QUESTIONS FOR THE RECORD
FOR
Chairman Norman C. Bay

THE HONORABLE ED WHITFIELD

1. **Regarding EPA's Clean Power Plan, what authority does FERC have to protect the electric grid if state plans make assumptions regarding the impact on grid reliability of their plans that are not well-supported? What authority does FERC have to protect the electric grid if EPA rejects a request for relief under the Reliability Safety Valve?**

Answer: While the Commission has certain authorities relevant to reliability, these authorities may or may not apply to the scenarios you describe, depending on the particular circumstances. Section 215 of the Federal Power Act (FPA) authorizes the Commission to approve, and oversee enforcement of, standards for the reliable operation of the bulk power system (BPS). These standards apply to BPS users, owners and operators. The Commission also has authority under FPA section 205 over the rates, terms and conditions of sales for resale and transmission by public utilities in interstate commerce. This authority has been used, for example, to provide compensation for the continued operation of facilities needed for reliability that otherwise might have been retired ("reliability-must-run" facilities), or to ensure that market prices are sufficient to elicit additional resources when needed. Section 202(c) of the FPA authorizes the Department of Energy (DOE) to require certain emergency actions such as the operation of a generating facility to meet an emergency caused by a shortage of electric energy or of facilities for the generation or transmission of electric energy. Notably, the Clean Power Plan requires states to consider the reliability implications of their plans, and the states have both the incentive and experience with using their authorities to help maintain electrical reliability. In addition, the Commission intends to monitor, by itself and in coordination with staff from EPA and DOE, efforts by the states to comply with the Clean Power Plan, in order to foresee and hopefully avoid these types of problems.

2. **The Supreme Court heard arguments on FERC's appeal of Order 745, the compensation of demand response programs.**

   A. **What is your view of FERC's jurisdiction over retail energy markets?**

   B. **Under what circumstances do you believe FERC can assert authority over retail energy markets?**

   C. **Is there a bright line between your authority and that of the states?**

Answer (A-C): The Commission regulates the energy, capacity, and ancillary services markets operated by Commission-jurisdictional regional transmission organizations and independent system operators. In section 1252(f) of the Energy Policy Act of 2005, Congress declared that it is the policy of the United States to eliminate unnecessary barriers to demand response participation in energy, capacity, and ancillary services markets. Section 1252(f) thus strongly suggests that Congress intended to encourage demand response participation in those markets

subject to the market rules approved by the Commission pursuant to sections 201, 205, and 206 of the FPA. The Commission's authority with respect to those markets is consistent with the states' authority with respect to retail sales of electricity as recognized by section 201 of the FPA. As a general matter, FERC does not have jurisdiction over the retail sale of electricity. With respect to the line of authority between the Commission and the states, the Supreme Court has recognized that "the landscape of the electric industry has changed since the enactment of the FPA, when the electricity universe was neatly divided into spheres of retail versus wholesale sales." *New York v. FERC*, 535 U.S. 1, 16 (2002) (internal quotation and citation omitted). *See also Oneok, Inc. v. Learjet, Inc.*, 135 S. Ct. 1591, 1601 (2015) (noting that the "clear division between areas of state and federal authority" in the "natural gas regulatory world" is no more than a "Platonic ideal").

3. FERC has recently begun to tackle reforming the energy markets as well as energy price formation concerns. On November 20, 2015, FERC directed each regional transmission organization (RTO) and independent system operator (ISO) to publicly provide information related to certain price formation issues. Specifically, FERC is seeking a report from each RTO/ISO regarding five price formation issues: (1) pricing of fast-start resources; (2) commitments to manage multiple contingencies; (3) look-ahead modeling; (4) uplift allocation; and (5) transparency.

A. What do you hope to achieve with these reports?

Answer: As part of a broader price formation effort (discussed in detail in the response to question 5), the Commission recently asked each RTO and ISO to report on the five aforementioned issues because the Commission identified these as potential areas for reform. Recognizing that many RTOs and ISOs have already taken steps to address some of these five issues, the Commission nonetheless believes that additional improvements in these areas may enhance price formation in the RTOs/ISOs. In particular, the reports and comments on those reports from interested stakeholders will assist the Commission in identifying reforms on these five issues to improve incentives to maintain reliability, to facilitate accurate and transparent pricing, to reduce uplift, and for market participants to operate consistent with dispatch signals. These reports and associated stakeholder comments are important in building a record and providing the Commission with additional information to assist it in determining whether and what further action is necessary on the five issues. For instance, the reports and associated stakeholder comments will help the Commission determine whether any action that is warranted is most appropriate on a RTO/ISO-specific basis or on a more generic RTO/ISO-wide basis.

B. How quickly can we expect any market reforms to occur resulting from the reports?

Answer: Unfortunately, I cannot comment on the timing of any Commission action, but Commission staff expects to expeditiously review the reports (due February 2016) and the associated comments (due 30 days thereafter) to identify next steps. After obtaining this public input to build a record, I expect the Commission will conduct adequate review and discussion prior to undertaking any potential Commission action to ensure that any action that is warranted is appropriate and that unintended consequences are avoided.

C. Is there a sense of urgency to get the appropriate reforms in place?

Answer: As I stated at the hearing, one of my top priorities is to focus on the fundamentals in the competitive markets to continue to look for ways to improve the efficiency of the markets and to deliver greater value to consumers. Price formation is a key aspect of this effort. In addition to the reports discussed in response to question 3.A, the Commission began pursuing price formation reform with the issuance in September 2015 of a proposal to: (1) align real time settlement and dispatch intervals; and (2) implement shortage pricing for shortage events.

4. The participation of renewables in capacity markets – such as wind and solar – continues to grow spurred by subsidies and tax credits. In many capacity markets, these types of resources are exempted from buyer-side mitigation rules in their entirety or, if they are subject to any buyer-side mitigation measures, they are provided with generous exemptions. Does this situation pose a concern for the viability of capacity markets given that an increasing large share of the resource mix will be subsidized and be incentivized to bid below their actual costs of operations?

