

RTO WEST, INC.

**APPENDIX C:
DISPATCH AND EMERGENCY
OPERATIONS**

3/21/01DRAFT

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APPENDIX C: Dispatch and Emergency Operations

C.1 OVERVIEW

C.1.1 OPERATING ENTITIES

The Operating Entities for the RTO West Grid are RTO West, Inc. (“RTO West”), B.C. Independent Grid Operator, the Area Control Centers (“ACCs”, including the ACCs of Self-Tracking Systems), the Generation Control Centers (“GCCs”), the Participating Transmission Owners (“PTOs”), and the Scheduling Coordinators (“SCs”) to the extent they represent Dispatchable Demands and Generating Units.

C.1.2 RTO WEST CONTROL AREA

RTO West shall manage hierarchical control of the former utility Control Areas within the RTO West service territory through communications and instructions to the Operating Entities as described in this Appendix.

C.1.3 DISPATCH INSTRUCTIONS

Dispatch Instructions may be issued by RTO West to an ACC in the exercise of RTO West’s Operational Authority over the RTO West Grid. Dispatch Instructions may be issued by RTO West to a GCC to change the power output of a Generating Unit or to change the consumption level of Dispatchable Demands. Dispatch Instructions may be issued by RTO West, or a PTO, directly to a Generating Unit to change the reactive power output of the Generating Unit for voltage control. RTO West may also issue Dispatch Instructions directly to Generating Units or Dispatchable Demands during System Emergencies as further described in Section C.9.

C.1.4 RESPONSIBILITIES AND AUTHORITIES

- a) RTO West has Operational Authority over the RTO West Grid as defined in the RTO West Tariff. RTO West will:
 - i) determine use of the RTO West Grid;
 - ii) manage all aspects of scheduling on the RTO West Grid;
 - iii) determine total required Ancillary Services, in accordance with the requirements of Appendix D, and, when appropriate, Ancillary Services required within each Congestion Zone or portion of a Congestion Zone that is part of a Self-Tracking System, including those that are “self-provided” by SCs; and
 - iv) procure required Ancillary Services that SCs do not self-provide; and
 - v) manage the activation of Ancillary Services. RTO West will determine and maintain a Balancing Energy Stack to use to balance Demands and Resources for the RTO West Control Area.
- b) RTO West is responsible for the Settlement Period dispatch of Ancillary Services for load-frequency control within the RTO West Grid, including the use of electronic Dispatch Instructions as described in Section C.7.6.3 and implementation of RTO West’s Automatic Generation Control (“AGC”) function via the control systems of the GCCs to control the

RTO West Control Area's Area Control Error ("ACE"). RTO West will also receive and monitor the ACE equivalent of each Self-Tracking System. However, RTO West's Energy Management System ("EMS") will not direct a Self-Tracking System's EMS in the control of the Self-Tracking System's Generating Units. RTO West will direct the GCCs of SCs in the re-dispatch of Generating Units and Dispatchable Demands for the limited purpose of ensuring compliance with the Applicable Reliability Criteria during the Settlement Period as described in Section C.7 and will, if necessary, directly re-dispatch Generating Units and Dispatchable Demands during System Emergencies as described in Section C.9.

- c) The PTOs are responsible for the physical operation of the RTO West Grid's Transmission Facilities. The ACCs of PTOs perform the switching of breakers, reactors, transformers, capacitors, and phase-shifting transformers under the direction of RTO West and follow RTO West Dispatch Instructions. As agreed upon by RTO West and a PTO through predetermined procedures or delegation of authority, some of the above activities may be performed by that PTO's ACC without specific Dispatch Instructions issued by RTO West. The ACCs may also issue Dispatch Instructions to Generating Units for voltage control through authority delegated by RTO West.
- d) The GCC for each SC is responsible for the dispatch of the Generating Units and Dispatchable Demands for which it provides Scheduling Coordinator services. During normal operations GCCs follow the Dispatch Instructions of RTO West for the limited purpose of ensuring compliance with the Applicable Reliability Criteria during the Settlement Period as described in Section C.7.

RTO West Grid information e.g., (the status of Resources other than the SC's own Resources) or earlier access to important commercial information (e.g., the status of major Transmission Facilities) shall not be allowed to the Scheduling Coordinators, and the Market Participants they represent, or receive preferential access from their GCC or from the ACC responsible for the physical operation of the RTO West Grid to which the SCs Resources are connected, either directly or through the Distribution Facilities of a Utility Distribution Company ("UDC").

- e) Each Generating Unit and Dispatchable Demand is responsible for following all Dispatch Instructions: i) from the GCC of its SC; ii) from RTO West during System Emergency conditions; or in the case of Generating Units; iii) from a PTO with direction or delegated authority from RTO West to issue Dispatch Instructions for Generator voltage control where such direction or delegation of authority must be known to the Generating Unit in advance.
- f) The ACC of each PTO perform a variety of functions, depending on its specific characteristics. An ACC may provide, upon proper notification to RTO West, dispatching services: i) to SCs; ii) to PTOs; iii) to a Self-Tracking System; or, as long as the ACC meets the Standards of Conduct requirements of the Federal Energy Regulatory Commission ("FERC" or the "Commission") and the RTO West Code of Conduct, iv) to both SCs and PTOs. When a properly authorized ACC is providing any of these dispatching services, RTO West shall issue Dispatch Instructions directly to the ACC who shall then issue the Dispatch Instruction directly to the appropriate Operating Entity, Generating Unit or Dispatchable Demand.

C.2 STANDARDS

C.2.1 OPERATING STANDARDS

Operating Entities, Dispatchable Demands and Generating Units shall comply with the Applicable Reliability Criteria and RTO West policies, guidelines, Protocols and Operating Procedures, including the following:

- a) Applicable regional reliability Standards, Policies and Procedures;
- b) RTO West established standards, that may be more stringent than those established by the regional reliability organizations if necessary for the secure operation of the RTO West Grid. ~~***Legal should address how these are approved. Check the TOA.~~

C.2.2 EQUIPMENT OPERATING LIMITS

All Dispatch Instructions shall respect all equipment operating limits. Should a Dispatch Instruction conflict with a restriction that may be placed on equipment from time to time by a PTO or by the SC of a Generating Unit or Dispatchable Demand to protect the integrity of equipment, the restriction shall be honored by RTO West and all PTOs and ACCs. Any conflicts, including conflicts over the validity of a Dispatch Instruction and any resulting damage to equipment, that cannot be satisfactorily resolved may be brought to RTO West by any of the disputing parties for investigation and dispute resolution through RTO West's Alternative Dispute Resolution ("ADR") process.

