

RTO West
CONGESTION MANAGEMENT WORK GROUP MEETING (CM WG04)
 On June 27, 2000

RTO West at 5933 NE Win Sivers Dr.
 Portland and Telephone Conference Call
 8:30 – 4:00 pm

Work Group Meeting Summary
Version 1 – June 27, 2000

Attendees (34 attendees, 1 by telephone):

F-NAME	L-NAME	ORGANIZATION	PHONE	EMAIL
John	Anasis	BPA-TLB	360-418-2263	jganasis@bpa.gov
Jack	Anderson	Clark PUD	360-992-3136	janderson@clarkpud.com
Don	Badley	NWPP	503-464-2805	don.badley@nwpp.org
Eric	Carter	BPA-TBL	503-230-4201	ehcarter@bpa.gov
Ed	Cazalet	APX		ed@apx.com
Warren	Clark	Avista Corp	509-495-4186	wclark@avistacorp.com
Kurt	Conger	EXS Inc. for Seattle City	425-497-1133	kconger@nrgxs.com
Robin	Cross	Snohomish PUD	425-783-8481	rhcross@snopud.com
Steve	Daniel	GDS Associates for	770-425-8100	steved@gdsassoc.com
Angela	DeClerck	BPA-PBL	503-230-3886	ardeclerck@bpa.gov
Chuck	Durick	Idaho Power Company	208-388-2450	cdurick@idahopower.com
Tom	Foley	Renewable NW Project	503-288-0973	tjfoley@teleport.com
Brian	Gedrich	GDS Associates for	770-425-8100	briang@gdsassoc.com
Wally	Gibson	Northwest Power	503-222-5161	wgibson@nwppc.org
Kurt	Granat	PAC Transmission	503-813-5744	kurt.granat@pacificorp.com
David	Hackett	KEMA Consulting	503-258-0187	dhackett@kemaconsulting.com
Denise	Hill	Trans Alta	503-675-3816	denise_hill@transalta.com
Coe	Hutchison	Snohomish PUD	425-783-8297	cmhutchison@snopud.com
Carl	Imparato	Power Marketers	510-558-1456	cfi1@tca-us.com
John	Leland	Montana Power	406-497-3383	jleland@mtpower.com
Dennis	Metcalfe	BPA-TBL	360-418-8679	demetcalfe@bpa.gov
Ron	Moulton	WAPA – CRSP-MC	801-524-4012	moulton@wapa.gov
Arne	Olson	WA DCTED	360-956-2022	arneo@ep.cted.wa.gov
Ren	Orans	Energy & Environmental	415-391-5100	ren@ethree.com
Dave	Perrino	Automated Power	408-517-2146	dperrino@apx.com
Deanna	Phillips	BPA-PBL	503-230-5164	dmphillips@bpa.gov
Dennis	Phillips	BPA-PBL	503-230-5062	dwphillips@bpa.gov
Chris	Reese	Puget Sound Energy	465-462-3055	creese@puget.com
Jerry	Rust	ESCA Corporation	503-626-3932	lorusty4@msn.com
Brian	Silverstein	BPA-TBL	360-418-8678	blsilverstein@bpa.gov
Jim	Tucker	Deseret G&T Co-	801-619-6504	jtucker@deseretgt.com
Rick	Vermeers	Avista Corp.	509-495-8057	rvermeers@avistacorp.com
Steve	Walton	Enron	713-345-7793	steve.walton@enron.com
Linc	Wolverton	Industrial Customers of	360-263-3675	lwolv@worldaccessnet.com

Calendar:

May 24, 2000	Kick-Off Meeting for WG (Meeting #1)-Complete	RTO West Facility
June 6-7, 2000	Congestion Management Workshop Complete	RTO West Facility
June 12	CM WG Meeting #2 (9:30am – 4 pm) Complete	RTO West Facility
June 19	CM WG Meeting #3 (9:30am – 4 pm) Complete	RTO West Facility
June 26-27	June 26 – Joint CM /AS WGs Meeting Complete	RTO West Facility
	June 27 – CM WG Meeting Completed	RTO West Facility
July 10-11	CM WG Meeting #5 (9:30 am – 5 pm, 8:30am – 12 pm)	RTO West Facility
July 17-18	CM WG Meeting #6	RTO West Facility
July 24-25	CM WG Meeting #7	RTO West Facility
July 31-August 1, 2000	CM WG Meeting #8	RTO West Facility

Note: Assignments below include new, open, in-progress and closed (closed last meeting but report in these minutes). Assignments closed prior to last meeting and previously reported in the minutes have been deleted.

Assignments (Includes Action Items) from June 27 Work Group Meeting:	Status
1. Carl Imparato is define the permissive dispatch market details for review at the Joint CM/AS meeting in the afternoon on July 11,2000.	New
2. Teams A, B, and E defined in agenda item 5 to generate a draft position on the assigned area and be prepared a presentation for the July 10 WG meeting.	New
3. Teams C and D defined in agenda item 5 to generate a draft position on the assigned areas. If ready to present on July 10-11, let D. Hackett know by July 6 COB.	New
Assignments (Includes Action Items) from June 19 Work Group Meeting:	Status
1. Team #1 to clean up the list of constrained paths (flowgates), define the rational for the path being on the list (e.g.; existing operational procedures, % loading by time, historical usage, etc.) and identify the constrained lines by name if not previously identified. The goal is to complete this assignment by the June 27, next meeting of the CM WG	In progress
2. Brian Silverstein offered to investigate if he could find someone to perform flowgate analysis studies for the WG. (due 6/27)	Closed, Gordon Comegys is assigned.
3. Each WG member is to identify several generator and load withdrawal point within each area modeled.	In progress
4. Team #2 agreed to update draft document to incorporate the topics discussed.	In progress
5. Flow distribution factors to be created to enable CM WG to proceed with determining the commercial viability of the flowgate model	Not assigned yet, pending outcomes of

(including methods for creating zones, effect of ignoring FDFs less than a threshold, and effects of holding FDFs constant).	#2 and #3.
Assignments (Includes Action Items) from June 12 Work Group Meeting:	Status
3. C. Imperato to distribute papers from DSTAR and CAISO on approaches to update flowgates and zones.	Closed, CAISO draft available at the 6/19 meeting but not discussed.
Assignments (Includes Action Items) from May 24 Work Group Meeting:	Status
2. Deanna Phillips volunteered to be the WG liaison with NERC CM activities.	Ongoing

Summary of Consensus (Decisions Made):

RTO West will pursue the development of the physical rights, flow gate model, including (i) a continuous, post-day-ahead scheduling process and (ii) a RTO facilitated, real-time balancing energy market

Highlights of Meeting by Agenda Topic

Agenda topic 1 - Introduction / Finalize Agenda

The agenda was accepted as drafted.

Agenda topic 2 - Rights Models – discussion of Physical vs. Financial

The topic of right allocation and the characteristics of physical and financial models were discussed in length. Right allocation from contract path to flow based rights is a difficult problem in either model. If the rights allocation subject is set aside, the models are similar up to the day ahead market. Between day ahead and real time markets differences exist but these differences can be minimized by choices taken within each model.

After further discussion, the group arrived at a consensus for Working Agreement on Transmission Access Model as follows:

Provided that: Efficient, continuous electronic markets exist for transmission rights, redispatch and ancillary services, and Potential for anti-competitive behavior is addressed,

RTO West will pursue the development of the physical rights, flow gate model, including (i) a continuous, post-day-ahead scheduling process and (ii) a RTO facilitated, real-time balancing energy market using a "permissive dispatch market" and with no penalties initially implemented. In addition:

The RTO tariff would allow penalties to be instituted if they are subsequently determined to be necessary for operational security and upon approval by FERC.

The RTO will establish protocols that give the RTO the ability, in the event of real time

emergencies, to call upon any resource connected to the RTO grid, for the purpose of maintaining grid security.