Answer: The Commission has concluded, based on the specific circumstances in each region, that the participation of variable energy resources in capacity markets, subject to buyer-side mitigation measures, is appropriate. As an initial matter, the limitations on the capacity that variable energy resources – such as wind and solar – can provide are reflected in the capacity values assigned to these resources. For example, a new wind farm with nameplate capacity of 100 MW in the service territory of PJM can offer only 13 MW of capacity into PJM's capacity market; its capacity value is adjusted by the effective average capacity factor for wind units (i.e., 13 percent). Furthermore, the entry of variable energy resources, and particularly those that offer into the capacity markets at a price of zero because they are state sponsored, and their possible distortion of capacity market prices can be mitigated through the market design parameters.[1] For example, ISO-New England considers these resources in the development of its sloped demand curve.

5. How is the Commission supporting accurate dispatch-based pricing and commitment, increasing transparency, and limiting out-of-market payments in the organized wholesale electricity markets?

Answer: Last year, the Commission initiated proceedings into price formation for energy and ancillary services in the regional wholesale markets to promote reliability, facilitate accurate and transparent pricing, and ensure that rates are just and reasonable. The proceeding initiated with staff convening workshops and issuing reports, and invited comments on specific questions that arose from the workshops.

In September 2015, as part of its price formation initiative, the Commission issued a Notice of Proposed Rulemaking on Transaction Settlement Intervals and Shortage Pricing. Specifically, the Commission proposed that each RTO and ISO develop more granular transaction settlement periods, and that each RTO and ISO trigger shortage pricing for any

[1] *See ISO New England Inc. and New England Power Pool Participants Committee*, 147 FERC ¶ 61,173, at PP 78-88 (2014).

dispatch interval during which a shortage occurs. The objectives of the proposed rule are to improve price signals by better aligning prices with dispatch instructions and operating needs. Price signals that accurately reflect operating needs and system conditions will enhance incentives for resources to respond to dispatch instructions. In the long-term, I expect that more accurate price signals will help to encourage efficient investments in facilities and equipment, enabling reliable service, and fostering greater competition. Commission staff is currently reviewing the public comments received in response to the proposed rule.

In November 2015, the Commission took another step to address price formation by directing each RTO and ISO to submit reports on price formation in their energy and ancillary services markets (Order Directing Reports discussed in response to question 3). Each RTO and ISO is required to file a report addressing five price formation issues: pricing of fast-start resources, commitments to manage multiple contingencies, look-ahead modeling, uplift allocation, and transparency. The Commission is providing an opportunity for interested stakeholders to comment on these reports. In particular, the reports and associated stakeholder comments will assist the Commission in identifying reforms to improve incentives to maintain reliability, to facilitate accurate and transparent pricing, to reduce uplift, and for market participants to operate consistent with dispatch signals. Based on the reports and associated stakeholder comments submitted on these five price formation issues, the Commission will determine whether further market reforms are needed to improve price formation and enhance market competition.

The RTOs and ISOs also occasionally propose market reforms to support better price formation and the Commission when appropriate, approves such proposals. For instance, RTOs and ISOs have proposed market rules that provide strong incentives to build, maintain, and operate resources that can start and ramp up and down quickly. Such initiatives include those that encourage fast-ramping products and capacity performance mechanisms.

In addition to the price formation initiative, the Commission is continuing its long-term efforts to improve the accuracy and speed of the computer models used to determine unit commitment and dispatch. The Commission holds an annual software conference where many participants suggest new and improved methods of modeling RTO/ISO markets. Improvements to market software allow RTOs and ISOs to more realistically model the electric system and thus facilitate more efficient dispatch and unit commitment within the market software and reduce out-of-market payments.

Further, the Commission and its staff actively engage stakeholders through outreach and technical conferences to assess the functioning of the wholesale energy, ancillary services and capacity markets, and review rules associated with infrastructure development and coordination between the natural gas and electric energy industries.

6. In June of 2014, the Commission issued Opinion No. 531, which revised the Commission's method of determining base Returns on Equity (ROE) for electric transmission. This revised methodology is explicitly intended to restrain returns, keeping them in a narrower range of possible returns. In some cases, this revised methodology will eliminate some or all of the incentives that the Commission had approved for certain transmission projects only a few years ago. In approving this new policy, the Commission believed that the new policy would relieve uncertainty and promote needed investment in transmission.

A. Do you believe that restricting returns to lower ranges and eliminating previously approved incentives creates certainty for transmission investors and development?

Answer: As an initial matter, it is worth noting that Opinion No. 531 does not change Commission policy with respect to the treatment of incentive ROE adders. Rather, Opinion No. 531 follows existing Commission policy that a public utility's total ROE is capped at the upper end of the transmission owner's zone of reasonable returns, as determined by the Commission's discounted cash flow (DCF) methodology. In the 2006 order establishing transmission incentive ROE adders (Order No. 679), the Commission made clear that the ROE, inclusive of any incentive ROE adder, must be within the public utility's DCF-determined zone of reasonableness.

I believe that the DCF methodology set forth in Opinion No. 531 helps provide certainty to transmission investors regarding the determination of the base ROE and the zone of reasonableness by standardizing the methodology's inputs and clarifying the proxy group screening criteria. A clearly-defined process for determining ROEs provides investors with the increased certainty needed to support transmission development. Finally, I note that parties have reached uncontested settlements in approximately 80 percent of the recently pending proceedings involving base and incentive transmission ROEs.

B. Do you believe that there is a need for new transmission investment in the US? If so, do you believe that the new method of determining base returns, as well as other transmission policies (e.g., Order No. 1000) will promote timely investments in new transmission?

Answer: Without prejudging matters pertaining to any particular project, in general, I believe there is a need for new transmission investment in the United States. I further believe the new methodology for determining base returns, along with other transmission policies developed by the Commission, will promote timely investment in new transmission. But I also believe it is important for the Commission to review and assess the policy as it is put into practice to determine whether the policy should be revised in order to achieve its goals.]

