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# E-Tag 1.7 Training





# Introduction

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- Why is E-Tag Changing?
  - New Technology
  - PSE Requests for new Functionality
  - OASIS Phase II - Electronic Scheduling
- When will all this take place?
  - April 10th



- E-Tag 1.7 Features
- New Business Rules
- EES Changes
- The E-Tag 1.7 Transition Plan
- Conclusion





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# E-Tag 1.7 Features





# E-Tag 1.7: Features

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- New Technology
- Financial and Physical Paths
- Profile Descriptions
- Transmission Stacking
- Tagging Flexibility
- Requests
- Schedule Types





# New Technology

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XML





# Financial and Physical Paths

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- Financial Path - market segments
  - PSE Financial Responsibility (I.e. PSE - PSE)
- Physical Path - physical segments
  - Generation
  - Transmission
  - Load





# Profiles

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- Market Level
- Committed Transmission Reservation Level (CTR Level)
- Reliability Level
- Dynamic Min. and Max. Energy Profile
- Current Level





# Profile Descriptions: Market Level

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- Indicates the level at which the tag Author or registered Market Operator wishes the schedule to run.





# Profile Descriptions: CTR Level

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- Indicates the amount of a transmission reservation that should be committed to an energy transaction.





# Profile Descriptions: Reliability Level

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- Indicates a maximum allowable flow (from a reliability standpoint) for a particular transaction.





## Profile Descriptions: Dynamic Min. and Max

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- Energy levels which are used to describe generation potential with regard to dynamic schedules.





# Profile Descriptions: Current Level

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- Created by the Tag Authority, the Current level is the interpreted value for a profile, meaning that it should reflect the correct flow based on the interpretation rules in the E-Tag specification.
- The current level is always the lowest of any supplied Market Level or Reliability Level.



