
	OPERATING PROCEDURE	Procedure No.	M-430
		Version No.	3.0
		Effective Date	6/2/08
Dispatch of Operating Reserves		Distribution Restriction: NONE	

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PURPOSE

Details the dispatch protocol for Spinning and Non-Spinning Reserve in the Real time Imbalance market

PROCEDURE


NOTE: Operating Reserves specified as “contingency only” are only converted to Energy in the event of the occurrence of an unplanned Outage, a Contingency or an imminent or actual System Emergency or in the event all other available IE has been dispatched. Once dispatched, Contingency only Operating Reserves remains dispatched until the contingency or emergency has subsided and then is returned to the pre-contingency state. Under no circumstances shall “contingency only” Operating Reserve be used as IE to satisfy routine system requirements.

1. Contingency Flag for Spin and Non-Spin A/S Bids

All resources bidding into the Spin and Non-Spin A/S markets have the ability to set a Contingency Flag when submitting spin and non-spin A/S bids that communicate to the CAISO the method that the bid can be dispatched in RTMA.

Contingency Flag of “YES” indicates the bid is designated to participate as a Contingency Reserve resource only. This resource cannot be dispatched in RTMA until the CAISO Generation Dispatcher elects to dispatch contingency reserves. This occurs when all other available imbalance energy dispatched is insufficient to meet the imbalance energy requirement or a system contingency has occurred.

A Contingency Flag of “NO” or “NULL” indicates that the bid’s participation during the hour is NOT contingency reserve only and thus is available anytime during the hour.

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2. Dispatch of Operating Reserves in the Real-Time Market

NOTE: If the resource is not designated as contingency only, the resource can be available for dispatch through RTMA in the real time imbalance market.

Generation Dispatcher Actions

- 1) **Monitor** operating reserves
- 2) **Determine** if there is or anticipates an operating reserve shortage due to an unplanned outage or contingency.
- 3) Dispatch contingency reserves as necessary (i.e., all contingency reserves or a selected set).


NOTE: Contingency Spin cannot be flagged out by itself without Contingency Non-Spin.

- 4) **Flag out** spin and/or non-spin as required.


3. Sequence for the Dispatch of Contingency Only Bids

Generation Dispatcher Actions

- 1) **Determine** if contingency only resources are required to be dispatched.
- 2) **Approve** dispatch of the contingency only reserves.
- 3) **Repeat** Contingency Run if required.
- 4) **Determine** when contingency only reserves are no longer required.
- 5) **Notify** RT GRC the amount of Contingency only reserves to un-dispatch.
- 6) **IF** a Contingency Run is required, **THEN set** the Contingency Reserve run Flag in RTMA to Yes, Commit this data change, and Click Run all on the RTD workflow page in RTMA.
 - **Send** dispatch in RD from Contingency Reserve Run to the Market Participants via ADS.
 - **Repeat** steps one and two as required by the Generation dispatcher to recover from system event.
 - **When** the Contingency Reserve Run is no longer needed, **Set** the Contingency Reserve Flag back to No, commit this data change. The RTD module will be returned back to the normal operating mode.

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- **Determine** the amount and type of contingency only reserves to be ‘un-dispatched’ by either setting the individual resource contingency flag back to ‘Yes’, or by setting the global spin and/or non-spin flags back to ‘Yes’. Run RTD. Send dispatch in RD from Contingency Reserve run to Market Participants via ADS.
 - **Repeat** until all Contingency Only reserves are returned to reserve status.
- 7) **IF** Contingency Only reserves are required with out using the Contingency Reserve Run,
THEN Set the Global Contingency Only reserve flag for either spin, non-spin or both to ‘No’, and commit this data change.
- **Monitor** the RTD run.
 - **Determine** the amount and type of contingency only reserves to be ‘un-dispatched’ by either setting the individual resource contingency flag back to ‘Yes’, or by setting the global spin and/or non-spin flags back to ‘Yes’. Run RTD. Send dispatch in RD from Contingency Reserve run to Market Participants via ADS.
 - **Monitor** the RTD run.
 - **Repeat** as necessary for all contingency only reserves to be restored.
- 8) **Log** in SLIC the use of Contingency reserves. The following is an example of the log entry:
- “From XXXX to XXXX Contingency reserves were dispatched for the loss of XXXX.”***

