

APPENDIX C TO REPORT OF INVESTIGATION
BY THE SPECIAL INVESTIGATIVE COMMITTEE OF
THE PJM BOM

TIMELINE

REGULATION MARKET REPORTS ALLEGED DELAY

(Bowring alleges that, from 2004 through the present, PJM Management has sought changes to, prevented the issuance of, or delayed the issuance of the following five MMU reports on Regulation Markets because they have disagreed with his analysis: 1) Bowring Declaration on the Competitiveness of the Western Regulation Market, filed with the Commission on October 1, 2004; 2) MMU summary of the actual regulation market results for October 2004; 3) Bowring Declaration on the Competitiveness of the West/South Regulation Market, filed on April 25, 2005; 4) 2005 State of the Market Report;¹; and 5) the MMU Report on the Combined Regulation Markets, filed on October 18, 2006.)

(PJM responds that there was no PJM determination to prevent or hinder publication of MMU Reports, but rather good faith compliance with the PJM Board’s policies regarding internal collaboration and review, and an effort to evaluate, with appropriate rigor, Mr. Bowring’s proposal for a specific market rule change before it was presented to stakeholders. PJM attributes part of the delay to Mr. Ott’s understanding that Mr. Bowring had agreed to provide certain supporting analyses that he did not provide when expected. Moreover, PJM, states that in relying on the affidavits of Bowring in support of PJM’s proposal for market-based pricing in the markets, it was seeking an “expert opinion,” which is not a market monitoring tariff-defined function, and reflected PJM’s election to use the resources of the MMU to assist it in its own regulatory filing. PJM insists it may elect or not elect to cite the views of the MMU in prosecuting such filings, and therefore has no obligation to file affidavits of the MMU with which it disagrees.)

We are tasked to investigate the factual circumstances surrounding efforts, if any, by PJM Management or staff to prevent, delay or impede the issuance of five reports by the PJM MMU regarding regulation markets operated in PJM, the timing of the Market Monitor’s submission of drafts of reports as may be related to any delay, and the circumstances under which the MMU did ultimately make any report or publish any information about the issue thereafter.

<u>DATE/TIME</u>	<u>DESCRIPTION OF EVENT</u>
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¹ This timeline does not address the factual circumstances surrounding the preparation of the regulation section of the 2005 State of the Market Report. Duane Morris has prepared a separate “State of the Market Timeline”. Dr. Bowring chose to raise the 2005 SOM as a separate allegation, as well as including it as part of the delay in issuance of regulation reports allegation.

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5/13/2004	PJM e-mails requesting that MMU evaluate proposed West/South regulation and spinning markets to determine whether structure supports price-based offers.
6/30/2004	PJM Legal Department e-mails seeking internal guidance in responding to question from North Carolina Commission re: who will decide if West/South Regulation and Spinning markets will be competitive. PJM Markets Division leadership responds that the decision will originate from the MMU.
7/22/2004	Bresler e-mail to Pfirmann, Kormos and Hinkel and forwarded to Bowring by Ott, that neither ComEd, AEP, Dayton or AP have filed for market-based pricing for ancillary services.
8/17/2004 to 8/18/2004	MMU e-mail exchange with AEP regarding how/when decision will be made regarding West/South Regulation Market offers. MMU responds providing citation from PJM Operating Agreement establishing cost-based market by default pending further analysis.
8/18/2004	Wright & Talisman provides citation and confirmation to the MMU that the PJM Operating Agreement calls for West/South regulation market to be cost-based by default.
8/19/2004	Project Planning Meeting with AEP. AEP expressed its perception that a decision had been made that the Regulation Market will be price-based, and a corresponding sense of surprise when Bowring made a statement to the contrary.
8/31/2004	Bowring e-mails Flynn inquiring as to why Flynn is asking FERC to consider future requests for market-based rate authority, although PJM is not proposing any changes to the tariff at this time.
9/15/2004	Bowring alleges that there was an AEP/PJM Project Planning meeting, at which he responded to questions from AEP regarding status of West/South Regulation Market analysis by MMU for cost-based offers, and that the results of the MMU analysis did not support a change in status at this time.

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9/16/2004	Bowring e-mails MMU staff re need for memo on MMU conclusions regarding West/South Regulation Market, -noting heavy pressure from AEP.
9/17/2004	Bowring e-mails Harris documenting September 17, 2004 discussion with representatives from AEP, initiated by AEP, regarding the cost based/market based issue with the West/South Regulation Market. Bowring notes he stated MMU did not believe Regulation Market would be competitive post AEP integration but expected it would be post Dominion integration. Harris instructs to follow up as indicated.
9/19/2004	Bresler prepares a timeline of the history of regulation market sizes and alternative combination of markets.
9/22/2004	Zibelman e-mail to Spector, Bowring, Pfirrmann, Hagele and Ott on Regulation Service Filing for AEP and need for legal advice. Notes she spoke with Bowring - he is "rescrubbing his analysis but is finding that even with total integration the numbers may not be there." Zibelman states she and Bowring "discussed alternatives" such as relying on other factors in addition to HHI to support moving to market-based rates.
9/22/2004	Hagele e-mail to Zibelman (cc: Kirk, Ott, Bowring Spector & Duane) outlining plan from meeting for PJM to file on September 30, 2004, with supporting Bowring affidavit, requesting market-based rates effective on the date of Dominion's integration. She asks Bowring to confirm his recollection about expectation of excess regulation supply following entry of Dominion is correct.
9/22/2004	<p>Bowring circulates first draft of affidavit to Wright and Talisman, Bresler, Hagele, Duane, Ott, Zibelman. Notes will be adding more detail on market structure analysis.</p> <p>Draft Affidavit recommends 3 months of experience with new regulation market prior to proceeding to price-based market. Also states if Commission determined that market power in this market is an issue, cost-based rates could be reintroduced.</p>