C.2.3 CONTRACTUAL OBLIGATIONS

Operating Entities, Dispatchable Demands and Generating Units shall comply with the following as applicable:

- a) All terms and conditions of the RTO West Tariff;
- b) All terms and conditions of any applicable Transmission Operating Agreement ("TOA");
- c) All terms and conditions of any applicable Scheduling Coordinator Agreement ("SCA");
- d) All terms and conditions of any applicable Generation Integration Agreement ("GIA");
- e) All terms and conditions of any applicable Load Integration Agreement ("LIA");
- f) All terms and conditions of any applicable Interconnection Agreement; ~~***Does this apply?~~
- g) All Dispatch Instructions consistent with the RTO West Tariff; and
- h) RTO West Operating Procedures and Protocols issued pursuant to the RTO West Tariff. ~~***Verify definitions~~

C.3 DISPATCH INSTRUCTIONS

C.3.1 DISPATCH INSTRUCTIONS: RTO WEST OPERATIONAL AUTHORITY

RTO West shall issue to ACCs and GCCs, and ACCs and GCCs shall implement, the following RTO West Dispatch Instructions in order for RTO West to exercise its Operational Authority over the RTO West Grid, Generating Units and Dispatchable Demands:

- a) Direct ACCs in the physical operation of the RTO West Grid, including operation of circuit breakers, switches, voltage control equipment, protective relays, metering, remedial action schemes, and Load Shedding equipment;
- b) Direct ACCs in implementing changes in the operation of Generating Units for voltage control;
- c) Direct GCCs in the start-up, commitment, re-dispatch or shut-down of Resources, including Local Generation Resources (“LGRs”), as needed for the limited purpose of complying with the Applicable Reliability Criteria; ~~***Verify that RTO West has this ancillary service.~~
- d) Take those additional actions required to prevent an imminent System Emergency or to restore the RTO West Grid to a secure state in the event of an actual System Emergency;
- e) Direct the GCCs to implement the RTO West-wide dispatch of the Balancing Energy Stack as required by RTO West to manage the RTO West ACE, including the use of the GCCs’ EMSs (including the EMSs of ACCs performing GCC functions in accordance with the provisions of Section C.1.4.f), except those EMSs associated with a Self-Tracking System, to implement RTO West’s AGC function; ~~***Rewording?~~
- f) Direct the GCCs in the activation of Ancillary Services in order to manage the RTO West-wide ACE and respond to Resource and transmission contingencies; and
- g) Direct emergency re-dispatch of Dispatchable Demands and Generating Units to relieve overloads on Transmission Facilities if Congestion Management process is ineffective. ~~***Congestion Management review!~~

C.3.2 DISPATCH INSTRUCTIONS: PTO AUTHORITY

The ACC of each PTO is authorized to issue Dispatch Instructions to Generating Units to direct changes in the operation of voltage control equipment during normal operations for those Generating Units over which RTO West has specifically delegated voltage control authority to the ACC.

C.3.3 DISPATCH INSTRUCTIONS: CONTENTS

Dispatch Instructions from RTO West to the GCC of an SC or to the ACC of a PTO shall include the following information:

- a) Exchange of operator names;
- b) Specific Resources, Transmission Rights, contracts or Transmission Facilities that are the subject of the Dispatch Instruction;
- c) Specific action required;

- d) Confirmation of the present operating level or status of the Resources or Transmission Facilities that are the subject of the Dispatch Instruction;
- e) Operating level or status to which such Resources or Transmission Facilities will be dispatched;
- f) Time the Dispatch Instruction was issued;
- g) Time at which the ACC, PTO, GCC, SC, Dispatchable Demand or Generating Unit is required to initiate the Dispatch Instruction;
- h) Time at which the ACC, PTO, GCC SC, Dispatchable Demand or Generating Unit is required to complete the Dispatch Instruction; and
- i) Other information that is relevant to the specific Dispatch Instruction.

C.3.4 DISPATCH INSTRUCTIONS: PROCEDURES

Dispatch Instructions may be issued by RTO West to the ACC of a PTO (for the operation of Transmission Facilities), or to the GCC of a SC (for implementation of RTO West-wide dispatch of the Balancing Energy Stack). A GCC may issue a Dispatch Instruction on behalf of an SC for: i) the Settlement Period dispatch of Ancillary Services; or ii) curtailment of the Resources or Transmission Rights for which the SC has scheduling responsibility. Dispatch Instructions may also be issued by RTO West or the ACC of a PTO to a Generating Unit for voltage control. The procedures for issuing and responding to Dispatch Instructions are as follows:

- a) All Dispatch Instructions affecting the operation of Generating Units and Dispatchable Demands - whether for dispatch of Ancillary Services, System Emergencies or any other reason - shall be directed to the GCC of the SC that is responsible for the affected Generating Unit or Dispatchable Demand, except for:
 - i) Dispatch Instructions that are conveyed automatically through AGC signals to Generating Units that are providing Regulation service;
 - ii) Dispatch Instructions that are conveyed automatically through an electronic dispatch messaging system through the SCs' GCCs to Generating Units and Dispatchable Demands that are providing Load Following Up, Load Following Down, Supplemental Energy or Operating Reserve service;
 - iii) Dispatch Instructions issued directly to Generating Units for voltage control;
 - iv) Dispatch Instructions issued that must, in RTO West's opinion, be issued directly to Generating Units or Dispatchable Demand during a System Emergency in accordance with Section C.9; and
 - v) Dispatch Instructions required preventing imminent threats of bodily harm.
- b) The GCC of each SC shall immediately forward any Dispatch Instruction to the appropriate Generating Unit or Dispatchable Demand.
- c) If the Operating Entity that issued the Dispatch Instruction believes that a Generating Unit or Dispatchable Demand has inadequately responded to a Dispatch Instruction, the Operating Entity shall notify the appropriate GCC, SC and/or RTO West.

- d) Non-emergency Dispatch Instructions shall be issued by electronic means whenever possible. Auditable records of all Dispatch Instructions shall be retained by the Operating Entity issuing the Dispatch Instructions as required by the RTO West Tariff.
- e) The recipient of a verbal Dispatch Instruction shall confirm the Dispatch Instruction by repeating the Dispatch Instruction to the relevant Operating Entity issuing the Dispatch Instruction.
- f) All Operating Entities that issue Dispatch Instructions shall record all voice conversations that occur in the communication of Dispatch Instructions. These recordings shall be retained by the Operating Entity issuing the Dispatch Instructions as required by the RTO West Tariff.
- g) All Dispatch Instructions and related relevant information shall be logged by the Operating Entity that issued the Dispatch Instruction as soon as practical after the issuance of the Dispatch Instruction and shall be made available to RTO West daily.

C.3.5 DISPATCH INSTRUCTIONS: COMPLIANCE

- a) Each ACC, PTO, GCC, SC, Dispatchable Demand and Generating Unit within the RTO West Grid shall comply fully and promptly with all Dispatch Instructions, unless such compliance would impair public health or safety, or result in damage to equipment.
- b) In the event that the recipient of a Dispatch Instruction believes that compliance with the Dispatch Instruction would create a threat of bodily harm or safety, or result in damage to equipment, the recipient of the Dispatch Instruction shall immediately notify the Operating Entity that issued the Dispatch Instruction and the following procedure shall apply:
 - i) If compliance with the Dispatch Instruction might result in damage to equipment or create a threat of bodily harm: the recipient of the Dispatch Instruction shall inform the Operating Entity that issued the Dispatch Instruction of the potential damage to equipment or threat of bodily harm.
 - ii) If the Operating Entity chooses to re-issue the Dispatch Instruction, the recipient of the Dispatch Instruction may choose to not comply with the Dispatch Instruction; however, the recipient of the Dispatch Instruction shall demonstrate, through RTO West's ADR process, that it had compelling reason to believe that compliance with the Dispatch Instruction would have created a potential damage to equipment or threat of bodily harm.
 - iii) In addition, the non-complying recipient of the Dispatch Instruction shall be liable for any charges associated with non-provision of Ancillary Services in accordance with the provisions of Appendix D. ~~***Verify reference.~~
- c) In all cases in which the validity of a Dispatch Instruction is disputed, all affected Operating Entities shall document their communications, agreements, disagreements, and reasons for their actions, to enable final resolution of the dispute through RTO West's ADR process.
- d) Subject to prior Commission approval, RTO West may establish penalties for an Operating Entity's failure to issue or respond to a valid Dispatch Instruction or otherwise comply with the terms and conditions of the RTO West Tariff.

