

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

- - - - -x

IN THE MATTER OF: : Docket Numbers

ROLE OF RTO/ISO MARKET MONITORS : AD06-7-000

- - - - -x

Hearing Room 2C
Federal Energy Regulatory
Commission
888 First Street, NE
Washington, DC
Thursday, May 18, 2006

The above-entitled matter came on for technical,
conference pursuant to notice, at 1:25 p.m.

BEFORE: JOSEPH T. KELLIHER, CHAIRMAN

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

APPEARANCES:

COMMISSIONER NORA MEAD BROWNELL

COMMISSIONER SUEDEEN G. KELLY

1 P R O C E E D I N G S

2 (1:25 p.m.)

3 CHAIRMAN KELLIHER: Good afternoon. I'm sorry
4 we're starting late. I'm the late Chairman Kelliher. Sorry
5 for that.

6 Before we start, I want to have an addendum to
7 the open meeting from this morning. On my list of things
8 that aren't in the OATT reform proposed rule, I left one
9 out. That one thing that isn't in the OATT reform proposed
10 rule is any direction application of Section 211(a) of the
11 Federal Power Act, which is a provision in the Energy Policy
12 Act which gives the Commission authority to require greater
13 open access by either non-regulated or unregulated
14 transmitting utilities, a term of art. The Commission does
15 not propose to exercise the 211(a) authority granted it by
16 Congress last year in the OATT reform proposed rules.

17 So my addendum is complete. Why don't we get to
18 the business at hand? Susan?

19 MS. COURT: Thank you, Mr. Chairman. Just a
20 couple of introductory or preliminary remarks. This
21 particular conference was noticed in early April to allow
22 the market monitors in five RTOs and ISOs to make
23 presentations to the Commission with respect to their roles
24 and priorities in their respective markets. The Commission
25 in the past couple years had asked the monitors to give

1 their state of the market reports at open meetings. After a
2 couple of years, we decided to use this forum to focus
3 really on the market monitors' roles, their priorities, as
4 opposed to the state of the markets. All the RTOs and the
5 monitors have, however, made presentations to Staff as well
6 as to the general public on their state of the markets.

7 The other thing I'd like to mention before we get
8 started -- we're just going to go in alphabetical order, by
9 the way; not by the monitor's last names but by the name of
10 their particular organizations. We're very clever here, you
11 know. So Joe, you're last.

12 I want to mention one other thing about the
13 notice. We noticed this particular meeting at an AB docket,
14 which is the procedure that we've been following the last
15 several years for these types of conferences. We also
16 noticed the conference in an ER docket, a PJM docket, which,
17 strictly speaking, market monitor proposal. But we noted in
18 the notice that the purpose of this particular meeting is
19 not to discuss that proposal. Joe realizes that that's not
20 the purpose, but because it was a strictly speaking market
21 monitor proposal, in an abundance of caution, we noted that.
22 But there are other filings pending here at the Commission
23 that might have a market monitoring aspect to them or
24 element in them. To the extent that those particular
25 matters are in a contested on the record proceeding, ex

1 parte rules, of course, prohibit our discussing those
2 particular matters because those dockets were not noticed.

3 If by any chance we discuss that, we will put the
4 transcript of these proceedings in those records. That's
5 not a license to do that, of course, but I just wanted to
6 mention that. So the general prohibition on this type of
7 meeting -- the focus here again is on the role of the market
8 monitor, sort of a high level what they see their role as,
9 what their priorities are and what their major issues are.

10 With that, Mr. Chairman, I'll turn it back over
11 to you and your colleagues.

12 CHAIRMAN KELLIHER: I don't really have any long
13 opening statement. I look forward to this. As Susan said,
14 we've heard from the market monitors before in the state of
15 the market presentation. I think this will be helpful. I
16 believe -- is this the first time we've met with the market
17 monitors since the policy statement or did we meet with them
18 right after the policy statement?

19 MS. COURT: The policy statement from last May?
20 I think this is the first time in this forum with the
21 Commissioners. The market monitors did come in and meet
22 with Staff in December. We've also over the last few days
23 been meeting with the market monitors -- the Staff has been
24 meeting with the market monitors. But I think this is the
25 first time since the May 2000 policy statement.

1 CHAIRMAN KELLIHER: I'm looking forward to this
2 meeting. I think it will be interesting for us to kind of
3 see how you do your work, because it does vary and I think
4 it will help us to understand those variances.

5 Colleagues, any questions, or shall we get right
6 to it?

7 COMMISSIONER KELLY: I was happy to spend some
8 time with you in December. I know that you know that I
9 really care about market monitoring. I was at the
10 California ISO during the year 2000, so I saw firsthand up
11 front personal the importance of market monitoring. I
12 really appreciate your taking the time. I know that you're
13 very, very busy and it's valuable to us to hear what you
14 have to say. Thanks.

15 CHAIRMAN KELLIHER: I've met with you as well and
16 we've talked about delegation -- the "d" word sometimes.
17 We've had very interesting discussions before. We'll just
18 see where this discussion leads us.

19 With that, going in alphabetical order -- any
20 comments, Nora?

21 COMMISSIONER BROWNELL: No.

22 CHAIRMAN KELLIHER: Going in alphabetical order
23 by organization, why don't we start with Mr. Casey.

24 MR. CASEY: Thank you. Good afternoon, Chairman
25 Kelliher, Commissioners Brownell and Kelly. It's a pleasure

1 to be here.

2 My name is Keith Casey, director of the
3 department of market monitoring for the California ISO. I
4 also have with me Eric Hildebrandt, one of the managers for
5 the department of market monitoring.

6 What I'd like to do is just quickly touch on
7 three topics you asked us to address today. They were our
8 role as a market monitor in the ISO organization and our
9 relationship with FERC, our resources and our priorities,
10 particularly with respect to this summer.

11 Starting with our role as market monitors in the
12 ISO organization and with FERC, I think simply put the ISO
13 department of market monitoring's mission as we see it is to
14 provide independent high quality analysis of key market
15 issues in a fair, competent, thorough and professional
16 manner. And I'm using the term "market issues" in a very
17 broad sense. It really ranges from analysis, trying to
18 understand key events that are happening in the market,
19 whether it's price excursions, extremely low supply margins,
20 to examining individual participant behavior, always with an
21 eye toward identifying potential anti-competitive behavior
22 or potential behavior violations with respect to other
23 aspects of our tariff. That's what I mean by market issues.

24 In terms of the consumers of our analysis and
25 reports, I think they cover a wide spectrum. Certainly we

1 view our reports and analyses as providing valuable
2 information to enforcement staff here at the Commission, the
3 Commissioners themselves, as well as state policymakers and
4 regulators. Certainly our ISO governing board and ISO
5 management are consumers of our product and also ISO
6 internal departments -- I think oftentimes our operations
7 department, as well as our market and products development
8 departments benefit from our insights and analyses.

9 Finally but not least, ISO market participants.
10 We try to provide, I think, an in depth understanding and
11 kind of a longer term assessment and analysis of what's
12 going on in the market using data that they don't see. So I
13 think we provide some valuable information in that respect.

14 In terms of more specifically our primary
15 responsibilities, I think our market monitoring unit, the
16 responsibilities are largely consistent with those described
17 in the Commission's policy statement on market monitoring
18 units. Specifically a large part of what we do is to look
19 at the market with an eye towards identifying ineffective
20 market rules and tariff provisions and, to the extent we
21 find those, to analyze and assess potential remedies to
22 those issues. And it might involve changing part of our
23 tariff. It might involve just changing an operating
24 procedure in terms of how we implement a particular tariff
25 provision.

1 And, as I mentioned, certainly identifying
2 potential anti-competitive behavior by market participants
3 is a significant responsibility for us, to review and report
4 on the performance of the wholesale markets. There's a lot
5 of aspects to that. Certainly we look at the extent to
6 which prices reflect competitive outcomes and we do some
7 competitive benchmarking to try to gauge, using cost-based
8 simulations, how well the market is simulating what we
9 estimate to be a competitive outcome, also looking at the
10 competitiveness from a structural standpoint in terms of
11 market concentration and the ability of any single supplier
12 to set market prices.

13 Effectiveness of the market power mitigation
14 rules, another area that our analysis addresses, and a
15 couple of other areas: effectiveness of the market in
16 signaling needed investment in generation, transmission and
17 demand response infrastructure and, finally, identifying any
18 potential barriers that might impede the market's ability to
19 provide needed investments.

20 Those are kind of the core functions. Another
21 aspect of our responsibilities, as I believe you're aware,
22 we have a set of enforcement protocols in our tariff that
23 are essentially rules of market conduct.

24 I won't get into the details in the interest of
25 time, but it essentially sets some very specific actions

1 that we have identified through the Commission -- that the
2 stakeholder process has identified as inappropriate market
3 conduct. We are charged with administering those
4 enforcement protocols. In fact, Eric -- his unit within our
5 market monitoring group has responsibility for that.

6 Finally, interactions with the FERC Office of
7 Enforcement. We interact often with the office. I would
8 say we frequently interact with Steve Michaels and others
9 typically several times a week. Sometimes it's little
10 things like trying to get to the bottom of some five-minute
11 price excursions. Sometimes it's a more substantive
12 sustained issue that we do some on-going analysis on.
13 Overall, I think we have a very productive and collaborative
14 relationship with the Office of Enforcement. I think we
15 both realize we have a very important role to do and that we
16 can both do it better if we leverage our information and
17 insights. I've been very pleased with that relationship, as
18 I hope they are as well.

19 So moving on in terms of our specific monitoring
20 resources, the department of market monitoring is comprised
21 of 13 full-time employees: myself as director, we have two
22 managers and we have eight analysts, most of whom have
23 graduate degrees in business, economics or engineering. We
24 also have two technical assistants. IT support is very
25 important for us. We have essentially 1.5 full-time

1 employees that assist us in IT matters. As I'm sure you're
2 well aware with your market monitoring center, we deal with
3 huge volumes of data. And having the expertise to maintain
4 these large databases, as well as maintaining the tools we
5 use, the data is critical. So IT support is a very
6 important resource for us.

7 We have a market surveillance committee comprised
8 of essentially external independent experts on the markets.
9 They provide independent expert advice and recommendations
10 to our management as well as our governing board. The
11 committee is currently comprised of three members. Frank
12 Wallach is the chair of the market surveillance committee
13 from Stanford University, James Bushnell from UC Berkeley
14 and Benjamin Hobbs from Johns Hopkins University.

15 An extremely valuable resource for us. I think
16 they bring a very different perspective to important market
17 issues. They tend to have a broader perspective, looking at
18 how markets are functioning throughout the country as well
19 as throughout the world. And I think just the academia
20 perspective is refreshing, to get that different
21 perspective. If you're kind of entrenched in the issue,
22 it's nice to have someone come in kind of as an outsider to
23 provide that perspective.

24 Another important resource I want to mention is
25 access to an interaction with other departments at the ISO.

1 That's extremely valuable to us. We interact quite
2 frequently with our operations department as well as our
3 market and product development department on various on-
4 going market issues, as well as future enhancements to
5 market design. Data is all well and good, but having the
6 ability to conveniently and quickly access the people that
7 are running the markets is a very important resource for us.

8 With respect to our monitoring priorities, I'll
9 just quickly touch on a few of them. As you saw in the
10 presentation from the Office of Enforcement this morning, we
11 have been seeing this spring quite a few price spikes in our
12 real-time market. It's been particularly noticeable because
13 there was definitely a correlation with raising the bid cap
14 then seeing spikes that we had previously been seeing at or
15 below \$250 go up to at or near \$400. As the Staff shared
16 with you this morning, these spikes were predominantly
17 during our critical ramping hours, early morning and evening
18 hours. They're not persistent in that they occur day-in and
19 day-out, but they do occur with some frequency.

20 I would point that one of the things exacerbating
21 the available supply in our five-minute market is we've been
22 blessed with, as you saw, a tremendous amount of hydro this
23 year. That's created essentially a lack of participation in
24 the five-minute market by some of the hydro resources
25 because they tend to be running at full output. That's

1 definitely been a factor. So that's something we're closely
2 monitoring.

3 It's also had an impact in participation in our
4 ancillary services markets, again for the same reasons. If
5 units are operating at their PMAX they're not able to
6 provide things like regulation down as easily as they could
7 in a less significant hydro year.

8 With respect to summer market conditions a couple
9 of areas we'll be closely monitoring are the competitiveness
10 of the ancillary services market, particularly if we go to a
11 split procurement where we're procuring ancillary services
12 in the south separately from that in the north. That's
13 something we want to keep an eye on from a competitive
14 standpoint.

15 Also a recent issue that arose at the ISO
16 concerns some of the operational procedures that will be
17 used to make sure we have sufficient -- on a day-to-day
18 basis sufficient unloaded capacity in the south to deal with
19 potential contingencies such as the loss of a major
20 transmission line. The ISO recently publicly posted an
21 overview of some of the operational procedures they'll be
22 taking with respect to identifying what the unloaded
23 capacity needs are in the south and the procedures we'll use
24 to make sure they have that capacity. I think that will be
25 a very interesting issue for market participants, and we

1 will be weighing in on that one as well.

2 Resource adequacy as you heard this morning, this
3 will be the first year for implementation of the CPUC
4 resource adequacy program and, more generally, the
5 reliability requirement programs for all load-serving
6 entities in the ISO control area. We'll certainly have a
7 role in reviewing the effectiveness of that program and
8 compliance with some of the requirements under that program
9 pursuant to our tariff. We'll also be following future
10 enhancements to reliability requirements such as local
11 requirements and potentially performance incentives for
12 capacity that's awarded resource adequacy contract.