C. Does the Commission have any means of evaluating the success or failure of its new transmission policies?

Answer: The Commission routinely evaluates its regulations and policies to ensure that they are achieving the intended goal; it typically does so through a process of notice and comment. For example, in 2007, the Commission issued Order No. 679 to establish by rule incentive-based rate

treatments for investment in electric transmission for the purpose of benefitting consumers by ensuring reliability and reducing the cost of delivered power by reducing transmission congestion. Approximately four years later, in May 2011, the Commission issued a Notice of Inquiry seeking public comment regarding the scope and implementation of the Commission's incentives policies. That effort resulted in the Commission's issuance of a policy statement to provide additional guidance with respect to certain aspects of its transmission incentives policies. Similarly, in 2005, the Commission embarked on reforms to its open access transmission policies (established in 1996), including the addition of requirements for open, transparent transmission planning. That undertaking culminated in a Final Rule issued in 2007 (Order No. 890). In 2010, acting on concerns that its transmission planning policies may not be achieving the intended goal, the Commission sought comment, through a Notice of Proposed Rulemaking, on potential changes to its transmission planning and cost allocation requirements. In 2011, FERC adopted a final rule on transmission planning and cost allocation (Order No. 1000).

In addition, Commission staff has embarked on an effort to identify and analyze six objective metrics to assess the impacts of the Commission's policies on timely and cost-effective transmission investment. The six metrics, outlined at the Commission's April 2015 open meeting, are: (1) load-weighted curtailment frequency; (2) RTO/ISO market price differential; (3) load-weighted circuit-miles; (4) load-weighted dollar investment; (5) circuit-miles per dollar invested; and (6) percentage of non-incumbent bids/proposals. Commission staff's analysis of these metrics is ongoing.

The Commission also requires, under the transmission incentives policy outlined in Order No. 679, that public utilities granted incentive-based treatments file reports detailing transmission project-level information on capital spending and the status of critical transmission projects.

7. Electric customers in New England saw enormous increases electric prices last winter. In one case, customers were subject to increases in electric rates of 37%. A major contributing factor to higher electricity prices along the East Coast is the lack of adequate pipeline infrastructure needed to carry natural gas supplies to homes and businesses in the region.

A. Do you believe that New England or the northeast more broadly needs new gas pipeline capacity? If so, what can the Commission do to promote support investment in new natural gas pipeline capacity?

Answer: As the electricity sector transitions to greater reliance on renewable energy and natural gas-fired generation, new pipeline and transmission infrastructure may need to be built and communication and coordination between the gas and electric industries may need to continue to improve. Under the Natural Gas Act (NGA), however, the Commission does not take a stance on whether regions generally need more pipeline capacity, nor does it establish plans for regional construction. Section 7(c) of the NGA requires the Commission to make a determination that the construction and operation of facilities for the transportation of natural gas subject to the Commission's jurisdiction is required by the public convenience and necessity. In examining whether a proposed new pipeline project is in the public convenience and necessity, the Commission examines a number of issues, including whether the existing customers will

subsidize the project, whether the project proponent has demonstrated that the need for the project outweighs economic impacts on affected landowners and surrounding communities, whether the rates for the proposed service are in the public interest, and the environmental impacts of the project, as mitigated by Commission-required measures. That said, the numerous applications to build and or expand pipeline capacity in the northeast suggest that the region may have a need for additional capacity.

In addition, under section 15 of the NGA, the Commission is charged with ensuring expeditious completion of its reviews of natural gas projects. The Commission balances this mandate with the need to ensure various parties and stakeholders have input into the review process and that thorough and informed analyses are done. In the last 10 years, 92 percent of all projects filed with the Commission have been processed within 12 months.

B. Would new pipeline capacity generally provide economic benefits, such as relief from 37% electric price increases?

Answer: As stated above, any certificate for pipeline construction or expansion authorized by the Commission must be found to meet the public convenience and necessity standard. Increasing the supply of interstate natural gas pipeline capacity into this region may provide economic benefits to either natural gas or electric consumers. The size and location of such capacity would likely affect the extent to which electricity customers might realize benefits.

C. Can the Commission identify reliability benefits for the region?

Answer: As stated above, any certificate for pipeline construction or expansion authorized by the Commission must be found to serve the public convenience and necessity. While project proponents and potential shippers and end users may provide evidence that a new project will deliver supply that may be used by electric generating facilities, the NGA does not specifically require the Commission to consider any reliability benefits accruing to the bulk-power system.

8. Does FERC consider whether proposals submitted are cost effective from a consumer perspective, or if there are competing proposals of equal merit, is FERC obligated to consider whether one proposal is more cost effective in terms of consumer impacts over another?

Answer: One the Commission's key statutory responsibilities is ensuring just and reasonable rates. As part of that responsibility, the Commission balances the economic viability of energy suppliers with the protection of energy customers. The Supreme Court has stated that "rates are 'just and reasonable' only if consumer interests are protected and if the financial health of the pipeline in our economic system remains strong." *FPC v. Memphis Light, Gas & Water Division*, 411 U.S. 458, 474 (1973). Thus, one important aspect in the consideration of just and reasonable rates is the protection of consumers.

9. Nearly two years ago, in January of 2014, during the weather event dubbed the Polar Vortex, the PJM market alone experienced $597 million in out of market make whole payments. In an Internal Market Monitor report evaluating the weather event, it was noted that the same units have been receiving the majority of make whole payments in PJM for the last 5 years.

A. We understand the Commission is working on several price efforts to address out of market payments but what actions are being take in the immediate future to implement provisions for greater transparency as to which units are receiving these payments?

Answer: As part of the price formation initiative discussed in response to question 5, Commission staff issued its own study of out-of-market make whole payments, or "uplift payments," which found that they were concentrated among a small number of generation units in August 2014, several months prior to the Polar Vortex.[2] The results of the report as well as potential solutions were discussed at a Commission technical workshop in September 2014. Commission staff subsequently issued a request for comments related to price formation, which asked several questions about uplift and transparency. After reviewing comments from stakeholders, the Commission determined that additional specific information was necessary to address uplift and transparency and issued the aforementioned order directing reports (please see response to question 3 above) in November 2015. With respect to transparency, the Commission asked each RTO and ISO to provide information about the extent to which it releases information about why uplift payments are made, where the units are located, and which units receive them. Commission staff will review the RTO/ISO reports and associated stakeholder comments; and the Commission will decide what further action with respect to uplift and transparency is appropriate.