C.4 CHANGES AFTER THE SCHEDULE ADJUSTMENT PROCESS

C.4.1 CHANGES TO SCHEDULES

~~Just a thought about a) and b): If transmission or generation goes down, you must make schedule changes — there is no option. The language below uses the words, “may request” and “in the event the RTO West allows”. This is inconsistent with what must happen.~~

- a) After the close of the Schedule Adjustment Process, an SC may request that RTO West accept a change in its Schedule only in the event of an unplanned Outage of a generating Resource that is part of its Resource Schedule or an unplanned reduction of Transmission Rights across an FTR Interface or Scheduling Point requiring the SC to curtail its Schedule on that FTR Interface or Scheduling Point. Documentation shall be provided to RTO West on request to verify any changes in its Schedule after the close of the Schedule Adjustment Process.
- b) In the event that RTO West allows an SC to change a Schedule involving a non-RTO West CAO or another Regional Transmission Organization (“RTO”) after the close of the Schedule Adjustment Process, RTO West will coordinate the Schedule change with the other affected scheduling entities in accordance with WSCC scheduling requirements.
- c) In the event that RTO West allows an SC to change a Schedule affecting the Operating Plan, RTO West shall update the Operating Plan and distribute such update in accordance with the requirements of Appendix B ~~***verify reference.~~
- d) Nothing in this Appendix C ~~***verify reference~~ or the RTO West Tariff restricting the ability of SCs to change the Schedules against which actual Generation and Demand will be compared to determine Balancing Energy requirements shall be interpreted to restrict the ability of SCs to change the operation of their Resources in Real-Time after coordination with RTO West to ensure that such changes can be accommodated and still allow RTO West to meet the Applicable Reliability Criteria.

C.4.2 CHANGES IN GENERATING UNIT AND DISPATCHABLE DEMAND STATUS

- a) Each SC shall require each Generating Unit or Dispatchable Demand for which it is responsible to take those measures necessary to ensure that the GCC of the SC is aware of any change or potential change in equipment status or operating characteristics that could:
 - i) affect the Resource’s ability to meet its Energy schedule, Ancillary Services commitments, planned start-up, or other time commitments.
 - ii) impact the secure operation of the RTO West Grid.

Such changes include changes in the Resource’s minimum Energy output or consumption level, maximum Energy output or consumption level including, in the case of hydroelectric Generating Units, an unplanned water directive beyond the control of the Generator or its SC, and, for all applicable Generating Units, the ability to operate with automatic voltage regulation and/or power system stabilizers, the availability of the Generating Unit’s governor, and performance problems with AGC equipment, voltage control equipment, or power system stabilizers.

- b) Each Generating Unit’s or Dispatchable Demand’s GCC shall immediately notify RTO West of any change or potential change in equipment status or operating characteristics that could impact the secure operation of the RTO West Grid. RTO West will notify any

relevant ACC or PTO or other entity of any changes in equipment status or operating characteristics listed above on a need to know basis.

- c) RTO West shall document all changes in Generating Unit or Dispatchable Demand equipment status or operating characteristics listed above, and shall retain such documentation as required by the RTO West Tariff.

C.4.3 CHANGES TO ANCILLARY SERVICES SCHEDULES

- a) In the event of unavailability of a Resource that has been scheduled to provide an Ancillary Service, an SC or its GCC may request that RTO West accept an SC-designated replacement Resource at the same price. RTO West shall accept the replacement Resource, provided that:
- i) The request is made in a timely manner, consistent with the timing requirements of Real-Time operations;
 - ii) The replacement Resource meets the Settlement Period needs of the RTO West Grid and is accompanied by any necessary Transmission Rights;
 - iii) If providing Regulation, the replacement Resource can be immediately switched into the AGC control of the applicable GCC's AGC system; ~~(Does each GCC have an AGC? Does each generator need to belong to a GCC?)~~
 - iv) The change would not require the re-dispatch of the Resources of other SCs; and
 - v) The change would not interfere with RTO West's or any affected GCC's or ACC's other operational duties.
- b) RTO West may acquire additional Ancillary Services if the RTO West Grid requirements change due to:
- i) Changes in system conditions (for example, changes in Load Following requirements as a result of changes in the ramp rate of Demand).
 - ii) Scheduling of additional Demand by SCs or changes in RTO West's Demand forecast.
 - iii) Changes in the availability of previously-committed Ancillary Services Resources.
- c) RTO West shall procure such additional Ancillary Services by selecting from stacks of outstanding Ancillary Services bids that have not been withdrawn by the SCs. These stacks shall be continuously updated by RTO West as SCs provide additional bids and withdraw bids that have not been selected. Bids to provide Ancillary Services shall be Resource specific. If a Resource that is scheduled to provide an Ancillary Service is unavailable, RTO West may procure a substitute Ancillary Service as described above.
- d) Documentation shall be provided to RTO West on request to verify the validity of any Ancillary Service Schedule changes after the close of the Schedule Adjustment Process.
- e) The responsibilities for the costs of changes in Ancillary Services Schedules is described in Appendix D ~~***verify reference~~.

C.4.4 CHANGES TO ANCILLARY SERVICES BIDS

- a) Additional Ancillary Services bids may be submitted to RTO West up to thirty (30) minutes before the start of a Settlement Period. Such bids shall be incorporated into the uncommitted Ancillary Services bid stacks as time permits.
- b) Ancillary Services capacity bids that have not been selected by RTO West may be withdrawn by the SC at any time up to thirty (30) minutes before the start of a Settlement Period. However, once an Ancillary Service capacity bid has been selected, it may not be withdrawn.
- c) Supplemental Energy bids may be withdrawn by the SC at any time before being called upon by RTO West through issuance of a Dispatch Instruction.