13 Finally, MRTU readiness is a very important issue
14 for us as a monitoring group. It's a very different market
15 than our current zonal market. We've been heavily involved
16 over the past year in terms of identifying our data
17 requirements, monitoring indices, software requirements and
18 assuring our staff are trained on MRTU market design,
19 particularly an LMP market design.

20 While I have the chance, I'd like to thank Hung-
21 Po and Joe Bowring for graciously entertaining us a few
22 months back. We visited both these market monitoring units
23 to get their perspective on monitoring and LMP markets and
24 got some variable insights and tips that I think will help
25 us get a jump start with our monitoring program under MRTU.

1 I know I talked more than 10 minutes; I
2 apologize. So I'll stop there and open it up for questions.

3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

1 CHAIRMAN KELLIHER: I usually like doing
2 questions at the end of all presentations, because sometimes
3 we'll have common questions. Can we do that? Why don't we
4 hear from everyone, then we can have a long discussion at
5 the end?

6 COMMISSIONER BROWNELL: Not a long discussion,
7 no.

8 (Laughter.)

9 CHAIRMAN KELLIHER: Mr. Chao?

10 MR. CHAO: Thank you. Good afternoon, Chairman
11 Kelliher, Commissioners Brownell and Kelly. It's my
12 privilege --

13 CHAIRMAN KELLIHER: Dr. Chao, I apologize.

14 MR. CHAO: Thank you. It's my privilege to be
15 here along with my colleagues, Ray Hepper, who is Vice
16 President and Assistant General Counsel.

17 I joined ISO New England seven months ago. I
18 have a long resume, and if you're interested, I can send it
19 to you. I will not spend the time going through that here.

20 What I found here -- what I plan to do here is to
21 go over some general opinions on the role of market
22 monitoring, and then I will dive into the specific role and
23 resources and the priorities in the New England area.

24 I must say that I will share many of the elements
25 that Keith has already touched on. I will emphasize, from a

1 different perspective, probably from New England and also
2 from my personal viewpoint.

3 The role of the market monitor is critical for a
4 number of reasons.

5 (Slide.)

6 MR. CHAO: At a conceptual level, the electricity
7 market not only has to follow the law of economics, supply
8 and demand, which determines the price of electricity, but
9 also physical laws which determine how electricity will flow
10 through a network.

11 Therefore, in order to determine competitive
12 prices and balance the power flows in real-time, the market
13 monitor will have to be able to make a speedy response to
14 ensure effective rules for competitive markets.

15 In particular, this implies that the market
16 monitor must have access to the information and tools
17 necessary to identify and mitigate the potential
18 anticompetitive behavior by market participants, in a timely
19 and accurate manner.

20 In general, the role of the market monitor is to
21 provide informational and analytical support for FERC, state
22 regulators, and the New England stakeholders, to ensure the
23 success of wholesale electricity markets.

24 The attributes of successful electricity markets
25 include: Producing competitive prices, supporting reliable

1 system operations in the short run, and, in the long term,
2 you need to attract sufficient infrastructure investment.

3 To perform this role, involves several critical
4 responsibilities, as Keith has already touched on:
5 Providing an understanding of how well the markets are
6 performing and why, specifically, the market monitors must
7 determine the extent to which market prices reflect
8 competitive outcomes and not abuses of market power, and
9 conduct periodic reviews and ad hoc reports on the
10 performance of the markets in specific products, and also to
11 assess the impact of some internal ISO implementation of
12 changes on the market performance.

13 For each of these functions and activities, the
14 market monitor focuses on how efficiently the markets are
15 responding to customers' needs for reliable electricity at
16 the lowest long-run cost.

17 (Slide.)

18 MR. CHAO: The organization of the market monitor
19 in New England conveys a critical element to ensure that
20 market access is to allow the internal market monitor a
21 considerable degree of organization or independence within
22 the ISO reporting structure.

23 Such a reporting structure, for example, the
24 Director of Market Monitoring, reports directly to the CEO
25 and has direct access to the Board of Directors.

1 Also, this office will have direct access to an
2 internal, independent market monitor, which also directly
3 reports to the Board.

4 This office also needs to interact regularly with
5 FERC. Our interaction is most closely connected with the
6 Office of Enforcement.

7 The structure of the internal market monitor
8 includes three functional areas: Market assessment, market
9 compliance, and emerging markets, which I will describe more
10 later.

11 (Slide.)

12 MR. CHAO: The functions of the market monitor in
13 ISO to fulfill the critical responsibilities, the market
14 monitor performs four major functions: Monitoring,
15 analysis, solutions, and communications.

16 These functions are performed in a continuous
17 process flow, which also involves a significant interaction
18 and feedback involving FERC, the New England stakeholders,
19 and regulators, and the wholesale markets themselves.

20 Such interactions ensure that when market flaws
21 are detected, the market monitor is an active participant in
22 developing appropriate solutions with other parties
23 involved.

24 (Slide.)

25 MR. CHAO: In performing the major functions,

1 just described earlier, it requires that the market monitor
2 undertake several specific tasks, which are required
3 explicitly in the policy statement, also in the market
4 participant agreement with ISO New England's participants.

5 These tasks are best categorized in terms of the
6 recipients of the interaction. With FERC, we have bilateral
7 support.

8 ISO New England provides original and timely
9 answers to specific questions from FERC. We provide
10 referrals to potentially sanctionable market behavior, and
11 communicate regularly and provide the recommendations on
12 market policy issues.

13 With the New England stakeholders and state
14 regulators, we have various levels of interactions to
15 communicate and provide the recommendations on regional
16 market development issues.

17 With the wholesale electricity markets, our
18 functions are aligned in terms of our interaction. In the
19 market compliance area, we monitor closely, market behavior,
20 for compliance with market rules and tariffs.

21 We undertake day-to-day, real-time monitoring
22 activities to ensure competitiveness.

23 In the market assessment area, we focus more on
24 the longer timeframe, to analyze and report market
25 performance and to identify opportunities for improvement in

1 market rules.

2 Emerging markets is a recently-created programs.
3 This is in light of the need for continuous improvements and
4 introduction and integration of new market elements into the
5 established market design.

6 So, we monitor the market design and develop a
7 process to minimize risks during integration of new rules.

8 (Slide.)

9 MR. CHAO: In the area -- our resources here, as
10 I have already described earlier, our direct access to the
11 Board of Directors, is a significant part of our resources
12 to ensure the independent position of the market monitor
13 within the ISO and RTO.

14 It reinforces the senior management team's
15 support, so we have access to other parts of the
16 organization for the necessary information and for many of
17 the routine supports.

18 Our consultation with the independent market
19 monitor is another area that is extremely valuable. Our
20 direct communication with the FERC's Office of Enforcement,
21 adds another significant component.

22 Currently, we have 12 staff members, including
23 the IT support. Our staff has backgrounds in economics,
24 engineering, business, and operations analysis.

25 The dedicated IT support provides both the

1 production software for our on-call duty procedure, and also
2 supports our market analysis and market simulations. When
3 we introduced ancillary services markets, our current
4 priority is that immediately to our monitoring plan to the
5 summer, is to focus on the price changes in two specific
6 load pockets: The Boston NEMA area, and Southwest
7 Connecticut.

8 This summer, we expected that with the addition
9 of transmission projects, Phase I's completion, to relieve
10 the Boston NEMA area, the situation in Boston NEMA is likely
11 to be alleviated, but in Southwest Connecticut, we continue
12 to monitor closely.

13 Earlier this morning, Commissioner Kelly asked
14 the question about the Southwest Connecticut's 300 megawatts
15 of demand-side program. We checked back at the office. The
16 answer is that that program was fully activated once last
17 year, in the summer, on July 27, when that was the peak day.
18 That's the peak record in New England.

19 Another area: In the Fall, as our priority is
20 that the integration of ancillary services market Phase II,
21 ancillary services, Phase II, includes the location of
22 forward reserves and real-time reserves into the existing
23 market design.

24 In this area, this program just got FERC's
25 approval. It's moving on according to schedule, to be

1 starting in early October, and, internally, the market
2 monitor has also performed independent assessments to ensure
3 the implementation is going to conform to the design
4 objectives.

5 So far, it has received the Board's approval.
6 Another, as our focus in the Winter, this is a cold winter
7 operation, this is a unique challenge in New England.

8 In the Winter, New England's system highly
9 depends on natural gas, and during the Winter, as we have
10 experienced in the past few years, a computing use of
11 natural gas between electricity and heating natural gas,
12 presented a challenge.

13 A dual-fuel unit provides the flexibility. The
14 question here is, how the market rules will provide the
15 incentives to attract efficient combination of units.

16 So far, we have seen significant investment in
17 dual-fuel units, based on financial incentives. And in this
18 coming Winter, we're gearing up our monitoring plan to draw
19 upon the experiences to deal with the issues that may come
20 up.

21 Then forward capacity markets: The forward
22 capacity market settlement agreement outlines market
23 monitoring's responsibility, explicitly, which ISO is
24 reviewing as it begins the implementation plan that is
25 underway.

1 Lastly, but not leastly, is that we strengthened
2 our communication links with our stakeholders with the
3 market participants and state regulators. That's part of
4 our priorities in our market monitoring plan for the future.
5 Thank you.

6 CHAIRMAN KELLIHER: Thank you, Dr. Chao. Before
7 I recognize Dr. Patton, I want to correctly identify Dr.
8 Casey. I referred to you as Mr. Casey. I'm seeing a
9 pattern develop.

10 (Laughter.)

11 CHAIRMAN KELLIHER: Why don't I now recognize Dr.
12 Patton? Thank you.

13 MR. PATTON: Unfortunately, if anyone asks if
14 there's a doctor in the house, they're going be in real
15 trouble.

16 (Laughter.)

17 MR. PATTON: I appreciate the opportunity to be
18 able to speak with you all today, Mr. Chairman and
19 Commissioners, on market monitoring and the roles and
20 responsibilities.

21 (Slide.)

22 MR. PATTON: You probably sensed that a lot of
23 what you heard, is very similar from market to market. What
24 I'm going to try to do, although sometimes we use different
25 words to say basically the same things, or it may create the

1 appearance of some more divergence than there might be, what
2 I'm actually going to try to do, is to try to highlight
3 things that are different, to facilitate the discussion, and
4 try to go very quickly over things that are the same.

5 (Slide.)

6 MR. PATTON: I think, in terms of the role of
7 market monitoring, I think it's fair to say that there are
8 basically three areas that we're focused on. One is flaws
9 in the market rules that create inefficient incentives or
10 gaming opportunities.

11 That is very important, particularly given the
12 newness of the MISO market; that there are many different
13 rules related to -- well, you can almost not conceive of how
14 many different rules can exist, that can significantly
15 affect people's behaviors.

16 They can create risks that affect people's
17 behavior in ways that might initially look like manipulation
18 or market power abuse, but when you dig in deeper, you can
19 identify that there may be a flaw in the rules. So we try
20 to identify those as quickly as possible, and notify both
21 FERC and the MISO and the market participants of those.

22 Secondly, and an important piece of our function
23 that might be somewhat different, is -- I think this is done
24 by everybody at some level, but it's a very important part
25 of our function -- is identifying efficiency improvements in

1 the market operation, particularly in the procedures of the
2 operator of the market.

3 I'm going to talk about that a little bit more in
4 a moment.

5 Thirdly, it's to identify market power and abuses
6 of market power, which I differentiate from the rule piece
7 of the scope, because market power is much more fundamental.

8 Market power exists, at least the way we would
9 define it, when there's limited or no competition to resolve
10 a particular need of the market, whether that is to keep the
11 flow on a line below the limit; whether it's to support the
12 voltage at a certain location, so you have to bring on a
13 particular generator and you have no choice but to deal with
14 one supplier.

15 Those are the sort of fundamental -- it's more
16 fundamental, and can't easily be addressed through changes
17 in the market rules, other than potentially market power
18 mitigation rules.

19 With regard to the MISO -- MISO refers to its
20 market monitoring function as an independent market monitor.
21 The reason our name is independent market monitor, is that
22 we are entirely independent of the MISO, corporately.

23 We are external to the MISO, and there are a
24 variety of protections built into the relationship between
25 ourselves and the MISO, to ensure the independence, in fact,

1 conditions that FERC put on the relationship between us, to
2 ensure that independence.

3 This is probably the number one market monitoring
4 issue in the development of a plan. I spent more time
5 talking to participants about this issue than anything else.

6 In the states, it was clearly their number one
7 issue. They filed more paper on how to ensure that the
8 market monitoring function is independent, than anything
9 else, and the participants, as well.

10 Largely, I think that's because there's a
11 recognition that no entity affects the outcome of the market
12 more than the operator of the market, and under the MISO
13 plan, the Midwest ISO is a monitored entity, and a big
14 portion of our charge is to review the actions that they're
15 taking, that are not visible to anybody, that could
16 undermine the efficiency of the market, distort the prices.

17 Now, part of the reason that's important, is
18 because they are charged with maintaining the reliability of
19 the system, and when the market doesn't perceive a
20 reliability requirement, in other words, the natural running
21 of the market doesn't satisfy the reliability requirement,
22 invariably, you're going to rely on manual actions by the
23 operators, and those manual actions will always affect the
24 outcomes of the market, how they do those things and whether
25 those actions are justified in all circumstances and whether

1 their procedures minimize the impacts on the market, are all
2 very important topics and things that we focus a lot of our
3 resources on.