B. And what immediate steps are being implemented to decrease these costs for consumers?

Answer: The Commission has taken several steps to reduce uplift and improve price formation in RTOs and ISOs. In addition to the price formation proceedings discussed above in response to questions 3 and 5, the Commission continues to monitor uplift issues in the organized markets and act on applications by the RTOs and ISOs to make reforms to those markets. For example, on December 11, 2015, the Commission approved new tariff provisions in advance of the upcoming winter season aimed at decreasing the number of units in PJM that would receive make-whole (i.e., out-of-market, or, uplift) payments in circumstances such as the Polar Vortex. The Commission accepted tariff revisions that were approved by more than two-thirds of PJM's stakeholders, including both generation and load interests. These changes include increasing the offer cap for cost-justified offers up to $2,000/MWh, and allowing such offers to set market prices, as opposed to being recovered through make-whole payments. With these changes, load serving entities are better positioned to enter into arrangements to mitigate exposure to these prices whereas costs paid to resources after-the-fact (make-whole costs) cannot be hedged as effectively.

[2] Federal Energy Regulatory Commission, *Staff Analysis of Uplift in RTO and ISO Markets*, (August 2014), available at http://www.ferc.gov/legal/staff-reports/2014/08-13-14-uplift.pdf.

To address natural gas market issues, the Commission issued a rule related to natural gas-electric coordination in April 2015 that should result in better management of the natural gas supply used in electric generation. In response to that rule and an FPA section 206 proceeding, by March 2016, PJM will post its day-ahead market and reliability unit commitment results earlier in the day, which will assist natural gas units in making timely natural gas supply arrangements.

In addition, the Commission instituted a section 206 proceeding to require PJM to provide generators greater flexibility to update their offers to better reflect fuel costs. In instituting this section 206 proceeding, the Commission indicated that ensuring market participants greater flexibility to structure and modify their offers will allow resources in PJM to better reflect their actual costs in their offers which will, in turn, support proper price formation and efficient real-time dispatch.

The Commission also approved tariff revisions in PJM which took effect in March 2015 that enable PJM to purchase additional reserves in the day-ahead and real-time markets to account for operational uncertainty on days when electric load is expected to reach peak levels. These revisions should result in day-ahead and real-time prices that better reflect the costs of reliably serving electric loads and reduce out-of-market actions and any associated uplift charges during extreme events like the Polar Vortex.

10. The Commission consistently relies on stakeholder governance processes of the structured RTOs/ISOs markets in its orders. However, we have heard concerns regarding the ineffectiveness of the stakeholder process in reaching consensus regarding major issues, such as cost allocation. How is the Commission balancing reliance on stakeholder governance processes with its responsibilities under the Federal Power Act to maintain just and reasonable rates?

Answer: Although the Commission has long recognized the importance of the stakeholder process in informing RTO and ISO decision-making, the Commission exercises independent judgment in ruling on the matters before it. The Commission evaluates the justness and reasonableness of each proposal on its own merits, taking into account the full record developed in the proceeding, including all commenters' views. The Commission has, at times, accepted proposals with limited stakeholder support and rejected proposals with significant stakeholder support. Moreover, while many proposals filed at the Commission are the product of a stakeholder process, stakeholder consideration is not a prerequisite. While specific filing right parameters can differ among regions, all RTOs and ISOs have independent FPA section 205 filing rights with respect to certain tariff changes, and any interested party may file a tariff proposal with the Commission under FPA section 206. Finally, the Commission can at any time independently initiate an FPA section 206 action to ensure the justness and reasonableness of RTO/ISO tariffs.

11. What efforts is the Commission currently undertaking to ensure that both short-term and long-term financial products in the energy markets have some degree of fee or cost certainty? More specifically, what immediate actions is the Commission taking to resolve the underfunding of financial transmission rights and cost uncertainty for short-term products, such as incremental offers, decremental bids and up-to congestions transactions?

Answer: The Commission has instituted an investigation pursuant to section 206 of the FPA to address whether PJM's current tariff allocates uplift among incremental offers (INCs), decrement bids (DECs), and up-to congestion (UTC) transactions (collectively, short-term financial products called virtual transactions) in a just and reasonable manner, among other issues. In January 2015, the Commission held a technical conference at which one panel explored the circumstances under which INCs/DECs and UTC transactions may cause uplift in PJM and, if so, how INCs/DECs and UTC transactions should be allocated uplift charges. The resolution of this proceeding is pending before the Commission.

With regard to the funding of long-term financial products such as financial transmission rights (FTRs) and auction revenue rights (ARRs), PJM has restored revenue adequacy (i.e., full funding) for both the 2014-15 planning period (at 110 percent) and the 2015-16 planning period (at 116 percent), following four planning periods where revenue adequacy ranged from 69 to 85 percent. Nevertheless, on December 28, 2015, the Commission issued an order directing its staff to convene a technical conference to address certain revenue inadequacy issues relating to PJM's allocation of ARRs and FTRs. The technical conference will focus on PJM's claim that its existing ARR/FTR provisions are unjust and unreasonable and that its proposed revisions to its tariff addressing these matters are just and reasonable. Issues to be addressed at the technical conference include, but are not limited to: (i) ARR modeling and allocation processes; (ii) treatment of portfolio positions in allocating underfunding or surplus among FTR holders and the potential for market manipulation; and (iii) balancing congestion in ARR/FTR product design. This proceeding is pending before the Commission.

12. What is the Commission doing to foster competition and implement certain minimum standards for the real-time wholesale electricity market across the Independent System Operators, such as a voluntary day-ahead market for transmission?

Answer: The Commission has taken significant steps to ensure that wholesale markets are competitive. As discussed in response to question 5, the Commission initiated a substantial proceeding on price formation, which is a key element of well-functioning regional wholesale power markets. The price formation proceedings for energy and ancillary services in the regional wholesale markets are intended to incent efficient investments in facilities and equipment and promote reliability, provide incentives for resources to respond to system needs, facilitate accurate and transparent pricing, and foster greater competition in organized wholesale electricity markets. As part of the price formation effort, staff held technical conferences, sought public comment, and issued a request for comments to build the record. Recently the Commission has taken several actions on existing price formation practices in RTO/ISO markets.

13. A recent article posted in Forbes suggests that FERC is overzealous in its investigations of alleged manipulation of the wholesale electricity markets, to the point where the Commission is acting as judge, jury and executioner.

A. What is the Commission doing to ensure that all parties involved in its investigations of alleged market manipulation are accorded basic due process rights, including knowledge of the specific aspects of the investigation?