C.4.5 CHANGES IN TRANSMISSION FACILITY STATUS

- a) Scheduled Outages of Transmission Facilities shall be handled in conformance with Appendix F ~~***verify reference, Outage Coordination.~~
- b) The ACC for each PTO shall coordinate any requests for, or responses to, Forced Outages of Transmission Facilities that are under RTO West's Operational Authority with RTO West.
- c) The ACC for each PTO shall immediately inform RTO West of any change or potential change in the status of the PTO's transmission-related equipment (including line and station equipment, line protection, Remedial Action Schemes ("RASs"), communication problems, etc.) that impacts Transmission Facilities under RTO West's Operational Authority.
- d) The ACC for each PTO shall immediately provide to RTO West any other information that could affect the security of the RTO West Grid, including adverse weather conditions, fires, bomb threats, etc.
- e) Upon receipt of any information required in this Section C.4.5, RTO West shall determine whether the transfer capability of any FTR Interface or Scheduling Point would be affected. If the transfer capability of an FTR Interface or Scheduling Point would be affected, RTO West shall immediately determine any required curtailment of Transmission Rights for the affected FTR Interface(s) or Scheduling Point(s) and immediately post the results on the RTO West Website and distribute such curtailment information through ~~the E~~lectronic ~~I~~nformation ~~S~~ystem ("EIS"). ~~Is the EIS something similar to WSCCNet?~~
- f) Any information in paragraphs b) - d) shall be promptly posted by RTO West on the RTO West Website.
- g) RTO West shall document all emergency transmission Outages and changes in the status of Transmission Facilities daily and shall retain such documentation as required by the RTO West Tariff.

C.5 ROUTINE DUTIES OF THE OPERATING ENTITIES

C.5.1 RTO WEST TO PERFORM REGIONAL SECURITY COORDINATION

- a) RTO West will perform or cause to be performed the Regional Security Coordination function for the RTO West Grid. Such provision may be through a cooperative effort with

one or more RTOs or through services provided by the WSCC. If RTO West performs ~~the~~ its Regional Security Coordination function, it will coordinate all security coordination functions with the other WSCC Regional Security Coordinators.

- b) The Regional Security Coordinators have the final authority to direct grid operation to prevent or remedy problems or disturbances that have regional impacts. Regional Security Coordinator authorities include the right to order interchange curtailment, Generation re-dispatch (real power, reactive power and voltage), transmission configuration adjustments, activation of special protection schemes, Load curtailment and other actions necessary to maintain grid security.
- c) Each ACC, or its PTO, and each GCC, or its SC(s), shall execute ~~an a~~ Empowerment Security Coordination Agreement directly or as part of the execution of the Transmission Control Agreement, Generation Integration Agreement, Scheduling Coordinator Agreement or Load Integration Agreement, as applicable.

C.5.2 WSCC UNSCHEDULED FLOW MITIGATION PLAN

RTO West will implement the WSCC Unscheduled Flow Mitigation Plan as necessary for transmission paths qualified for relief within the RTO West Grid. RTO West will coordinate compliance of all Operating Entities with the WSCC Unscheduled Flow Mitigation Plan by operating qualified devices and ensuring that all SCs curtail transactions as required by the WSCC Unscheduled Flow Mitigation Plan. Coordination of the use of the WSCC Unscheduled Flow Mitigation Plan among the RTOs in the western interconnection, including operation of the phase-shifting transformers and payments for their use/support, is an RTO seams issue to be further developed, approved by the RTO West Board and filed with the Commission for approval.

C.5.3 COMMUNICATION BETWEEN OPERATING ENTITIES

- a) All Operating Entities shall comply with all applicable ~~NERC and WSCC~~ national and regional rules, standards, policies and procedures regarding exchange of information and data.
- b) Any non-proprietary information received by RTO West (including but not limited to information received from RTO West ACCs and GCCs and from non-RTO West CAOs; changes or potential changes in the status of the regional transmission grid, FTR Interface or Scheduling Point transfer capabilities; or conditions such as adverse weather conditions, fires, etc., that could affect the security of any interconnection) shall be promptly posted by RTO West on the RTO West Website.

C.5.4 OUTAGE SCHEDULING AND CLEARANCES

- a) RTO West shall coordinate and approve Maintenance Outages and coordinate responses to Forced Outages in accordance with Appendix F ~~***verify reference~~.
- b) Any Maintenance Outages that are cancelled by RTO West in the course of Settlement Period operations shall be rescheduled with RTO West in accordance with Appendix F.

~~***verify reference. California is having problems with crews showing up at the job site, only to have the RTO cancel the outage. Should PTOs supply the costs of canceling the outage to the RTO? Should PTOs be reimbursed for their costs?~~

- c) All Operating Entities shall adhere to each PTO's clearance procedures to ensure the safety of all personnel working on RTO West Grid Transmission Facilities.
- d) No Outage, other than a Forced Outage, shall be taken on any Transmission Facility, nor shall any Transmission Facility be returned to service, unless final approval for the Outage or return to service has been obtained from RTO West.
- e) The PTO with operational jurisdiction, or its ACC, has sole authority to authorize the commencement of work on energized equipment, and no such work shall be commenced until the relevant PTO, or its ACC, has given its approval. RTO West shall be informed of any work performed on any Transmission Facilities.

C.5.5 INTER-CONTROL AREA HOURLY AFTER THE FACT CHECKOUT

At the end of each Settlement Period, RTO West shall be responsible for reaching agreement on scheduled and actual interchange with all non-RTO West Control Areas for that Settlement Period in accordance with applicable WSCC procedures.

C.6 RTO WEST ACTIVITIES IMMEDIATELY BEFORE THE SETTLEMENT PERIOD

C.6.1 CONFIRMATION OF ADEQUACY OF OPERATING PLAN

At the end of the Schedule Adjustment Process, RTO West shall review and evaluate the current system operating conditions to ensure that sufficient Energy and Ancillary Services Resources are available for the Settlement Period. RTO West, with consideration of any information received from ACCs and GCCs, shall:

- a) Verify whether there is sufficient transfer capacity on the RTO West Grid to implement all final Schedules under currently anticipated operating conditions.
- b) Verify whether all Ancillary Services commitments are capable of being met and whether all standing Supplemental Energy bids are feasible, based on the final Schedules and the scheduled and telemetered operating points of Generating Units and Dispatchable Demands.
- c) Determine whether additional Ancillary Services are necessary, based on system conditions and/or unavailability of committed Ancillary Services.
- d) Procure additional Ancillary Services, if necessary, by selecting from RTO West's stacks of standing bids for providing such Ancillary Services, using the procurement procedures described in Appendix D~~***verify reference~~.
- e) Document all actions taken under this Section C.6.1 and retain such documentation as required by the RTO West Tariff.

C.6.2 ADJUSTMENTS TO SCHEDULES

After the close of the Schedule Adjustment Process, RTO West shall:

- a) Adjust transaction Schedules if required by changes in transfer capabilities of Scheduling Points that occur after the close of the Schedule Adjustment Process.

- b) Adjust transaction Schedules if required under the terms of Existing Contracts (“ECs”).
- c) Direct the re-dispatch of Resources, using the methodology specified in Appendices A and B***~~verify reference~~, to alleviate Intra-Zonal Congestion not eliminated in the Schedule Adjustment Process. If insufficient re-dispatch is available voluntarily, RTO West shall, as specified in Appendix A, direct the re-dispatch of Resources to the extent needed for the secure operation of the RTO West Grid.
- d) Issue curtailment notice with respect to Transmission Rights and direct the re-dispatch of Resources until Schedules are adjusted by SCs, using the methodology specified in Appendix A, to alleviate Inter-Zonal Congestion.
- e) Determine any resulting changes to the Operating Plan, shall inform the affected ACCs and GCCs as appropriate, and shall post Operating Plan information on the RTO West Website in accordance with the requirements of Appendix B***~~verify reference~~.
- f) This process may be changed periodically as required by changes in NERC and WSCC transaction tagging requirements and/or to minimize scheduling differences with other RTOs.