4 Another difference in MISO is that there are a
5 lot of provisions in the setup of the MISO that create a
6 concern that the Commission has asked us to watch, so there
7 are carve-outs of congestion charges for certain
8 participants. There are many, many control areas that were
9 not consolidated, which, in every other market, operates a
10 single control area. There were concerns about that.

11 In each of those areas, the Commission explicitly
12 defined as part of our role, to monitor how those
13 arrangements might affect behavior and whether they're
14 undermining the performance of the market.

15 In terms of the resources, I think they are
16 basically the same as the other market monitoring
17 organizations. The function really requires an
18 interdisciplinary team of individuals, so we have electrical
19 engineers, both with expertise on transmission, as well as
20 generation; economists; folks that are specialists in
21 software development; and, altogether, we have 14
22 professionals that perform the market monitoring function,
23 not including any administrative support.

24 Part the reason we have market developers, is
25 that it requires an extensive software system to do it well,

1 including data interfaces that transfer data continuously.
2 We have staff onsite at MISO, but also at our headquarters.

3 We're receiving data on a 3-second basis at our
4 headquarters. For example, when a five-minute -- the real-
5 time market runs on a five-minute basis.

6 We get the results within seconds of its being
7 posted, so that's the market monitoring that can be a truly
8 real-time function.

9 (Slide.)

10 MR. PATTON: As far as the activities that we
11 perform, they really fall into three categories: There's
12 real-time screening and analysis, which I'll call real-time
13 market monitoring; there's investigations of anomalies or
14 market outcomes or conduct in the market that we perform;
15 then there's periodic analysis and reporting.

16 Following your example, which I thought was very
17 useful this morning, on E-1, I'll tell you what we don't do:
18 I'm not aware of any enforcement authority that we have, or
19 other powers that have been delegated to us by the FERC.

20 There were sanctions in the mitigation measures,
21 but in approving those, you structured it in a manner where
22 we make recommendations, then you impose. I think that is a
23 very useful structure.

24 Having market monitors engage in enforcement, I
25 thought, is not optimal. I think it's good to have that

1 clarified.

2 Secondly, we don't engage in actions that are
3 intended to compel participants to change their behavior.

4 Third, we don't have the authority to do any sort
5 of changing of the market rules or procedures that would
6 affect the outcomes of the markets. We don't have authority
7 to do that. I was going to say "without approval from
8 FERC," but I'm not even sure there's a process for us to
9 appeal to FERC to change something, without the ISO making a
10 filing.

11 Then, lastly, we don't have any other
12 discretionary authority to affect either outcomes of the
13 market, with the exception of periodic adjustments to
14 reference levels that are used in the bright-line test for
15 the mitigation measures.

16 That discretion is employed very infrequently. I
17 think there's actually -- you should warn me if we shouldn't
18 talk about that, because it is actually something that, a
19 while back, you asked for comments on in a docket on
20 reference prices, that I'm not sure if that's one of our ex
21 parte --

22 MS. COURT: That wasn't a docket of an on-the-
23 record proceeding. I think that was a rulemaking.

24 MR. PATTON: It was a kind of docket that I don't
25 remember.

1 CHAIRMAN KELLIHER: Are you talking about
2 reference prices?

3 MR. PATTON: Yes, the reference prices.

4 MS. COURT: That was done in a generic
5 proceeding.

6 MR. PATTON: Okay. As far as real-time market
7 monitoring goes, we rely primarily on our automated software
8 to continuously screen the data for many things, but things
9 that include attempts to exercise market power by
10 withholding resources, running generation uneconomically, to
11 cause overloads of transmission constraints, which is, I
12 think, a particular issue in the Midwest, because there are
13 a variety of constraints where the location of a very small
14 number of generators has a big effect on the constraint, in
15 ways that other generation has a difficult time unloading
16 the constraint.

17 So, that's an issue we've seen in the Midwest,
18 that, frankly, I haven't seen in other markets.

19 Other inefficient conduct and then the operator
20 actions: We also get real-time information on actions the
21 operators are taking, so that we can attempt to understand
22 what they're doing and why they did it at the time that
23 they're doing it.

24 Part of the real-time market monitoring function
25 and system, involves the software sending automated alerts

1 to beepers and e-mails of my staff, so that the function can
2 be thought of as being effective on a 24/7 basis.

3 Real-time market monitoring: I don't know if
4 you'd call this market monitoring, but our function also
5 includes the implementation of the prospective mitigation
6 for economic withholding. That's a real-time function.

7 (Slide.)

8 MR. PATTON: In terms of investigations and
9 complaints, this is where we look into certain things that
10 aren't subject to bright-line mitigation. We attempt to
11 understand the issues that we see.

12 Most often, the investigations are triggered by
13 real-time market screening, but it can also be triggered by
14 requests from states, FERC, market participants, the MISO
15 staff, or the Board of Directors.

16 There's some conduct that you can only address,
17 really, through investigation. For example, fiscal
18 withholding, if a key generator in a load pocket is
19 unavailable, derated, or forced out of service, there's no
20 way of knowing, and it creates a large price effect, there's
21 no way of knowing if that's a legitimate outage that's
22 technically necessary, without doing some level of
23 investigation.

24 In that regard, part of our process is to collect
25 information on things like that, to be able to come to

1 conclusions, and, when appropriate, make referrals to FERC.

2 One thing I would say about the investigation
3 process and the real-time market monitoring, is, we interact
4 extensively with the Office of Enforcement, not just when we
5 make referrals, but multiple times a week.

6 There are informal communications anytime
7 something anomalous or otherwise interesting occurs on the
8 system. We're talking about why it occurred and why it
9 happened.

10 There are also regular weekly meetings, and also
11 a regular monthly meeting with a broader set of FERC Staff,
12 where we discuss the performance of the markets and any
13 issues that are emerging.

14 That process is very useful and valuable, I
15 think, to both of us; at least I hope it's valuable to both
16 of us. It's valuable to me, for sure.

17 Lastly, as part of the investigation process,
18 there are referrals that we make to FERC under two separate
19 provisions. One is the sanction provisions in the MISO
20 tariff that prohibit or that address market power abuse,
21 and, secondly, the enforcement provisions under the Energy
22 Policy Act, which you've now codified and are covered by the
23 market monitoring policy.

24 As far as periodic reporting on market
25 performance, the biggest single product is our State of the

1 Market Report. It's the most in-depth evaluation of how the
2 market's operating, and includes most of the longer-term
3 recommendations for things that need to be addressed.

4 MISO is a new market. We're probably going to
5 have ten to 20 recommendations on various aspects of the
6 market rules, how the software operates and other issues
7 that are a direct result of things that we saw happen in
8 2005.

9 For example, in the area of market-to-market
10 coordination with PJM and MISO, a non-trivial portion of our
11 State of the Market Report focuses on how well that's worked
12 and how it can be improved to capture the full benefits of
13 that coordination.

14 Then also, in terms of the regular reporting, I
15 talked about the regular meetings we have with FERC Staff.
16 We also meet quarterly with the states to talk about things
17 that we're seeing and to answer their questions about things
18 that they are concerned about.

19 The last one of those has provoked a number of
20 requests by states for information about things that are
21 affecting the market, which we have provisions in our tariff
22 to provide information to the states.

23 Also, we provide a monthly report to the Midwest
24 ISO Board, and make presentations to the market participant
25 committees on both what we've seen in the past, but also on

1 design changes or rule changes that are either provoked by
2 our recommendations, or things they're just generally doing,
3 for instance, the development of ancillary service markets
4 we would be involved in evaluating the proposals on how
5 those markets would be structured.

6 Lastly, as far as the Summer goes, I think our
7 priorities are largely the general areas that I talk about,
8 but, in terms of specifics, there are two or three specific
9 areas: One is the reserve margin in the East, where it is
10 as low as anywhere in the country, the east part of the
11 Midwest ISO system.

12 That's not necessarily a large concern, because
13 there are so many interconnections in that area of the
14 Midwest ISO and every other region, nevertheless, under very
15 hot conditions, we're going to make sure that we identify
16 market concerns.

17 The Ontario issue, I think, is fairly important.
18 We export power routinely to Ontario, particularly in the
19 Summer. To the extent the demand export increases all the
20 flows into Michigan and can isolate Michigan as a load
21 pocket area, in the past year, it wasn't very frequently
22 binding, but the Michigan can become a load pocket and there
23 are potential market issues there.

24 Lastly, the coal issue: To the extent that there
25 are any disruptions in the delivery of coal coming from the

1 MAPP area, that can raise significant concerns. We've
2 actually talked to a few participants who are worried about
3 their coal piles, and largely they talk to us, because they
4 are taking steps to reduce their output to try to manage
5 their coal piles so that they have maximum availability in
6 the summertime.

7 But we certainly don't have a complete set of
8 data on the coal piles, by the units. Lastly, just as a
9 general issue in the Midwest -- and I've said this a minute
10 ago -- there are a variety of situations that arise on the
11 MISO system where there's only one supplier that can resolve
12 the reliability concern or the transmission constraint, and
13 those are issues that we seek to identify, even ahead of
14 time, so we can be screening for the conduct by those
15 participants.

16 And they really occur all over the system. Some
17 of them occur due to very specific issues.

18 In the eastern part of the system, there's about
19 a month last year when the outage of a big steam unit caused
20 us to have to commit gas turbines every day. The gas
21 turbines were owned by a single entity.

22
23
24
25

1 It's an issue where you essentially have a
2 monopolist for a period of time. That sort of market power
3 is what we worry the most about, because it's relatively
4 severe. It's not a matter of three or four entities where
5 you have imperfect competition. It's an issue where you
6 basically have no competition. So we seek to identify those
7 and that's high on our priority list.

8 CHAIRMAN KELLIHER: Thank you, David.

9 I mangled your name once, sir. Can you do it for
10 me this time?

11 MR. BOECHLER: I'll try, Mr. Chairman. My name
12 is John Boechler. I will break the pattern of doctor; I am
13 not a doctor. I'm an engineer, too, by the way. But
14 hopefully David and Joe won't mind me sitting between them
15 here. You do have a few slides there in front of you, I
16 believe. I'll use those as an outline just to discuss the
17 role and responsibilities of the market monitoring function
18 at the New York ISO.

19 (Slide.)

20 The first is an organization chart which probably
21 nobody can read on the board over there. I just wanted to
22 use it to point out that following substantial corporate
23 reorganization last fall of the New York ISO, the market
24 monitoring -- or the internal market monitoring function was
25 brought under the market structures organization. That

1 probably was the one organization within the structure that
2 was changed the most. Notably I'll just point out here
3 because I'll come back with it later it's grouping the
4 market monitoring organization together with the
5 responsibility for market design and enhancement changes,
6 which is under the product management function. That may
7 not be obvious, but that's where it is. But also with the
8 strategic planning organization as well as the enterprise
9 risk and compliance. Those are all areas that interact
10 significantly and substantially with the market monitoring
11 function as well. That's one of the reasons that that part
12 of the reorganization took place.

13 Shortly after that time, I assume the role as
14 acting vice president of market structures. I'm here today
15 to speak about market monitoring, since we do not have a
16 manager of market monitoring in place right now, although we
17 hope to shortly. I'd like to recognize Lisa Trevali, who is
18 with me, who is our supervisor of market monitoring and
19 mitigation.

20 Also the market monitoring function has another
21 critical element in New York which is somewhat different
22 than all of the others of us here. There's an independent
23 market advisor who is selected by and reports directly to
24 the board of directors who also advises the CEO, senior
25 staff, and the internal market monitoring unit. I will talk

1 more about that in a moment. Those are the two major
2 elements of the market monitoring function in New York.

3 (Slide.)

4 As far as the internal organization goes, the
5 internal market monitoring organization is named market
6 monitoring analysis and performance to reflect the major
7 functional responsibilities that it has. As you are
8 certainly well aware, the very purpose of forming ISOs and
9 RTOs in the first place was to assure the reliable operation
10 of the electric system within our footprint and to ensure
11 the reliable efficient and fair wholesale market operation
12 with competitive outcomes. Certainly the role of the market
13 monitoring function, as has been mentioned before, is
14 critical in achieving those outputs and also and perhaps as
15 importantly, if not more importantly, to ensure against the
16 exercise of market power.

17 How do we do this in New York? Simply through
18 the administration of our FERC-approved tariff and market
19 monitoring plan. Within those documents are a series of
20 well-defined -- David used the terminology bright line
21 threshold and screening devices which we administer. That
22 gives us the principal direction.

23 Outside of those bright line authorities, our
24 tariff specifically provides for making a filing with the
25 Commission to propose new market rules, to propose

1 modifications to our mitigation measures possibly and, to
2 some degree, FERC approval. That would be our authority
3 responsibility also to do so. As David mentioned, we may
4 also refer issues to the Commission in accordance with the
5 market monitoring policy statement that was referred to
6 earlier.

7 So what are these major responsibilities? Yes,
8 they are similar to those mentioned by my colleagues here.
9 First of all, market monitoring. In our day to day market
10 monitoring activity, which Lisa is primarily responsible
11 for, we monitor market participant behavior and we monitor
12 market outcomes in the various markets that we administer.
13 We also have the responsibility and authorization to conduct
14 mitigation again under certain bright line tests. As I'll
15 cover in a moment, that's performed on both an automated
16 basis, also through manual procedures. We have a unit that
17 is responsible for investigations, doing things such as
18 David had referred to: monitoring performance of units in
19 compliance with specific tariff requirements in areas such
20 as ICAP, for one, which imposes specific bidding
21 requirements, verifying unit outage rates and unit
22 performance characteristics. We also, within the framework
23 of our tariff, have the ability to recommend sanctions for
24 violations of some of those conditions.

