

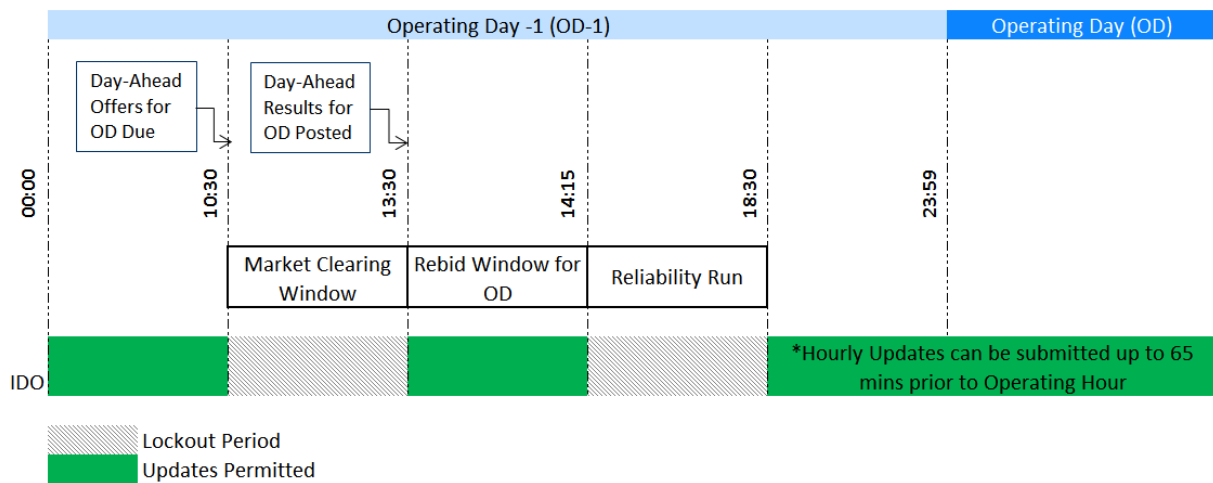
Intraday Offers
Price Increase Lockout Periods
Frequently Asked Questions

PJM Real-Time Market Operations
12/20/2017



What are the price increase lockout periods?

- The price increase lockout periods refer to the hours where a unit is not able to submit a price-based incremental energy offer \$/MWh value that is higher than the offer the unit was committed on. In general, these are hours for which the unit has been committed. The price increase lockout periods should not be confused with the general lockout periods where participants are prevented from making any changes to their offers. The general lockout periods for making changes to the next day's offers include the period when the Day-Ahead Market is clearing (between 10:30AM and 1:30PM), and during the reliability run (between 2:15PM and 6:30PM). These periods are displayed in the graphic below.



What is considered a price increase?

- Price increases are determined at the offer segment level. A decrease in the price for a MW segment does not offset the price increase in another segment. Increases to price-based schedule offer prices are prohibited for committed hours. For cost-based schedules, regardless if the hour has a commitment or not, participants may increase or decrease the price offer with no lockout rules. The graphic below shows an example of a price increase for a price-based schedule.