C.7 NORMAL ACTIVITIES DURING THE SETTLEMENT PERIOD

C.7.1 AUTHORITY OF RTO WEST

During Settlement Period dispatch, RTO West may issue Dispatch Instructions to utilize the Ancillary Services acquired in accordance with the provisions of Appendices B and D***~~verify reference~~ and that result in changes in the scheduled operation of Generating Units or Dispatchable Demands for the sole purpose of balancing Demands and Resources within the RTO West Control Area or within a Congestion Zone. This authority includes the issuance of Dispatch Instructions for the purpose of meeting WSCC/NERC requirements for the RTO West-wide ACE. In performing its duties, RTO West shall comply with all terms and conditions of the RTO West Tariff.

C.7.2 SETTLEMENT PERIOD DISPATCH BY RTO WEST

C.7.2.1 Compliance

RTO West dispatch of Resources shall comply with the following requirements:

- a) RTO West shall dispatch Resources only to comply with the Applicable Reliability Criteria and Encumbrances contained in the applicable TCAs, and shall not dispatch Resources for economic trades either between SCs or within an SC’s portfolio of Resources. The RTO West Settlement Period algorithms, including short-term load forecasting, AGC and load frequency control, shall comply with this requirement as well.
- b) RTO West shall, in accordance with Section C.7.6, use its Balancing Energy Stack of Resources as determined by RTO West to select the Resources to be dispatched.
- c) Unless specific system requirements (for example, Congestion Management requiring the use of Resources in specific locations, or System Emergencies requiring the use of Resources with specific ramp rates) dictate otherwise, RTO West shall not discriminate between Resources other than based on position in the Balancing Energy Stack. ~~(Do we want more flexibility here?)~~

- d) RTO West shall not differentiate between Ancillary Services based on whether they were self-provided or procured by RTO West other than as required with respect to the Load Following Up, Load Following Down and Regulation services being utilized within a Self-Tracking System. [\(kick it to ancillary service to determine or provide direction for non-compliance\)](#)
- e) Following the loss of a Resource or Transmission Facility and once ACE is again within acceptable bounds, RTO West shall restore the full regulating margin of Resources providing Regulation by calling upon Resources providing Load Following or Supplemental Energy to the extent needed to return the Resources providing Regulation to their preferred operating points.
- f) RTO West shall dispatch Resources providing Spinning Reserve or Non-Spinning Reserve only in response to contingencies (such as loss of Generating Units, imports, Operating Reserves or key Transmission Facilities), and not in the course of normal operation of the RTO West Control Area. However, Spinning Reserve and Non-spinning Reserve may be called upon in normal operations if there is an insufficiency of Load Following Up or Supplemental Energy, subject to the following condition: ~~prior to~~[before](#) using such Operating Reserves, RTO West shall procure other Resources (potentially from outside the RTO West Control Area using unused Transmission Rights) as necessary in order to maintain compliance with WSCC and NERC reserve requirements.
- g) In response to contingencies, RTO West shall dispatch Resources providing Spinning Reserve, Non-spinning Reserve, Load Following and Supplemental Energy on the basis of merit order providing that this requirement allows RTO West to comply with all Applicable Reliability Criteria. ~~GCCs shall not deviate from the RTO West directed merit order dispatch.~~ GCCs shall promptly notify RTO West of any [such](#) deviations ~~from merit order dispatch~~ ~~by of~~ Resources and both the GCCs and RTO West shall document the deviations. RTO West shall make information concerning such deviations [from the balancing energy stack](#) available on the RTO West Website on a daily basis. RTO West shall promptly thereafter call upon Resources providing Supplemental Energy to enable the return of Spinning Reserves and Non-spinning Reserves to reserve status.
- h) RTO West shall dispatch Resources as required to honor Ancillary Services transactions across Scheduling Points in accordance with the technical requirements of Appendix D ~~***~~[verify reference](#) and applicable WSCC procedures.

C.7.2.2 Disputes

If a conflict arises between compliance with the requirements of the RTO West Tariff and undertaking those actions that are necessary to maintain the secure operation of the RTO West Grid, RTO West and/or the ACCs or, if applicable, GCCs may take those actions necessary for secure operation of the RTO West Grid. However, in doing so, RTO West and the ACCs/GCCs shall endeavor to comply with the intent of the RTO West Tariff's requirements. In addition, in such an event:

- a) The ACCs/GCCs shall promptly notify RTO West of the reason for the deviation from the RTO West Tariff's requirements.
- b) RTO West, in conjunction with the ACCs/GCCs, shall determine whether ACC/GCC procedures should be revised or the RTO West Tariff and/or Protocols should be revised, and shall expeditiously implement such revisions.

- c) An Operating Entity that has been harmed by RTO West's failure to comply with the RTO West Tariff or Protocols shall be entitled to receive appropriate compensation upon approved request made to RTO West and, if necessary, approved through RTO West's ADR process. If RTO West is obligated to make payments that are not covered by its insurance, RTO West shall recover such costs through the RTO West Administrative Charge
- d) [RTO West shall post its deviation from RTO West tariff requirement on RTO West web site.](#)

C.7.3 INTER-ZONAL CONGESTION

- a) If Inter-Zonal Congestion occurs during the Settlement Period, and RTO West determines that there is insufficient time for RTO West to implement Schedule curtailments based on Transmission Rights on the affected FTR Interface or Scheduling Point, RTO West may order the GCCs of SCs to redispatch Generation based on the bids the SCs have submitted in the Balancing Energy Stack. Appendix A [***verify reference](#) defines the specific timeframes in which RTO West is authorized to take the actions described in this Section.
- b) If the bids in the Balancing Energy Stack are insufficient to relieve the overloading, or the only Resources capable of eliminating the Congestion are not included in the Balancing Energy Stack, RTO West may issue Dispatch Instructions to the GCCs of SCs for re-dispatch of any Resources, but only for the limited purpose of eliminating the Congestion and only for the limited time it takes for RTO West to implement Schedule curtailments, as described in Appendix A [***verify reference](#).
- c) RTO West shall determine appropriate Schedule curtailments based on Transmission Rights on the affected FTR Interface or Scheduling Point and promptly notify the affected SCs of the resulting Schedule changes they are required to implement for subsequent Settlement Periods.
- d) RTO West shall coordinate with the GCCs of the affected SCs the return to pre-re-dispatch Generation output.
- e) When applicable, the ACCs/GCCs shall document all re-dispatch actions taken in response to Congestion and shall provide such documentation to RTO West within twenty-four (24) hours of the occurrence.
- f) Costs associated with managing Settlement Period Inter-Zonal Congestion associated with de-rating of an FTR Interface or Scheduling Point due to a Transmission Facility Outage shall be charged to all SCs utilizing the FTR Interface or Scheduling Point on which the Congestion occurs on a pro-rata basis. Costs associated with managing Settlement Period Inter-Zonal Congestion that is not associated with de-rating of an FTR Interface or Scheduling Point due to a Transmission Facility Outage shall be part of the RTO West Administrative Charge. The charging for de-ratings of FTR Interfaces and Scheduling Points will be coordinated with the settlements for Balancing Energy.
- g) RTO West shall document and publish on the RTO West Website within twenty-four (24) hours of the occurrence all actions taken in response to Settlement Period Inter-Zonal Congestion.