25 We also have an analysis function. That involves

1 both historic analysis and we also have an ability to
2 perform market simulations to aid in that analysis as well.
3 As part of the analysis function, we will look at our market
4 performance, look at our market rules and recommend
5 improvements to those. The market monitoring unit and
6 function is intimately involved in all proposed enhancements
7 to market rule changes within the ISO structure and
8 governance process.

9 Finally, what I call performance. We have a
10 daily market review function within the market monitoring
11 organization, I guess very similar to the daily function
12 that Steve's group has here, although we look at a much more
13 granular level at issues of specific participant behavior
14 within our markets. We also publish a monthly market
15 performance report which goes to our board, which goes to
16 our market participant committees and which is posted on our
17 website and which is available to Staff certainly as well.

18 Importantly also, as others have mentioned, is
19 our interface with FERC Staff and the Office of Enforcement.
20 We have important input on questions that Staff may have or
21 which we may want to bring to their attention. We have had
22 for quite some time a monthly conference call meeting which
23 deals generally with issues of broader concern and an on-
24 going kind of agenda that we hold there. Then we have the
25 semi-annual meetings such as we've been having over the past

1 couple of days with the Office of Enforcement. I certainly
2 agree wholeheartedly with David that those have been very
3 useful. We view those as a very important two-way street to
4 benefit as well as hopefully we, ourselves.

5 Moving on to the role and responsibilities of the
6 independent market advisor.

7 (Slide.)

8 Dr. Patton serves that role for the New York ISO.
9 In that role he advises the ISO board, CEO and senior
10 management, as I mentioned previously, on market design and
11 performance issues, certain issues of market participant
12 behavior, and also recommends market design improvements.
13 Dr. Patton and his organization also advises and assists the
14 internal market monitoring unit in similar areas and, more
15 specifically, in the implementation of specific mitigation
16 methods and protocols that we administer.

17 Finally, in New York it is the independent market
18 advisor that performs the annual state of the market
19 assessment for the New York ISO and that is presented, in
20 turn, to our board, to the Commission and to NISO
21 stakeholder committees. And again that's a public document
22 at this point as well.

23 (Slide.)

24 A question of the resources we use to carry out
25 these functions. The internal marketing unit has a staff of

1 23 personnel, including managerial and administrative. That
2 staff includes three Ph.D. economists. We similarly have
3 engineers with an operations background, as well as
4 analysts. By function we have six personnel dedicated to
5 the monitoring and mitigation, the daily monitoring and
6 mitigation function. We have four whose primarily
7 responsibilities are the investigations and we have six in
8 the analysis and performance group. Certainly our
9 resources, as mentioned before, include our independent
10 market advisor, Potomac Economics.

11 We have daily and continued communications with
12 most of the other ISO departments, notably operations and
13 market structures, as I mentioned at the outset. Certainly
14 legal and regulatory as well. We also have outside counsel
15 that are expert in the areas we are talking about here as
16 well, and those sections of our tariff that deal with the
17 market monitoring plan and mitigation authorities.

18 We have automated tools that I'll call -- some of
19 which are production grade software, such as the automated
20 mitigation process that is in fact a part of our day-ahead
21 and real-time market operations software. We also have many
22 off-line tools that have been developed in order to derive
23 data from our production line systems and form that data in
24 a fashion that's useful and needed for the market monitoring
25 function, again, similar to what Steve's group has had to

1 develop here as well.

2 We also have simulation tools. We have a model
3 called PROBE which was developed for us to enable us to do
4 scenario analysis and analyze. It's a shadow system, if you
5 will; it runs much faster than our day-ahead market software
6 itself. We also have the ability off-line in a dedicated
7 system to run our actual day-ahead market models for the
8 purposes of analysis and market monitoring analysis. We
9 also have quite a volume and series of manual policies and
10 procedures associated specifically with the market
11 monitoring responsibilities.

12 Our other resources are certainly consultation
13 with regulatory Staff and consultation with market
14 participants which in fact is called for under certain
15 provisions of our market monitoring plan. Often you will
16 see something that looks like an unusual or just a change in
17 market participant behavior. That is usually explainable by
18 communicating rather than just jumping to conclusions. We
19 found that the consultation process is very useful in
20 carrying out our responsibilities.

21 Current priorities.

22 (Slide.)

23 Certainly our most important current priority is
24 our daily market monitoring activities and responsibilities.
25 I should point out and I believe the Chairman had some

1 discussion with Mark Lynch last week about this. We had a
2 corporate-wide excellence in execution initiative that has
3 just begun and has received the support of our board of
4 directors as well as Mark and the senior officers.

5 How does this relate in particular to the market
6 monitoring function? I'd itemize three specific areas here.
7 We'll be automating more of the currently manual processes
8 that we have that will hopefully have the effect of
9 increasing our efficiency and performance. We will also be
10 moving many of the offline systems that I referred to into
11 our IT production-grade testing and quality assurance
12 environment, which again hopefully will improve the quality
13 of those tools and improve the performance of those tools,
14 frankly.

15 Then finally this overall excellence in execution
16 initiative is having on a corporate-wide basis but certainly
17 no more important an area than in market monitoring an
18 increased focus on overall controls and compliance and more
19 automation certainly should assist in that as well.

20 Another goal we have is to improve our analysis
21 capabilities. One of the areas is a rather significant
22 software program -- I'm sorry, IT enhancement of our data
23 storage and accessibility and archiving of historical data
24 which the market monitoring unit in particular is highly
25 dependent upon to do our own analysis to respond to

1 questions from the Commission and others. So we're involved
2 deeply in that project.

3 We also, by improving efficiencies, plan to and
4 intend to increase our analytical capabilities and our
5 ability to perform longer-range analysis and to support the
6 newly-created strategic planning function, which again is
7 part of market structures. Indeed, to populate that
8 function, we stole a few people out of the analysis group of
9 market monitoring because we believe those are the kind of
10 skills that are needed in order to look at future evolution
11 of the markets. You certainly need to have a pretty good
12 idea of how they operate right now and what the issues might
13 be.

14 Finally, a sort of strange issue you might think
15 here, but we've had some discussion with Staff over the
16 months on this, environmental issues. Both existing and new
17 environmental initiatives. In the northeast, as you're
18 aware, as in many other places, we have in New York state a
19 renewal portfolio standard requirement which has on our
20 doorstep a rather significant number of wind power
21 applications, as I'm sure you're aware, which will have an
22 impact on the operation of our system and which have certain
23 implications for the market as well.

24 Also we have begun an initiative to communicate
25 with our local environmental regulators. There's the

1 northeast Reggy program on greenhouse gases just to educate
2 them -- or it's our intention to educate them as to the
3 impacts of environmental restrictions and regulations on the
4 operation of our markets and the ability to have the
5 resources available without disrupting competitive market
6 outcomes without resorting to must-run type configurations
7 and things like that.

8 So that's pretty much where we are. Thank you
9 for the opportunity.

10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

1 CHAIRMAN KELLIHER: Thank you, Mr. Buechler.

2 Joe?

3 (Laughter.)

4 CHAIRMAN KELLIHER: That works for me.

5 MR. BOWING: Mr. Chairman, Commissioners, thank
6 you for the opportunity to be here. I'm undoubtedly going
7 to repeat much of what my colleagues said, having the
8 opportunity to go last, standing between you and the fun
9 part of the afternoon, which is hopefully the Question &
10 Answer period. I'm not sure what comes after that.

11 COMMISSIONER BROWNELL: My birthday party.

12 (Laughter.)

13 MR. BOWING: I'm actually standing between you
14 and the real fun. Happy birthday, Commissioner.

15 COMMISSIONER BROWNELL: Hold that thought.

16 MR. BOWING: What I'm going to try to do is
17 address fairly quickly the three topics that were raised by
18 the Commission in their notice.

19 First, what is our role as market monitor? Our
20 role as market monitor, as I primarily stated in the policy
21 statement, is to assist the Commission in enhancing the
22 competitiveness of RTO markets. I would extend that to say
23 assisting the RTO, assisting the state PUCs and assisting
24 the members as well. Clearly, they have somewhat different
25 roles and your role is predominant. But, nonetheless, all

1 those additional three categories of participants have a key
2 interest in enhancing the competitiveness of the RTO
3 markets.

4 Our first role is analysis. We look at market
5 structure, market participant behavior and market
6 performance. It seems like every other economist in the
7 room and even the engineers do. The real problem is going,
8 obviously, from economic theory to accounting for the real
9 details of multiple interacting markets based on a network
10 of generation and transmission from market structure. There
11 are some well-defined market structure metrics. But, again,
12 the problem is refining those market structure metrics to
13 the applicable to actual power market realities. That's one
14 of the key analytical tasks in looking at market structure.

15 Market participant behavior we're constantly
16 monitoring for violation of either RTO or FERC behavioral
17 rules, looking for exercises of market power. In either
18 case, we, on a real time basis, discuss those and the issues
19 that arise with the Office of Enforcement and, when
20 required, make referrals to the Commission. And, in
21 addition, propose rule changes to resolve those issues, if
22 appropriate. Overall market performance -- obviously, the
23 fundamental question -- easy to say, harder to measure,
24 although there are some pretty good metrics. Our market
25 outcome is competitive.

1 The second question we try to address is, do
2 market power mitigation measures work effectively where they
3 only have only limited types of market power mitigation
4 measures? They're automated. They're actually run by
5 market department engineers rather than market monitoring,
6 but our rule there is to evaluate how they are enforced and
7 to ensure, for example, that PJM is implementing those rules
8 correctly.

9 Last, but not least, and probably the central
10 question, the ultimate test our market design is, are
11 markets sustainable? So one of our tasks, clearly, of
12 market performance is the extent to which there are adequate
13 investment incentives that arise out of competitive outcomes
14 given the mix of markets and the market design. In addition
15 to analysis of markets, we also look at market rules. The
16 real RTO markets, as you know very well, are defined by
17 complex market rules. I don't know how many pages are in
18 our operating agreement, but it's too many to count most of
19 the time. A key part of our task is to identify rules which
20 provide incentives not consistent with competitive outcomes.
21 And we find that out when we see the actual behaviors that
22 are incented or permitted by the rules and to propose
23 changes to the RTO and ultimately to the Commission to
24 modify those rules.

25 In addition, one of our rules with respect to

1 rules is to define and propose targeted behavioral
2 mitigation that can be applied in real time using real-time
3 data on market structure behavior and market impacts much
4 like we are now applying and have been since March -- the
5 three pivotal supplier test in both our real-time and day-
6 ahead market.

7 As someone mentioned, there's something that's
8 not included. That is enforcement. The market monitoring
9 at PJM has no enforcement role. That is consistent with the
10 policy statement and the evolving policies of the
11 Commission. We're not directly involved in enforcing local
12 market power mitigation, as they say. We monitor the way
13 it's applied and make sure it's applied properly, but we do
14 not have that authority. And, in fact, have no separate
15 enforcement authority.

16 The final piece of our role is that in order to
17 effectively assist the Commission in enhancing the
18 competitiveness of RTO markets it's essential the that the
19 market monitoring unit be independent. That we be
20 independent of members from all sectors. That we be
21 independent of the RTO. I think the Commission and the RTO
22 market participants all want market monitoring unit views on
23 marketing issues and our independent views. While agreement
24 with market monitoring views is not required, unfortunately
25 -- just kidding --

1 (Laughter.)

2 MR. BOWING: I wouldn't want that. Market
3 monitoring views and the analytical reasons for them should
4 be clear and transparent to all market participants, to the
5 Commission, to the RTO and to market participants in order
6 to inform a rational decision-making process. In my mind,
7 the policy debate should also be transparent. That
8 facilitates the understanding of real markets by all those
9 involved.

10 With respect to resources, we have a staff of 15
11 at PJM. I hired all engineers in the beginning and I've
12 relented and hired some MBAs and economists. But, as was
13 pointed out, you really need engineers in order to
14 understand the underlying physical and economic realities of
15 the system. We also use consultants for specific knowledge
16 and expertise -- everything from IT consultants to experts
17 in generation engineering. We rely on certain PJM
18 resources, particularly maintaining servers and things like
19 that. That is IT support from PJM. One of our key
20 resources is data. When I first got to PJM, it was very
21 difficult, actually, to get data from the market side
22 because PJM was primarily an operating organization
23 interested in running the markets and running them reliably,
24 not so interested in looking back and seeing what had
25 happened and analyzing it.

1 Over time, we have built a database, a data store
2 which is high-quality production grade, of course. And, in
3 fact, a database which is so good that the rest of PJM is
4 now coming to us looking for their data. But the market
5 monitoring and analytical needs require these extensive
6 databases. As I say, we've systematically developed them
7 and continuing to maintain those databases and continuing to
8 build them to meet our needs is a critical resource to the
9 market monitoring unit.

10 Our current priorities -- see, I'm even going to
11 make it in 10 minutes. Our current priorities -- obviously,
12 continuing to improve our performance and extend our
13 analysis to new areas. Some examples, as were indicated by
14 some of my colleagues, we're continuing to define our real
15 time monitoring tools; continuing to increase the level of
16 automation; refining our metrics; proposing, for example,
17 targeted mitigation for the regulation market for the newly
18 combined regulation market and PJM; continuing to pursue
19 improvements in operating reserve rules; continuing to
20 participate in the process associated with the RPM
21 mitigation rules; proposing and being involved in the
22 process for developing the correct or series of correct
23 approaches to the economic evaluation of transmission
24 investments. Last, but not least, ensuring that we continue
25 to try to share information with state regulators. There's

1 a great need for information at the state level. We hear it
2 in various polite and impolite forms almost every day and we
3 recognize that it reflects a real need and we're trying to
4 do that. We're actually putting out monthly reports to the
5 states, continuing to talk to the states about more gradual
6 information that might be of use to them.