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9/24/2004	<p>Bowring e-mails Hagele, Zibelman, Ott and Spector a revised affidavit and associated data.</p> <p>New Affidavit concludes that Regulation Market in PJM Western Ancillary Service Area continues to be cost-based. Recommends transition to price-based market at time of Dominion integration only if data derived from operation of Regulation Market for APS, ComEd, AEP & DPL support that transition. Recommends Regulation Market remain cost based for lengthier period if experience demonstrates combined market will not pass FERC's market power screens. (§ 33)</p>
9/24/2004	Bowring e-mails to Hagele, Zibelman, Ott and Spector new documents to review and e-mails Kormos asking for his comments.
9/24/2004	Bowring e-mails Harris recommending that the Regulation Market in the PJM Western Ancillary Services Area continue to be cost-based until the integration of Dominion. (paragraph 33). States: "I do not take these positions lightly."
9/24/2004	Pfirmsmann e-mail seeks details of plan to file due to request from AEP.
9/24/2004	Ott e-mail stating he thought the filing would go in on September 30 and notes wants to mention the filing at MIC on 9/28/04.
9/24/2004	Hagele advises that per discussion with Harris, PJM will file on September 30 and will advise members of intended filing by major domo notice today or Monday.
9/24/2004	Bresler e-mail to Bowring stating that it may be better to remain silent in the declaration on the actual decision by PJM to expand the Regulation Market.

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9/24/2004	Hagele e-mails Bowring stating that the conclusion in ¶33 of the MMU Affidavit constitutes “a very serious breach of the integrity of the internal process for reaching agreement and moving forward on important issues.” Hagele states that “the default should be to market based rates.” Hagele also addresses other wording issues with ¶16 & contends ¶ 32 raises undefined issues of concern and needs to be clarified or deleted. Hagele urges PJM leadership to take the matter of Bowring’s affidavit to Harris if unable to otherwise resolve.
9/24/2004	Bowring responds to the comments in Hagele’s email and notes that he does not agree with much of what was said.
9/24/2004	Ott e-mail to Bowring stating that in regard to paragraph 33 of the MMU Affidavit, “I do agree with Jack [Hagele] that your wording does not coincide with our ‘agreement’”. Ott asks Bowring if he would revise the conclusions in his Affidavit to state that, “given these facts, there are two ways to proceed.” Ott states that this would allow him to “make the fateful decision to go with market based.”
9/26/2004	Pfirmsmann e-mail to Bowring and Hagele that Hagele’s representation of the agreement is as he recalls it, and that this comes down to “a simple difference of opinion on how to move forward with competitive markets.” Pfirmsmann believes that competitive markets should be the default “in the absence of rock hard evidence that competitive markets won’t work,” while others believe that regulation cost-based markets should prevail “in the absence of rock hard data that competitive markets won’t have a chance of bringing harm to market participants. We in PJM must decide which approach we’ll use to guide our decisions moving forward.”
9/26/2004	Bowring e-mails Racioppi that he did not hear any response to his 9/24/2006 e-mail responding to Hagele and that the claim is being repeated that “we all agreed to file for automatic market-based rates effective with Dominion” unless something will be filed prior.
9/26/2004	Zibelman e-mails Bowring, Hagele, Pfirmsmann, Kormos, Ott, Spector, and Duane re: “phone call to discuss overcoming impasse and make filing.”
9/26/2004	Bowring e-mails revised affidavit to Zibelman, Hagele, Pfirmsmann, Kormos, Ott and Duane

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9/27/2004	Duane circulates draft of proposed major domo notice and regulation filing. The draft describes PJM’s plan to file with the Commission a showing of competitiveness in the PJM West/South Regulation market and a request that the Commission authorize the conversion of the market from a cost-based to a market-based structure upon Dominion’s integration but no earlier than 60 days from filing date. Proposed notice states that if PJM’s observations of the Regulation Market following the AEP/Dayton integration indicate that the assumptions underlying the request no longer hold, PJM will so advise the Commission and request that the Commission suspend conversion to a market-based structure.
9/27/2004	Bowring responds to Duane e-mail in regard to the proposed major domo notice. Bowring states, “I assume there are no plans to implement market based rate prior to Dominion” and goes on “If PJM is planning to make a ‘showing of competitiveness’, I am not sure what that is.”
9/27/2004	Racioppi & MMU employee respond to Bowring’s request for comment on draft of proposed major domo notice. MMU employee notes MMU application of the FERC screens for market based rate authority demonstrate a failure by multiple participants. Both recommend that a review be undertaken of any supporting material PJM intends to provide to develop a MMU position
9/27/2004	E-mail thread between Spector and Bowring. Bowring alleges that he has not yet received some new regulation capability data and that he cannot finalize analysis without the data. Spector suspects that the data will increase competitiveness of the market. Spector also requests that exhibits be submitted with Bowring’s affidavit.
9/28/2004	Wright and Talisman sends draft of market based rate authorization filing for regulation market in the PJM West/South region to management team for review.
9/28/2004	Duane replies stating that “the approach taken by the transmittal is very good and reflects PJM’s internal discussions.”