Answer: The Commission's enforcement process, as set forth in Commission regulations and policy statements, gives subjects numerous formal opportunities to engage with Enforcement staff about the legal and factual aspects of the conduct under investigation. The first such formal opportunity is when staff completes its initial fact-finding and provides its preliminary findings to the subject. These findings are often set forth in written statements containing a great deal of legal and factual information supporting the reasons staff preliminarily believes the subject committed a violation. The subject then has a full opportunity to respond to those findings. If Enforcement staff is not persuaded to close the investigation after considering the subject's response to its preliminary findings, staff will then seek authority from the Commission to engage in settlement negotiations. Those settlement negotiations usually involve further detailed discussions about the legal and factual aspects of the investigation, to the extent the subject still has questions or disagreements with staff that were not fully aired during the preliminary findings process. Then, if the matter cannot be settled, staff notifies the subject in writing of its intent to recommend that the Commission initiate an enforcement action—and affords the subject the opportunity to respond to staff's written notice. This response is shared with the Commission. If the Commission determines there is reason to believe the subject committed a violation, it will issue an Order to Show Cause as to why sanctions should not be imposed. The Order attaches Enforcement staff's highly-detailed report setting forth why staff believes the subject committed a violation, and provides the subject with another opportunity to explain its conduct and provide any legal defenses in as much detail as the subject wishes. The Commission carefully considers the subject's response before reaching any conclusion on whether the subject committed a violation and should be assessed any penalties or other sanctions. All of these formal, procedural opportunities have been in place since at least 2008.

Staff also provides many opportunities for informal discussions with the subject and their counsel about the legal and factual aspects of the conduct under investigation. Subjects routinely avail themselves of these informal opportunities. Further, Commission regulations allow a subject to write to the Commissioners directly (not just to Enforcement staff) to express their views about any of the issues in the investigation at any time during the investigation. Subjects are thus given multiple opportunities to respond to allegations and every opportunity to convince the Commission that an enforcement action is unwarranted.

The U.S. Department of Energy, Office of Inspector General (DOE OIG) recently undertook a comprehensive review of the Commission's enforcement program and concluded that "nothing came to our attention to indicate that [the Commission's Office of Enforcement] was not performing enforcement activities in accordance with relevant policies and procedures." DOE OIG, Special Report, *Enforcement Activities Conducted by the Federal Energy Regulatory Commission*, Memorandum at 2 (September 2015). Accordingly, the OIG did not recommend any changes or reforms to Enforcement's procedures.

B. Likewise, when independent market monitors for the Independent System Operators refer potential enforcement matters to FERC, what does the Commission do to hold the market monitors accountable?

Answer: The Commission has required market monitors to refer potential violations they identify in their respective ISOs or RTOs to the Commission. When market monitors make those referrals to Enforcement, staff carefully analyzes the referrals, discusses their contents with the market monitors, and follows up as appropriate. In most instances, market monitor referrals result in staff opening an investigation to consider the potential misconduct in greater detail and with the investigative tools uniquely available to an enforcement agency (such as issuing subpoenas and taking testimony). In some instances, Enforcement staff decides not to open an investigation based on a market monitor referral, or, after opening an investigation, decides to close the investigation after determining that the facts do not support finding a violation or assessing civil penalties. Referrals of potential enforcement matters to the Commission by independent market monitors are an important part of the Commission's effort to accomplish its core enforcement mission of protecting the nation's energy consumers from misconduct—especially fraudulent and manipulative conduct—in wholesale electric markets.

C. Given the due process concerns that have been raised about the FERC enforcement process, and without asking you to agree with those criticisms, would you oppose legislation making it clear that a trial de novo would be availed for all FERC enforcement cases?

Answer: Commission enforcement cases arising under the FPA provide subjects an option of seeking "de novo review" in federal district court. The NGA does not provide that option; instead, NGA enforcement cases may result in a hearing before a Commission Administrative Law Judge that ultimately could result in a review by a federal court of appeals (assuming the ALJ finds a violation and that violation is upheld by the Commission). At this time, the meaning of the FPA's de novo review provision is being considered, or will soon be considered, by several federal courts throughout the country. My view is that the best approach would be to see how these courts rule on this issue first, and perhaps how federal courts of appeals analyze the issue as well, before reaching a judgment about whether the FPA's process for reviewing Commission enforcement actions should be amended.

14. In July, FERC issued a proposed rule to address supply chain vulnerabilities for critical infrastructure. I understand this was prompted by the Havex and BlackEnergy malware campaigns in 2014.

A. What is FERC's level of concern about supply chain vulnerabilities?

Answer: Reliability, including cybersecurity, is a primary responsibility for the Commission. While we have moved forward with respect to cybersecurity, bulk-power system cybersecurity remains a top concern of mine. Supply chain vulnerabilities are a significant element of that concern. For these reasons, the Commission proposed a new standard in the above-mentioned Notice of Proposed Rulemaking, and will be conducting a staff-led technical conference on supply chain risk management on January 28, 2016. The Commission seeks to determine if a new standard can help mitigate supply chain risks and, if so, how it should be structured.

In addition to our activities regarding reliability standards, Commission staff has also participated with other agencies such as the Federal Bureau of Investigation (FBI), the Department of Homeland Security (DHS), and DOE to conduct open and classified briefings to industry members as well as state regulators on the vulnerabilities, threats, and mitigation techniques regarding this issue. Staff has assisted industry with best practices to help address this issue through follow-on sessions and included this issue in its IT architectural reviews. The Commission is continuing to evaluate other useful actions to take such as expanding its IT architectural review program and continuing its assistance to the other agencies to gather and disseminate additional information including advanced research.

B. Does FERC have a sense of the extent of the penetration of the Havex and BlackEnergy malware in the U.S.?

Answer: This question is better addressed to DHS. I can say, however, that DHS has implemented a separate Havex/Black Energy awareness campaign to inform industry and encourage them to seek assistance to evaluate their systems for compromise and when appropriate, work with the appropriate federal agencies to assure mitigation. Commission staff has supported DHS in this campaign through participation in several of the presentations that were held throughout the country.

C. How effective do you believe FERC's rulemaking can be in addressing supply chain vulnerabilities, alone or in combination with steps taken through other federal agencies?