7 A final priority, and David mentioned this as
8 well, is to improve and extend the market monitoring unit
9 role in monitoring the RTO. In fact, monitoring the RTO in
10 the operational markets, as David said, that clearly does
11 have a very significant impact on market outcomes. In
12 particular, we're looking at the price-setting process --
13 the interaction between marginal units, the transmission
14 system and the way prices are actually being set, the
15 decisions by operators. We're looking at the way PJM is
16 implementing scarcity pricing. We're also looking at the
17 way in which PJM is actually applying the three pivotal
18 supplier tests in real time in the day-ahead market, which
19 is very easy to describe, but very complex to implement and
20 implement correctly.

21 Thank you.

22 CHAIRMAN KELLIHER: Thank you very much.

23 Colleagues, do you want to start?

24 COMMISSIONER KELLY: Thank you, Joe.

25 I'd like to talk about the nature of your

1 relationship with the RTO. It seems to me that whether you
2 are an employee or whether you're an independent contractor
3 the degree of your independence and the nature of your
4 relationship to your employer should be the same.
5 Frequently, I hear people talk about in a market monitor
6 that has a contract as somehow being more independent than a
7 market monitor who is an employee. I view you as having the
8 same degree of independence or not because in either case
9 you work for the RTO. You're hired by the RTO. You're paid
10 and potentially fired by the RTO. So, to me, it's
11 immaterial whether you have a contract or are an employee.
12 I want to continue in my monologue before I ask, but I'd
13 like your response to that -- if you think I'm right or
14 wrong.

15 COMMISSIONER KELLY: This then gets me to the
16 second point, which is, what should your relationship be to
17 the RTO? Being employed by the RTO there's a potential for
18 conflict, particularly, if your job, in addition to looking
19 at how effective the rules are, the market outcomes, the
20 market participants, as Joe as talked about here -- if
21 you're also looking at how well the RTO is implementing the
22 rules, that raises even more potential for conflict to the
23 extent that you are looking at the efficiencies of the
24 rules, the flaws in the rules and the effectiveness of the
25 rules. There could be buy-in by the RTO and the rules.

1 There could be some potential pressure not be careful about
2 what you say to the extent you're looking at market outcomes
3 or the behavior of market participants. It would seem to me
4 there's potential pressure. I'm sure you deal with a lot of
5 potential conflicts and those are my initial observations.

6 Because of those observations, some of the
7 questions I have for you are, how should we be helping you
8 do your job and how much independence should you have from
9 your employer? What's the best way to use your expertise?
10 Should we be looking at the contract you have with the RTO
11 or your job description? Should we be looking at that to be
12 sure that that's appropriate? That you have the appropriate
13 amount of independence? Something like an administrative
14 law judge here. They're our employees, but they have a lot
15 of independence. Should there be a code of professional
16 responsibility? Is this becoming a profession like an
17 auditor or a lawyer or a judge where you have an employer to
18 whom you are responsible, but you also have a job to uphold
19 something else -- the law or the rules or the regulations
20 that somehow can put you in conflict with your employer?
21 Should there be a code of professional responsibility? And
22 also, as we go about approving independent coordinators of
23 transmission, I had that same question. Should you have a
24 direct obligation to FERC? Should we require you to report
25 to us as well as to your board or to your management? Would

1 that help you in your independence? Would that hurt you?
2 Should we ask you for comments on proposed rules or would
3 that hurt you in your independence or would that help you in
4 your independence.

5 Obviously, we could use your expertise. But is
6 there a fiduciary relationship? Or is the nature of your
7 relationship to your employer such that that would put you
8 in a compromising situation?

9 Those are my thoughts. I know the questions
10 aren't very pointed, but I'd really appreciate your thoughts
11 on that.

12 MR. BOWING: Shall I start?

13 CHAIRMAN KELLIHER: The last shall be first.

14 (Laughter.)

15 MR. BOWING: And the meek and all that.

16 COMMISSIONER BROWNELL: Not that, Joe.

17 (Laughter.)

18 MR. BOWING: Let me try to respond to some of the
19 questions. First of all, I agree with you that there's
20 nothing magic about being internal or external. I think
21 there are clear benefits to being internal. There are some
22 issues with being internal as well. There are some other
23 issues to being external. But I think, as you correctly
24 stated, there needs to be clear rules defining what
25 "independence" means. There need to be very clear rule,

1 clear, transparent rules. Hopefully, ultimately, rules
2 approved by the Commission in much the way that David's
3 rules and David's contract are approved by the Commission.

4 I never thought I'd say this and David never
5 thought I'd say this, but, in fact, I think that the
6 institutional guarantees of David's independence as my
7 submarket monitor, independent market monitor are actually a
8 very useful model. They're very clear. They make it very
9 clear to whom he's responsible and in what why he's
10 responsible. In fact, in PJM, the rules are not anywhere
11 near as transparent or clear.

12 COMMISSIONER KELLY: Could they be, Joe, as part
13 of a job description?

14 MR. BOWING: Yes. I think there's absolutely no
15 question that they could be as clear. I think a hybrid
16 model which incorporated those kinds of guarantees of
17 independence with benefits remaining internal is a very
18 attractive model.

19 In response to some of your later questions, I
20 think it will be appropriate, and in a sense I think we
21 already are responsible to report directly to the Commission
22 in certain areas. That's certainly not a conflict with our
23 role in the RTO. A key part of our role is to keep the
24 Commission informed. Clearly, reporting would be consistent
25 with that. There's no conflict with PJM market monitoring

1 unit's duties to the RTO. I also think it's a good idea,
2 from my perspective, if the Commission were to ask us for
3 comments, when you're interested in our comments, that's the
4 most direct way to get them.

5 I think it is important for market monitors to be
6 able to communicate formally and publicly and directly with
7 the Commission on areas where you want our input rather than
8 necessarily having that constraint by going through the RTO.
9 Clearly, there are some functions which are appropriately
10 reserved to the RTO like making 205 filings, but responding
11 to requests for comments and making reports I don't think
12 fall in that category. Ultimately, what independence means
13 is that neither the members nor the RTO can limit the
14 ability of the market monitoring unit to perform the
15 mandated functions by requiring or changing our
16 recommendations.

17 Clearly, we don't expect all the recommendations
18 to be accepted. That's part of the discipline of the
19 marketplace of ideas. We're not going to make ridiculous
20 proposals because they are public and the process is
21 transparent. Even if we started that way, we'd soon learn
22 that it didn't make much sense. That's my answer.

23 COMMISSIONER KELLY: Code of professional
24 responsibility, are we there? Is there a fiduciary duty to
25 a market? Some type of duty akin to an auditor or a lawyer

1 that would be helped by having some kind of code of
2 professional responsibility?

3 MR. BOWING: Yes. I mean the clearer the rules
4 and the clearer the responsibilities for market monitors the
5 better off everyone is. I'm not sure exactly what a code of
6 professional responsibility means technically. But, as I
7 say, the clearer and more explicit the rules are so that
8 everyone can understand them the better off everyone is.

9 COMMISSIONER KELLY: Thanks.

10 MR. BUECHLER: I agree with Joe. I agree with
11 you, Commissioner. That I don't think there's a difference
12 between a contract relationship or an employee relationship
13 in this regard. What the ISO is trying to do is the kind of
14 two-part responsibility for market monitoring, as I
15 mentioned before. Both having an independent unit and an
16 independent advisor reporting directly to the Board to
17 address that independence questions. In that regard, I'm
18 aware of some of the historical debates that have taken
19 place in this very area. I would liken it to the internal
20 audit function which reports administratively to myself, but
21 directly to the Board audit committee in that case.

22 I can assure, from having worked with the
23 national Board since its inception, that the board of
24 directors takes very seriously all of their responsibilities
25 for areas such as audit and heeds the advice of its

1 independent advisor for any significant rule change or
2 enhancement that's proposed.

3 MR. BUECHLER: The internal market monitoring
4 unit I view as being an implementor our tariff requirements
5 operating principally within the boundaries of the tariff
6 requirements. Yes, we do also advise, analyze, consult,
7 recommend in terms of market rule changes and so forth.

8 COMMISSIONER KELLY: John, does everybody have
9 that same dual function of both implementing the rules and
10 then monitoring the rules? Or in other RTOs are those
11 responsibilities divided of implementing the markets versus
12 monitoring the markets?

13 MR. PATTON: None of us implement the markets.

14 MR. BUECHLER: I was talking in terms of
15 implementing a market monitoring responsibility under the
16 market monitoring plan.

17 COMMISSIONER KELLY: Sorry.

18 MR. BUECHLER: No. The operations organization
19 in the New York OSI implements and administers both the
20 reliability as well as the market operation. What I was
21 going to say in that regard is, in the annual state of the
22 market assessment, the independent market advisor does look
23 at implementation, as David was talking about, in terms of
24 MISO. He also does look at implementation in terms of,
25 again, his recommendations and analysis in that fashion.

1 COMMISSIONER KELLY: John, if the market monitor
2 was required to report to FERC, along with the Board, would
3 that be good, bad? Are you indifferent about it? Would it
4 put you in a difficult position with your own management?
5 Would it inhibit you from saying what you might otherwise
6 say? Would it help you to say what you want to say?

7 MR. BUECHLER: Again, I think similar to Joe's
8 position -- maybe you can clarify what you mean by "report
9 to." I guess I think we already do that. We already do
10 have, first of all, an obligation to do so, but we already
11 do communicate on a regular basis with FERC and I believe
12 are forthcoming in terms of the questions asked and
13 information requested and so forth on a direct basis between
14 ourselves as the market monitoring unit and the Office of
15 Enforcement. Those communications don't go through --
16 they're not screened, if you will, by the ISO, however you
17 would view that.

18 COMMISSIONER KELLY: How about comments on
19 proposed rules -- your independent comments? If we asked
20 you for your independent comments -- I'm trying to figure
21 what the best for us to use your expertise.

22 MR. BUECHLER: I think that would probably be a
23 good idea. I don't see any problem with that.

24 COMMISSIONER KELLY: Thanks.

25 MR. PATTON: I will give a slightly different

1 view of this I think than some of my colleagues. I think
2 part of the reason why, perhaps, we would give a different
3 answer to your questions is that I'm not aware that anyone
4 feels that their management has ever attempted to assert
5 great influence over them.

6 COMMISSIONER KELLY: I didn't mean to imply that
7 I know of any of that.

8 MR. PATTON: I know. But I think it's absolutely
9 clear that -- to me at least, the independence is remarkably
10 different being not an employee, but being a contractor
11 because the number, the degree of control they have over
12 various things as an internal entity your staff can be
13 reassigned. It can affect how you hire people, fire people,
14 what you pay people, your procurement of computers. There's
15 any number of things that the ISO management has gained
16 control of when you're an employee of an organization versus
17 a contractor.

18 As an external entity, the number of levers they
19 can use to attempt to compromise my independence are very
20 few. Basically, the renewal of my contract may be the only
21 one I can think of. And I think what Joe's talking about in
22 terms of the protection is you really oversee that decision
23 and it's a decision by the Board rather than the ISO. But
24 you oversee that so that it would be difficult, if not
25 impossible, for them to credibly use that as a means to try

1 to undermine my independence. I would think that safeguards
2 for an internal unit that has employees could be designed.
3 They just would have to be able to address any number of
4 other ways in which influence could be exerted on them.

5 As far as the code professional conduct, ethics,
6 I think that's actually a good idea. I enforce the code
7 that you enforce on FERC employees on my employees or use
8 that as a model. So everything from they can't own stock.
9 They can't go work for a participant. All those things I
10 enforce on them, recognizing that that was basically just
11 something I chose to do, not a requirement of being a market
12 monitor.

13 Other questions as far as reporting to FERC, I
14 guess I thought I had an obligation to report to FERC at
15 least in terms of explicitly on referrals, but also on the
16 relationship that we've set up with the Office of
17 Enforcement. That's certainly an informal way in which we
18 report to FERC on various things. There's no way --
19 certainly, all of our management know that we're interacting
20 with FERC staff on a regular basis. I can't see how a
21 requirement to do so would change the nature of things.

22 Lastly, I think, at least in the MISO context,
23 the structures, the independence is also guaranteed by the
24 fact that we don't report to the management. We report to
25 the Board and the Board places extreme value in the fact

1 that our opinion is not being filtered. Because it's very
2 important to them that they get an unvarnished, untampered
3 with view of what's going on, even if what's going on is
4 there's some way in which the staff is implementing the
5 market that may not be tariff-compliant or may be causing
6 harm. It's similar, in my mind, to an external auditor
7 who's reporting to the Board and has no responsibility to
8 the management.

9 COMMISSIONER KELLY: When you report to the
10 Board, is it a pre-existing regular obligation? Or do you
11 report as you see a problem? Or do you report as requested?
12 Do you report with respect to particular Board initiatives?

13 MR. PATTON: All of the above. In addition to
14 that, I'm reporting to the Board in a public session that
15 participants can attend. I also report to them in executive
16 session when we're talking about particular participants or
17 confidential information. I also report to them without the
18 Midwest ISO present in closed session if there are any
19 issues that involve the staff. So it happens in sort of a
20 variety of ways.

21 COMMISSIONER KELLY: Thank you.

22 MR. CHAO: In my short tenure of experience with
23 ISO New England, what I said about my resume that was meant
24 to be a joke.

25 (Laughter.)

