



Daylight Saving Time (DST) Long Day Information

The ISO transition from Pacific Daylight Saving Time to Pacific Standard Time on **Sunday, November 4, 2018** will impact both User Interfaces and Automated Programming Interfaces associated to ISO Systems.

In preparation, the following information is provided for the following systems to help ensure a smooth transition.

- Scheduling Infrastructure Business Rules (SIBR)
- Base Schedule Aggregation Portal (BSAP)
- Balancing Authority Area Operations Portal (BAAOP)
- Automated Dispatching System (ADS)
- Customer Market Results Interface (CMRI)
- Open Access Same-Time Information System (OASIS)
- ISO Settlements
- ISO Metering Implications



Scheduling Infrastructure Business Rules (SIBR)

- SIBR has both a UI and API that will reflect changes during the DST Transition from PDT to PST.

SIBR UI:

- In the UI the second HE2 will be displayed as a 2* for all displays.

SIBR UI Copy function:

- It should be noted that Bids and Trades Copy forward or Copy from do not function similarly on the UI.
- For Bids/Schedules, the copy to and copy from the Long Day functionality is disabled on the UI because the time interval for a regular day has 24 hour; this cannot be carried into the long day because the period for the day is not complete in either case. (Portfolios may be saved for Long Day or Short Day use once bids have been submitted.) Do NOT use the copy function for moving bids into the Long Day or from the Long Day.
- Trades process differently on the UI and although there is a Day-Ahead Trade, it is unique to each hour of the day just like a Real Time Trade or Bid. This allows a copy into the Long Day as well as a copy from the Long Day.
- **NOTE on Copy to Long Day:** A Trade from a regular day copied into the Long Day will not have HE24; it will contain 24 hours of Trade information but the second HE2 (2*) will show the HE3 data and carry forward until HE23, which would show the HE24 data from the copied Trade.
- **NOTE on Copy from Long Day:** A Trade from the Long Day copied into a regular day will not have HE24 of the Long Day; it will contain 24 hours of Trade information but the second HE2 (2*) will show the HE3 data and carry forward until HE24, which would show the HE23 data from the copied Trade.



SIBR API:

For all SIBR API submissions, the UTC (Universal Time Code) is the time format. It can be with just the UTC or there can be an offset identified.

Examples:

Bid **Start** time

```
<startTime>2018-11-04T00:00:00.0-07:00</startTime> -- with an offset
```

```
<stopTime>2018-11-05T00:00:00.0-08:00</stopTime>
```

```
<marketType>DAM</marketType>
```

Bid **Start** time

```
<startTime>2018-11-04T07:00:00.000-00:00</startTime> -- UTC
```

```
<stopTime>2018-11-05T08:00:00.000-00:00</stopTime>
```

```
<marketType>DAM</marketType>
```

Bid **IntervalStart/Stop** -- with the offset

```
<BidSelfSched>
```

```
<timeIntervalStart>2018-11-04T00:00:00.0-07:00</timeIntervalStart>
```

```
<timeIntervalEnd>2018-11-04T01:00:00.0-07:00</timeIntervalEnd> -- HE01
```

```
<selfSchedMw>15.70</selfSchedMw>
```

```
</BidSelfSched>
```

```
<BidSelfSched>
```

```
<timeIntervalStart>2018-11-04T01:00:00.0-07:00</timeIntervalStart>
```

```
<timeIntervalEnd>2018-11-04T02:00:00.0-0700</timeIntervalEnd> -- HE02
```

```
<selfSchedMw>15.90</selfSchedMw>
```

```
</BidSelfSched>
```

```
<BidSelfSched>
```

```
<timeIntervalStart>2018-11-04T01:00:00.0-08:00</timeIntervalStart>
```

```
<timeIntervalEnd>2018-11-04T02:00:00.0-08:00</timeIntervalEnd> -- HE2* (Second HE2)
```

```
<selfSchedMw>15.90</selfSchedMw>
```

```
</BidSelfSched>
```

```
<BidSelfSched>
```

```
<timeIntervalStart>2018-11-04T02:00:00.0-08:00</timeIntervalStart>
```



<timeIntervalEnd>2018-11-04T03:00:00.0-08:00</timeIntervalEnd> -- HE3

<selfSchedMw>15.70</selfSchedMw>

</BidSelfSched>



SIBR Reports (Self-Schedule Contracts Report):

- There is a known issue with this report in regards to the DST Long Day. If the report is run for all 24 hours, the report will time out and not return results. The same results are true if the second HE2 (2*) is selected.
- The work-around for this is to select just HE2 to get the results for HE2; these are the same results for the second HE2 (2*).
- Please check the Ind Viewer tab on the SIBR display for contracts that do not have priority and run the report for that hour to see the Entitlement value.

Base Schedule Aggregation Portal (BSAP)

- BSAP has both a UI and API that will reflect changes during the DST Transition from PDT to PST.

BSAP UI:

- In the UI the second HE2 will be displayed as a 2* for all displays.