Answer: My preliminary view is that the rulemaking can be a useful action in helping to mitigate supply chain vulnerabilities for the bulk power system, and the upcoming conference is intended to explore that issue in detail. This action, in addition to our existing collaborative efforts, will help the Commission evaluate any further steps that it can take regarding this matter. As I described above, in the absence of mandatory standards to address this matter, other helpful actions include the efforts of the Commission staff, often in coordination with the FBI, DOE, and DHS, in conducting open and classified briefings to industry and state governments, including a campaign specifically to address this matter. The Commission plans to continue these activities while including supply chain vulnerabilities and threats as well as mitigation techniques in its IT architecture reviews.

D. From where is FERC deriving its statutory authority to address supply chain vulnerabilities?

Answer: Section 215(d)(5) of the FPA authorizes the Commission to direct NERC to submit a new or modified reliability standard if it is considered by the Commission as appropriate to "carry out this section [215 of the FPA]." A reliability standard, as defined by FPA section 215(a)(3), imposes requirements for the reliable operation of the bulk power system including, among other things, "cybersecurity protection." Reliable operation, as defined by FPA section 215(a)(4), includes operating elements of the bulk power system in a manner to avoid instability, uncontrolled separation, or cascading failures resulting from sudden disturbances, "including a cybersecurity incident." A cybersecurity incident, as defined by FPA section 215(a)(8), covers

the "hardware, software and data that are essential to the reliable operation of the bulk power system."

15. The Department of Energy Inspector General found that former FERC Chairman Jon Wellinghoff improperly disclosed confidential information. You announced in June of this year that you would determine whether FERC should impose any sanctions.

A. Where are you in the investigation and what have you learned?

Answer: The DOE Inspector General's June 2015 Management Alert entitled, "Review of Allegations of Improper Disclosure of Confidential, Nonpublic Federal Energy Regulatory Commission Information," included among its recommendations that I "determine if [former Commission Chairman Jon Wellinghoff] violated the Confidentiality of Investigations requirement and ascertain what, if any, sanctions are available to address the former Chairman's actions." In my June 1, 2015 Management Response to that Management Alert, I stated that I agree that the video excerpt discussed in the Draft Management Alert constitutes non-public information from an investigation conducted by the Commission's Office of Enforcement. I also stated that I had directed appropriate senior Commission staff to explore whether further steps are available to address this situation. That review is now complete. Appropriate senior Commission staff re-examined the steps that we already had taken, conferred again with staff of the DOE Inspector General, and then concluded that there are no further viable options or sanctions to address former Chairman Wellinghoff's disclosure of the above-noted video excerpt. I accept that conclusion on this matter.

B. What controls are in place to ensure critical, sensitive data is not leaked to the press by former commissioners or FERC staff?

C. What assurances do we have that FERC can be trustworthy with sensitive information?

Answer (B-C): I believe that the Commission can be trusted with sensitive information. The Commission regularly handles large amounts of sensitive information, including information about energy infrastructure and the operation of markets that are subject to the Commission's regulation and oversight. The Commission takes great care to protect such information.

Following the issuance of the DOE Inspector General's June 2015 Management Alert and the DOE Inspector General's January 2015 Report entitled, "Review of Controls for Protecting Nonpublic Information at the Federal Energy Regulatory Commission," the Commission has taken many steps to enhance our protection of non-public information. Some of those steps relate specifically to treatment of such information by former Commission members or Commission staff. For example, as noted in the June 2015 Management Alert, the Commission has strengthened our post-employment guidance and exit processes, including ensuring that departing Commission members and other employees are aware of what constitutes non-public information and their ethical duty to protect such information after they depart. Commission staff also has coordinated additional efforts in this area, such as incorporating information on these topics into the Commission's annual mandatory ethics training for 2015.

In addition, the Commission has taken further steps with respect to protection of Critical Energy Infrastructure Information. Commission staff incorporated information on protection of Critical Energy Infrastructure Information into the Commission's annual mandatory ethics training for 2014 and 2015. Commission staff also is exploring whether and how the Commission's regulations on Critical Energy Infrastructure Information should be revised to ensure that they are appropriate to protect relevant non-public information. This review will take account of the responsibilities that Congress recently assigned to the Commission in the Fixing America's Surface Transportation Act, Division F of which directs the Commission (after consultation with DOE) to promulgate within one year a rulemaking on designation and sharing of a new category of information entitled, Critical Electric Infrastructure Information.

16. FERC recently took a number of actions related to NERC data base access (Docket No. RM15-25), supply chain (Docket No. RM15-14), and compliance audits on physical and cybersecurity.

A. Do these recent initiatives signal a change in policy direction for FERC's oversight role under section 215 of the Federal Power Act?

B. What is FERC's justification for these actions?

Answer (A-B): I see these actions as additional techniques for implementing the Commission's longstanding and unchanged policy of taking all reasonable actions to help maintain the reliability of the bulk power system. The proposal for access to the NERC databases is intended to inform the Commission more quickly, directly and comprehensively about reliability trends or reliability gaps that might require development of new or modified reliability standards. The planned audits on physical security were announced as part of the Commission's final rule approving NERC's proposed physical security standard, as a way to monitor the scope of facilities included or excluded by affected utilities. The audits on cybersecurity are based on a major change in the scope and requirements of the standards for cybersecurity, and will help the Commission better understand the efficacy of these new standards. The proposal on supply chain management is prompted by risks recently highlighted in the energy industry, and will be the subject of a Commission conference later this month. Comments on the proposals for database access and supply chain management are pending before the Commission, and the Commission has not yet made a decision on how to proceed on those matters.

THE HONORABLE BILL FLORES

1. As many natural gas pipelines are reaching the end of their useful life, FERC must consider an increased number of applications to abandon aging pipelines.

A. When addressing an application to abandon aging pipeline facilities, is FERC planning to consider the economic impacts of denying an abandonment application as part of its analysis of "all relevant factors"?