By definition a permissive dispatch market is a real time market that provides a price signal (\$) to the market and the market responds to the price signal with energy.

Note on conversation after the consensus was taken: This concept has not been implemented in an existing ISO/ISA/RTO to date and the group will proceed with caution to define the details behind the process. This caution is related to ensuring adequate reliability in the real-time market and feasibility of implementation. If the caution becomes to an issue, then the supplemental bid market by the RTO will be addressed as the backup technique. Defining the permissive market must take a priority due to the unknown aspects of the model.

The lead WG for defining the Balance Market is the Ancillary Services WG. CM WG will jointly participate to cover congestion. As an assignment, Carl Imparato is define the permissive dispatch market details for review at the Joint CM/AS meeting in the afternoon on July 11,2000.

Once the model is developed, the group, prior to acceptance at the detail level, will test the model.

Agenda topic 3 – Presentation by Dr. Ed Cazalet of APX

Dr. Cazalet made a presentation and led a discussion on the external market, market's capability, processes and procedures behind the market, maturity of the market makers, etc. The packages presented are flexible and can be tailored to meet the needs of the client.

Dr. Cazalet answered a number of questions about the market, how it could work and differences between APX and other market makers.

Please reference the presentation material for additional data.

Agenda topic 4 - Report/Discussion by Team #2 (Stability of FDF / Criteria)

Kirk Conger made a presentation using PowerWorld to show the graphical effects of transfers (flows) on the network depending on where the source and sink were designated in the program. The input to the program was a WSCC base case.

John Anasis' will be working with a smaller WG team to define as set of injections and sinks to test the sensitiveness and significance of the flow gates via a series of studies.

Agenda topic 5 - Time/Policy Issues (continuation of 6/12 WG meeting)

With the high level model defined as physical rights with flow gates, the next step defined was to list the open issues and identify teams to develop a draft position by the next

meeting on July 10-11. The starting point is DSTAR or MWISA and add/ delete text to develop a draft for review by the WG.

Team A. (old team 2) to answer the questions of:

How many rights are needed? When issued?

What are the rights (Term Sheet)? Considers both less than 1 year and greater than one year. Investigate Firm, non-Firm, and NC rights.

How are revenues from sale of rights treated?

How do you define incentives for above average availability?

How do you manage: a) Congestion with contingencies in real-time (curtailment)?

b) Congestion with contingencies in day ahead to real-time market (curtailment)?

c) Residual Congestion?

d) Seams / Externalities?

How do you define the stability of flow distribution factors and how/when do you derate flow gate rights?

Team consist of: Ren Orans (Leader), Deanna Phillips, John Anasis, Brian Silverstein, Kirk Granat, Carl Imperato, Dave Perrino, Dennis Phillips, Wally Gibson, Arne Olson, and Don Long.

Team B. to answer: How are existing rights handled at startup of the RTO?

What are the committed uses of existing rights? How are these committed uses of existing rights translated to flow gates? How are the translated rights allocated? Consider both Network and PTP.

This team consists of: Coe Hutchinson, Deanna Phillips, Brian Silverstein (Leader), Angela DeClerck, and Kirk Conger.

Team C. to answer: How are the pricing signals for long-term expansion generated?

Team consists of: Wally Gibson, Steve Walton, Brian Silverstein, and Tom Foley.

Team D. to answer: How do you mitigate market power?

This team consists of Angela DeClerck and Dennis Phillips.

Team E. (old team 1) to address: What are the flow gates and how are they changed? What are the FDF for the flow gates and what is commercially significant?

Team members are Rick Vermeers (Leader), Ray Brush, Chuck Durick, Kirk Granat, John Anasis, Chris Reese, M. Ryan, J. Tucker, and P. Parks.

Teams C and D are lower priority and they can be addressed after the July 10-11 meetings.

The work group meeting ended at 4:25 pm.