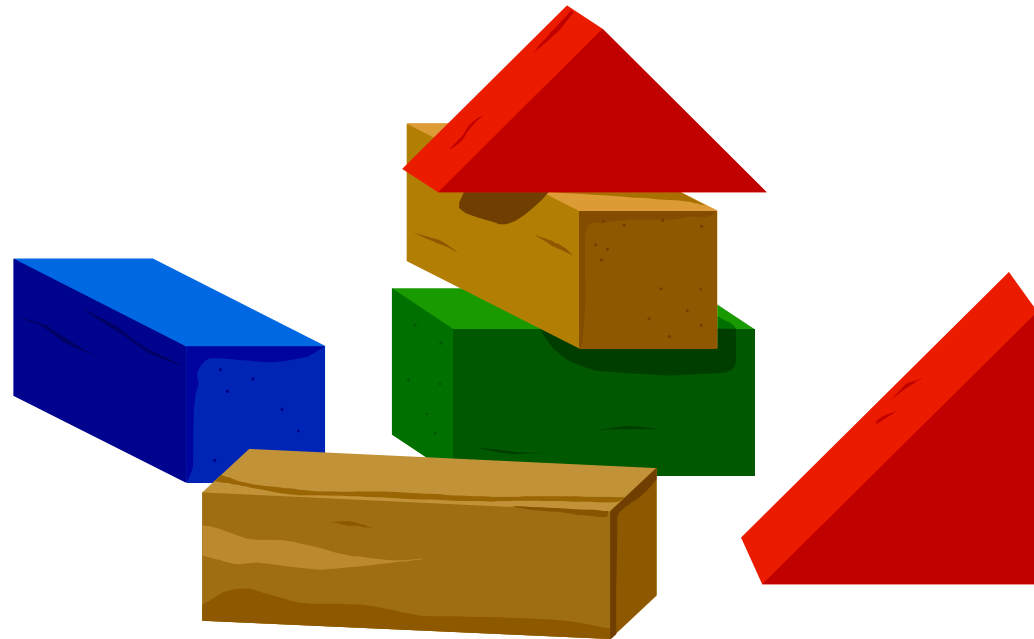




# Transmission Stacking

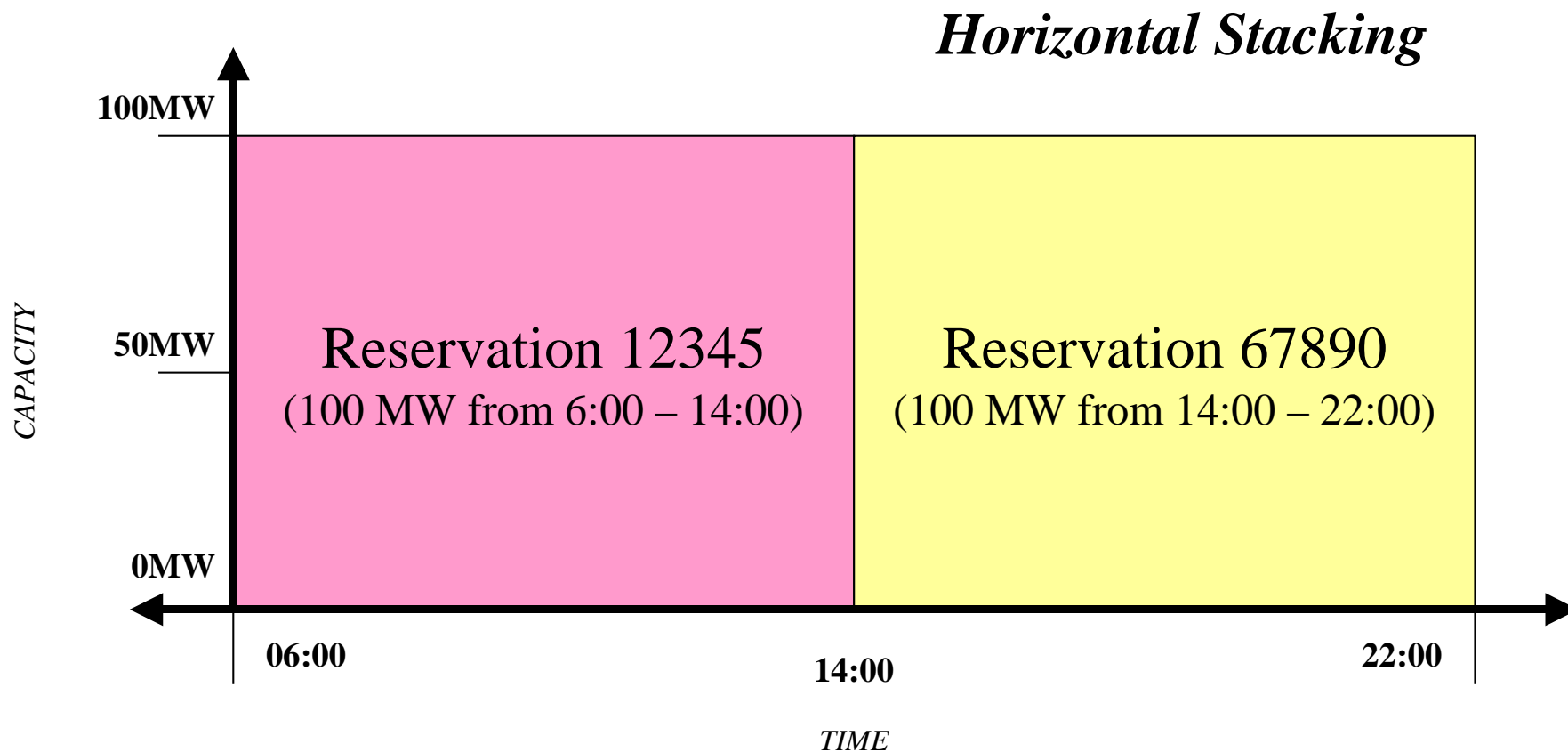
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- Horizontal
- Vertical





