



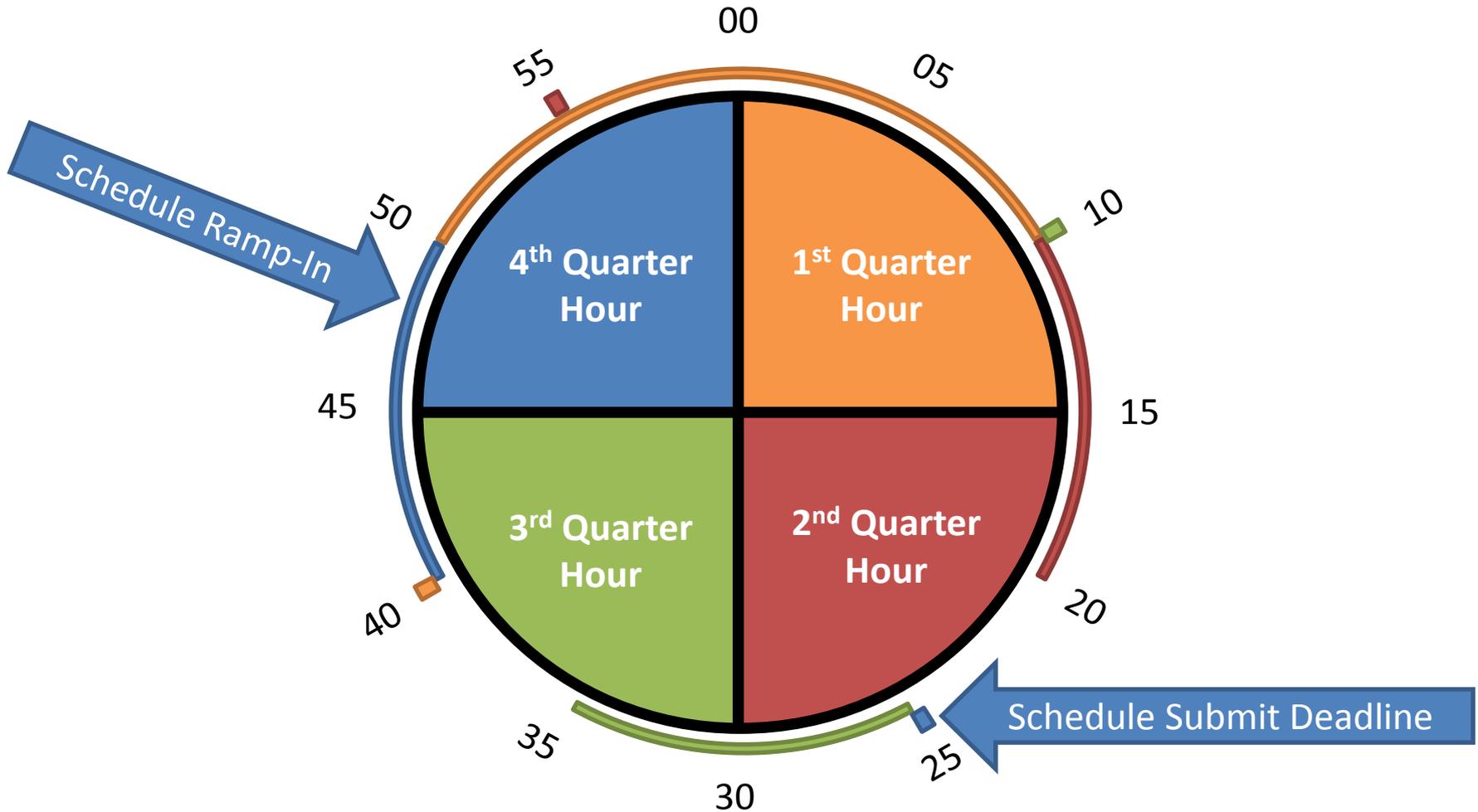
DSO 216 Re-Design for 15 Minute Schedules

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DSO 216 Level Trigger Thresholds

- Level at which BRD must be above for a DSO 216 event to initiate.

DSO 216 Level	Current Value	Proposed Value
Warnings	85%	85%
Level 1	90%	90%
Level 2	100%	97.5%

- Decreasing Level 2 to 97.5% gives time for DSO 216 to implement prior to over-deploying the FCRPS, which can be intensified by 15 min scheduling.

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Dispatcher Review Time

- The time from a DSO 216 Alarm in which BPA Dispatchers have to review the event, discard the event or implement the event immediately
- After this time, the event will auto-implement, if criteria for the DSO 216 Alarm still exist.
- Current Dispatcher Review Time is 4.5 Minutes
- Proposed Review Time is 0 Minutes with Auto-Suspend for certain system events:
 - AC and/or DC RAS
 - Large ACE Detection

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Minimum Time Between Event Levels

- Once a DSO 216 event level has been implemented, the system will pause for a specified amount of time before it will begin re-evaluating the Balancing Reserves Deployed for the next level.
- Currently the length of time the system pauses before re-evaluating Balancing Reserves Deployed is 10 minutes

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Minimum Time Between Event Levels, continued

- Proposed Minimum Time Between Levels is 5 Minutes
 - With 15 minute scheduling windows, 10 minutes is too long of a period to wait to re-examine use of Balancing Reserves Deployed.
 - Wind Curtailment events are reflected within 5 minutes of the onset of the event in the Balancing Reserves Deployed.
 - Wind Limit event performance has shown that 5 minutes is easily attainable.
 - Wind parties will still be given 10 minutes before strikes are assessed.