1 MR. CASEY: Oh, you're looking for a job.

2 (Laughter.)

3 MR. CHAO: My feeling is it seems to me that the
4 system in New England seems to work well in addressing many
5 of the concerns that were discussed so far. We have both
6 internal and independent. That combination seems to address
7 all different aspects.

8 I will take another viewpoint here. Broadly
9 speaking, the market monitor's job involves two aspects to
10 catch bad behavior or to catch bad rules. Broadly speaking,
11 in the bad behavior, we follow the bright line test. There
12 is no ambiguity about most of the things. If we have any
13 concerns, we always can have some advanced consultation with
14 the FERC with the right parties. Management has no qualm
15 about anything that the market monitor does in that area.
16 So their independence is not really an issue. It's probably
17 more important in dealing with analysis that involve
18 judgment.

19 The independent, so far, that ISO has been given
20 to the position is that the market monitor can tee up issues
21 at any point as you see it and take that seriously. And
22 also, when a study is conducted, the external and internal
23 market monitors would conduct different parallel studies to
24 minimize risks and to compare different results and also
25 give the Board some assurances of independent assessment.

1 In dealing with the rule changes, what is useful is to keep
2 an eye on the bottom line. What we are trying to accomplish
3 is the same thing really the success of the wholesale market
4 and there are very objective criteria out there. While it
5 may be difficult to get an analysis done to cover all the
6 ground in terms of overall arguments, pros and cons, in
7 arguing about those rules, it's not likely that, in my view,
8 in New England so far -- that whole experience of problems
9 and pressures from different parties. ISO, as a whole, is
10 an independent organization sharing exactly the same goal.

11 MR. CHAO: What I see in relation to FERC -- the
12 thought about soliciting comments from market monitors,
13 generally, I think that's a good thing. On the other hand,
14 we also feel that our interaction with the FERC -- and often
15 when we have issues going through a more informative process
16 to have exchanges to try to bring solutions to the problem.
17 That also will be very constructive. That kind of support
18 will strengthen so-called "independence" within the ISO.
19 That will help our colleagues to see, through this process,
20 we're more likely to bring solutions to an issue in a way
21 that it is likely to get more cooperation. The process can
22 go on and become very productive.

23 COMMISSIONER KELLY: Thank you.

24 MR. CASEY: Commissioner Kelly, I think you've
25 raised a very important issue on independence.

1 To answer your question, the potential for
2 conflict I would agree is there in theory. I think, in
3 practice, with the California ISO it has not been an issue.
4 I think, in large part, it's due to less so to how our rule
5 is defined in the tariff. Because I think, if you read the
6 ISO tariff provisions on the role of our market monitoring
7 unit, it describes our responsibilities but not a lot of
8 discussion about our independence. That discussion is more
9 allocated to our market surveillance committee.

10 I think our independence comes more from our
11 organizational structure at the ISO and a recognition and
12 appreciation by management of the important role we play.
13 For instance, I think our reporting directly to the CEO
14 helps to bolster our independence. The CEO is not involved
15 in the day-to-day business production of the organization,
16 not caught up in the fire drills. So, not have to report,
17 for instance, to an operations department or market and
18 products development department gives us greater
19 independence. Also, in terms of organizational structure,
20 the fact that management looks in the first instance to its
21 other business units on decisions of market design as well
22 as operational issues, we're viewed really as kind of an
23 autonomous group that can weigh in on particular proposals
24 or issues that we think are important.

25 The fact that they're not looking to us on the

1 first instance on market design I think give us greater
2 discretion. At the end of the day, when they present market
3 design proposals to our governing board, you're going to
4 hear from the market and product development group on why
5 this design is a good idea. Then the Board has explicitly
6 asked that our market monitoring group be prepared to weigh
7 in on any market design issues that are presented to them,
8 so they clearly see us as a separate entity within the ISO
9 that provides recommendations and opinions apart from ISO
10 management.

11 I'd also point out the market surveillance
12 committee, I think, gives us an extra level of independence
13 similar to what David was saying. The market surveillance
14 committee reports directly to the governing board, not to
15 the ISO CEO. And they can report matters directly to FERC.
16 For us, our reports have to be first reviewed by the ISO
17 CEO.

18 COMMISSIONER KELLY: In the real world, is there
19 any reason to have two internal and external --

20 MR. CASEY: There is a complementarity there in
21 that we are really the boots-on-the-ground organization that
22 deal with the day-to-day data, interact with the operators.
23 We really develop a really fundamental understanding of
24 what's going on in the market. The market surveillance
25 committee have day jobs. So they're really relying on our

1 expertise, looking for us to provide the information they
2 need to make their assessment. I really think there's a
3 complimentary relationship with the committee and our market
4 monitoring group.

5 On the issue of who's monitoring the ISO, I would
6 say that we certainly view keeping an eye on the ISO in
7 terms of the impact some of their operational practices may
8 be having in the market as important. There have been
9 numerous instances where we've identified things and
10 oftentimes it's just simply a lack of transparency or
11 consistency in how operating procedures are being carried
12 out and we've put forward recommendations to make those
13 procedures more explicit and transparent to the market.
14 Operations has been very receptive to that kind of thing.

15 I think the organization is called an independent
16 system operator for a reason. They want to be independent.
17 They want to do the right things, but reliability is
18 priority 1 with this organization. Oftentimes, they don't
19 appreciate some of the market impacts or perceptions of a
20 lack of transparency -- how detrimental that can be. So we
21 have an important role there.

22 Finally, with respect to reporting to FERC, I
23 would caution against looking to the market monitoring group
24 as kind of the default reporting entity at the ISO on any
25 tariff or market design change that the Commission might

1 adopt. The reason I caution you on that is, as you've seen,
2 we have limited resources. We're a relatively small group.
3 We need to leverage those resources where we think it's most
4 important. Oftentimes, some of the routine reporting could
5 be on things that really don't have a direct connection to
6 potential anti-competitive behavior or significant market
7 inefficiencies. If we spend a lot of time on that, it would
8 pull us away from being able to focus on what really matters
9 most from our standpoint.

10 I'm not saying you should never ask us to provide
11 reports on that, but I'm just suggesting you be judicious in
12 what you steer towards us, recognizing that our top priority
13 is keeping an eye on how the market's performing. I would
14 also add that we always have the option of providing
15 comments. So, even if you're hearing from an ISO with
16 routine reports on a particular market issue, to the extent
17 we're seeing something different and we think it's important
18 for you to hear that, we always have the option of providing
19 that information to our board and then, in turn, to you.

20 I'll stop there.

21 COMMISSIONER KELLY: Thank you.

22 CHAIRMAN KELLIHER: Birthday girl?

23 COMMISSIONER BROWNELL: Thank you so much. And
24 remember any time taken away here is being taken away from
25 the birthday party.

1 I have some generic questions and then some
2 generic information I'd like to get. When you talk about
3 market-to-market issues -- I think, David, you mentioned --
4 I hear it all over in the case of California. As we get
5 more mature, it's going to be market-to-non-market. But do
6 you all meet together on a regular basis to talk about that?

7 One of the challenges that I hear is that the
8 ISOs themselves have kind of a not-invented here mentality.
9 So they're kind of reluctant to harmonize some of the things
10 that would get rid of the problems. Do you all share that
11 information and could you help us work through some of those
12 issues? Is there more we should be asking of the ISOs to
13 deal with this because it has implications for efficiencies,
14 for arbitrage opportunities, but also for cost?

15 MR. PATTON: Are you speaking of do we meet
16 together on market monitoring issues or specifically on
17 arbitrage between areas?

18 COMMISSIONER BROWNELL: You talked about
19 identifying market-to-market issues, which I assume would,
20 under any set of circumstances, have market monitoring
21 implications. I'm wondering do the market monitors get
22 together to talk about issues like that. Do you get
23 together, other than here, to talk about issues at all?

24 MR. PATTON: Yes. I think most frequently the
25 interaction would be bilaterally. For example, I talk to

1 Joe frequently about issues between MISO and PJM. When I
2 refer to the market-to-market processes, there are explicit
3 automated procedures for jointly managing transmission
4 constraints that both PJM generation and MISO generation
5 affect. So there reference to market-to-market wasn't
6 generic. It was to those specific procedures. We talk
7 about that. We also talk about other coordination issues
8 and transaction sorts of issues. In the Northeast, it's a
9 routine part of the market reports to analyze how well the
10 power is traded between markets and how that can be better
11 facilitated so that the efficiencies of a dispatch that
12 covers the entire eastern interconnect can be captured.
13 That is something we talk with each about. It happens to be
14 something that each market monitor generally has data
15 available to evaluate unilaterally. It's not something
16 where I have to call Joe because he has data that I need in
17 order to evaluate. Mostly, what you need to evaluate is, is
18 the transactions which we both can see and the prices. To
19 the extent there is behavior by a participant that's
20 aggravating some constraints that effects both of us, that
21 maybe something only one of us can see and we do talk about
22 those sorts of issues.

23 COMMISSIONER BROWNELL: I'm actually talking more
24 about what are sometimes highly nuanced differences that
25 cause problems and that are difficult for us because they

1 are sometimes so nuanced -- different definitions, different
2 protocols, very difficult for us to put our arms around. It
3 has something certainly to do with market power. But,
4 frankly, to me, market inefficiencies -- I'm just wondering
5 if the market monitors might be an independent resource for
6 us to identify those issues on a more timely basis and get
7 some recommendations about how to deal with them.

8 MR. PATTON: I think we're in a good position to
9 do that.

10 MR. BOWING: I would agree with that. I talk to
11 David and talk to David's people fairly frequently about
12 issues in the MISO and PJM markets. I think that both MISO
13 and PJM are actively engaged in trying to make it work
14 better. But I also agree with David that the market
15 monitors -- and we've talked about this recently -- could be
16 a source of information to you all -- a source like any
17 other you have and a source of independent review of that.

18 COMMISSIONER BROWNELL: Thank you.

19 Some specific questions. David, you said you
20 were going to have 10 to 20 recommendations for MISO in
21 terms of tariff changes, market rules. Did I understand
22 that correctly?

23 MR. PATTON: Yes.

24 (Laughter.)

25 MR. PATTON: They're not all tariff issues. Some

1 are operational issues. But, yes.

2 COMMISSIONER BROWNELL: Did you want to wait
3 until the market was underway for a year to get experience?
4 Have you been making these along the way so that we can fix
5 things as they're happening without waiting a year -- you
6 know, how does the process work?

7 MR. PATTON: Some of these are recommendations
8 that we've made along the way or issues that we've
9 identified as we've gone along. A couple of them are issues
10 we identified before the market started, but some experience
11 was needed in order to determine how valuable it would be to
12 make certain changes to how the software functions. But,
13 generally, if there are pending issues that need to be
14 addressed or would be valuable to address, we try to
15 consolidate those in the annual report with the analyses of
16 the prior year that show what kind of impact that may have.
17 It becomes something the RTO can use to help prioritize.
18 Because all the RTOs tend to be IT-resource limited. It's
19 difficult for them unless an issue comes up that is an
20 emergency that's causing so much dysfunction that they have
21 to drop everything and do it now. It's difficult for them
22 to take recommendations that happen sporadically throughout
23 the year and somehow fit it into their software
24 prioritization, so having them consolidated is of some
25 value.

1 COMMISSIONER BROWNELL: The RTOs are IT limited,
2 but they're also IT driven. That is where a large amount of
3 the costs come from. I continue to wonder why at this point
4 in the history of RTOs and ISOs we don't anticipate more and
5 consequently have to incur costs afterwards of software
6 changes. Software updates are one thing. Dramatic software
7 changes because we didn't anticipate some element of a
8 market design just cause me concern. As we move to
9 California, and life after the meltdown, do we know enough
10 to help California anticipate some of those? Is there
11 better modeling of design rules that should be done up front
12 so we can avoid some of these mistakes?

13 MR. PATTON: I'll tell you in my case, with these
14 recommendations, most of these are fairly incremental
15 changes. Where the largest costs come in is where you're
16 trying to complete the set of markets. So none of these
17 changes that I can think of will require significant
18 software costs. What will require significant software
19 costs are implementation of the ancillary services market,
20 which are critical in the long term to having an efficient
21 set of price signals that will sustain the capacity in the
22 Midwest, but that's not something that was unforeseen. It's
23 just a matter of it wasn't in the plan to roll out all the
24 markets at one time.

25 COMMISSIONER BROWNELL: But have we learned

1 enough from the design and experience and evolution of other
2 ancillary service markets to maybe avoid making some of the
3 mistakes -- and everybody makes mistakes in their ventures.
4 I just sometimes wonder if we learn from each other so we
5 can avoid it in the future.

6 MR. PATTON: I feel like we do. People don't
7 apply all the lessons. There's something that happens in
8 this industry where people want to feel like they've
9 invented something the first time.

10 COMMISSIONER BROWNELL: That would be my point.

11 (Laughter.)

12 MR. PATTON: If they can't invent it, they invent
13 a new acronym.

14 (Laughter.)

15 MR. PATTON: One of my challenges is trying to
16 keep TCCs and FTRs and CRR, so there is that issue.
17 Sometimes people just aren't willing to accept that this is
18 a lesson necessarily applicable to that region, so they
19 might do something slightly different. But I think, in
20 general, people do learn and the issues you see one place
21 that are dealt with are more quickly dealt with other
22 places. The reality is these markets are more complex than
23 anything I can think of just because of the physical
24 realities that you have to balance against the economic
25 realities just makes them inherently very complex.