Answer: FERC has in the past considered the economic impact of denying abandonment applications. For example, in Docket No. CP10-82-000 an application to abandon certain jointly-owned offshore and onshore facilities collectively known as the Matagorda Offshore Pipeline System (MOPS) was denied abandonment even though data showed that absent an

increase in transportation revenue, the applicants were at risk of operating the facilities with a negative cash flow. The Commission advised the applicants to explore either selling MOPS or negotiating with shippers rates that would recover the costs. The Commission stated that absent applicants and the shippers agreeing to negotiated rates, the appropriate forum for determining what rates are necessary to provide the applicants an opportunity to recover their costs in providing services using the MOPS facilities was a section 4 rate case. The Commission stated that if after an appropriate rate for service on MOPS is established through a section 4 proceeding and the shippers do not value that service sufficiently to take it at that rate, then the applicants could present that fact in support of a renewed application for abandonment.

B. Would FERC consider granting an abandonment application even though abandonment may affect the "continuity of service" to a pipeline customer if FERC determines that replacement of the facilities would be uneconomic?

Answer: Pursuant to section 7(b), a grant of abandonment authorization is appropriate when the Commission finds either that the supply of natural gas that can be accessed by the subject facilities has decreased to the extent that the continuance of service on the facilities is unwarranted or that other considerations support a finding that the abandonment of the facilities is permitted by the public convenience or necessity. The applicant has the burden of providing evidence to support these findings.

The Commission considers all relevant factors in determining whether a proposed abandonment is warranted, but the criteria will vary as the circumstances of the abandonment proposal vary. The Commission weighs the claimed benefits of the abandonment against any costs. While the Commission is sensitive to the economic realities faced by pipelines, there is, however, a presumption in favor of continued certificated service. Hence, continuity and stability of existing service are the primary considerations in assessing the public convenience or necessity of a permanent cessation of service under section 7(b) of the NGA.

In most instances the abandonment applications that are filed with the FERC have already worked out the "continuity of service" issue. If this issue has not been resolved, the Commission strongly encourages applicants to work with their customers to find an alternate means of providing service. For example, in American Midstream, LLC (Midla) Docket No. CP15-523-000, a Settlement Agreement between the pipeline and its customers resolved contested issues concerning Midla's proposal to abandon much of its aging Legacy System. Under the Settlement, Midla agreed to build the new Natchez Pipeline so that Midla's existing customers would continue to be served either through the new pipeline, an alternate gas provider, or through conversion to propane service.

C. Is FERC willing to require a customer to financially support a project if they are objecting to the abandonment of the pipeline?

Answer: The Commission relies on firm contracts to support new projects. Any cost burden to a pipeline company or its customers associated with a replacement required due to the US Department of Transportation Pipeline and Hazardous Materials Safety Administration's requirements not agreed upon prior to a filing would be subject to a section 4 or section 5 rate filing with the Commission. In the rate filing, all parties have the opportunity to present

evidence to support its position on burden of costs.

THE HONORABLE MORGAN GRIFFITH

1. **In some states where only an easement to flood is acquired, common law principles apply, therefore waterfront property lines and rights are extended out into the lake. Given this, in a situation in which the power company operating a FERC-licensed hydropower facility did not obtain rights to the land under the water but merely flowage easements for the right to flood, and tells a property owner that they cannot build a dock on their waterfront property, I would understand that to be a taking. If a power company has only obtained from the property owner the right to flood, would you agree that such restrictions on a property owner's actions on their land – provided such actions do not impede the right to flood – would be considered a taking?**

   A. **If not, please provide a memorandum from your legal counsel detailing your understanding in defense of this position.**

Answer: Licensees are required to obtain sufficient property rights to comply with the terms of their licenses. In some instances, where the only right that a licensee needs with respect to certain land is to flood it, acquisition of a flowage easement may be sufficient for license compliance, and the licensee may not need to acquire the land under the water. The Commission lacks authority to resolve property law issues, so if a question arises as to the extent of the rights that a licensee has obtained through a flowage easement, the matter must resolved pursuant to state law, in a court of appropriate jurisdiction, if the matter is litigated. I do not believe that such a case would raise the issue of a constitutional taking, since it would involve a dispute between private parties.

2. **FERC's procedures under the National Environmental Policy Act of 1969 (NEPA) relating to siting and maintenance of facilities are implemented through regulations found in 18 CFR 380.15. According to these regulations, the "use, widening, or extension of existing rights- of-way must be considered in locating proposed [pipeline and electric transmission] facilities."**

   A. **What steps does FERC take to comply with these regulations?**

Answer: As described in the Commission's order which established the regulations (Order 603; 87 FERC ¶ 61,125), 18 CFR § 380.15 is considered a guideline for applicants to follow in the planning of rights-of-way. Applicants' consideration of existing rights-of-way is reviewed by Commission staff during both the pre-filing review process and during application review. Commission staff uses aerial maps and such tools as Google Earth to determine if other existing rights-of-way are in the general project area. If so, staff requests applicants to provide information on the feasibility of co-location. Staff will also collect data from its own investigations during site visits and from scoping comments, and will conduct an independent review of route alternatives, including those that involve co-location.

B. Does FERC encourage co-location of pipeline and electric transmission facilities when it is safe to do so?

Answer: Commission staff encourages applicants to consider co-location with existing utility rights-of-way, as well as to consider using a portion of an existing right-of-way for temporary construction spaces. During the Commission's independent review of the route proposed by the applicant, staff compares the environmental impacts of identified alternatives to determine whether any have a clear environmental advantage over the proposed route. While co-location (either side-by-side or with overlap) is one of the options for reducing the impact of a project by consolidating environmental impact to a single corridor, it is not always the best alternative. The ability to co-locate depends on several factors, including the nature of the existing right-of-way. For example, there may be limitations on how much of an existing electric transmission right-of-way or a highway right-of-way can be overlapped. In such cases, Commission staff identifies and confirms conflicts with other utilities and uses this information to inform the alternatives analysis presented to the public and the Commission. Construction and operation needs may also limit the amount that rights-of-way may overlap, resulting in an adjacent or offset footprint. This can be a critical factor for existing corridors that traverse a particularly sensitive habitat or in areas where residential development may have encroached up to the edge of the existing right-of-way. In such cases, co-location does not offer an environmental advantage and would not be recommended by staff. In addition, co-locating with existing rights-of-way may add length to the overall pipeline route and increase the total environmental impact of the project. In general, the determination of whether co-locating pipelines with other utility rights-of-way would provide an environmental advantage is dependent on many variables and must be done on a case-by-case basis.

