

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

TIMELINE

RPM MARKET POWER & MITIGATION PRESSURE

(Bowring alleges that: (1) in 11/06 PJM Management refused the MMU's request to include avoidable cost data in PJM computer system; (2) on 12/1/06 PJM Management pressured the MMU to modify the avoidable cost template based on Generators' complaints and to increase the proxy costs developed by the MMU; (3) on 12/8/06 PJM Management ordered the transfer of the MMU's authority to make decisions on the implementation of avoidable costs and transferred the authority to PJM Markets Division; (4) on 12/13/06 PJM Management told the MMU that it was not to speak directly with PJM's external counsel about the RPM Tariff and that such requests were to be done through the VP of Markets.)

(PJM responds that PJM's Market Services Division, not the MMU, has the lead role in developing market rules. Although the MMU is charged with collecting cost information under RPM, the MMU is not free to determine what costs the Tariff directs be collected. Rather this is a market rule function, reserved to the RTO, and therefore PJM's Market Services Division properly establishes the costs to be reported.)

We are tasked to investigate the factual circumstances surrounding any efforts in November and December 2006, by PJM Management to pressure or compel the MMU to modify the MMU's position regarding RPM market power and mitigation of RPM market power.

NOTE: The documents provided on this issue were not extensive and not particularly helpful in resolving the four separate allegations.

<u>DATE/TIME</u>	<u>DESCRIPTION OF EVENT</u>
2/21/06	CMC Meeting - Ott discussed RPM technical conference and summarized various stakeholder positions. No mention of MMU input.
8/21/06	CMC Meeting - Ott provided overview of RPM settlement discussions & reviewed timeline for remainder of process. Noted that the FERC filing of the settlement agreement will include complete Operating Agreement and business rules required to implement the process
9/22/06	MMU employee request on behalf of Bowring to post information re RPM avoidable costs for meeting to be held after vote on RPM settlement. Ott Responded that it should not be posted.

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10/10/06	<p>E-mail chain between MMU Employee, Gilrain & Bowring. Gilrain notes that there are insufficient resources to complete RPM project. Explains that other data gathering and pre-auction calculations request by MMU cannot be accommodated.</p> <p>Bowring responds that RPM system has to include market monitoring requirements and requests a meeting.</p>
10/13/06	<p>Gilrain e-mail to Ott seeking additional IT, MMU or Markets resources due to problem re need to move MMU data collection and calculation out of RPM system in order to complete project on time. Gilrain notes that Bowring has agreed to maintain the MMU required RPM data & calculations but notes there are insufficient IT resources to perform the processing of the MMU required RPM data.</p> <p>Ott asks for more information.</p> <p>Bowring responds the biggest item is the need for avoidable cost data in order to calculate offer caps.</p>
11/3/06	<p>Bowring e-mail to Schmitt stating that Gilrain stated that Markets would not include the collection & storage of data needed by MMU to verify cost based offers in RPM. Notes MMU will have to do it and seeks assistance in reaching a solution.</p> <p>Schmitt responds that he had not seen e-mail or meeting about the issue but notes that they have always known that changes related to RPM would be a separate project for MMU and they had a separate project on the books for a while.</p> <p>MMU employee responds that this is not related to that separate project but rather a new development not previously anticipated.</p>
11/3/06	<p>Bowring e-mail to Bresler making him aware of IT problem and need for resources.</p>
11/3/06	<p>Bresler e-mail to Bowring that once there is clearer picture of capital expense estimates it can be taken to EC/PEG for inclusion in budgeting process</p>

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11/7/06	Bowring e-mail to Members providing links to MMU presentation for tomorrow's RPM Stakeholder Meeting/ Avoidable Cost Workshop
11/13/06	Query from Schmitt to MMU employee & Bowring if any more specifics on costs for project to get avoidable cost data and other projects done for MMU for RPM. MMU employee responds that an RFQ went out
11/13/06	Bowring e-mail to members that avoidable cost template referenced at avoidable cost workshop has been posted
11/22/06	Bowring e-mail to members that MMU has posted a revised avoidable cost template, corresponding instructions and proxy calculations for RPM avoidable cost calculations. He notes that it includes an inflation adjustment in the cost calculations.
11/22/06	Receipt of quote for MMU RPM project
11/22/06	Bowring e-mail to Bresler noting need for total budget of \$120,000 for MMU RPM project.
11/22/06	Bresler responds should work with Habre to work this into separate MMU project created for RPM
11/22/06	MMU employee e-mail to Bowring noting spoke to Bresler & Gilrain and Bresler does not see it as a big deal for money/approval
12/01/06	Bowring e-mail to Zibelman re RPM developments. Developments include bilateral discussions with generators re calculation of avoidable costs and a meeting with supplier caucus which Ott attended on avoidable costs. Notes they repeated various key messages including: (1) avoidable costs are unit specific; (2) some avoidable costs will be higher than proxy numbers; (3) proxy numbers are not a standard to which unit specific avoidable costs will be held;(4) will update proxy numbers as more data is obtained; (5) have added an escalation factor. Bowring notes can discuss at their meeting this afternoon