1 MR. CASEY: I would add, Commissioner Brownell,
2 with respect to California and its market design initiatives
3 in general, we often do talk with other ISOs rather than
4 reinvent the wheel. We try to gain insights from how they
5 approached it. What are the pros and cons of their
6 approaches. Oftentimes, there is no silver bullet.
7 Different ISOs adopt different approaches. They both have
8 their pros and cons, and we have to choose among those,
9 taking into consideration the particulars of our grid and
10 our stakeholder interest. That kind of interaction does go
11 on fairly frequently in the design process.

12 MR. BUECHLER: Just to add on, while it may not
13 be transparent to yourselves, the ISOs and RTOs certainly
14 have many avenues of communication -- formalized or less
15 formalized, we have been probably to speak with all of our
16 colleagues from time to time on very specific implementation
17 market design issues. I know you're aware that the council
18 has a number of committees among which are the markets
19 committee, who are meeting as we speak actually, where folks
20 are involved who are responsible for the market design of
21 all the ISOs, including our Canadian neighbors. They meet
22 on a regular basis. There's an IT committee that, again,
23 I'm sure you're aware of as well that have tried to and have
24 made inroads in terms of trying to conform practices and
25 gain efficiencies there as well. There's a planning

1 committee from the council as well.

2 Aside from that, if I can just speak to the
3 Northeast, we have agreements with all of our neighbors that
4 specifically address market issues and there's a inter-
5 regional planning agreement as well among the Northeast ISOs
6 and obviously there's one in the Midwest with PJM, TVA and
7 so forth. But there are many instruments and areas of
8 communication where we constantly try and attempt to learn
9 from each other and to better coordinate our operations in
10 various ways.

11 COMMISSIONER BROWNELL: I appreciate the effort.
12 I think there's great process. I think we carry process out
13 to an extreme, never before seen. But I think we can't
14 confuse process with progress. I'm thinking maybe asking
15 more questions about outcomes, and when we see different
16 solutions maybe we need to be more rigorous of asking why
17 they need to be different. I appreciate different
18 stakeholder profiles, but I'm not sure that the overall
19 market design is always best served by responding to some
20 very narrow needs of stakeholders. I think we certainly saw
21 that in the development of MISO.

22 Really quickly, Keith, is your market advisory
23 group -- are they under contract? Are they paid? Is that a
24 volunteer?

25 (Laughter.)

1 COMMISSIONER BROWNELL: How are they selected?

2 MR. CASEY: They're free and they're worth every
3 penny.

4 (Laughter.)

5 MR. CASEY: No, they are paid. They have a
6 contract that's administered through the ISO. They get a
7 monthly stipend, travel expenses, et cetera. But, as I
8 mentioned earlier, they do report directly to our Board of
9 Governors. In order to terminate any individual member, it
10 has to be through a vote from the Board, not from ISO
11 management.

12 COMMISSIONER BROWNELL: Generically, I would like
13 to make sure that we have, Susan, everybody org charts,
14 budgets and staffing levels and reporting mechanisms.

15 MS. COURT: I've got them.

16 COMMISSIONER BROWNELL: Susan, I should have
17 known you would anticipated our every need and I appreciate
18 your time here today.

19 Since you're interfering with my birthday party,
20 I'm not going to take much more of it. But we've all
21 struggled, individually and collectively, with what is
22 market monitoring? What should it look like? What should
23 it do? Are we measuring the right things? Are we getting
24 the outcomes we need?

25 I wonder, for example, are we really looking at

1 the impact of mitigation in investment? If markets are
2 successful, they should be attracting capital. I don't
3 really see that. It makes me wonder are we really asking
4 the right questions and measuring the right things. I'd
5 love for you to think about that and you don't need to tell
6 me today, but I'd love to hear.

7 Okay, Joe. Go ahead. Very quickly, Joe.

8 (Laughter.)

9 MR. BOWRING: Clearly, that's an important
10 question. I would say we do look at it. The point of
11 mitigation is that it should address market power and not
12 impede investment. That is a very real question, as I
13 pointed out earlier. The acid test of any market is whether
14 it's sustainable, whether it can reproduce itself, whether
15 it will provide incentives for the next round of investment.
16 I don't think any of the markets have proven that yet, so
17 it's still a very real question. But we certainly are very
18 sensitive to that potential conflict.

19 That wasn't too long.

20 COMMISSIONER KELLY: I have a market mitigation
21 question.

22 COMMISSIONER BROWNELL: You'll have to pay the
23 penalty.

24 COMMISSIONER KELLY: Okay.

25 David, on one of your slides, the one that talks

1 about real-time market monitoring -- I think it's slide 6.
2 In your last point you say real-time market monitoring
3 includes the implementation of perspective mitigation of
4 economic withholding. Could you describe how your market
5 monitoring ties into implementing mitigation measures for
6 MISO?

7 MR. PATTON: Sure. Since you asked me about a
8 question about mitigation, I just can't resist answering
9 Nora's question.

10 (Laughter.)

11 COMMISSIONER KELLY: It's her birthday in case
12 you didn't notice.

13 MR. PATTON: It is actually an extremely
14 important aspect of what we look at and what we've seen and
15 I think where we've looked at this question, which is
16 everywhere we're doing analyses. What we've seen is that in
17 areas that are capacity constraints the signals are
18 sufficient to motivate entry. Areas that are do not need
19 capacity because one of the flaws is people think we need
20 investment all over the place. The reality is in a lot of
21 markets we're in a surplus situation. That's certainly the
22 case in many areas in New England, New York and most of the
23 Midwest.

24 In those areas, if you construct a market that
25 sends the signals to invest, your market is dysfunctional.

1 You want it to send the signals to invest when the capacity
2 starts dropping and therefore you need the capacity. The
3 trick with the mitigation is it should prevent high prices
4 that are due to artificial shortages and not limit price
5 moments due to real shortages. If you do shortage pricing
6 right -- and I would point to New York as a model for how to
7 do shortage pricing right -- mitigation has no impact
8 whatsoever. The generators in New York can bid zero and
9 prices would go over a thousand dollars when they get into a
10 shortage when those circumstances happen because you need
11 capacity. The signals will be there and mitigation will
12 have no impact.

13 Okay. To your question, sorry. It's a question
14 that comes in so often that it's hard not to answer it.
15 What is our role?

16 COMMISSIONER KELLY: For example, when
17 transmission constraints become binding.

18 MR. PATTON: Okay. I guess there's a couple of
19 things to say as prerequisites, and I'll need Susan or
20 somebody to tell me when to stop talking since there's a
21 docket -- an order that was just issued on this issue.

22 COMMISSIONER KELLY: Can we put it in the record?

23 MS. COURT: That particular docket was not
24 protested. Technically speaking, it's not a contested, on-
25 the-record proceeding. However, since the Commission did

1 reject the filing, I can't believe someone's not going to
2 seek rehearing. I think it would be form over substance to
3 say it's not a contested proceeding. Be careful, David. If
4 it goes, we'll put it in the record in a nanosecond. I've
5 got the docket number right here.

6 COMMISSIONER BROWNELL: A nanosecond. That's
7 real time.

8 (Laughter.)

9 MR. PATTON: Take a look at your watch. Here I
10 go.

11 (Laughter.)

12 MR. PATTON: The premise for -- let me say that
13 virtually all market power and electricity market is local
14 due to constraint in the MISO with no constraints and no
15 local reliability requirements. Then you would never have a
16 concern about market power because there's 130 gigawatts of
17 generational competing with each other.

18 The Midwest ISO mitigation measures, as a
19 prerequisite, a constraint has to be binding in order for
20 mitigation to be imposed. The mitigation falls in a variety
21 of areas, but there are only two types of constraints that
22 are defined under the provisions. Constraints that isolate a
23 narrow constrained areas, which is sort of chronically
24 occurring, and there's basically two areas and they're both
25 in the Wisconsin area and MISO. Broad constrained areas,

1 which are constraints everywhere else on the system. The
2 order that we talked about eliminates broad constrained area
3 mitigation. I believe what that means is no mitigation
4 occurs anywhere but in Wisconsin.

5 COMMISSIONER KELLY: Sounds like a good plan.

6 MR. PATTON: The provisions occur in a variety of
7 areas. There's sanctions for things that can only be
8 identified after the fact as being problematic like physical
9 withholding where you have to do some form of investigation.
10 That gets referred to the Commission. A real-time market
11 monitoring function is largely designed to identify
12 instances that require further investigation and upon
13 investigation a referral would be made. But, again, I think
14 now we only make referrals on physical withholding for
15 people in Wisconsin or people causing congestion into
16 Wisconsin, not physical withholding any place else.

17
18
19
20
21
22
23
24
25

1 Then there's automated mitigation, which is truly
2 real-time. That mitigation is actually implemented --

3 COMMISSIONER KELLY: David, before you go there.
4 Prior to the rejection of the BCA plan, did you do broadly-
5 constrained area mitigation?

6 MR. PATTON: In two forms really. Mitigation of
7 offers, inflated offers that were affecting energy prices
8 and mitigation of RSG or uplift costs, which is really
9 perhaps the more severe market power.

10 COMMISSIONER KELLY: But you only did that when
11 you identified a constraint?

12 MR. PATTON: Yes. In the case of revenue
13 sufficiency guarantee -- let's just call it uplift to make
14 it easy, yet another area where acronyms are all over the
15 place, but it's basically the same thing every place. When
16 you have to do a commitment just to meet the forecasted load
17 in the market -- it doesn't matter where the unit is. That
18 doesn't generate much uplift usually.

19 When you have to make -- well it can, but not
20 usually. When you have to make commitments to solve a
21 particular problem like I was talking about where you would
22 have voltage problems if you didn't turn on this bank of
23 turbines in a particular area and they're all owned by one
24 entity, in that case that's a pretty severe form of market
25 power. And the only thing currently that limits the

1 participants is the number of digits we put in the software
2 on startup and no load costs -- which is the cost of turning
3 the unit on. We have a \$1,000 offer cap for energy. But
4 frankly I don't know how many digits we allow people to put
5 in.

6 In any case, that's the RSG form of the
7 mitigation and that happens fairly frequently in the Midwest
8 as opposed to the infrequent mitigation, which is the
9 raising offers to influence energy prices. But even that, I
10 think, can happen frequently because there are quite a few
11 constraints where you have to redispatch one suppliers'
12 generation to manage the constraint and knowing that the BCA
13 mitigation is there I think limits some people's willingness
14 to alter their offers.

15 But that mitigation occurs largely in an
16 automated fashion through first an automated conduct test
17 where the offers are compared against competitive benchmark
18 which is based on their past offer behavior and then we run
19 in parallel the MISO market software to evaluate what the
20 impact of that conduct that we screened is. If it's bigger
21 than the threshold in the tariff, then it gets mitigated.
22 The reason generally there are very few instances of the
23 mitigation is because it's hard to fail those two tests
24 unless you have -- unless you're essentially a pivotal
25 supplier.

1 COMMISSIONER KELLY: Thanks.

2 CHAIRMAN KELLIHER: Can I ask some questions?

3 COMMISSIONER BROWNELL: No.

4 (Laughter.)

5 CHAIRMAN KELLIHER: I'll ask short questions.

6 Whether the answers are short, we'll find out.

7 COMMISSIONER BROWNELL: Maybe I'll go stand
8 behind them.

9 (Laughter.)

10 CHAIRMAN KELLIHER: One of the things the
11 Commission wants from market monitors laid out in the policy
12 statement is identifying ineffective market rules and
13 recommending proposed rules and tariff changes. I think
14 David said you've identified 10 to 20 changes, not all of
15 which are tariff changes or rule changes, some of which are
16 operational changes. I'm curious what the incidence is in
17 the other ISOs and RTOs to us. I mean, that was the first
18 thing we identified when we were laying out what we thought
19 the role of the market monitor should be is fixing the
20 rules. How does that work out in practice? What is the
21 incidence of rule changes you proposed internally and what's
22 the disposition of them? Do you think your job's done when
23 you proposed it to whatever unit within the RTO should be
24 making rule changes? Is your job done? Do you keep on
25 proposing it? I'm just curious what the fate of your

1 recommended rule changes tends to be.

2 Also what the level of incidence is, is MISO
3 unique? Again, I don't know what the subset of the 10 to 20
4 tariff changes -- you all identify the need for tariff
5 changes. Was the incidence zero in the other regions?

6 MR. BUECHLER: One example, if I may, David is
7 the independent market advisor for New York. In his state
8 of the market report that he just completed a month ago, he
9 made several recommendations, two of which were cited by
10 Steve this morning in terms of improvements. They were not
11 tariff changes, they were software enhancements, model
12 enhancements on the load pocket market in New York city and
13 also the real-time market, the evaluation of the capability
14 of gas turbines. One of those was implemented on May 1st.
15 The other was implemented in a manual fashion at the
16 beginning of May and it's scheduled to have the software
17 modified on May 30th, I believe is the date now.

18 So those are a couple of examples, you know, how
19 in New York's context a specific recommendation would be
20 made, for example, in the annual market assessment, a
21 similar process that David described in MISO. David can
22 speak to his other recommendations, some of which were going
23 to take a little bit longer to take a look at. Those
24 recommendations are made in again a very public forum in
25 terms of our stakeholders and yourselves. We have discussed

1 those specific instances with officers of the enforcement
2 staff even before embarking upon the fixes or enhancements.
3 Therefore, it's kind of difficult for us to hide from those
4 recommendations before taking action on them.

5 MR. BOWRING: Absolutely. It's part of our rule
6 -- we're constantly recommending rule changes both small and
7 large, we find.