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9/28/2004	Duane e-mails Bowring re the Transmittal letter on the filing seeking Bowring’s comments and asks Bowring for updates to the affidavit; Wants to discuss reducing some of the text in the affidavit since background history is redundant.
9/28/2004	Zibelman e-mail stating Bowring is working on the affidavit and will have it out this evening and directing all comments to Barry Spector.
9/28/2004	Bowring e-mail submitting modified affidavit. Notes the key paragraph is now 43. Bowring states “I have not ruled out changing the recommendation but don’t see how at this point. This includes the additional data that John Baranowski provided yesterday – while the data was not accurate we tracked down the specified units and determined that there is an additional 255 MW of regulation. I am open to your suggestions. If you think I am being too negative based on the data, tell me why specifically you think that. I continue to rethink the conclusions but it is hard to avoid the conclusion that the market does not pass the tests specified in the FERC Order. Again, if you disagree please explain why. Another option is to go to market based but with some very specific transition mitigation measures, e.g. an adder higher than \$7.50 but less than the \$100 in PJM MidAtlantic. I think we should all decide exactly what the objective is – please let me know your thoughts. My objective is to present the results of an objective market power analysis following the FERC specifications and draw conclusions based on those results. Please pass on to anyone else at PJM who should be reviewing this.”
9/29/2004	Duane e-mail to Bowring, Ott, Kormos, Spector (cc: Hagele, Zibelman, Glazer) seeking Bowring’s consideration of his revisions to the MMU’s affidavit to “reflect the internal discussion had here at PJM today”. Duane suggests that the conclusions should be left to the Commission and not be provided by the MMU.
9/30/2004	Bowring e-mails “the near final draft reflecting agreement with Audrey [Zibelman] on the concluding paragraphs.” Asks for comments ASAP. Recommends the market remain cost-based until integration of Virginia Power [Dominion].
9/30/2004	Bowring e-mails final affidavit, includes an unredacted version, redacted version, and figures, stating “I will fax signed document shortly.”

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10/01/2004	Duane e-mail to Bowring, Zibelman & Hagele recommending change to ¶ 46 of MMU Affidavit which commits the MMU to provide the Commission a report on actual operating experience with the West/South regulation market prior to rendering its decision on price-based offers. Duane states, “I think this is a vestige of our evolving discussions this week and should be modified. I think it continues to suggest that the Commission await further information before making a decision. I think modifications are in order and they simply didn’t get picked up yesterday.” Duane suggests the following language: “In this case, we will have the opportunity to review actual data and, if necessary, inform the Commission as to actual supply conditions prior to the integration of Virginia Power.”
10/01/2004	Bowring attaches final affidavit and final redacted affidavit. Appears to include Duane’s requested change.
10/1/2004	PJM submits request to the Commission for price-based regulation offers in West/South market. The basis for PJM’s support for price-based offers hinges on the notion of excess supply.
10/22/2004	Duane e-mail to Hagele, Zibelman & Ott re: Kleppinger and AMP-Ohio Protests in West/South Regulation Market Filing.
11/7/2004	Duane e-mail to Ott and Bowring attaching Answers to South/West Regulation Market, stating, “We are keeping it short. Acknowledging a difference of opinion between MMU and PJM.”
11/8/2004	Bowring responds would not draft the Response this way and comments might have information on actuals vs. estimates tomorrow.
11/9/04	Duane e-mail inquiring whether Bowring has any actuals vs estimates data. Bowring replies that MMU does not have good data yet, but “it is fair to conclude that not all expected regulation is actually being made available to market.”

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11/10/2004	Duane e-mails Bowring and Ott inquiring if Ott & Bowring both agree that a filing with the October actual data should be made. Bowring responds that goal is to file report the following week. Duane responds will get usual notice out tomorrow. Duane cites a projected filing date of 11/19/04 and requests first draft due to PJM on 11/15.
11/11/2004	Legal forwards Executive Sponsor Memo to Ott and Bowring in regard to informational FERC filing for the West/South Regulation docket.
11/17/2004	PJM submitted an answer to the protests of AMP Ohio and PJMICC.
11/22/2004	Bowring e-mails Haymes (FERC) asking if the Commission wants the MMU to file a summary of the October 2004 data from AEP on actual regulation market performance.
11/24/2004	<p>Bowring e-mails Hagele, Duane, Zibelman, Ott & Bresler seeking permission to file with FERC today, the MMU's summary of the October 2004 regulation market results to support PJM's request for a decision from the Commission on December 1.</p> <p>According to Bowring, the actual market results bear out the lack of excess supply and failure of the Commission's market power tests presented in the MMU's October 1, 2004 Affidavit.</p>
11/24/2004	Zibelman e-mails Bowring instructing him that nothing may be filed until the Cabinet discusses it at their November 30 th meeting. Zibelman instructs Bowring to attend Cabinet meeting.
11/30/2004	According to Bowring's June 12, 2007 FERC submission, at cabinet meeting, it is decided that the MMU may not file its summary of the October 2004 regulation market results. (No documents were provided as to what was discussed at cabinet meeting)
12/1/2004	Spector email to Duane, Glazer and Hagele attaching the FERC November 30, 2004 Order regarding regulation filing. Because of a 2-2 split, FERC issued a one page notice stating that the market-based rates for regulation shall take effect "by operation of law" upon the date of Dominion's integration. Under Section 205, if FERC does not act by the proposed effective date, then the rate is deemed approved.

