



PJM Daylight Saving Scheduling Guide for Spring and Fall 2019

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PJM Guide to Scheduling Across the Switch from EST to EDT on March 10th, 2019

Background:

Eastern Prevailing Time (EPT) is the time on an automatically updated clock, such as on a cellphone or computer. Clocks change from Eastern Standard Time (EST) to Eastern Daylight Time (EDT) on March 10, 2019. At 2:00 EPT, clocks will “spring forward” one hour to 3:00. On your clock, this hour from 2:00 to 2:59 doesn’t exist. This results in the time from 1:00 to 3:00 only taking up one hour.

Warning: If choosing to schedule any time period that includes the period between 01:00 EST and 03:00 EDT on March 10th in ExSchedule, the time cannot be entered in EPT.

The easiest way to get around this limitation is to switch all of your systems to EST, EDT, or Universal Time (EST+5, EDT+4, UTC). Table 1 shows how the time changes on March 10th, 2019. As can be observed by looking at the highlighted rows and the (UTC) column, 1 hour passes between 1:00 and 3:00 EPT. Additionally, you can see how the three time zones – EST, EDT, and UTC – align with EPT over the switch.

Note: 1:45 EPT is the last time measured in EST. 3:00 EPT and after is converted into EDT.

Table 1: March Daylight Saving Time Conversion Chart

EASTERN STANDARD TIME (EST)	EASTERN PREVAILING TIME (EPT)	UNIVERSAL TIME (UTC)	EASTERN DAYLIGHT TIME (EDT)
3/9/19 20:00	3/9/19 20:00	3/10/19 1:00	3/9/19 21:00
3/9/19 21:00	3/9/19 21:00	3/10/19 2:00	3/9/19 22:00
3/9/19 22:00	3/9/19 22:00	3/10/19 3:00	3/9/19 23:00
3/9/19 23:00	3/9/19 23:00	3/10/19 4:00	3/9/19 0:00
3/10/19 0:00	3/10/19 0:00	3/10/19 5:00	3/10/19 1:00
3/10/19 1:00	3/10/19 1:00	3/10/19 6:00	3/10/19 2:00
3/10/19 2:00	3/10/19 3:00	3/10/19 7:00	3/10/19 3:00
3/10/19 3:00	3/10/19 4:00	3/10/19 8:00	3/10/19 4:00
3/10/19 4:00	3/10/19 5:00	3/10/19 9:00	3/10/19 5:00
3/10/19 5:00	3/10/19 6:00	3/10/19 10:00	3/10/19 6:00
3/10/19 6:00	3/10/19 7:00	3/10/19 11:00	3/10/19 7:00
3/10/19 7:00	3/10/19 8:00	3/10/19 12:00	3/10/19 8:00
3/10/19 8:00	3/10/19 9:00	3/10/19 13:00	3/10/19 9:00
3/10/19 9:00	3/10/19 10:00	3/10/19 14:00	3/10/19 10:00
3/10/19 10:00	3/10/19 11:00	3/10/19 15:00	3/10/19 11:00
3/10/19 11:00	3/10/19 12:00	3/10/19 16:00	3/10/19 12:00
3/10/19 12:00	3/10/19 13:00	3/10/19 17:00	3/10/19 13:00
3/10/19 13:00	3/10/19 14:00	3/10/19 18:00	3/10/19 14:00
3/10/19 14:00	3/10/19 15:00	3/10/19 19:00	3/10/19 15:00
3/10/19 15:00	3/10/19 16:00	3/10/19 20:00	3/10/19 16:00
3/10/19 16:00	3/10/19 17:00	3/10/19 21:00	3/10/19 17:00
3/10/19 17:00	3/10/19 18:00	3/10/19 22:00	3/10/19 18:00
3/10/19 18:00	3/10/19 19:00	3/10/19 23:00	3/10/19 19:00
3/10/19 19:00	3/10/19 20:00	3/11/19 0:00	3/10/19 20:00

Entering Data using CLI

When using the Command Line Interface (CLI), the time is uploaded in UTC. Since UTC does not observe daylight saving, the user will not need to make any special alterations. One day in UTC will always have 24 hours.

Entering Ramp or Bid Data using ExSchedule GUI

Using the ExSchedule GUI requires the time to be entered in something other than EPT. PJM suggests switching your scheduling systems to EDT.

Use EDT to enter Schedules

The following schedules can be created by setting the time zones in ExSchedule and OATI to Eastern Daylight Time (EDT). First is an example for creating a schedule from 01:00 EPT(EST) to 03:00 EPT(EDT). After the example is a list of sample conversions to help with specific hourly, daily, weekly, and monthly schedules.

- Set the ExSchedule time to Eastern Daylight Time (EDT).
This can be done via the menu in the top left corner of ExSchedule as shown in Figure 1.
- Create and submit either an ExSchedule Ramp, or an ExSchedule Day-Ahead Bid Reservation.