Segment	MW	Price
1	10	\$5
2	15	\$7
3	20	\$10
4	25	\$15

Segment	MW	Price
1	10	\$5
2	15	\$8
3	20	\$10
4	25	\$14

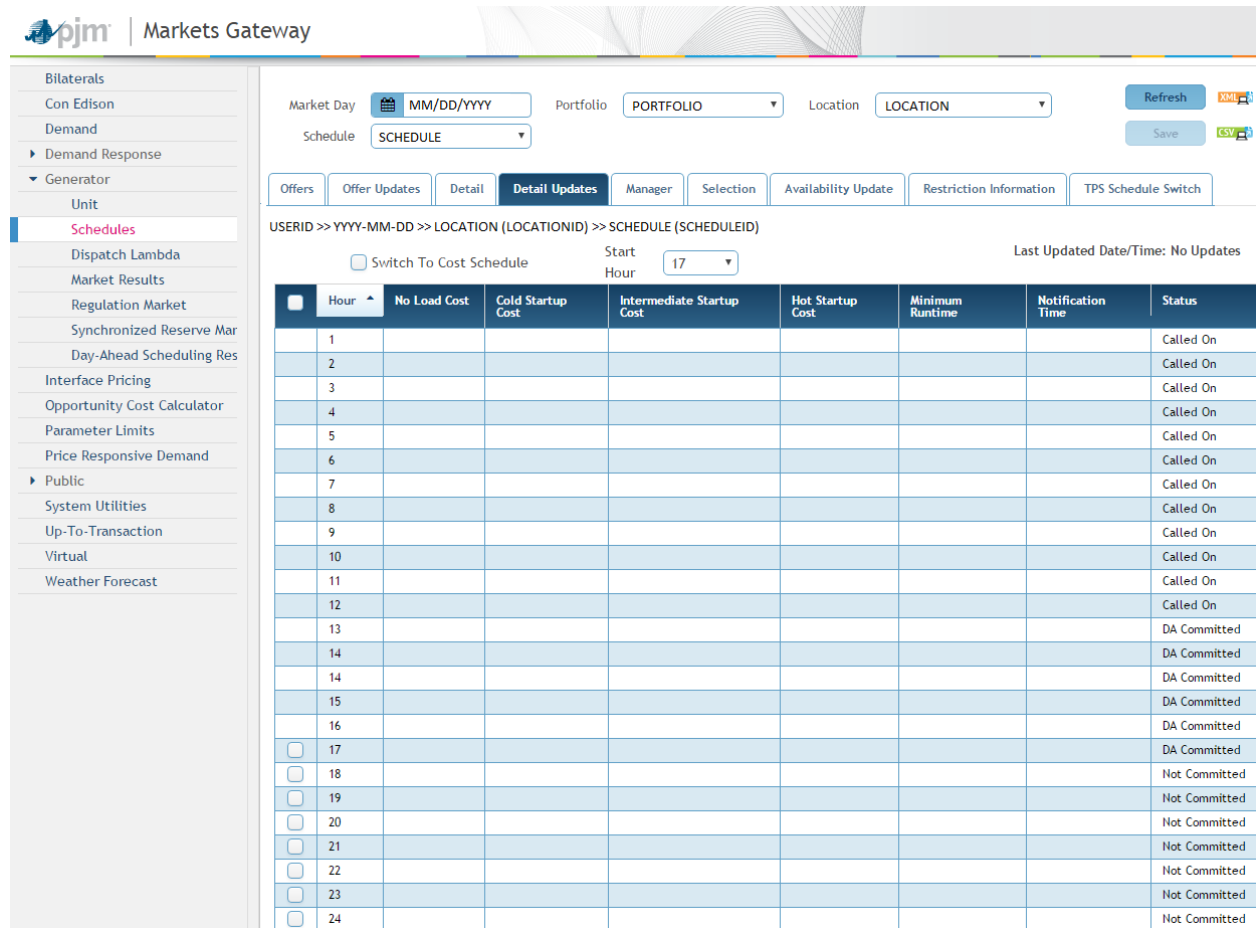
When are the price increase lockout periods?

If a resource is committed either in the Day-Ahead Market or the Real-Time Market, a lockout is implemented, preventing the resource from increasing its price offer for price-based schedules during those hours when it has a commitment.

Additionally, due to the flexible nature of combustion turbine (CT) units, specific rules govern the price increase lockout periods for these units. Unlike other types of units, when CTs have a Day-Ahead commitment, they are not expected to come online in Real-Time unless PJM Dispatch directs them to do so. See the “How are price increase lockout periods determined?” question below for additional rules regarding price offer increases specifically for CTs.

How do I know if my unit has a commitment?

- 1) In the Markets Gateway > Generator > Schedules > Detail Updates screen, for a specific unit and schedule, the Status column displays if the unit has been DA committed, called on in Real-Time, or not committed for a particular hour. If the status for the hour is “DA Committed”, that hour is considered locked out of price offer increases. If the status is “Called On”, the hour may or may not be locked out, depending on the logic described in the “How are price increase lockout periods determined?” question. If the status is “Not Committed”, price increases are allowed for that hour.



Market Day: MM/DD/YYYY Portfolio: PORTFOLIO Location: LOCATION Schedule: SCHEDULE

Refresh XML Save CSV

Offers Offer Updates Detail **Detail Updates** Manager Selection Availability Update Restriction Information TPS Schedule Switch

USERID >> YYYY-MM-DD >> LOCATION (LOCATIONID) >> SCHEDULE (SCHEDULEID)