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12/1/2004	Joint Statement by Chairman Wood and Commissioner Kelly dissenting from FERC Order
12/6/2004	Bowring asks Spector what the procedural requirements are should PJM wish to file for rehearing on “the Order or non-Order” regarding the PJM West/South Regulation Market. Spector replies a rehearing cannot be sought and the rate goes into effect by operation of law.
1/3/2005	Duane e-mail notifying Cabinet members, Glazer and Bowring of AMP-Ohio’s Request for rehearing and his opinion that a response is unauthorized; that PJM continue to observe the performance of the regulation market; and that West/South remain cost-based until Dominion is integrated into PJM.
1/31/2005	FERC Order dismissing the AMP-Ohio request for rehearing of the Commission’s order whereby market-based pricing for regulation in the West/South region was accepted upon Dominion integration by operation of law.
2/9/2005	<p>Bowring forwards to Ott and Bresler e-mail with MMU preliminary conclusions on Regulation Market using actual market participation data gathered following AEP integration. MMU notes that level of excess supply offered into market, upon which PJM based its recommendation, is significantly less than expected.</p> <p>Bresler responds that the first example of Regulation offered but not eligible should be deleted as it illustrates hourly availability, and “if a Regulation provider makes its Regulation unavailable for an hour, then it is not offered for that hour.”</p>
4/8/2005	Bowring e-mail to Pfirrmann, Hinton, Duane, Spector (cc: Zibelman Ott & Bresler) chronicling meeting with Harris and Zibelman in which he presented MMU determination that West/South regulation market is structurally uncompetitive and plans to notify FERC of MMU findings and noting PJM will make filing with FERC attaching MMU Report and requesting West/South Regulation market remain cost-based.

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4/8/2005	Spector reply e-mail to Bowring re: comments about the proposed filing. Spector stated that change back to cost-based rates would require a section 205 or 206 filing. Spector recommends asking FERC to defer effective date until PJM notification and alerting Dominion, who was expecting market-based rates.
4/8/2005	Zibelman replies instructing, “Joe before we move on this, lets have a call with Karl [Pferrmann], Jim [Hinton], Andy [Ott], Mike [Kormos] and the lawyers to make sure that the tactic we talked about this AM is one we want to take.”
4/8/2005	Duane replies, “Of course, simply filing Joe’s opinions and accompanying report and letting the Commission decide whether it wishes to do something based on that filing is a straightforward alternative that doesn’t involve 205 or 206 questions.”
4/12/2005	Bowring e-mail to Zibelman “I got your voice mail and on that basis will proceed to get our report filed.”
4/13/2005	Bowring forwards draft Declaration for April 2005 Regulation filing to Pferrmann, Hinton, Kormos, Ott and Glazer (cc: Spector & Duane).
4/13/2005	Hinton reply e-mail to Bowring, Kormos and Pferrmann stating with regard to regulation market that it, “does not seem to be a big deal for Dominion if its cost based for now.”
4/13/2005	Kormos e-mail to Bowring asking to see “what the numbers look like with all the regulation available or more than just what is deemed available in the hourly market.....I think we need much more understanding as to whether these units should be excluded from the analysis.”

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4/13/2005	<p>Pfirmsmann e-mail to Kormos advising that AEP objected today to any attempt to taking the regulation market back to cost-based, and suggesting that they orchestrate a meeting where Ott and Kormos would set forth Market Services' position, Bowring would set forth the MMU position and Zibelman, Hinton & Pfirmsmann would be the jury.</p> <p>"I'm not sharing this yet with Joe, but AEP objected today to any attempt to taking the regulation market back to cost based. And they implied that they were doing exactly what you suspect -- I think their words were along the line of "would it help if we bid more regulation [sic] in". Anyway, I know Audrey also supports letting this stay market based. In my discussions with Andy today however, I think he is more ambivalent toward whether this is cost or market based – as long as the AEP's and Dominion's aren't 'hurt" by that decision. I hope I read him wrong on that because I am trying to orchestrate a meeting in which you and Andy will be the primary counsel on one side, Joe will be on the other, and Jim, Audrey and I will be kind of the jury. I'll call you tomorrow to discuss more. Obviously don't forward this."</p> <p>Kormos replies, "I am tired of being the bad guy – when do I get to play the good cop."</p>
4/14/2005	Kormos forwards draft Regulation filing to John Baranowski, who emails Bowring with questions and concerns regarding MMU's analysis and data.
4/15/2005	<p>Glazer e-mail alerting Cabinet Team to Bowring's statement at FERC meeting concerning lack of bidding in regulation market and that MMU would be filing a report. Also notes that Glazer suggested to AEP that it speak with Bowring.</p> <p>Zibelman e-mails Bowring to contact her and in later email states, "In the meantime please talk to Karl [Pfirmsmann] re AEP. He has already spoken with them and can fill you in. I get back on Monday let's wait until after then to file anything." Bowring responds, "OK" .</p>
4/15/2005	MMU employee email to Bowring forwarding new version of filing updated with joint pivotal supplier counts and HHI frequency for Dominion.