C.7.4 INTRA-ZONAL CONGESTION

- a) If Intra-Zonal Congestion occurs during the Settlement Period, RTO West shall increase or decrease Energy from Resources in the Balancing Energy Stack in order to maintain Energy balance within the Congestion Zone. The selection of Resources shall use the methodology described in Appendix A [***verify reference](#).
- b) If the nature of the Intra-Zonal Congestion is such that only specific Resources would be effective in eliminating the Congestion, RTO West may deviate from the merit order in the Balancing Energy Stack. If the only Resources capable of eliminating the Congestion are not in the Balancing Energy Stack, RTO West may issue Dispatch Instructions to those Resources, but only for the limited purpose of eliminating the Intra-Zonal Congestion and only during the Settlement Period, as described in Appendix A [***verify reference](#), and provided that such Dispatch Instructions do not violate the terms and conditions of ECs.
- c) When applicable, the ACCs/GCCs shall document all re-dispatch actions taken in response to Intra-Zonal Congestion and provide such documentation to RTO West within twenty-four (24) hours of the occurrence.
- d) Costs associated with managing Settlement Period Intra-Zonal Congestion shall be charged to all SCs serving Load in the Congestion Zone where the Congestion occurs on a pro-rata basis.
- e) RTO West shall document and publish on the RTO West Website within twenty-four (24) hours of the occurrence all actions taken in response to Settlement Period Intra-Zonal Congestion.

C.7.5 VOLTAGE SUPPORT

- a) RTO West shall monitor and maintain voltage levels throughout the RTO West Grid.
- b) RTO West shall direct each the ACC of each PTO in the operation of voltage control equipment that is under RTO West's Operational Authority.
- c) RTO West may request that the ACC of a PTO operate under special voltage control requirements from time to time due to special system conditions.
- d) RTO West may dispatch Generating Units to increase or decrease MVAR output within the power factor limits of 0.90 lagging to 0.95 leading, or within other limits specified by RTO West in any exemption granted pursuant to the RTO West Tariff, at ~~no cost to~~ [costs specified in the ~~RTO West~~RTO West ancillary service tariff](#).
- e) Dispatch Instructions may be issued by RTO West or the ACC of a PTO directly to a Generating Unit to change the reactive power output of the Generating Unit for voltage control. RTO West may dispatch Generating Units to increase or decrease MVAR output beyond the power factor limits stated above, but within the range of the Generating Unit's capability curve, at a price determined in accordance with Appendix D [***verify reference](#) and the [GAGIA](#).
- f) If the actions specified above are insufficient, RTO West may, in accordance with the [GAGIA](#), create additional Voltage Support capability by reducing the MW output of Generating Units located in the vicinity where such additional Voltage Support is required and increasing the MVAR output, provided that such Generating Units are in the Balancing Energy Stack. RTO West shall respect the order in which these Generating Units have been placed in the Balancing Energy Stack.

- g) RTO West shall procure additional Settlement Period Voltage Support beyond that which can be achieved by requiring Resources to move within the power factor ranges specified in their **GAGIAs** or, in the absence of a direct agreement with RTO West, indirectly through obligations placed via a RTO West TCA or SCA with the Resource's PTO or SC, respectively.

C.7.6 OPERATION OF THE GRID: THE BALANCING ENERGY STACK

RTO West shall develop and update a Balancing Energy Stack of Resources for use in Settlement Period operations. RTO West shall create one Balancing Energy Stack that reflects any limitations restricting the ability of certain Resources from being called upon for specific Congestion Zones. The Balancing Energy Stack shall be used to:

- a) Maintain a single RTO West wide ACE within acceptable bounds.
- b) Respond to contingencies.
- c) Mitigate Inter-Zonal and Intra-Zonal Congestion.
- d) Maintain voltage levels throughout the RTO West Grid as described in Section A.7.5 above.
- e) Enable Resources providing Regulation service to return to their preferred operating points.
- f) Enable the return to reserve status of Spinning Reserves and Non-spinning Reserves that are called upon during Settlement Period operations.

C.7.6.1 Creation of the Balancing Energy Stack

The Balancing Energy Stack created by RTO West at the close of the Schedule Adjustment Process using the Energy price curve data submitted by the SCs, in \$/MWh, is created by utilizing in a non-discriminatory manner both the Ancillary Services Schedules and Energy price curve data that were self-provided by SCs or were acquired through the RTO West Ancillary Services procurement process, all in accordance with Appendix B [***verify reference](#).

- a) RTO West may supplement the Balancing Energy Stack of Resources by taking the actions described in Section C.6.1 during the Settlement Period.
- b) RTO West may supplement the Balancing Energy Stack with offers of Supplemental Energy received until thirty (30) minutes ~~prior to~~ [before](#) the start of the Settlement Period.
- c) RTO West shall re-create the Balancing Energy Stack of Resources at any time in response to activation or withdrawal of Ancillary Service Resources.
- d) If, during the Settlement Period, RTO West is unable to comply with the Applicable Reliability Criteria by using the Balancing Energy Stack, as a last resort, RTO West may take such steps that it considers necessary to enable compliance. Such steps may include unilateral procurement of additional capacity or Energy from any source and, if necessary, curtailment of Load in accordance with the Load Shedding provisions of the TCA and the LIAs. Such deviation from the Balancing Energy Stack shall be documented for review.

C.7.6.2 Dispatch of Balancing Energy Stack

RTO West shall dispatch Resources through use of the Balancing Energy Stack, in compliance with the requirements stated in Section C.7.2. In addition, the Resources in the Balancing Energy Stack shall be dispatched by RTO West in the following manner:

- a) Resources in the Balancing Energy Stack shall be dispatched in merit order (i.e., on the basis of Energy price bids).
- b) In the event that Resources with identically priced bids are called upon, a pro-rata share shall be acquired from each of those Resources.
- c) Regulation, Load Following Up, Load Following Down and Supplemental Energy shall be called upon, as specified by RTO West, in normal operation to keep the RTO West Control Area in balance. Each Self-Tracking System will be responsible for dispatch of its own Regulation, Load Following Up, Load Following Down and Supplemental Energy in order to maintain its ACE with RTO West at zero (0).
- d) Load Following Up, Load Following Down and Supplemental Energy shall be used to keep the Resources providing Regulation service close to the preferred operating points specified by the Resources' SCs in order to maintain Regulation margin.
- e) Resources providing Regulation service shall be dispatched as a group of Resources with assumed Energy prices of zero (0) (i.e., the SC submitted Energy price curve data is only used for dispatch of the Resources' other Ancillary Services), but with the additional objective of keeping those Resources close to their preferred operating points, with the result that the net Energy output deviation of such Resources from their preferred operating points will be relatively small.
- f) As indicated in Sections C.7.2.1.f and g, Spinning Reserve and Non-spinning Reserve will normally be called upon, in conjunction with other Ancillary Services, only in the event of transmission and/or Generation contingencies, and shall be returned to Operating Reserve status as soon as practical. However, Spinning Reserve and Non-spinning Reserve may be called upon in a Congestion Zone in normal operations if there is an insufficiency of Load Following Up or Supplemental Energy, subject to the following condition: ~~prior to~~before using such Operating Reserves, RTO West shall procure other Resources (potentially from outside the Congestion Zone using unused Transmission Rights) necessary in order to maintain compliance with WSCC and NERC reserve requirements.
- g) Load Following Up, Load Following Down and Supplemental Energy shall be treated identically for dispatch purposes, with Energy bid price as the sole discriminating characteristic, except as stated below.
- h) Spinning Reserve and Non-spinning Reserve shall be treated identically for dispatch purposes, with Energy bid price as the sole discriminating characteristic, except as stated below.
- i) In some instances, certain system contingencies, as well as Intra-Zonal Congestion management, may require that Resources be dispatched on the basis of location as well as price. In such cases, RTO West may select from the Balancing Energy Stack just those Resources capable of meeting the RTO West Grid's requirements, and treat them as though they were a separate Resource stack for the purpose of addressing the specific contingency or Congestion Management requirement. RTO West shall document the reasons for deviating from the order of the Balancing Energy Stack and make such documentation available on the RTO West Website daily.