Next Meeting:

- Next meeting: July 10-11, 2000 9:30 am - 5 pm, 8:30 am- 4:00 pm, Work Group #5 on Congestion Management @ RTO West Facility, 5933 NE Win Sivers Dr., Portland, OR, 97220
- Call in telephone number for both days: 303-633-0612 (10 lines)
- Agenda for Work Group Meeting #5
 - July 10-11 – CM WG Meeting
 - Report by Teams
 - Next step
 - Afternoon of July 11 joint meeting with AS WG to cover
 - Schedule Coordinator Draft
 - Balance Market Draft
 - Control Area Models

Minutes prepared by: D. F. Hackett

Handouts (Items not previously email in electronic form)

Creation, Modification and Elimination of Zones (CAISO Tariff) (electronic copy of document Distributed at the 6/19 meeting)

Initial Zones

The initial Zones are as set forth in Appendix I to this ISO Tariff.

Modifying Zones.

The ISO shall monitor usage of the ISO Controlled Grid to determine whether new Zones should be created, or whether existing Zones should be eliminated, in accordance with the following procedures.

- If over a 12-month period, the ISO finds that within a Zone the cost to alleviate the Congestion on a path is equivalent to at least 5 percent of the product of the rated capacity of the path and the weighted average Access Charge of the Participating TOs the ISO may announce its intention to create a new Zone. In making this calculation, the ISO will only consider periods of normal operations. A new Zone will become effective 90 days after the ISO Governing Board has determined that a new Zone is necessary.
- The I SO may, at its own discretion, shorten the 12-month and 90-day periods for creating new Zones if the ISO Governing Board determines that the planned addition of new Generation or

Load would result in Congestion that would meet the criterion specified in Section 7.2.7.2.1.

- During the initial 6 months following the ISO Operations Date, the ISO may create new Zones if within an existing Zone the cost to alleviate the Congestion on a path is equivalent to at least 10 percent of the product of the rated capacity of the path and the weighted average Access Charge of all the Participating TOs.
- If a new transmission project or other factors will eliminate Congestion between existing Zones, the ISO may modify or eliminate those Zones at its discretion.
- The ISO may change the criteria for establishing or modifying Zone boundaries, subject to regulatory approval by the FERC.

Active and Inactive Zones

An Active Zone is one for which a workably-competitive Generation market exists on both sides of the relevant Inter -Zonal Interface for a substantial portion of the year so that Congestion Management can be effectively used to manage Congestion on the relevant Inter-Zonal Interface. Pending the ISO's determination of the criteria for defining workable competitive generation markets", the Inactive Zones will, as an interim measure, be those specified in Section 7.2.7.3.4.

The Congestion Management described in this Section 7.2, and the Usage Charges stemming from the application of these procedures, shall not apply to Inter-Zonal Interfaces with Inactive Zones.

For Inactive Zones, any costs associated with Congestion Management on the inactive Inter- Zonal Interface (for example, the above market costs associated with Generation "call" contracts) will be allocated to the Service Area of the Participating TOs who own the inactive Inter-Zonal Interface, as set forth in the TO Tariff and any Intra-Zonal Congestion Management costs within the Inactive Zone and the adjacent Zone will be combined and will be allocated as if the two Zones were a single Zone.

The initial inactive Inter-Zonal Interfaces are the interface between the San Francisco Zone and the remainder of the ISO Controlled Grid, and the interface between the Humboldt Zone and the remainder of the ISO Controlled Grid. The initial Inactive Zones are the San Francisco Zone and the Humboldt Zone.

The determination of whether a new Zone or an existing Inactive Zone should become an Active Zone and the determination of whether a workably-competitive Generation market exists for a substantial portion of the year, shall be made by the ISO Governing Board, using the same approval criteria as are used for the creation or modification of Zones. The ISO Governing Board shall adopt criteria that define a "workably competitive Generation" market. The ISO Governing Board will review the methodology used for the creation or modification of Zones (including Active Zones and Inactive Zones) on an annual basis and make such changes, as it considers appropriate.