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4/16/2005	Glazer e-mail to Bowring inquiring whether Bowring applied the test to the universe of available regulation in the PJM West region or just what was bid into the market. Glazer also advised he believed that it is appropriate to file a report with FERC.
4/16/2005	Bowring replies that he reached similar results where “100% of potentially available regulation is in the market, and where 60% of potentially available regulation is in the market.” Problem is “Dominion owns 75% of regulation capability in their area”..Bowring claims this “offsets any given level of excess.” Bowring recommends re-examining “the situation with real data after there is a single unified Western Regulation Market to determine whether it makes sense to go to market-based rates or perhaps market-based rates with either tighter mitigation or a tighter mitigation trigger than in the East”
4/16/2005	Kormos replies it is about total excess and not market share and recommends that Bowring needs to expand analysis to either include all the capability or exclude capacity if unable to compete.
4/17/2005	Bowring e-mails latest draft of Regulation declaration to Zibelman, Kormos, Glazer, Pfirrmann, Hinton, Duane and Ott to further circulate as appropriate.
4/17/2005	Pfirrmann e-mail sending comments to draft regulation declaration and wants to discuss with Bowring tomorrow.
4/18/2005	Wright and Talisman e-mail to Duane and Bowring forwarding “clean up” edits to regulation declaration.
4/18/2005	<p>Duane e-mail to Bowring “are you comfortable we are not weakening our position that 3 pivotal supplier test is valid.”</p> <p>Goes on to note “I’ve had conversations with Zibelman and others, I think there is still not a consensus with the sorts of recommendations you are making at the close of the declaration. Are we ready to distribute the draft to Kormos & Glazer?”</p>

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4/18/2005	Bowring responds that every draft is for all to see and he thought “we were at the tweaks stage,” and explains measurement of three pivotal supplier test.
4/18/2005	<p>Bowring e-mails Duane of desire to file Affidavit next day on April 19th.</p> <p>Duane responds that he is working under the direction that PJM does not support the recommendations in the closing paragraphs of Bowring’s declaration, and that the draft transmittal will say that.</p> <p>Bowring asks to see the draft transmittal.</p> <p>Duane responds that draft has not been considered in organization beyond Legal & Glazer so it could be off the mark.</p>
4/18/2005	Duane e-mail to Kormos (cc: Zibelman Hagele & Glazer) attaching Bowring draft affidavit alerting them that the MMU Affidavit still “has all the recommendations at the end that I thought y’all had agreed with him should be removed. Having anticipated that this could turn out this way, I have attached a proposed W&T transmittal that would make clear that PJM does not endorse his recommendations.”
4/19/2005	Kormos forwards Duane’s e-mail to Zibelman stating, “I thought your’re [sic] directions were clear yesterday. But apparently Joe and I heard different things. This is getting old.”
4/18/2005	Glazer sends his comments to Bowring, Spector and Duane re: affidavit.
4/19/2005	Bowring responds that he incorporated most of Glazer’s suggestions and that the three pivotal supplier test is not misleading, but it shows that it can be used as an analytical tool. He states that he will be sending a draft shortly.
4/19/2005	Zibelman e-mail to Bowring requesting that he see her regarding draft regulation declaration.

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4/19/2005	Bowring circulates draft MMU declaration to PJM leadership team noting removal of specific recommendations that the West/South regulation market remain cost-based. Bowring states, "I have attached a revised version of the declaration in which I take Craig's [Glazer's] suggestions of presenting the facts but not making an explicit recommendation about market based rates."
4/19/2005	Bowring e-mail to Zibelman stating that he has reviewed and accepted Glazer's recommendations.
4/19/2005	Zibelman e-mail to Bowring, Glazer, Kormos, Pfirrmann & Hinton (cc:Duane & Spector) stating that she wants to ensure that "conclusions are sensible in light of what we previously filed" and that there is no disagreement on the underlying facts, consistent with yesterday's discussions.
4/19/2005	E-mail from Wright & Talisman recommending deletion of final paragraph from Affidavit in view of the removal of the MMU's recommendation. Bowring deletes the paragraph.
4/19/2005	Kormos suggests that there needs to be a caveat as to whether the use of historic hourly bids in a cost-based market flush with excess capability is a good representation of what would happen if market power was attempted in the future and forwards comments to the declaration.
4/19/2005	Duane e-mails Bowring stating that Kormos remains uncomfortable with factual assumptions underlying the analysis and as per Zibelman's instruction, the Bowring declaration "cannot be filed" until Bowring, Ott and Mike agree on the right facts and assumptions underpinning the analysis.
4/19/2005	Bowring e-mail to Kormos re: responses to Kormos' questions on regulation report.
4/20/2005	Bowring forwards the most recent draft to Ott.
4/20/2005	Bowring e-mail to Kormos answering factual questions posed. Kormos response wants to see revisions and additional analysis.