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In-Effect Periods

- The length of time in which the system remains in DSO event level.
- If a prior level is in effect, the next level can be reached during this time
- Currently, both Curtailments and Limitations are in effect for the remainder of the hour

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In-Effect Periods, continued

- Proposed In-Effect Periods when Events are implemented at:
 - xx:00 – xx:50
 - Limitations remain in-effect until to the end of current hour (1 hour max)
 - Curtailments apply to eTags currently in-effect and until to the end of current hour (1 hour max)
 - Reliability Limit placed on the current hour's eTags, not allowing adjustments above the Reliability Limit
 - Next higher Level can be reached anytime until the end of the current hour (1 hour max).

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In-Effect Periods, continued

- Proposed In-Effect Periods when Events are implemented at:
 - xx:50:01 – xx:59:59
 - Limitations remain in-effect until to the end of next hour (1 hour 10 min max)
 - Curtailments apply to eTags in-effect for the next hour (1 hour max)
 - Reliability Limit placed on the next hour's eTags, not allowing adjustments above the Reliability Limit
 - Next higher Level can be reached anytime until the end of the next hour (1 hour 10 min max).

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Blackout Periods

- During a blackout period, DSO 216 events are not implemented.
- Currently:
 - Limitations are not implemented between 10 minutes prior to the end of the hour and the end of the hour.
 - Curtailments are not implemented between 15 minutes prior to the end of the hour and the end of the hour.
- Proposed Blackout Period = None

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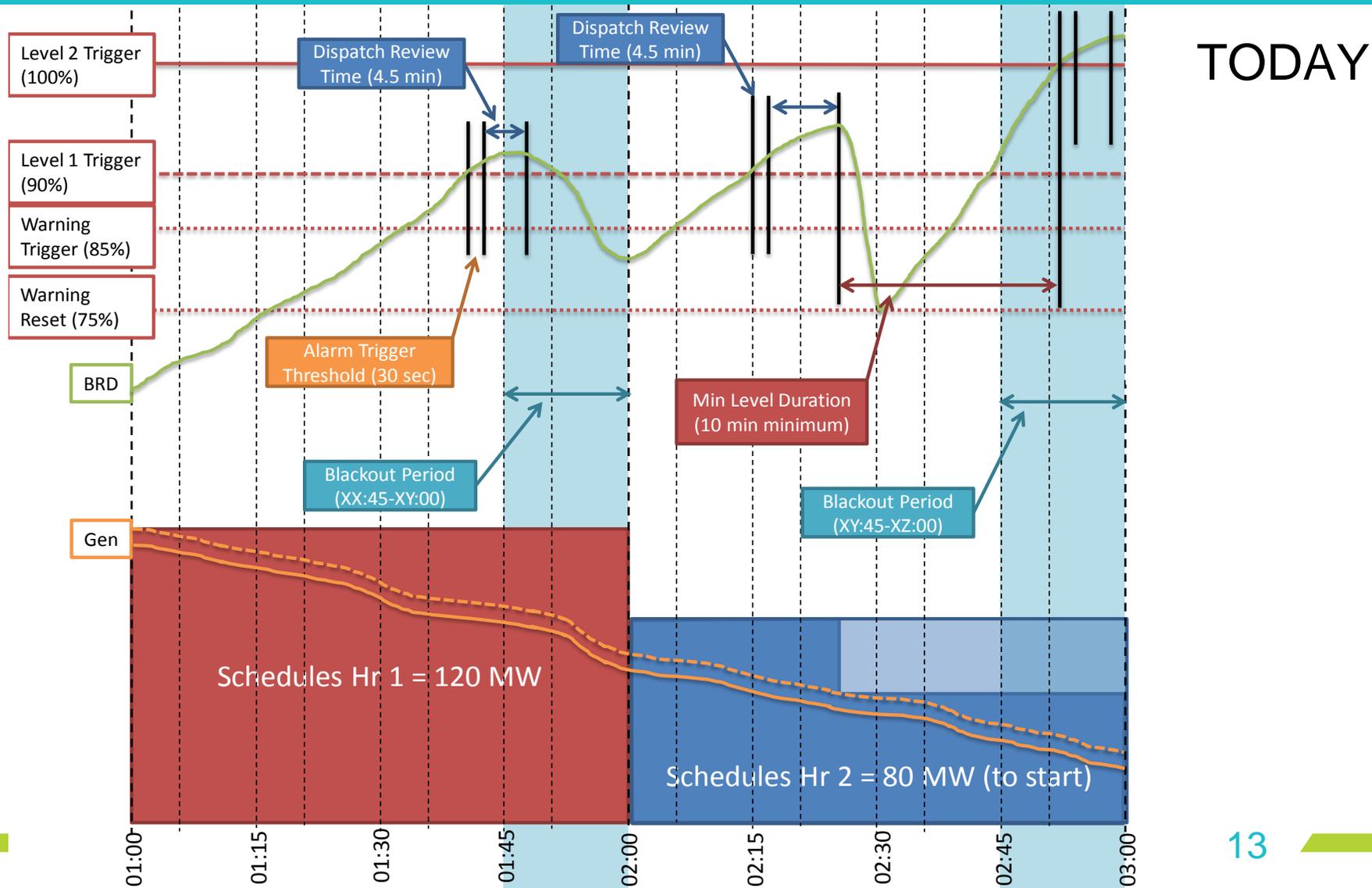
Summary of Changes