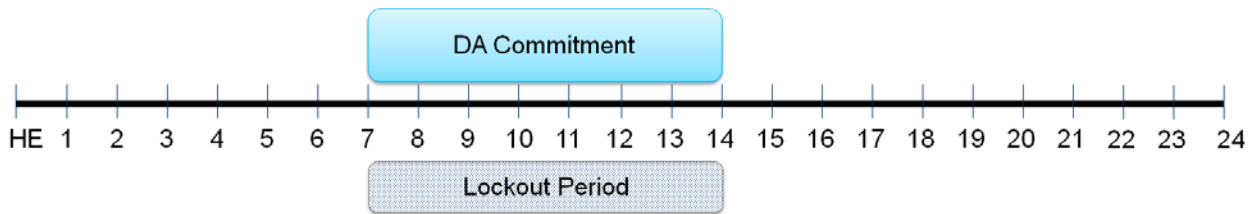
Switch To Cost Schedule Start Hour: 17 Last Updated Date/Time: No Updates

Hour	No Load Cost	Cold Startup Cost	Intermediate Startup Cost	Hot Startup Cost	Minimum Runtime	Notification Time	Status
1							Called On
2							Called On
3							Called On
4							Called On
5							Called On
6							Called On
7							Called On
8							Called On
9							Called On
10							Called On
11							Called On
12							Called On
13							DA Committed
14							DA Committed
15							DA Committed
16							DA Committed
17							DA Committed
18							Not Committed
19							Not Committed
20							Not Committed
21							Not Committed
22							Not Committed
23							Not Committed
24							Not Committed

How are price increase lockout periods determined?

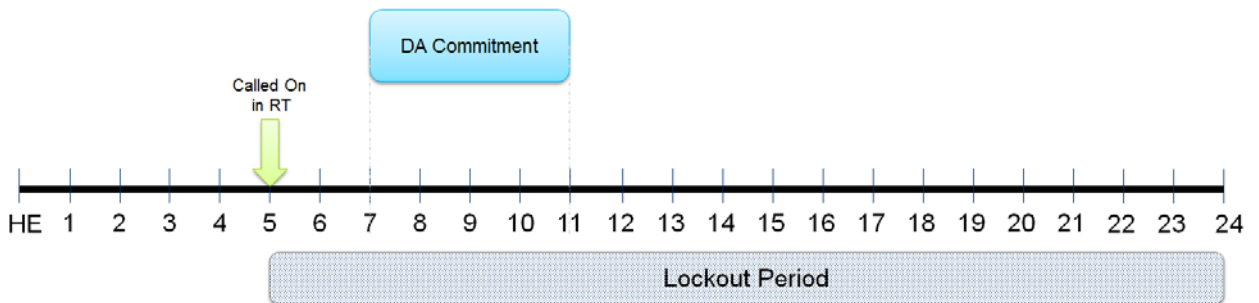
The price increase lockout periods vary depending on whether a unit cleared in the DA Market and if and when it was called on in Real Time. Below are some examples:

- 1) For CTs that clear in the DA Market and are called on in Real-Time, the initial lockout period includes the hours where the unit has a DA commitment.

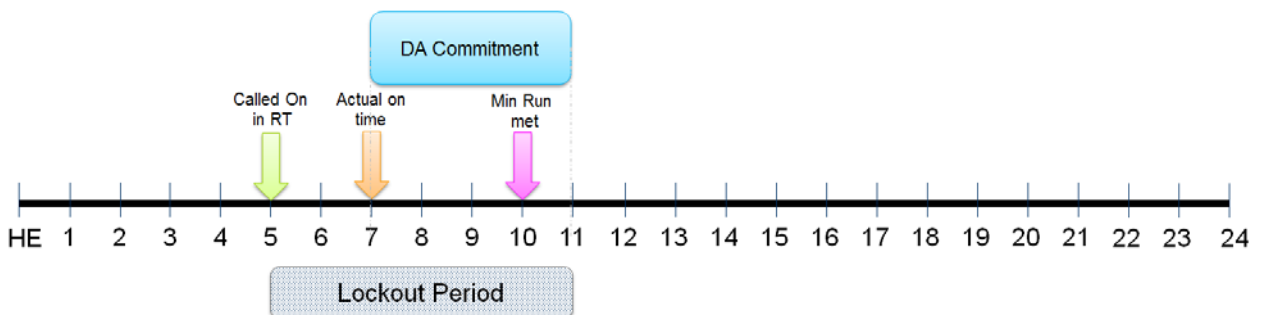


- 2) If the unit has a DA commitment and is called on in Real-Time before the start of the DA commitment, the lockout period begins at the call-on hour, and follow the rules below:

- a. Before the unit comes online, the lockout period extends until the end of the market day.