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12/01/06	Bowring e-mail to Ott which states: "Just to be clear, I am waiting to hear from you/Audrey before I take the proxy numbers down."
12/04/06	Ott Memo to CMC (cc: Harris & Zibelman) re RPM Update. Notes significant number of generation owners are concerned with scope of mitigation procedures and level of detail requested by MMU in avoidable cost calculation spreadsheet. Also concern that default avoidable cost reference numbers posted by MMU are lower than expected. PJM staff is concerned that these lower reference costs may decrease investor confidence in RPM process which could lead to lack of investment.
12/13/06 6:36 am	Bowring e-mail to Flynn requesting availability to discuss some market monitoring RPM issues today. Bowring states that he had been talking with Ott and would like Flynn's input
12/13/06 10:46 am	Flynn e-mail to Bowring that he is in office and he can call anytime
12/15/06	MMU posts Default avoidable cost rate proxy spreadsheets (revised versions) and RPM avoidable costs template instructions Rev. 1 on MMU Market Messages page on Website
12/20/06	Bowring & Ott Meeting with suppliers following MIC Meeting to discuss RPM mitigation. At meeting Bowring expresses disagreement with Business Rules developed by Ott, Zibelman & Legal defining reference condition for avoidable cost calculations as a generation requirement. Bowring allegedly told Suppliers he would require generators to justify any retirement assumption. Ott claims Bowring had given him no warning that he was going to do this, thereby putting Ott in awkward position.
12/21/06	Bowring e-mail to members noting posting of two separate Default Avoidable Cost Rate Proxy Spreadsheets & Instructions to Website. Explains that use & submission of either template is at choice of participant.

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12/21/06	<p>In reference to prior email, Zibelman e-mail to Bowring (cc: Ott) inquiring “what is this?”.</p> <p>Bowring responds: “in response to members’ concern about complexity of template.” Notes per discussions with Ott, MMU created simpler version.</p> <p>Zibelman responds we can talk later</p>
12/21/06	<p>Zibelman e-mail to Filipovic asking why above referenced email was posted.</p> <p>Filipovic responds she was asked to only send notice to MC, MRC & MIC. Bowring or administrator would have been the ones that posted it to Members.</p>
12/21/06	<p>Bowring e-mail to Ott – “I thought we agreed on this also. Was I incorrect?”.</p> <p>Ott responds the problem is communication. “The first I heard that you had posted this was yesterday when you said it in stakeholder meeting. This is not acceptable”</p>
12/21/06	<p>Bowring response to Ott: “We had discussed it previously and I told you that I would do this. I understood this to be in response to your request and that the posting was what you had asked me to do. Sorry if I did not tell you on the day it was posted.”</p>
12/21/06	<p>Duane drafts retraction of posting.</p>
12/21/06	<p>Ott e-mail to Duane & Bowring noting that he spoke to Zibelman and she agrees there is no need to issue retraction. Notes that Zibelman does want PJM to issue new proxy prices based on business rules. Notes Zibelman will call Bowring on proxy prices tomorrow</p>

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12/24/06	<p>Mayes e-mail to Bowring attaching FERC RPM Settlement Order. States: “on first look, it does not appear that the Commission has substantially crimped the ability of the MMU to make mitigation-related determinations. Rather it provides the MMU some degree of cover by requiring PJM (i) to outline in more detail how MMU made determinations subject to its discretion; and (ii) to outline in more detail how such discretion will be exercised. Later goes on “I would suggest putting the issues regarding the proxies in front of the Commission in order to take some heat off of the MMU.”</p>
12/27/06	<p>Ott/Bowring e-mail string re inquiry to Ott from generator re complaint that Bowring was requiring submission of all bilateral contracts in RPM data submissions. Ott states does not think it is possible and asks why does Bowring want them.</p> <p>Bowring responds Tariff states bilateral contract revenues must be included in net revenues.</p> <p>Ott responds: “why does the MMU need to calculate it. Why don’t we estimate net revenue based on PJM markets supply the calculation and let them add in bilateral contract revenues if any.” Asks Bowring to provide Tariff cite where it says MMU must do the calculation.</p>
1/7/07	<p>Bowring e-mail to Ott “I think this may require Paul’s input but I am sending this participant question to you recognizing that you have asked me not to address questions directly to Paul”</p>
1/11/07	<p>Gilrain e-mail to Bowring discussing new MMU system for RPM data including avoidable cost and opportunity cost</p>
1/22/07	<p>Bowring e-mail to Ott asking if Ott can ask Flynn for citation verification.</p> <p>Ott forwards Bowring’s question to Flynn but states to Bowring that he can contact Flynn directly on things like this – just copy Ott to keep him informed.</p>

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2/2/07	Ott e-mail to Zibelman noting tomorrow is date MMU is scheduled to release results of preliminary market structure screen for RPM. Ott states he received draft from Bowring minutes ago and that MMU concluded entire PJM RTO failed preliminary market structure screen for RPM. Ott notes he expected this to happen. Asks to discuss the result with Zibelman before it gets posted.