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4/20/2005	Kormos e-mail to Bowring stating Bowring has not considered all facts to provide all information so a conclusion can be drawn.
4/20/2005	MMU employee e-mails Wright and Talisman info that there will be a draft on 4/21/2005 following internal stakeholder comments.
4/21/2005	Bowring forwards Zibelman most recent draft after conversation with Kormos and informs Zibelman that affidavit will be filed tomorrow morning.
4/21/2005	Kormos e-mail exchange with Bowring that Bowring did not consider the sensitivity on the excess capacity.
4/22/2005	Kormos e-mails Bowring re: Breakpoint test and comments to analysis.
4/22/2005	<p>Kormos e-mail to Bowring, Duane, Glazer, Pfirrmann, Hinton, Zibelman, Ott:</p> <p>“Since I have been unsuccessful to convince Joe to do additional analysis using something other than hourly offered, I have made changes I feel are important to [sic] so readers understand the nature of the analysis actual [sic] done and any potential limiting issues. I also struck a couple of statements that made conclusions that I feel are unnecessary or not yet substantiated. I still am attempting to validate some data used and rectify some of the discrepancies from the September filing and this one. See what you can live with Joe.”</p>
4/22/2005	E-mail thread between Bowring and Kormos re: edits and changes to document. Kormos states, “We can agree to disagree.” Zibelman e-mail to Bowring asking “Where are we?”
4/22/2005	Pfirrmann e-mails Kormos asking if Bowring incorporated Pfirrmann’s changes. Kormos replies that Pfirrmann better call Kormos.

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4/22/2005	<p>Zibelman e-mail to Bowring asking Bowring whether he has resolved the issues that Andy and Mike raised; Zibelman wants to talk to Bowring before they file.</p> <p>Bowring replies, “We need to proceed.”</p>
4/22/2005	<p>Bowring asks Kormos and Zibelman whether he can mention that PJM is considering one big regulation market.</p> <p>Kormos replies that he would mention it in the cover letter, because it has not been mentioned to the stakeholders yet.</p>
4/22/2005	<p>Bowring e-mail to Zibelman stating that he decided not to file today. He wants to wrap up “every last question” from Andy and Mike.</p>
4/22/2005	<p>Duane forwards attached filing letter to Bowring. “Given the continuing back and forth, please see the highlighted text in particular to reflect one of Mike’s lingering concerns.”</p>
4/22/2005	<p>Bowring e-mails Kormos, Ott, Zibelman, Duane, and Glazer results of net analysis show that even with extreme case where current incumbents retain all load and all associated regulation requirements, that market fails HHI, market share test and three pivotal supplier. Will send write up over the weekend.</p>
4/24/2005	<p>Bowring sends revised and final declaration, highlighting changes associated with the net regulation requirement issue.</p>
4/25/2005	<p>Kormos e-mail to Bowring stating that “I am not asking you to change anything in this testimony,” but suggests that prior to next analysis., Bowring should include or explain why PJM is not using FERC test and asks that next analysis be more balanced.</p>
4/25/2005	<p>PJM submits its second request to the Commission for price-based regulation offers in West/South market. The basis for PJM’s support for price-based offers again hinges on the notion of excess supply.</p> <p>Bowring Declaration accompanies the PJM submission.</p>

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4/26/2005	Bowring e-mails Haymes and Hederman of FERC providing a copy of PJM's April 25, 2005 filing and reaffirming the MMU's conclusion that the West/South Regulation market is not structurally competitive.
4/27/2005	<p>Spector advises Duane that AMP Ohio has filed a motion for the Commission to take immediate action in light of Bowring's affidavit, and suspend market-based pricing before May 1 in the regulation market.</p> <p>Duane replies that it is a "not unexpected response from the party that has led the cause in this matter from its inception."</p>
4/27/2005	AMP-Ohio supplements its motion for reconsideration and files an emergency motion for the suspension of the tariff sheets."
4/28/2005	Duane advises Zibelman, Hagele, Pfirrmann, Kormos Bowring, Glazer, & Miller that AMP-Ohio points out the disparity in the declaration and PJM cover letter and contends that the declaration contains "clear and convincing conclusions" that the West/South regulation market is not competitive.
4/28/2005	PJMICC files an Answer with the Commission in support of the concerns referenced by the AMP-Ohio pleading
4/29/2005	The Commission rules on PJM's April 25, 2005 filing. In its Order, the Commission concludes that "the concerns about the potential of certain suppliers to exercise market power expressed by PJM's Market Monitor in the October 1 Filing have been substantiated by actual operation of the PJM West Regulation Market after the integration of AEP, DP&L and Duquesne, as discussed in the State of the Market Report" (April 29, 2005 FERC Order at p 22) The Commission calls for an assessment of the actual operating experience in the PJM West/South Regulation Zone for a period (e.g., six months) after the integration of Dominion. (April 29, 2005 FERC Order at p 26).

