, I became heavily involved when the construction was nearing completing and commercial operation was pending. Construction of the powerhouse began immediately after the completion of the cofferdam. This photo shows the downstream end of the powerhouse in 2013. The existing Corps of Engineers fill-way gates can be seen in the background. This photo shows a construction activity in the powerhouse intake in 2012.

At the peak of construction activity, there were more than 400 workers onsite. It took about 2.5 million hours to construct. Construction used more than 6,000 tons of steel, more than 100,000 cubic yards of concrete. The powerhouse was declared water tight on February 7, 2014. With the powerhouse declared water tight, it was ready to receive the Ohio River and the cofferdam was removed and the

excavation of the intake channel and tail water channel or outflow channel were completed.

Full commercial operation of the 105-megawatt project began on April 12, 2016, six years after the construction began. Total cost for the project was just under $700 million. The recreational area for fishing and picnicking that was required by the license downstream of the project along the river is proving to be extremely popular, so popular the licensee is looking to expand it.

With steep learning curves for everyone, the licensees, designers, and contractors have re-learned what it takes to build a new hydropower facility. I have learned a tremendous amount being involved with the design and construction of Meldahl as well as the Cannelton and Smithland Projects. I was challenged throughout all of these phases to ensure the aspects of our Dam Safety Program and the license requirements were met. Ultimately, I tried to maintain a good rapport with all the people involved because with a project of this size communication is vital.

Now I would like to turn this over to Doug Johnson, the regional engineer in our Portland regional office.

STATEMENT OF DOUGLAS JOHNSON

MR. JOHNSON: Thank you, Kevin. Good afternoon, Mr. Chairman and Commissioners.

My presentation is just a brief overview of the Blue Lake Dam Expansion Project in Sitka, Alaska. The Blue Lake Project is owned and operated by the City and Borough of Sitka, Alaska. It's located in southeast Alaska and provides municipal water supply and 16.9 megawatts of hydroelectric power to Sitka.

To ensure the project was designed and constructed safely and in accordance with the project plans and specifications, D2SI staff did an engineering review of the project design, participated in 12 Board of Consultants oversight meetings, and conducted 12 construction progress inspections of the project.

This project involved complex structural engineering analysis and design due to the large raise in dam height at a challenging site. Seismic and flood loadings had to be reassessed with a proposed modification.

The Board of Consultants, consisting of three dam safety engineering experts, was a critical component to ensuring an effective design and construction project. The project was originally licensed in 1958 to provide 6 megawatts of electricity and required construction of a 211-foot high concrete arch dam, which raised the natural level of Blue Lake, the project reservoir about 200 feet.

The project as then relicensed on June 10, 2007. Here is a picture of the original Blue Lake Dam prior to

enlargement. As you can see, it is located in a steep, narrow gorge with very limited access. Due to increasing cost for fuel oil, which is used as a backup to hydropower and increased electricity demand, the city decided to apply for an amendment to its license to increase capacity. The amendment allowed Sitka to increase the height of the dam by 83 feet and construct a new powerhouse with three new turbines, which would increase the total capacity to 16.9 megawatts and increase average annual generation by 54 percent.

This photo shows the difficult site conditions, which required the contractor to use a construction crane to be able to reach across the dam. Also, considerable scaffolding was necessary for workers to access the dam down the steep canyon walls. By March of the second year of construction, the dam raise began to take shape. Construction continued through winter conditions and by the summer of the second year the raised dam was nearing completion.

The newly constructed powerhouse downstream from the dam on Sawmill Creek housed three new units. The old powerhouse was decommissioned and a fourth unit was rehabbed with the decommissioning of the fish unit bypass. The fish bypass releases water to the creek to provide in-stream flow for salmon. The fish unit generates power from this

required flow.

The Blue Lake Expansion Project construction was completed and the project recommenced generation on November 14, 2014, two and a half years after the amendment was issued. The total project construction costs were estimated to be approximately $100 million. The city and borough of Sitka's power needs are now completely met with hydroelectric power.

This concludes our presentation. We would be happy to address any questions you might have.

CHAIRMAN BAY: Thank you, Bill, Kevin, Doug, Frank, Dave, Wayne, and John for that presentation on the important work being done every day by the Office of Energy Projects Division of Dam Safety and Inspections. And thank you, Cheryl, for asking that there be a presentation on the very important work of the Division of Dam Safety and Inspections.