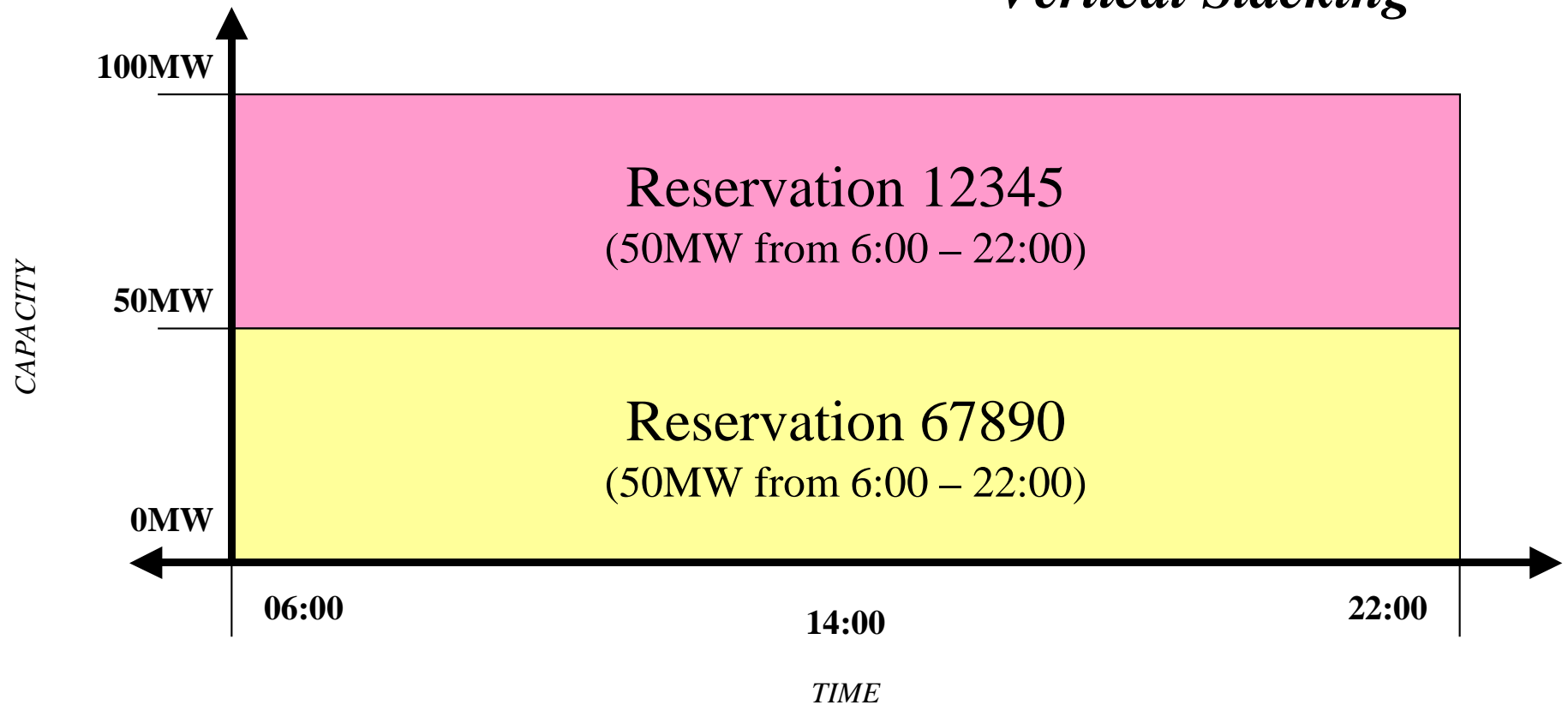
# Horizontal Stacking





# Vertical Stacking

## *Vertical Stacking*



Note: PJM does not allow Vertical Stacking



# Tagging Flexibility

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- Profile Changes
  - Market Based Modifications to Capacity
  - Market Based Modifications to Energy
  - Reliability Based Modifications to Energy
- Corrections





# Profile Changes: Market Based for Capacity

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- **Commit to Transmission Reservation (CTR) Assignments**
  - Initiated by Tag Authors: Request to commit a transmission reservation (in whole or in part) to a particular tag.
- **Commit to Transmission Reservation (CTR) Releases**
  - Initiated by Tag Authors: Request to “de-commit” a transmission reservation (in whole or in part) to a particular tag.

Note: Both must go through the approval process



# Profile Changes: Market Based for Energy

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- Adjustments
  - Initiated by Tag Author: Request to change the tag's profile higher or lower than originally requested.
- Extensions
  - Initiated by Tag Author: Request to set the start and/or stop time of the tag to a later time than was originally requested.
- Cancellations
  - Initiated by Tag Author: Request to set the tag's profile to zero, prior to the start of the transaction.
- Terminations
  - Initiated by Tag Author: Request to set the tag's profile to zero after the transaction has begun flowing



# Profile Changes: Reliability Based

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- **Curtailments**
  - Initiated by Security Coordinator: Requests to set a limit on a tag's profile based on a reliability concern.
  - Only the GCA and LCA must approve.
- **Reloads**
  - Initiated by Security Coordinator: Requests to release a limit on a tag's profile based on the elimination of a reliability concern.
  - Only the GCA and LCA must approve.