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4/29/2005	<p>Duane emails Cabinet team a message entitled “UNEXPECTED FERC ORDER – REGULATION MARKET WEST/SOUTH”</p> <p>“In admittedly a surprise, the Commission issued the attached Order this evening on the eve of the Dominion integration. The Order addresses the MMU’s declaration filed this past Monday and the ‘emergency’ protests filed by AMP-Ohio and the Industrials.” The Order allows market-based pricing to go into effect on May 1 in the PJM West/South region, but views AEP and Dominion as “dominant suppliers” based on MMU and it has imposed offer caps.</p>
4/29/2005	<p>Harris responds to Duane’s e-mail in which he directs Glazer & Jim to, “Please advise asap of AEP Dominion reaction. Mike:, how does this impact operations and the market?” Lets discuss tomorrow</p>
4/30/2005	<p>Bresler forwards FERC Order to individuals at AEP.</p> <p>E-mail thread between Bowring and Bresler re: AEP’s reactions to order and confirmation that both have cost-based reg offers.</p>
4/30/2005	<p>Bowring sends Declaration and FERC Order accepting Declaration to Parviz Adib of PUC in Texas.</p>
4/30/2005	<p>Glazer e-mail to Bowring re: “Your points resonated with FERC”; “your work on this should be noted and is, at least by me...</p> <p>Order “should give all of PJM some pause as to how we address these issues in the future . . .”</p>
5/1/2005	<p>Bresler e-mail to Ott re FERC Order. Bresler also notes that PJM was “barely meeting our Regulation requirement in the West/South market for the first few hours after the integration. And notes received cost-based offers from all participants.</p>
6/7/2005	<p>Duane e-mail to Glazer, Bowring, Kormos, Ott and Spector forwarding AMP-Ohio protest that the record should be clarified by not letting stand any conflicting statements in PJM’s transmittal versus the MMU declaration.</p>

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6/13/2005	MMU employee e-mails Bowring the results of analysis of hypothetical combined regulation market for May 2005.
6/15/2005	Bowring e-mail to Blair and MMU employee requesting regulation analysis in order to report to MIC at 6/28 meeting re: the expected level of competition in a single combined market.
6/17/2005	MMU employee e-mails Bowring draft declaration discussing results.
6/27/2005	Bowring e-mail to Bresler stating that MMU has completed an initial analysis of the expected competitiveness of a single regulation market and at the present time, based on analysis of available data, MMU cannot conclude that the combined regulation market will be competitive.
7/18/2005	MMU employee sends Bowring regulation market performance analysis for May-June 2005.
7/18/2005	Bowring asks Gravener to ensure that the minutes of the MIC reflect Bowring's statement that on the basis of current data, the MMU cannot conclude that the combined regulation market would be competitive.
7/18/2005	After waiting for Bowring's analysis "for weeks," Bowring informs Ott that the MMU cannot conclude that the combined regulation market would be competitive and currently pass FERC's market power tests. Ott wants the full results of Bowring's analysis.
7/19/2005	In response to Ott's email asking whether to delay the vote or proceed, Kormos recommends to vote. Kormos states that Dominion and AEP will still be at cost by default and then PJM will state that it will file with FERC to remove it. "It may give us some time to to [sic] work on Joe. Also if Joe thinks more needs [sic] to be mitigated or AEP and Dom still cost capped let him intervene in our filing."
7/19/2005	Bowring recommends to Ott that the correct next step would be to combine the markets using the existing bidding rules for the current markets and analyze the actual outcomes and make a FERC filing with recommendations based on actual market results. "This would mean continued offer capping for Dominion and AEP only."

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7/19/2005	In response to an e-mail from Covino, Keech states that at a recent committee meeting, it was mentioned that pending an MMU study, “portions of the RTO reg market that may exert market power may be cost capped.”
7/21/2005	Ott recommends a six month combined regulation market trial during the period August 1, 2005 through January 31, 2006, with a report on the competitiveness of this trial construct to stakeholders within 3 months.
7/22/2005	In response to a questions from AEP as to whether AEP and Dominion will continue to be cost-capped in the combined market, Bowring responds that the existing market power mitigation rules will remain in effect for the east and west regulation market participants, including the cost caps for AEP and Dominion. MMU will reevaluate after three months to determine whether the combined market is competitive or whether some form of ongoing mitigation will be provided.
7/22/2005	Duane e-mail to Ott and Bowring that PJM has no discretion in light of the FERC order as to offer caps. The fact that AEP has not been offer capped in the East, and now with a combined market they will be capped is something AEP can complain to FERC about. Duane states that he does not see how PJM can handle the combination of markets in any more reasonable a manner than it is proposing.
7/26/2005	In an e-mail to the MIC and EMC Committees, PJM commits to a six month combined regulation market trial during the period August 1, 2005 through January 31, 2006, with a report on the competitiveness of this trial construct to stakeholders within 3 months.
7/27/2005	Bowring asks to participate in the regulation market discussion at next Cabinet Team Meeting because MMU has made and will make a competitiveness determination. Bowring sends draft of discussion points for Combined Regulation Market Implementation and forwards to Bresler, Welch, Swimm and Ott for feedback.
8/2/2005	Combined Regulation Market Implementation for Cabinet Team Meeting.