BSAP API:

For all BSAP API submissions, the UTC (Universal Time Code) is the time format. It can be with just the UTC or there can be an offset identified.

Balancing Authority Area Operations Portal (BAAOP)




BAAOP UI:




- In the UI, HE02 will be as is; there will be a second HE01, displayed as HE01*
 - HE01
 - HE01*
 - HE02
 - HE03


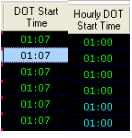

Automated Dispatching System (ADS)

ADS UI:

The ADS UI will display the second HE02 immediately after the first HE02. However, there are some known issues that impact the interval and trajectory display just prior to and after the transition. Prior to the transition during the first HE02, ADS will display the second upcoming HE02 as HE03. After the transition, the ADS trajectory plot will display the first HE02 as HE01, rather than displaying both hours as HE02.

When current time is at- (screenshot taken at this time)	The -	Displays as-
<p>First HE2 @ 1:56:00 AM prior to the transition</p>	<p>Dispatch Interval:</p>	 <p>Note the Dispatch Intervals are displaying start times of 02:00 (HE03). This is not correct since the transition will repeat start time 01:00 (HE02).</p>
	<p>DOT Start Times in the Resource panel</p>	 <p>The 5 minute and Hourly DOT Start Times are showing HE03 times prior to the transition. They should repeat HE02 (01:02, 01:00).</p>
	<p>Trajectory Plot</p>	 <p>The trajectory plot also shows HE03 times rather than repeating HE02.</p>

When current time is at- (screenshot taken at this time)	The -	Displays as-
<p>Second HE2 @ 1:00:57 AM The time transition has occurred but new instructions have not been received after the time transition.</p>	Dispatch Interval:	 <p>Dispatch Intervals are now correctly displaying start times of 01:XX (HE02).</p>
	DOT Start Times in the Resource panel	 <p>The 5 minute and Hourly DOT Start Times are still showing HE03 times, which is incorrect.</p>
	Trajectory Plot	 <p>The trajectory plot also shows HE03 times.</p>

When current time is at- (screenshot taken at this time)	The -	Displays as-
<p>Second HE2 @ 1:03:00 AM New instructions were received after the transition.</p>	<p>Dispatch Interval:Hourly DOT</p>	 <p>Dispatch Intervals are still correct</p>
	<p>Hourly DOT Start Times</p>	 <p>The DOT start times are now correct. Note that the Hourly DOT Start Time is showing 01:00 because a new set of Hourly Instructions have not been received yet. Once the new Hourly Instructions are received, the Hourly DOT Start Time and Hourly Dispatch Interval will be 02:00.</p>
	<p>Trajectory Plot</p>	 <p>After the transition, ADS is displaying the first HE02 as HE01, rather than displaying HE02 times twice.</p>

ADS API

- The ADS API uses a GMT format, which will not be impacted by the DST transition.

ADS Query Tool:

The ADS Query Tool will output historical data in the prevailing time. For example, after the DST transition, ADS does not have the ability to output data prior to November 4th in PDT. All data ranges will be outputted in PST after the transition. Once the time is transitioned back to PDT, all date ranges will then be outputted in PDT.



CAISO Market Results Interface (CMRI)

CMRI UI:

- For all CMRI reports, the second instance of HE02 is displayed as HE25.
- For the Day-Ahead Unit Commitment report, if the Start Time or End Time of the record falls on 1:00 AM PDT (or 8:00 AM GMT), its value is incorrectly displayed as the repeating hour/time "1*:00" which usually identifies 1:00 AM PST (or 9:00 AM GMT) under the Start Time or End Time column of the report. User workarounds available. First, for IFM commitments SC's can check the Day-Ahead Generation Market Results report which contains MW awards in HE format. In the unlikely event of a RUC commitment in the early morning hours SC's could call the DA desk to verify the commitment start time.
- For the Day-Ahead Instructions report, if the Start Time or End Time of the record falls on 1:00 AM PDT (or 8:00 AM GMT), its value is incorrectly displayed as the repeating hour/time "1*:00" which usually identifies 1:00 AM PST (or 9:00 AM GMT) under the Start Time or End Time column of the report. User workarounds available. In the unlikely event of a RUC commitment in the early morning hours SC's could call the DA desk to verify the commitment start time.

CMRI API:

- For DAM reports, requests are submitted by tradeDateStart and tradeDateEnd, so no special treatment for DST is required.
- For hourly requests for the second instance of HE02, submit requests as indicated:

```
<HRList>  
<HR>25</hr>  
</HRList>
```



Open Access Same-Time Information System (OASIS)

OASIS UI:

- For all OASIS reports, the second instance of HE02 is displayed as HE25.

OASIS API:

- For all OASIS API query requests for the second instance of HE02, submit as indicated:

opr_hr=25

ISO Metering Implications

The ISO receives all Settlement Quality Meter Data (SQMD) in PST, year round. Therefore, there is no transition back to PST. However, please confirm and assure that all SQMD meter data continues to be submitted to the ISO in PST.

END