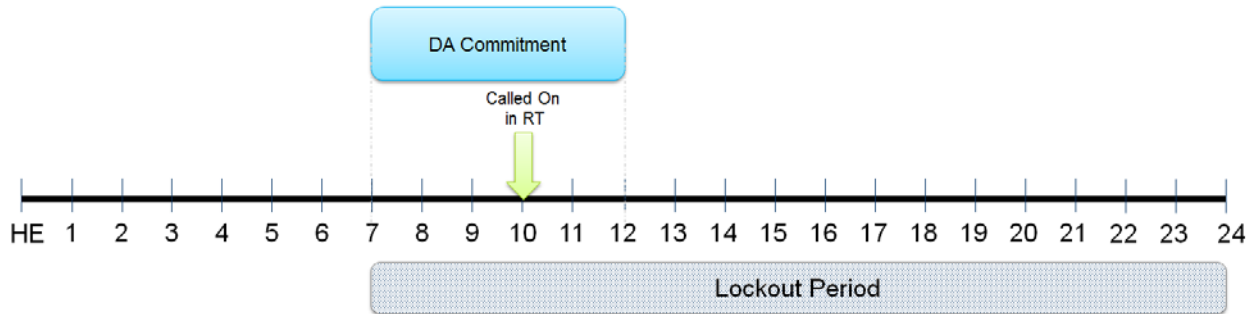


- b. Once the unit comes online, the lockout period ends when the min run time of the unit is met or at the last hour of the DA commitment, whichever is later. In the example below, the unit has a min run time of 3 hours.

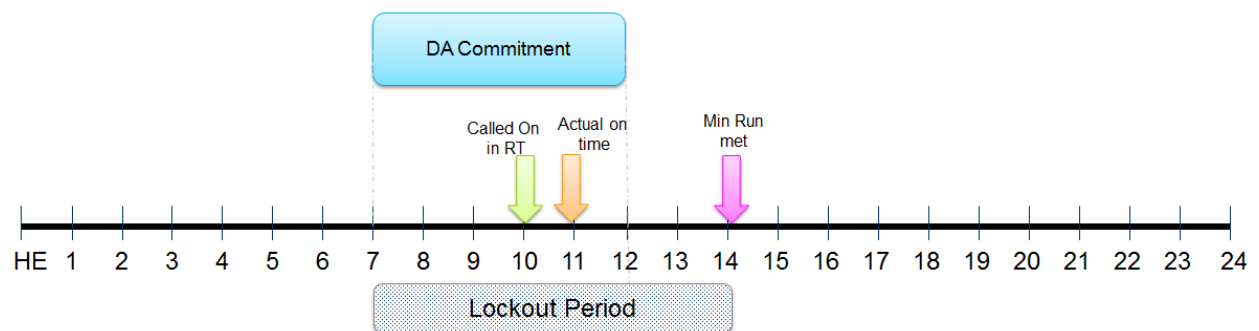


3) If the unit has a DA commitment and is called on in Real-Time in the middle of its DA commitment, the lockout period starts at the beginning of the DA commitment, and follows the rules below:

a. Before the unit comes online, the lockout period extends until the end of the market day.

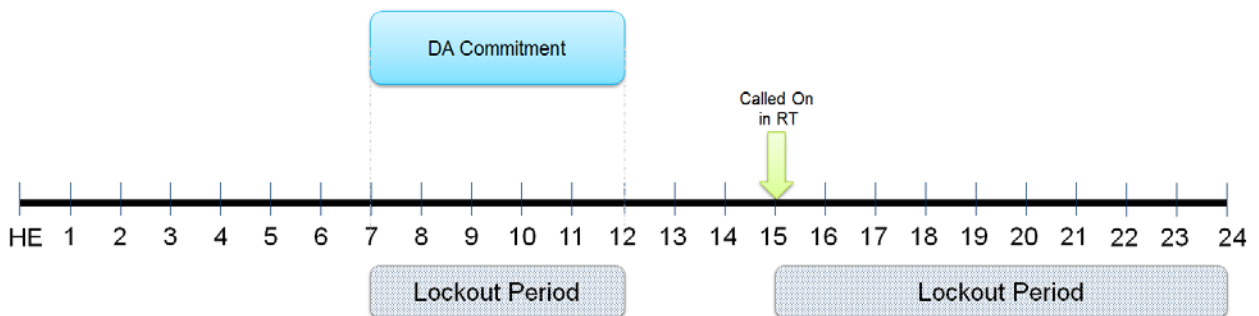


b. Once the unit comes online, the lockout period ends when the min run time of the unit is met or at the last hour of the DA commitment, whichever is later.