8 CHAIRMAN KELLIHER: How many, say, over a year?

9 MR. BOWRING: Probably five to six significant
10 ones on average. It's never enough to simply -- enough to
11 make a recommendation to the appropriate group within PJM.
12 We find it's necessary because the details matter in these
13 things. We follow through aggressively, we always go to the
14 meetings, we're involved in the stakeholder process.

15 As you're very well aware, those processes take
16 what seem like a very, very long period of time, but it's
17 necessary to work through all the details and get the
18 membership comfortable with it, so when we bring it to you
19 it's something that people generally agree with rather than
20 forcing you to decide some of those technical issues.

21 It's very much a part of our function. I agree
22 with you, I think it probably is the most critical function.
23 Having the rules right is the critical function. We would
24 like to minimize the amount of times that we have to deal
25 with people responding to bad incentives in the rules and

1 behaving badly as a result.

2 CHAIRMAN KELLIHER: From your point of view, is a
3 bad rule one that allows market power exercise and that's
4 the only context of a rule being flawed, or is it one that
5 discourages entry? Is it one that does more than mitigate
6 market power?

7 MR. BOWRING: That's a great question. My
8 definition of a bad rule is one that inhibits efficient
9 operation of the markets in all those senses. If you don't
10 get entry, mitigation will be irrelevant because the market
11 will implode. You need to have an efficient market.
12 Sometimes that means high prices, sometimes it means low
13 prices. Sometimes it means entry, as David said; sometimes
14 it doesn't. Our goal is an efficiently functioning market
15 overall.

16 CHAIRMAN KELLIHER: Does anyone else want to
17 respond to that?

18 MR. CASEY: Yes, Chairman Kelliher.

19 We've had in the California ISO essentially the
20 same market structure for eight years now and there have
21 been numerous changes over the years. I think in general
22 you know it's chugging along given its deficiencies that we
23 all know. There hasn't been a large need for lots of
24 changes. There have been -- periodically we recommend
25 changes to the current design, but it's fairly infrequent at

1 this point. But I think more importantly as we move forward
2 with future market design initiatives -- that's where we've
3 had a very active role in helping review those proposals
4 with an eye toward potential inefficiencies, gaming or
5 market power concerns.

6 I think we bring an important perspective, many
7 of which I can't talk about right now but there are numerous
8 design initiatives before you right now that we've had a
9 significant impact in reviewing and providing
10 recommendations, many of which were adopted.

11 CHAIRMAN KELLIHER: Dr. Chao.

12 MR. CHAO: In 2005 as far as I know there were
13 two rule changes the ISO made. One was triggered by
14 behavior issues and a mitigation. The rule was perceived as
15 inadequate at that time. So it was an expedited process.

16 The other had to do with inefficiency in the cost
17 allocation area. So I concur with everything that has been
18 said.

19
20
21
22
23
24
25

1 CHAIRMAN KELLIHER: If you look at what market
2 monitors do, that's something we've struggled with for
3 awhile. What are market monitors? What is it that they do?

4 To my knowledge, there's not really another easy
5 analogy in another business sector. I think David referred
6 to an auditor as describing it all, to some extent, but I'm
7 not really aware of a really good analogy in another sector.

8 We kind of grappled with that in a policy
9 statement. Is a market monitor a cop? Is a market monitor
10 a professor?

11 Most of you are professors. I don't think you
12 really take offense at that. You know, we came down -- I
13 think the policy statement reflected some view on that.

14 But if you look at some principle functions, as
15 David said, you use different words to describe functions
16 that are fairly common, but to use Cal ISO's words, you
17 identify, in effect, if market rules and tariff provisions,
18 you provide market analyses -- let's just call it fixing the
19 rules -- you identify potentially anticompetitive behavior
20 and you review and report on performance of the markets.

21 Let's just say those are three functions: Fixing
22 the rules, identifying anticompetitive behavior, potential
23 anticompetitive behavior, and the third is reviewing and
24 reporting on markets, studying the markets.

25 How would you allocate, how do you think your

1 resources are allocated in those three functions? Let's
2 have a fourth, "Other" function. How do you really think
3 your resources are allocated? Fixing the rules and then
4 identifying anticompetitive behavior, market analysis, and
5 other?

6 I don't expect a 21.7 percent, but some rough
7 order of magnitude. Which ones do you allocate the most
8 resources to? Something like that would be helpful. I'm
9 curious, too, whether it would vary, overall resources,
10 time, not hardware.

11 MR. PATTON: I can tell you that I've actually
12 thought about that sort of breakdown, and one thing makes it
13 a little bit difficult and that is that the periodic review
14 and analysis of the market is focused on market rules and
15 whether they need to be changed. But there's a lot of
16 additional activities beyond the periodic analysis, that go
17 to helping flesh out what the solution to the problem is,
18 and meeting with participants and ISO staff.

19 When I have looked at it, it's roughly equal
20 resources in each of those three areas.

21 CHAIRMAN KELLIHER: Really? I would have thought
22 that reviewing the markets would have been clearly number
23 one, and that is how you would identify market rules.

24 You'd see something happening in the market, that
25 wouldn't be explained by fundamental market forces. Then

1 you see how the rules are orchestrating that outcome.

2 MR. PATTON: The reason I was saying about equal,
3 is, a review of the performance of the market -- I was
4 thinking of the resources devoted to like the State of the
5 Market Report, not the day-to-day evaluation of how the
6 market's operating.

7 Defined, I think, the way you're describing it,
8 you know, I would say over 50 percent would be on the
9 performance of the market.

10 CHAIRMAN KELLIHER: Anyone else?

11 MR. BOWRING: I think you've gotten to the
12 essential point, which is the underlying work, call it
13 analysis of the markets or whatever, is what informs all
14 three of those pieces. That's easily 50 percent.

15 The fourth category is one that's come up, and
16 that's looking at RTO implementation of rules. We spend a
17 significant amount of time on that, as well. I think that
18 is an important function for monitors.

19 CHAIRMAN KELLIHER: With respect to the policy
20 statement also -- I'm sorry?

21 MR. BUECHLER: I guess I would estimate -- the
22 breakdown that I gave you was a little bit different than
23 the question you asked, I guess, but our monitoring of the
24 markets, I would say, is about 50 percent for the internal
25 unit, and then perhaps 25 percent in either of the other two

1 functions, in terms of reviewing the rules and performance
2 improvements and the reporting functions.

3 CHAIRMAN KELLIHER: I don't want to talk about
4 specific referrals, but I can ask about the incidence of
5 referrals. In a given year, how many referrals -- or, pick
6 another period of time, if you like. What's the incidence
7 of referrals to the Commission that you think -- well, that
8 you've seen recently? Or should I not ask that question?
9 Okay, skip that question, because it leads to speculation.

10 Something Mr. Bowring said, Joe said, I'm not
11 sure I heard you right about the arrangements. Following on
12 some of Suedeen's questions, there's different arrangements.

13 Does MISO have an internal market monitor or only
14 external? Okay, so there's only internal, there's only
15 external, and there's hybrid.

16 Joe, did you say earlier that you thought hybrid
17 was the best arrangement?

18 MR. BOWRING: No.

19 (Laughter.)

20 MR. BOWRING: But I understand why you thought I
21 said something similar to that. I might even have used the
22 term, "hybrid," and if I did, the reason was that I think a
23 combination of the institutional guarantees that exist in
24 MISO for the independence of the market monitoring function,
25 can be combined with an internal market monitoring function,

1 and, perhaps I think that's what it was.

2 CHAIRMAN KELLIHER: We were very focused on
3 transition planning today. I was just curious as to what
4 the role of market monitors is in the RTO and ISO
5 transmission planning process, whether it be a single state,
6 or regional. Are you all involved in transmission planning,
7 or do the engineers rule that?

8 MR. CASEY: I can start with California. We're
9 not directly involved in transmission planning.
10 Transmission planning is a high-priority business initiative
11 at the California ISO.

12 CHAIRMAN KELLIHER: I'm sorry to interrupt, but
13 when you do your State of the Market Report, that's
14 something you would look at?

15 MR. CASEY: For sure.

16 CHAIRMAN KELLIHER: You're aware of where the
17 constraints are?

18 MR. CASEY: We are certainly keenly aware of
19 where the constraints are. They obviously affect market
20 outcomes.

21 In our State of the Market Report, we provide a
22 summary assessment of past and future transmission work and
23 our view of how it will impact the market.

24 We're just mainly, from a resource standpoint --
25 we don't have enough resources to be directly involved in

1 what is a tremendously time-intensive technical issue, which
2 is assessing whether transmission projects are warranted
3 from a reliability or economic standpoint.

4 CHAIRMAN KELLIHER: Thank you. Mr. Buechler?

5 MR. BUECHLER: I have been involved, in a
6 recently former life, quite heavily in our transmission
7 planning process, although not in the context of our market
8 monitoring responsibilities. I can tell you that our
9 comprehensive reliability planning process does have
10 explicit provisions for review by the independent market
11 advisor at several stages along the way in each cycle of
12 that process.

13 So there's a tie-in there, but, other than that,
14 our internal market monitoring unit is not involved in the
15 planning process or the interconnection process. That's the
16 planning engineers, if you will.

17 COMMISSIONER BROWNELL: I hate myself for this
18 and I'm sorry, but I guess I'd like to add on to that
19 question or just ask it a different way.

20 If you see chronically congested areas where a
21 transmission owner who owns generation through an affiliate
22 or otherwise, may be able to advantage that generation by
23 not fixing the congestion point, is that market power? Is
24 refusal to build transmission to fix something, over some
25 period of time, is that market power? Is there some anomaly

1 in LMP pricing or something that makes that an attractive
2 strategy? It is a strategy that some have suggested exists
3 in some, I don't think all, but some organized markets.

4 Some people have actually filed it in comments to
5 the SEC, I would suggest. Who looks at that?

6 MR. BUECHLER: It could be, Commissioner, but, in
7 New York, I guess, we're fortunate, if you will, in that
8 virtually all of the utilities have divested their
9 generation, with the exception of the power authorities that
10 exist in New York, so that really is not an issue that we've
11 had to be concerned about.

12 I would agree with you that that certainly could
13 be an evidence of exercise of market power, in the vertical
14 sense.

15 MR. BOWRING: I would also agree that it could be
16 a form of exercise of market power. The potential is
17 certainly there. The countervailing forces are, to the
18 extent that PJM requires a transmission owner to build
19 something for reliability purposes, clearly that has to be
20 built, and there's not much choice about it, and to the
21 extent that the rules now require economic investments, and
22 one of the issues that I think the market monitors need to
23 be involved in is the tariffs; that is what defines an
24 economic investment.

25 But once that threshold is past, and if the RTO

1 has the authority to enforce that, that limits the ability
2 to exercise market power by not constructing an economic
3 investment.

4 COMMISSIONER BROWNELL: I'm going to be careful
5 because we've got at least one pending complaint in PJM
6 about that issue. When I look at what did PJM spend on
7 transmission upgrades last year, \$49 million -- I think it's
8 about \$49 million -- and I look at ITC, it's about a quarter
9 of the size, maybe an eighth of the size, and they spent
10 \$110 million and got all kinds of savings from fixing some
11 congestion points, I jus have to wonder what's going on.

12 It's got to be more than siting issues. It's
13 why we dealt with planning this morning. But there's some
14 kind of market power issues going on that I think maybe
15 we've done a good job, you've done a good job at looking at
16 generation market power, but ultimately, if you control the
17 highway, you control the world, and I'm not sure the entire
18 independence issue has been dealt with.

19 That's my view of the world.

20 CHAIRMAN KELLIHER: I want to give -- do you have
21 more questions?

22 COMMISSIONER BROWNELL: I absolutely don't.

23 (Laughter.)

24 CHAIRMAN KELLIHER: I want to give Staff an
25 opportunity to ask questions that they wish we'd asked

1 somewhat earlier. Are there any?

2 MS. COURT: No. Thank you very much for the
3 opportunity, Mr. Chairman. We will be quiet.

4 CHAIRMAN KELLIHER: I'll ask one question, the
5 last one on my list that I'm curious about: There are a
6 number of market monitors that oversee a single company. I
7 think PNM -- who else? APS, a couple in the West, right?
8 Are those the only two in the West? Okay.

9 Well, let's just take APS and PNM. Does Cal ISO
10 interact with the market monitors that oversee single
11 utility systems elsewhere in the West? Is it David in both
12 instances?

13 (Laughter.)

14 COMMISSIONER BROWNELL: Market power, David.

15 CHAIRMAN KELLIHER: I think you'd trip our 20-
16 percent screen, but do you interact with them, or do you
17 find that the market is so small that it doesn't really
18 help?

19 MR. CASEY: I think the answer is, typically, no.
20 I think the one exception would be there was an effort
21 underway a few years ago, with SIGME, to develop a West-wide
22 market monitor.

23 I think there was interaction with the various
24 monitors in that effort. I'm not sure where that's at. I
25 know there's a pilot study commissioned to look at the

1 merits of a West-wide market monitor. I think there's been
2 some interaction in that context, but not on as frequent a
3 basis, frankly, as we talked to these individuals.

4 CHAIRMAN KELLIHER: That was my last question.
5 Anything else?

6 (No response.)

7 CHAIRMAN KELLIHER: No? Cindy? No?

8 Thank you for coming. I really enjoyed this. I
9 always enjoy the state of the market presentations, but, to
10 me, this was helpful to go through just the nuts and bolts
11 of how you do your job, particularly in light of the policy
12 statement. Thank you for coming. I've enjoyed it.

13 (Whereupon, at 4:00 p.m., the market monitor
14 presentations were concluded.)

15

16

17

18

19

20

21

22

23

24