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9/28/2005	Bresler forwards to Ott the final Markets Report for the October 2005 Markets Committee meeting with a “beefed up” Regulation Market Section with more graphs showing increased efficiency of the market following the combination.
11/9/2005 – 11/28/2005	E-mail thread between MMU employee and Bowring re: analysis of combined regulation market with and without PSEG/Exelon merger impact analysis.
3/13/2006	Horton (AEP) email to Bowring asking, “Soooo, what does the State of the Market Report mean for AEP and the regulation market?”
5/10/2006	Anderson (PJM Client Manager for AEP) email to Bowring conveying question from AEP. AEP requests an analysis of the West Regulation Market. AEP believes it was promised an analysis by mid-December of 2005. Bowring responds will be circulating internally an analysis within the next week. Public circulation will depend on others within PJM.
5/18/2006	FERC Hearing on Role of RTO/ISO Market Monitors
5/30/2006	Bowring e-mail to Ott and Kormos re: Revised Version of MMU Regulation Market Analysis wherein Bowring recommends real time mitigation & offer cap; wants to discuss.
6/29/2006	Bowring e-mail to Kormos re time to discuss regulation report.
7/7/2006	Meeting invite from Bowring to Ott and Kormos re: Regulation and Interfaces Reports.
7/15/2006	E-mail from Bresler to Bowring re: Whether Bowring would present regulation report at next MRC. Bressler tells Bowring to talk to Ott and Kormos directly.
8/15/2006	Bowring e-mail to Ott and Bresler expressing his desire to release the Combined Regulation Market Report and asking to be placed on the upcoming appropriate Committee meeting agendas to brief stakeholders.

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8/15/2006	Bresler e-mails Bowring and Ott stating that he recommends presenting the MMU findings at the upcoming PJM MRC and PJM MIC Committee meetings.
8/15/2006	Ott e-mails Kormos asking if Kormos talked to Bowring about release of regulation report; Kormos responds “not formally – he mentioned it” but Kormos has not seen information.
8/15/2006	Ott responds via e-mail stating that Bowring “never closed the loop” with Kormos on a final recommendation for the test.
8/15/2006	Bowring replies to Ott stating that the report’s recommendations have been under discussion with PJM for four months and that the MMU needs to release it and would like to describe it at a stakeholder meeting.
8/15/06	Ott replies “don’t want to create too much more email traffic on this but from my perspective” it is delayed because when we discuss you agree to show us test results but we never get any results...
8/20/2006	Bowring relies, “regardless of the disagreements over the results etc, do you agree that this is an MMU report, owed to membership per a vote at the MIC? I believe that we have provided you all the requested information. Let me know exactly what information you would like to see in addition to what has been provided.”
8/21/2006	Kormos e-mail to Bowring and Ott re: wants to see how FERC test was done; has a concern as to what PJM does if a market could pass the FERC test but fail MMU’s hourly test.
8/21/2006	Meeting scheduled for Bowring, Ott and Kormos to meet re: Regulation Market Report
9/5/2006	Bowring e-mail to Ott & Kormos forwarding Combined Market Report Sensitivity Analyses that Bowring reviewed with Ott and Kormos re: conclusion that combined regulation market fails and real-time mitigation approach makes sense.

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9/22/2006	Bowring email to Ott forwarding draft of Memo to BOM on Regulation Report
10/9/2006	Memo from Bowring to CMC re: Regulation Report MMU concludes that it would be preferable to retain the existing, experimental Combined PJM RTO Regulation Market if real-time tests can be implemented.
10/13/2006	In oral testimony before the FERC in the matter of transparency provisions of the Energy Policy Act of 2005, Ott states: The PJM market monitor produces extensive analyses on the market, produces a state of the market report, and the conclusions of the market report are his own. Obviously, I don't [think] anyone is questioning the independence of PJM, the organization, so I would take issue with Mr. Spinner saying that we need an independent entity doing an analysis of the competitiveness of the market. We have one.
10/17/2006	Bowring sends MMU Analysis of Combined Regulation Market slides to Koskela for October 25 MRC Meeting asking when is the true deadline because he still needs to finalize report.
10/18/2006	Analysis of the Combined Regulation Market: August 1, 2005 through July 31, 2006.
10/25/2006	MRC Meeting during which Bowring presented slides and reviewed the results of the Regulation Report. Ott recommended assigning the issue to the MIC for a review of the analysis.
10/26/2006	Ott email to Zibelman re: Joe acknowledged he made a mistake in his response to a question about the regulation market; He acknowledged that response was not based on analysis but rather a single phone conversation with a market participant. Bowring agreed this was not a proper way to deal with issues

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10/26/2006	Zibelman asks Ott about Bowring's statement re the delay of the quarterly report. Ott replies: "We discussed it but I cannot say we resolved it. He did not believe his analysis was incomplete."