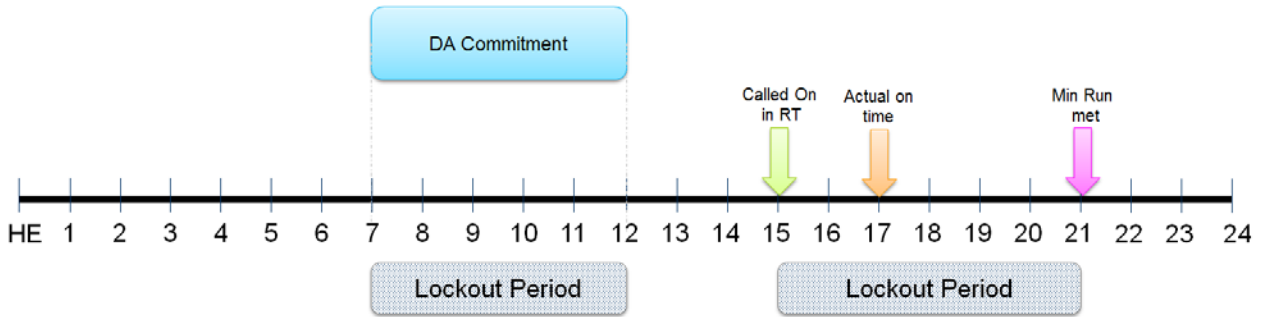


4) If the unit has a DA commitment and is called on in Real-Time after the end of its DA commitment, the lockout period begins at the call-on hour, and follows the rules below (note that the initial lockout period was for the hours of the original DA commitment):

a. Before the unit comes online, the lockout period extends until the end of the market day.

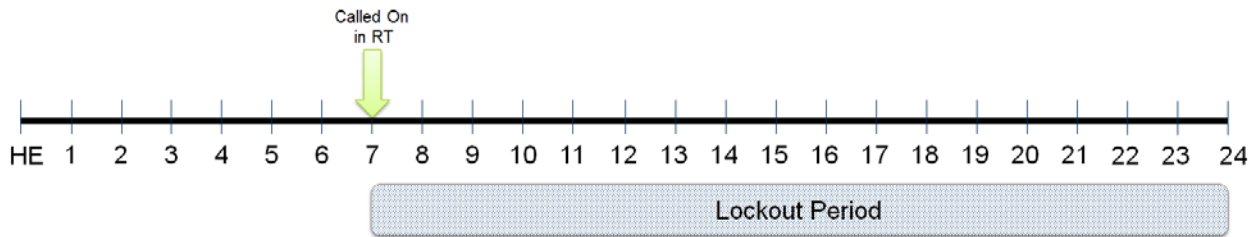


b. Once the unit comes online, the lockout period ends when the min run time of the unit is met.

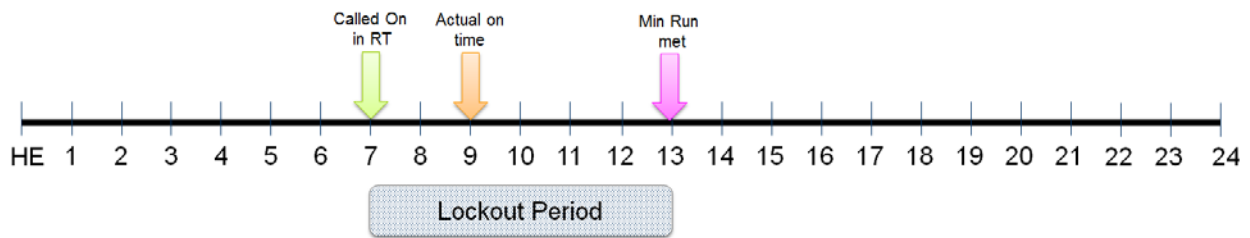


5) If the unit does not have a DA commitment and is called on in Real-Time, the lockout period begins at the call-on hour, and follows the rules below:

- a. Before the unit comes online, the lockout period extends until the end of the market day.



- b. Once the unit comes online, the lockout period ends when the min run time of the unit is met. In this example, that means that price increases can be made for HE14 through the end of the day once the unit comes online at HE9.



- c. If the unit is later extended and called on for a different reason ID, a new lockout period becomes effective at that time and extends until the end of the market day.