Over 55 gigawatts of hydropower providing millions of American families with clean, reliable electricity is licensed through the work of the Office of Energy Projects. And I just think that the work of OEP in that regard deserves a tremendous amount of praise and attention. And not only does OEP license non-federal hydro projects, but it also serves the critical role of ensuring the safety of those facilities.

And while many of us on the Commission or all of us on the Commission are aware of the Division's efforts to protect lives and property, it's helpful to be reminded from time to time of the very important work that staff does in our five regional offices. So thank you very much for what you do and thank you for coming to the headquarters and educating us and the public on your efforts 24/7 on everyone's behalf, so thank you. Cheryl.

COMMISSIONER LAFLEUR: Thank you very much, Norman. Thank you all. I'm so happy that you're here. Not everyone has the view we have, so in case you don't know we have someone here from each of the offices around the country.

I'm very happy to say that I visited the New York and Portland, and Chicago offices. Kevin congratulations on the Cubs. If you'd just been here a couple months earlier, you would've seen Tony Clark in high regalia and I have it on my bucket list to go to Atlanta and San Francisco. I think I missed all visits to the regions from when I was in the private sector, so I really enjoyed it.

And I can say that all of the offices are different, but we have a very diverse group of employees, a lot of really sharp, young engineers, very talented and extremely engaged in the work of the Commission, even though they're on the other side of the country. They watch the

meetings. They look at the order, see what's going on. And the presentation was fascinating. It reminded me of the David McCullough Brooklyn Bridge with the cofferdam and it's just amazing how those things get built.

I just want to second the Chairman's comments. The 55-gigawatts of facilities that you help us regulate are a critical source of reliable, affordable, and carbon-free electricity to customers across the nation and you obviously play a critical role traveling all over God's green acre to make sure they're safe and secure, helping in real-time emergencies when we get those notes from Ann and Sunday morning if something happens I know you support state staff around the country in non-FERC regulated dams when there's things that happen. And obviously, as we heard, support the licensing and construction of new facilities, so thank you very much for your excellent work.

CHAIRMAN BAY: Thank you, Cheryl. Colette.

COMMISSIONER HONORABLE: Thank you, Norman. Thank you to the team. I, too, was intrigued by the presentation and looked forward to it, even after the several that we've heard today. I've been here now almost two years and I want to thank Bill and your team. You guys do an amazing job. Thank you for your presentation here today. Kevin and Doug, thank you also for the overview regarding the projects in Ohio and in Alaska.

Most of all, the thing I was left with after my first meeting with you all was that you are on the case, number one. And number two, your bench is deep. And even when I met with you on 11 here, some of you came in from other offices as well. I want to thank you for your commitment to this work because when things go well or right you don't get the praise you deserve and so sometimes it's kind of like being a fireman or a firewoman. You come up, so to speak, when something happens wrong, but today is a great way.

Thank you, Cheryl, for calling these items so that we could say thank you. These dams represent a great deal of our renewable energy that is so precious and absolutely needs to be protected and nurture in this country. And there's a great deal of human life, property, and environmental health that depends upon your work. And I greatly appreciate now in almost my two years of service how attentive you are to safety with the risk-based approach, which is very practical and necessary in this work, but also all of the interesting orders I've voted upon where I've learned about fish ladders and fish elevators and neat little trivia. I hope to use that in a trivia game some time, all of the things that you have taught us about what it takes to keep these resources running and running well, so I want to thank you for the presentation and the work

that you do each and every day.

CHAIRMAN BAY: Thank you, Colette. And with that, this meeting is adjourned.

(Whereupon, the meeting was adjourned at 12:26 p.m.)

CERTIFICATE OF OFFICIAL REPORTER

This is to certify that the attached proceeding before the FEDERAL ENERGY REGULATORY COMMISSION in the Matter of:

Name of Proceeding:

CONSENT MARKETS, TARIFFS AND RATES - ELECTRIC
CONSENT MISCELLANEOUS ITEMS
CONSENT MARKETS, TARIFFS AND RATES - GAS
CONSENT ENERGY PROJECTS - HYDRO
CONSENT ENERGY PROJECTS - CERTIFICATES
DISCUSSION ITEMS
STRUCK ITEMS
1032nd COMMISSION MEETING

Docket No.:
Place: Washington, DC
Date: Thursday, November 17, 2016

were held as herein appears, and that this is the original transcript thereof for the file of the Federal Energy Regulatory Commission, and is a full correct transcription of the proceedings.

Gaynell Catherine
Official Reporter