j) In managing the Balancing Energy Stack, RTO West shall respond to the requirements of increasing and decreasing Demand in the following manner:

i) Increasing Demand and/or decreasing Generation: RTO West shall increase Energy supplied from Generating Units or reduce the Energy consumed by Dispatchable Demands. RTO West shall select from the Balancing Energy Stack the Resource that has the lowest incremental Energy bid price (which in the case of Dispatchable Demands is the highest price to consume less Energy). These are considered incremented Resources.

However: Once Resources have been called upon to provide Energy (and therefore, moved up, in the case of Generating Units, or down, in the case of Dispatchable Demands, from their scheduled operating points), other Resources shall not be called upon to decrement their outputs (decrease the output of Generating Units or increase the consumption of Dispatchable Demands) until the incremented Resources have been moved back to their scheduled operating points (that is, Resources shall be backed down, in the case of Generating Units, or picked-up, in the case of Dispatchable Demands, in the reverse order as they were incremented, not on the basis of the Energy price bids of all Resources combined).

ii) Decreasing Demand and/or increasing Generation: RTO West shall reduce Energy supplied from Generating Units or increase the Energy consumed by Dispatchable Demands. RTO West shall select from the Balancing Energy Stack the Resource that has the highest decremental bid price (which in the case of Dispatchable Demands is the lowest price to consume more Energy). These are considered decremented Resources.

However: Once Resources have been called upon to take Energy (and therefore, moved down, in the case of Generating Units, or picked-up, in the case of Dispatchable Demands, from their scheduled operating points), other Resources shall not be called upon to increment their outputs (increase the output of Generating Units or decrease the consumption of Dispatchable Demands) until the decremented Resources have been moved back to their scheduled operating points (that is, Resources shall be moved up, in the case of Generating Units, or down, in the case of Dispatchable Demands, in the reverse order as they were decremented, not on the basis of the Energy price bids of all Resources combined).

k) Resources for which Ancillary Services bids have not been submitted may be re-dispatched only under the limited conditions specified in Sections C.7.5, C.8, and C.9.

All Dispatch Instructions and all reasons for any deviations from the strict use of the Balancing Energy Stack shall be documented by RTO West. Such documentation shall be made available on the RTO West Website.

C.7.6.3 Electronic Management of the Balancing Energy Stack

RTO West shall manage an information technology system that allows updating of the Balancing Energy Stack and electronic activation of Resources via electronic Dispatch Instructions to the GCCs of SCs, and visibility of the Balancing Energy Stack, without prices, by all Operating Entities at all times.

C.7.7 RTO WEST COMPLIANCE MONITORING

- a) RTO West shall monitor compliance with Dispatch Instructions to ensure that providers of Ancillary Services remain able to provide Ancillary Services on an ongoing basis, in compliance with their commitments.
- b) RTO West shall document any non-compliance or disputes regarding compliance and shall retain such documentation as required in the RTO West Tariff and shall provide such documentation to the Market Monitoring Unit.

C.8 INSUFFICIENCY OF ANCILLARY SERVICES FOR THE SECURE OPERATION OF THE RTO WEST GRID

In the event that RTO West anticipates during the Schedule Adjustment Process or during a Settlement Period an insufficiency of Ancillary Services to securely operate the RTO West Grid in accordance with the standards specified in Applicable Reliability Criteria, RTO West is authorized to take the following actions. These actions are in addition to the normal operation of the RTO West markets for Ancillary Services, which will not be suspended.

C.8.1 SYSTEM INSUFFICIENCY ALERT

- a) If, during the Schedule Adjustment Process, RTO West anticipates that its existing Balancing Energy Stack of Resources will be insufficient to securely operate the RTO West Grid, RTO West shall issue a System Insufficiency alert.
- b) The System Insufficiency alert shall be issued to all Operating Entities simultaneously through its EIS. Information provided shall include notification of the nature of the possible System Insufficiency. Issuance of the alert shall serve as RTO West's request that SCs provide additional Ancillary Services bids in order to avert a possible System Insufficiency.
- c) RTO West shall provide immediate notification to all Operating Entities, simultaneously through the EIS, when the RTO West Grid is no longer in a System Insufficiency alert state.

C.8.2 SYSTEM INSUFFICIENCY WARNING

- a) If, during the Schedule Adjustment Process, RTO West believes that a System Insufficiency is imminent, RTO West shall issue a System Insufficiency warning.
- b) The System Insufficiency warning shall be issued to all Operating Entities simultaneously through the EIS. Information provided shall include notification of the nature of the imminent System Insufficiency and RTO West's request that SCs provide additional Ancillary Services bids in order to avert the imminent System Insufficiency.
- c) Upon issuance of the System Insufficiency warning, RTO West may actively solicit bids and procure, on an economic and non-discriminatory basis, additional Ancillary Services, including active solicitations and procurements from non-RTO West CAOs and other RTOs. RTO West shall document all purchases of Ancillary Services made through this process and shall make such information, including the quantities of Ancillary Services acquired and the prices paid by RTO West, available on the RTO West Website on a daily basis.

- d) RTO West shall provide immediate notification to all Operating Entities, simultaneously through the EIS, when the RTO West Grid is no longer in a System Insufficiency warning state.