# Corrections

- A tag author can make tag Corrections when a portion of the tag data must be changed due to a typographical error or mistake.
- The Correction is distributed to all parties, and requires entities affected by the correction to re-evaluate the request using the corrected data.
- Unaffected entities need not re-approve the tag.



# Requests

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- E-Tag works on a fundamental principle of requests.
- Requests have different states that identify the current disposition of the request.
- The concept of “Request State” replaces the previous concept of “Composite Status”.





# Request States

Request States specify the disposition of a particular request. There are three specific states:

PENDING	The request has not yet been moved to a final state.
IMPLEMENTED	The request has been approved by all parties (either actively or passively) and should be implemented.
DEAD	The request has been denied by at least one party (either actively or passively) and should not be implemented.



# Delivery States

Each request also has a set of Approval entities, each of which has specific state information as well. Delivery States specify the delivery of a request to its approver. Each approver for a request will have a delivery state associated with them. There are four specific states:

QUEUED	The request is scheduled for delivery, but has not yet been successfully delivered
DELIVERED	The request was successfully delivered to the party associated with the State
INVALID	The request was not successfully delivered to the party associated with the State; the recipient claims there is a syntax or rules violation that prevents it's successful processing of the request.
COMMFAIL	The request was not successfully delivered to the party associated with the State; the recipient was either not available for response or responded in an unexpected manner.



# Approval States

Approval States specify the disposition of a particular request set by its approver. There are five specific states:

NA	Special state indicating that the entity does not have approval rights over the request.
PENDING	The message has been distributed and is awaiting processing by the Approver.
APPROVED	The approver, either actively or passively, has agreed to implement the request.
DENIED	The approver, either actively or passively, has decided not to implement the request.
STUDY	The approver has actively decided to defer their decision to approve or deny until a later time within their approval window, but wishes to communicate their acknowledgement of the request back to the sender.



# Approval States (Continued)

Finally, Approval State Types specify how the Approval State was derived. There are four specific approval state types:

NA	Not Applicable – The current state is neither active nor passive
ACTIVE	The provider has specifically indicated their willingness or unwillingness to implement a particular request
PASSIVE	The provider was unable to state their intentions within a reasonable amount of time and the system has made an automated decision on their behalf
OVERRIDE	The state was manually overridden by the entity providing the Authority.



# Schedule Types

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- Normal
- Dynamic
- Emergency
- Market ReDispatch
- Loss Supply
- Capacity





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# Business Rules





**EES**  
**E-Tag 1.7 / NERC Validation**  
**FAQ's**



# Business Rules

***What changes will I see on the NERC Tag Notepad on the EES Scheduler screen?***

- We now have the flexibility to specify a start and stop time for each NERC tag you wish to be linked.



# Business Rules

## *What kinds of new validation will occur on NERC Tags?*

- A profile now must be completely covered by a NERC Tag in order to attain Preapproved status. If a profile is not covered by a NERC Tag (but passes Ramp), it will be in Pending Action status until a NERC tag is added.
- NERC Tags must be entered in a valid format:
  - (I.e. GCA\_PSE+UniqueID\_LCA)



# Business Rules

## *What kinds of new validation will occur on NERC Tags?*

- Multiple NERC tags may be linked to one schedule, as long as time intervals do not overlap. For File Upload, EES will evaluate tags in the order they were specified in the upload file, and automatic adjustments will occur for tags that overlap.
- NERC Tags may be linked to multiple schedules, but not for the same time. Tags already linked to another schedule for a particular time will not be linked to additional schedule(s) for that time.



# Business Rules

*I linked a NERC Tag on the EES Scheduler screen, and I can only see the Tag Code in the NERC Tag Notepad. How can I view the full NERC Tag name?*

- When you link a NERC Tag on the EES Scheduler screen, only the Tag Code is displayed in the NERC Tag notepad (along with the Start and Stop times for which the tag was linked). To view the full NERC Tag name, mouseover the tag code, and the full name will appear.