- Level 2 Trigger Threshold = 97.5%
- Dispatcher Review Time = 0 Minutes w/auto suspend
- Minimum Time Between Event Levels = 5 Minutes
- In-Effect Periods are implemented at:
 - xx:00 – xx:49:59 to the end of current hour (1 hour max)
 - xx:50 – xx:59:59 to the end of the next hour (1hr. 10 min. max)
 - If a prior level is in effect, the next level can be reached.
- Blackout Periods = None

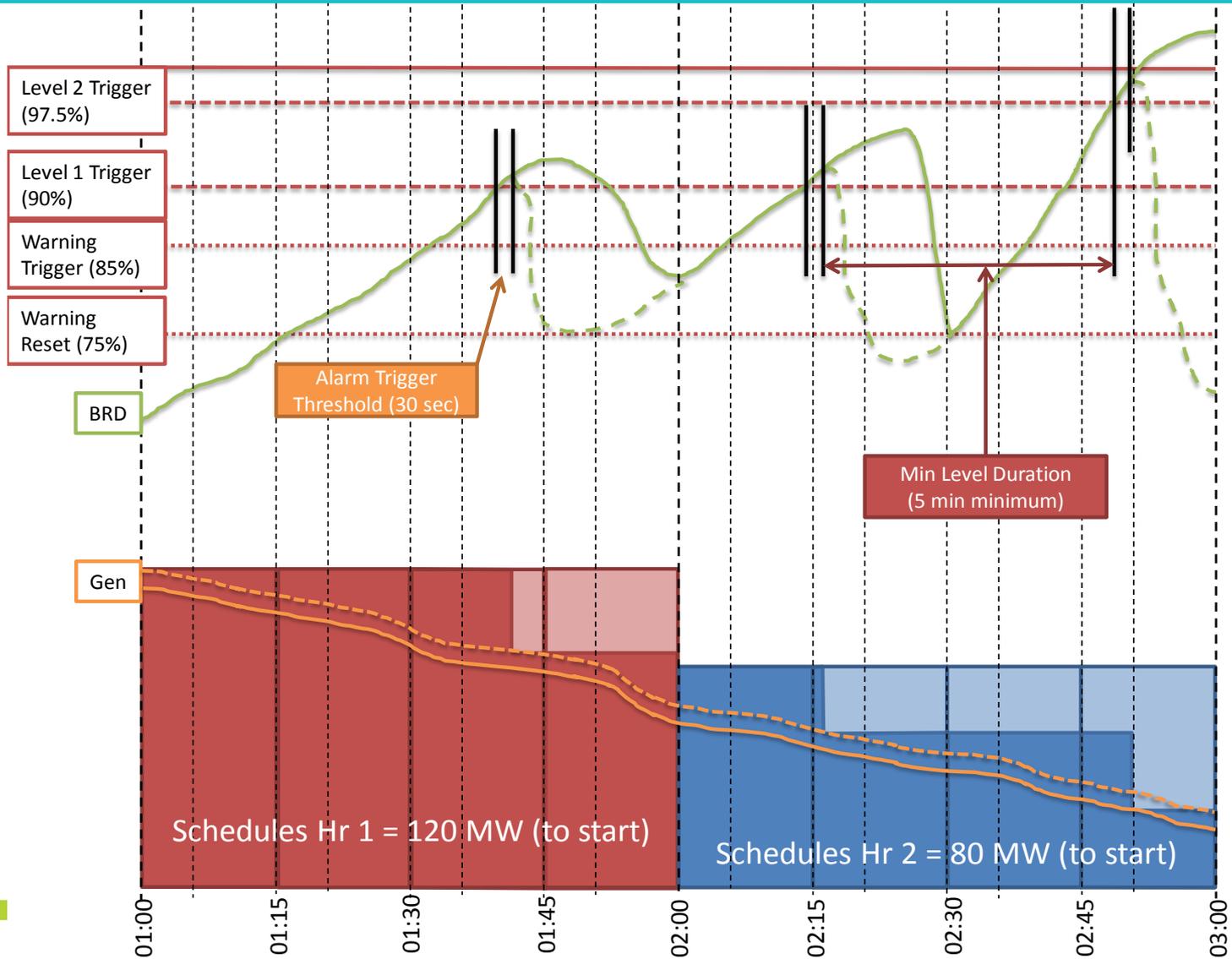
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Questions ?

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As Proposed