C.8.3 SYSTEM INSUFFICIENCY

If RTO West, during the Schedule Adjustment Process or during a Settlement Period, anticipates that it will be unable to operate the RTO West Grid in compliance with the Applicable Reliability Criteria:

- a) RTO West shall issue a notice that the RTO West Grid is experiencing a System Insufficiency.
- b) The System Insufficiency notice shall be issued to all Operating Entities simultaneously through the EIS. The notice shall describe the nature and expected duration of the System Insufficiency.
- c) Upon issuance of the System Insufficiency notice, RTO West during the Schedule Adjustment Process or during a Settlement Period is authorized to acquire additional Ancillary Services on an involuntary basis through the re-dispatch of Generating Units and Dispatchable Demands and the rescheduling of imports and exports, as necessary to eliminate the System Insufficiency. In exercising its authority, RTO West shall attempt to minimize disruptions to the existing Schedules and shall treat all SCs in a non-discriminatory manner; *however*, RTO West's primary goal shall be to restore the RTO West Grid to a secure operating state.
- d) Before exercising its Ancillary Service procurement authority under this Section C.8.3, RTO West shall Schedule or dispatch all capacity and Energy available to RTO West through Ancillary Services bids (including bids for Dispatchable Demand).
- e) The costs incurred by RTO West in the procurement of Ancillary Services under System Insufficiency conditions shall be allocated to SCs as described in Appendix [-D ***verify reference](#).
- f) The prices paid to providers of Ancillary Services under System Insufficiency conditions are specified in Appendix D [***verify reference](#).
- g) RTO West shall document all involuntary procurements of Ancillary Services and re-dispatch orders and other activities associated with elimination of the System Insufficiency. When applicable, the ACCs and GCCs shall make the necessary information available to RTO West on a daily basis.
- h) RTO West shall provide immediate notification to all Operating Entities, simultaneously through the EIS, when the RTO West Grid is no longer in a System Insufficiency state.

C.9 EMERGENCY OPERATION

The Emergency Operation procedure in this Section C.9 shall be followed from the time RTO West declares a System Emergency until the time RTO West announces that the System Emergency no longer exists. RTO West has the authority to delegate such announcements to one or more ACCs and/or GCCs. These procedures are in addition to the normal operation of the RTO West markets for Ancillary Services, which will not be suspended.

C.9.1 EMERGENCY MAINTENANCE

PTOs, with respect to Transmission Facilities, and SCs, with respect to Resources with LGR obligations, shall act or forbear from acting with regard to Maintenance as ordered or directed by RTO West to alleviate or prevent a System Emergency.

C.9.2 RTO WEST DECLARATION OF SYSTEM EMERGENCY

- a) RTO West is authorized to make a determination that a System Emergency exists when, in the judgment of RTO West, the RTO West Grid, or a portion of the RTO West Grid, is in imminent danger of instability, voltage collapse or uncontrollable cascading Outages and such danger cannot be alleviated by the normal issuance of Dispatch Instructions for activation of Ancillary Services.
- b) Any Operating Entity~~ies~~ may recommend that RTO West declare a System Emergency but only RTO West shall be authorized to declare a System Emergency.
- c) RTO West's declaration of a System Emergency shall be issued to all Operating Entities simultaneously, through the EIS or through such other means that have been established for the communication of information during a System Emergency. RTO West shall also make any additional notifications required by WSCC and/or NERC procedures.
- d) If simultaneous notification to all Operating Entities is not possible, RTO West shall attempt to notify all affected Operating Entities as soon as practicable following the declaration of the System Emergency, and shall subsequently provide an explanation for any delays in notification to all affected Operating Entities.
- e) RTO West's declaration of a System Emergency shall, as practicable, inform Operating Entities within the RTO West Grid as to the nature, extent and expected duration of the System Emergency. During the System Emergency RTO West shall provide, as practicable, periodic updates of system conditions to all Operating Entities within the RTO West Grid

f) Audit?

C.9.3 SUSPENSION OF PROTOCOLS DURING A SYSTEM EMERGENCY

During a System Emergency:

- a) RTO West's primary objective shall be to take those actions necessary, in accordance with Good Utility Practice and WSCC procedures, to prevent the imminent loss of, or to restore, stable operation of the RTO West Grid.
- b) RTO West may, due to time constraints, suspend its normal procedures for issuing Dispatch Instructions, communicating with Operating Entities, or acquiring and dispatching Ancillary Services.
- c) RTO West shall have the authority to authorize full use of Black Start Generation, initiate full control of manual Load Shedding, authorize the curtailment of Dispatchable Demand (even though not scheduled as an Ancillary Service), order the GCCs of SCs to instruct Generating Units or, where the GCC fails to so instruct the Generating Unit, order the Generating Unit to start-up, shut down, increase output, decrease output, or alter scheduled deliveries of Energy and/or Ancillary Services into or out of the RTO West Grid, if such

action(s) are reasonably necessary to prevent the imminent loss of operational control or to retain operational control over the RTO West Grid; provided that ~~prior to~~before issuing such Dispatch Instructions RTO West, where reasonably practicable, has used all Ancillary Services that it has the contractual right to instruct and that are capable of contributing to the containment or elimination of the System Emergency. In the case of emergencies RTO West may delegate any of the above authority to one or more ACCs.

- d) All Operating Entities shall respond to all Dispatch Instructions immediately unless such response would create threat of bodily harm or violate applicable law.
- e) RTO West shall make best efforts to minimize the disruptions to normal procedures and to minimize the burdens imposed upon ~~Participating~~ PTOs, SCs, ACCs, GCCs, Dispatchable Demands, Generating Units and other parties.
- f) The costs incurred by RTO West in the re-dispatch of SCs' Resources and in the procurement of Ancillary Services under System Emergency conditions shall be allocated to SCs as described in Appendix D ~~***verify reference~~.
- g) The prices paid to providers of re-dispatch services and Ancillary Services under System Emergency conditions are specified in Appendix D ~~***verify reference~~.

C.9.4 SYSTEM EMERGENCY PROCEDURES

- a) RTO West ~~shall~~may develop and implement System Emergency Operating Procedures that all Operating Entities shall follow during a System Emergency. These Operating Procedures shall be consistent with the RTO West Tariff, each Operating Entities' rights and obligations as stated therein, and Applicable Reliability Criteria.
- b) RTO West shall develop and administer periodic unannounced tests of System Emergency Operating Procedures. The purpose of such tests will be to ensure that all Operating Entities are capable of responding to actual System Emergencies.
- c) Each PTO and UDC shall, in consultation with RTO West and in accordance with Good Utility Practice and WSCC requirements and procedures, develop a prioritized schedule for Load Shedding during a System Emergency. Such a schedule shall include a prioritization of Load restoration.

C.9.5 RESUMPTION OF NORMAL OPERATION

- a) RTO West shall rescind the System Emergency declaration when it is satisfied, after conferring with the Regional Security Coordinators within the WSCC, that the major contributing factors have been corrected and service to all involuntarily-interrupted Load, except for interrupted Dispatchable Demand selected as an Ancillary Service, has been restored.
- b) RTO West shall provide immediate notification to all Operating Entities, simultaneously through the RTO West information system~~the EIS~~, when the RTO West Grid is no longer in a System Emergency state.
- c) As soon as practical after the announcement that a System Emergency no longer exists, RTO West shall document the nature and specifics of the System Emergency, all deviations from normal RTO West Protocols during the System Emergency, all non-standard Dispatch Instructions, the response of all Operating Entities and other relevant parties during the System Emergency, and changes that might be made to reduce the impacts on all Operating

Entities in the event of a future System Emergency. RTO West shall use this documentation to review the System Emergency, determine the appropriateness of the response of all parties, including RTO West, and to make appropriate improvements to any RTO West System Emergency Operating Procedures. (This audit process needs to be strong enough to avoid abuse for political reasons. Who will perform the audit? The Market Monitoring group? Any entity that was impacted by the event should have a seat at the table during the review process.