C. In situations where the project applicant does not propose the use of existing rights-of-way, does FERC independently assess and verify whether co-location is compatible with the proposal?

Answer: Yes. Please see responses to A and B.

D. How are third party comments weighed in evaluating the potential to co-locate facilities?

Answer: The first step that Commission staff takes in evaluating an alternative route, such as along an existing utility corridor, is a desktop review of potential environmental impacts. If an alternative has merit, then Commission staff would consider other factors, such as operational effects. The source of a suggested co-location alternative—whether identified by staff, by the public in scoping comments, or by other federal, state, or local agencies—is never part of the consideration. Any alternative, regardless of who identifies it to Commission staff, is considered fully.

THE HONORABLE RICHARD HUDSON

1. **In recent Orders issuing a certificate to operate natural gas facilities, FERC has rejected the assertion that it should have conducted a "programmatic" Environmental Impact Statement to evaluate the effects of shale gas extraction.**

   A. Would you explain FERC's rationale for rejecting these arguments?

Answer: In exercising its responsibilities under the NGA, the Commission must comply with the National Environmental Policy Act (NEPA). The Council on Environmental Quality, which established the regulations covering environmental reviews, has stated that programmatic NEPA reviews may be appropriate where an agency: (1) is adopting official policy; (2) is adopting a formal plan; (3) is adopting an agency program; or (4) is proceeding with multiple projects that are temporally and spatially connected. The Commission does not have jurisdiction over natural gas production, including shale gas extraction, and accordingly does not create official policies, formal plans, or agency programs regarding production activities. The Commission does not direct the development of the gas industry's infrastructure, either on a broad regional basis or in the design of specific projects and does not engage in regional planning exercises that would result in the selection of one project over another. As a result, it would not be appropriate or useful for the Commission to produce a programmatic NEPA document.

The Commission acts on individual applications filed by entities proposing to construct interstate natural gas pipelines. These projects are not undertaken by the Commission but rather are proposed by a number of different companies in private industry influenced by the market. NEPA requires, and the Commission provides, a thorough examination of the potential impacts of specific projects proposed by private companies. As part of this project-specific review, the Commission considers other activities in close enough time or space to have appreciable cumulative impacts if the project is constructed. This analysis of whether there are overlapping impacts from other projects, including those outside of the Commission's jurisdiction, is contained in the cumulative impacts section of each project-specific NEPA document. Accordingly, I believe the Commission is undertaking a robust analysis of the environmental impacts of single projects as well as those of multiple projects in a region.

THE HONORABLE JOSEPH KENNEDY

1. **How is the Commission planning to deal with only four sitting commissioners for the foreseeable future when there is always the possibility of a tie ruling? How will the Commission ensure it functions properly so ratepayers are not left without any administrative recourse? We cannot have a replay of FCA8 if a rate change is filed and the four sitting commissioners deadlock.**

Answer: Historically, the Commission has acted as a collegial body. Indeed, in the past three years (i.e., since October 2012), 94 percent of the orders issued by the Commission were unanimous. I intend to continue working closely with my colleagues to reach a merits determination on each case that comes before the Commission. While I believe it will be rare for the Commission to be deadlocked, I also have no concern with Congress making clear that a

filing pursuant to section 205 of the FPA that takes effect by operation of law is subject to rehearing and appeal.

2. Given that FERC cannot keep a plant open, order the construction of a new one, or physically site infrastructure, what tools does FERC have and how can they be used to permit and incent both infrastructure and a competitive market to ensure electric reliability at just and reasonable rates?

Answer: The Commission has certain tools to provide incentives for transmission infrastructure development and support competitive wholesale electricity markets to assist consumers in obtaining reliable, efficient and sustainable energy services at just and reasonable rates. Generally, the Commission relies on competitive market outcomes and accurate price formation in energy, capacity, and ancillary services markets to provide resource owners and potential investors appropriate economic incentives to build, maintain, and operate their facilities efficiently.

In recent years, the Commission has approved or required various reforms to support infrastructure development and competitive markets. The Commission exhibits flexibility in accepting different market constructs that better reflect the regional market characteristics, including the regulations affecting the entry of generation and transmission resources. These actions include market modifications to ensure that appropriate incentives exist to provide all of the unique service attributes that electricity markets require. The Commission has taken action to address electric transmission planning and cost allocation as well as to remove regulatory barriers to merchant transmission development. The Commission also has taken action to improve coordination between the natural gas and electric energy industries to improve the efficiency and use of existing resources.

With respect to transmission infrastructure, the Energy Policy Act of 2005 directed the Commission to establish, by rule, incentive-based rate treatments for transmission infrastructure investment that will help ensure the reliability of the U.S. transmission system and reduce the cost of delivered power by reducing transmission congestion. In response, the Commission issued Order No. 679, which identifies the specific incentives that the Commission will allow if transmission developers justify them in individual filings before the Commission. Since the issuance of Order No. 679 in 2006, the Commission has awarded various incentives to transmission developers.

Further, the Commission and its staff actively engages stakeholders through outreach and technical conferences to assess the functioning of the wholesale energy, ancillary services and capacity markets and review rules associated with infrastructure development and natural gas-electric coordination.

Finally, under section 15 of the NGA, the Commission is charged with ensuring expeditious completion of its reviews of natural gas projects. The Commission balances meeting this mandate with the need to ensure various parties and stakeholders have input into the review process and that thorough and informed analyses are done. In the last 10 years, 92 percent of all projects filed with the Commission have been processed within 12 months.

3. What is the definition of "just and reasonable" rates and how does FERC balance that definition in the name of reliability?

Answer: Two of the Commission's key statutory responsibilities are ensuring just and reasonable rates and overseeing the reliability of the grid. As part of the responsibility to ensure just and reasonable rates, the Commission balances the economic viability of energy suppliers with the protection of energy consumers. The Supreme Court has stated that "rates are 'just and reasonable' only if consumer interests are protected and if the financial health of the pipeline in our economic system remains strong." *FPC v. Memphis Light, Gas & Water Division*, 411 U.S. 458, 474 (1973). As part of balancing between protecting consumers and promoting and protecting investment in needed infrastructure, the Commission must take into consideration the reliability implications of the proposals that come before it.