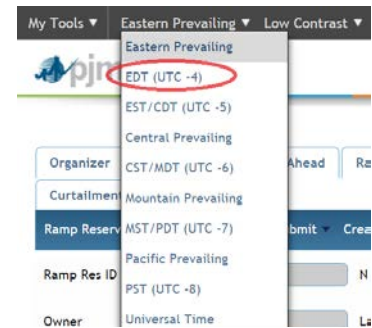


Figure 1 Change Time Zone in ExSchedule

Figure 2 shows an example of scheduling ramp.

Start *

Stop *

MW *

Status	Start	Stop	MW	Price	Actions
Working	03/10/2019 01:00	03/10/2019 03:00	100		<input type="button" value="Print"/> <input type="button" value="Delete"/>

Working MWh: 100.0

Figure 2 ExSchedule Ramp across Spring Daylight Saving

- Set tag agent software to Eastern Daylight Time (EDT).

Figure 3 shows how to do this.

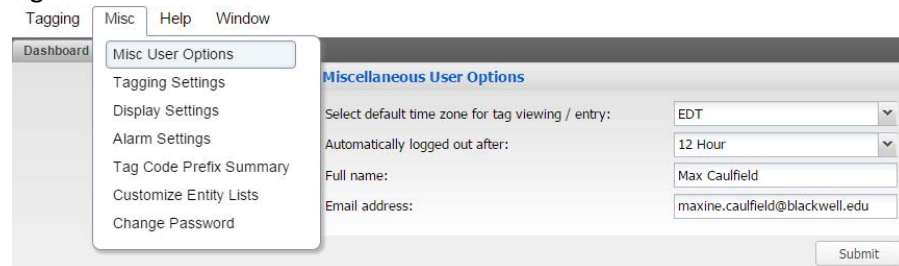


Figure 3 Entering Time in OATI webSmartTag

- Create a tag.

Figure 4 shows how the entered time should look.

Energy and Transmission Profile			
Start	Stop	Gen	MW
02:00	03:00		100

Figure 4 Entering Time in OATI webSmartTag

Sample Conversions (March)

Hourly Schedule

Schedule starting at 3/10/2019 01:00 EPT and ending at 3/10/2019 03:00 EPT

EDT Start 3/10/2019 02:00

EDT End 3/10/2019 03:00

Total # of hours: 1

Daily Schedule

Schedule starting at 3/10/2019 00:00 EPT(EST) and ending at 3/11/2019 00:00 EPT(EDT)

EDT Start 3/10/2019 01:00

EDT End 3/11/2019 00:00

Total # of hours: 23

Weekly Schedule

Schedule starting at 3/4/2019 00:00 EPT(EST) and ending at 3/11/2019 00:00 EPT(EDT)

EDT Start 3/4/2019 01:00

EDT End 3/11/2019 00:00

Monthly Schedule

Schedule starting at 3/1/2019 00:00 EPT(EST) and ending at 4/1/2019 00:00 EPT(EDT)

EDT Start 3/1/2019 01:00

EDT End 4/1/2019 00:00

PJM Guide to Scheduling Across the Switch from EDT to EST on November 3rd, 2019

Background:

Eastern Prevailing Time (EPT) is the time on an automatically updated clock, such as on a cellphone or computer. Clocks change from Eastern Daylight Time (EDT) to Eastern Standard Time (EST) on November 3rd, 2019. At 02:00 EPT, clocks will “fall back” one hour to 01:00. On your clock, this hour repeats. This results in two consecutive hours with clock times of 01:00 to 02:00. As a result of this situation, ExSchedule’s Eastern Prevailing clock is unable to add the extra hour between 01:00 EDT and 01:00 EST to the database.

Warning: If choosing to schedule any time period that includes the period between 01:00 EDT and 01:00 EST on November 3rd in ExSchedule, the time cannot be entered in EPT.

The easiest way to get around this limitation is to switch all of your systems to EST, EDT, or Universal Time (EST+5, EDT+4, UTC). Table 1 shows how the time changes on November 3rd, 2019. As can be observed by looking at the highlighted rows and the (UTC) column, 2 hours pass between 0:00 and 1:00 EPT. Additionally, you can see how the three time zones – EST, EDT, and UTC – align with EPT over the switch.

Note: 0:45 EPT is the last time measured in EDT. 1:00 EPT and after is converted into EST.