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SUPPORTING INFORMATION

Affected Parties

- Market Participants

Responsibilities

Scheduling Coordinator (SC)	Submits Ancillary Service Spin and Non-Spin bids. Such bids contain, if applicable, based on the SC's intentions, a Contingency Flag. The Contingency Flag reflects the bids' availability to be dispatched as IE. By default, a null entry for this flag is taken as "NO". Respond via ADS to all dispatch instructions issued by the CAISO.
CAISO Generation Dispatcher	Manage operating reserves dispatched in RTMA. Manage the contingency Run in RTMA. In the event of a system contingency or emergency, begin utilizing OR flagged for contingency use only. Return contingency only resources to their pre-contingency state once the contingency or emergency is over. Monitors the use of all operating reserves in the Real Time Imbalance Market.


References

Resources that have been studied in the development of this procedure and that may have an effect upon some steps taken herein include, but are not limited to the following:

• ISO Tariff	Sections 34.3.0.3 and 34.3.5.
• Participating Generator Agreement (PGA)	
• Transmission Control Agreement (TCA)	
• Utility Distribution Company (UDC) Operating Agreements	

Policy

The CAISO will maintain required operating reserves margin per WECC standards. The CAISO will facilitate the increase of operating reserves available in the forward markets and in real time by enabling the ancillary service supplier to specify their availability to provide this operating reserve on a "contingency or emergency only" basis as opposed to being used routinely for imbalance energy. The CAISO retains the ability to dispatch this contingency only reserve as necessary to maintain required reserve margins. The CAISO also retains the ability to not dispatch reserves for imbalance energy needs in order to maintain required reserves.

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Definitions


Unless the context otherwise indicates, any word or expression defined in the Master Definitions Supplement to the CAISO Tariff shall have that meaning when capitalized in this Operating Procedure.

The following additional terms are capitalized in this Operating Procedure when used as defined below:

Contingency Flag	Flag indicating a spinning or non-spinning bid's participation in the Real Time commodities list during the hour. "YES" indicates the bid is designated to participate as a Contingency Reserve unit only. "NO" indicates the bid will not participate as Contingency Reserve and can be dispatched for imbalance energy.
Contingency Reserve	Spinning and Non-Spinning Reserve that has been assigned a Contingency Flag = "YES".
Contingency Run	A dispatching mode in RTMA that will flag all "contingency only" reserves to No, allowing them to be dispatched to recover from a system event. When activated, RTMA will consider all resources on a 10-minute basis and nominates a set of resources to meet system conditions. Once approved, this dispatch will be sent to Market Participants via ADS.
Operating Reserve Flag	A flag that allows the operator to exclude all non-spin and/or all spin from dispatch in the Real Time imbalance energy market

Version History

Version	Change	By	Date
1.0	New Procedure		06/01/01
1.1	Added reference to Appendix		6/22/01
1.2	Annual Review		7/8/02
1.3	Changed RT timeline from 45 min to 60 min prior to the hour		12/6/02
1.4	Clarified procedure content and the relationship to forward markets		12/1/03
2.0	Revised for change to 1B design on the return of dispatched contingency only reserves		9/17/04
2.1	Added additional clarification to the Policy section		9/30/05
3.0	Removed GRC		5/21/08

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TECHNICAL REVIEW

Reviewed By Content Expert	Signature	Date
Operations Support		5/21/08
Regional Transmission		6/21/08
Grid Ops		5/28/08
Market Ops		5/19/08
Scheduling		5/29/08

APPROVAL

Approved By	Signature	Date
Director of Grid Operations		5/29/08