Table 2: November Daylight Saving Time Conversion Chart

EASTERN DAYLIGHT TIME (EDT)	EASTERN PREVAILING TIME (EPT)	UNIVERSAL TIME (UTC)	EASTERN STANDARD TIME (EST)
11/2/19 20:00	11/2/19 20:00	11/3/19 0:00	11/2/19 19:00
11/2/19 21:00	11/2/19 21:00	11/3/19 1:00	11/2/19 20:00
11/2/19 22:00	11/2/19 22:00	11/3/19 2:00	11/2/19 21:00
11/2/19 23:00	11/2/19 23:00	11/3/19 3:00	11/2/19 22:00
11/3/19 0:00	11/3/19 0:00	11/3/19 4:00	11/2/19 23:00
11/3/19 1:00		11/3/19 5:00	11/3/19 0:00
	11/3/19 1:00	11/3/19 6:00	11/3/19 1:00
11/3/19 2:00	11/3/19 2:00	11/3/19 7:00	11/3/19 2:00
11/3/19 3:00	11/3/19 3:00	11/3/19 8:00	11/3/19 3:00
11/3/19 4:00	11/3/19 4:00	11/3/19 9:00	11/3/19 4:00
11/3/19 5:00	11/3/19 5:00	11/3/19 10:00	11/3/19 5:00
11/3/19 6:00	11/3/19 6:00	11/3/19 11:00	11/3/19 6:00
11/3/19 7:00	11/3/19 7:00	11/3/19 12:00	11/3/19 7:00
11/3/19 8:00	11/3/19 8:00	11/3/19 13:00	11/3/19 8:00
11/3/19 9:00	11/3/19 9:00	11/3/19 14:00	11/3/19 9:00
11/3/19 10:00	11/3/19 10:00	11/3/19 15:00	11/3/19 10:00
11/3/19 11:00	11/3/19 11:00	11/3/19 16:00	11/3/19 11:00
11/3/19 12:00	11/3/19 12:00	11/3/19 17:00	11/3/19 12:00
11/3/19 13:00	11/3/19 13:00	11/3/19 18:00	11/3/19 13:00
11/3/19 14:00	11/3/19 14:00	11/3/19 19:00	11/3/19 14:00
11/3/19 15:00	11/3/19 15:00	11/3/19 20:00	11/3/19 15:00
11/3/19 16:00	11/3/19 16:00	11/3/19 21:00	11/3/19 16:00
11/3/19 17:00	11/3/19 17:00	11/3/19 22:00	11/3/19 17:00
11/3/19 18:00	11/3/19 18:00	11/3/19 23:00	11/3/19 18:00

Entering Data using CLI

When using the Command Line Interface (CLI), the time is uploaded in UTC. Since UTC does not observe daylight saving, the user will not need to make any special alterations. One day in UTC will always have 24 hours.

Entering Ramp or Bid Data using ExSchedule GUI

Using the ExSchedule GUI requires the time to be entered in something other than EPT. PJM suggests switching your scheduling systems to EDT.

Use EDT to enter Schedules

The following schedules can be created by setting the time zones in ExSchedule and OATI to Eastern Daylight Time (EDT). First is an example for creating a schedule from 00:00 EPT(EDT) to 02:00 EPT(EST). After the example is a list of sample conversions to help with specific hourly, daily, weekly, and monthly schedules.

1. Set the ExSchedule time to Eastern Daylight Time (EDT).

This can be done via the menu in the top left corner of ExSchedule as shown in Figure 5.

2. Create and submit either an ExSchedule Ramp, or an ExSchedule Day-Ahead Bid Reservation.

Figure 6 shows an example of scheduling ramp.

Status	Start	Stop	MW	Price	Actions
Working	11/03/2019 00:00	11/03/2019 03:00	100		[Icons]

Working MWh: 400.0

Figure 6 ExSchedule Ramp across Fall Daylight Saving

3. Set tag agent software to Eastern Daylight Time (EDT).

Figure 7 shows how to do this.

Figure 7 Change Time Zone in OATI webSmartTag

4. Create a tag.

Figure 8 shows how the entered time should look.

Start	Stop	MW
00:00	03:00	100

Figure 8 Entering Time in OATI webSmartTag

Sample Conversions (November)

Hourly Schedule

Schedule starting at 11/3/2019 00:00 EDT and ending at 11/3/2019 01:00 EDT

EDT Start 11/3/2019 00:00

EDT End 11/3/2019 01:00

Total # of hours: 1

Schedule starting at 11/3/2019 00:00 EDT and ending at 11/3/2019 01:00 EST

EDT Start 11/3/2019 00:00

EDT End 11/3/2019 02:00

Total # of hours: 2

Schedule starting at 11/3/2019 01:00 EDT and ending at 11/3/2019 01:00 EST

EDT Start 11/3/2019 01:00

EDT End 11/3/2019 02:00

Total # of hours: 1

Schedule starting at 11/3/2019 00:00 EDT and ending at 11/3/2019 02:00 EST

EDT Start 11/3/2019 00:00

EDT End 11/3/2019 03:00

Total # of hours: 3

Daily Schedule

Schedule starting at 11/3/2019 00:00 EPT(EDT) and ending at 11/4/2019 00:00 EPT(EST)

EDT Start 11/3/2019 00:00

EDT End 11/4/2019 01:00

Total # of hours: 25

Weekly Schedule

Schedule starting at 10/28/2019 00:00 EPT(EDT) and ending at 11/4/2019 00:00 EPT(EST)

EDT Start 10/28/2019 00:00

EDT End 11/4/2019 01:00

Monthly Schedule

Schedule starting at 11/1/2019 00:00 EPT(EDT) and ending at 12/1/2019 00:00 EPT(EST)

EDT Start 11/1/2019 00:00

EDT End 12/1/2019 01:00