# Business Rules

*I tried to link or update a NERC tag on the EES Scheduler screen, and I received a pop-up message that says, “One or more tag times overlap. Press OK to automatically adjust times. Press Cancel to unlink tag and adjust manually.” What does this mean?*

- This means that the new tag or update you are trying to make causes the linked Start/Stop times on one or more of the NERC tags on the schedule to overlap. If you press OK on the popup message, the new tag that you are trying to link or update will be linked, and the times on any overlapping tags will be shrunk so that no overlapping occurs. If you press Cancel, the new tag will not be linked or the update will not be made. You can then update manually times for any previously linked NERC tags.



# Business Rules

*Why can't I link more than 1 NERC Tag at the same time on a given schedule?*

- Current EES business rules do not permit vertical stacking of NERC Tags.



# Business Rules

*I linked a NERC Tag for the wrong times on the EES Scheduler screen.  
How can I update the times without removing the tag and linking it  
again?*

- You may update the times of a linked NERC tag on the EES Scheduler screen by clicking once on the tag you would like to update to select it. Then, choose the new Start and Stop times you would like, and press “Update.”



# Business Rules

*I linked a NERC Tag for the wrong times. How can I update the times through file upload?*

- To update the times, you must first remove the NERC tag, then link it again. Both steps can be done in the same upload file.



# Business Rules

*Where can I find information on how to upload NERC tags?*

- Information on File Upload Specifications for NERC Tags can be found in the Upload File Specification document on the PJM homepage under the *PJM Markets, Scheduling/EES/CSS* Headings



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# EES Changes





# NERC Tag notepad

The screenshot shows the PJM eSuite web application interface. The browser address bar displays `https://testweb.pjm.com/mui/index.htm`. The interface includes a navigation menu on the left with options like EES, eData, OASIS, and CAM. The main content area features a search form with fields for ID, Name, Outside ID, User Name, Last Updated By, and Status. A "Path Builder" section is visible with a "Direction" dropdown set to "Import to PJM" and a "Build Path" button. The "Views" section includes buttons for "Single Day", "Calendar", "Real Time", "Real Time/Price", "Two Settlement", "OASIS", and "NERC Tag". The "Edit" section includes buttons for "Real Time", "Real Time/Price", "Two Settlement", "OASIS", and "NERC Tag". A "NERC Tag" notepad is highlighted with a red circle, showing a table with columns for Tag Code, Start, and Stop. The table contains two entries: "MKT00..." with start time "00:00" and stop time "24:00", and "PJM\_XYZMKT0001\_VAP". The interface also includes a "Path Builder" section with a "Direction" dropdown set to "Import to PJM" and a "Build Path" button. The "NERC Tag" notepad is highlighted with a red circle, showing a table with columns for Tag Code, Start, and Stop. The table contains two entries: "MKT00..." with start time "00:00" and stop time "24:00", and "PJM\_XYZMKT0001\_VAP".

Views

- Single Day
- Calendar

Edit

- Real Time
- Real Time/Price
- Two Settlement
- OASIS
- NERC Tag

NERC Tag:

Tag Code	Start	Stop
MKT00...	00:00	24:00
PJM_XYZMKT0001_VAP		



# Wrong tag name is entered

The screenshot displays the PJM software interface. A Microsoft Internet Explorer dialog box is open, showing an error message: "NERC tags must be in the format GCA\_PSEtagcode\_LCA". The dialog box has an "OK" button. The background window, titled "Microsoft Internet Explorer", shows a "NERC Tag" list with a dropdown menu displaying "wrong\_tag\_format". The interface includes a "Path Builder" section with a "Direction" dropdown set to "Import to PJM" and a "Path" table. The "Views" section has buttons for "Single Day" and "Calendar". The "Edit" section has buttons for "Real Time", "Real Time/Price", "Two Settlement", "OASIS", and "NERC Tag". The "EES Tools" section includes buttons for "Organizer", "Scheduler", "Ramp Viewer", "ATC Viewer", and "Buy OASIS".



# Wrong time format entered

The screenshot shows the eSmarts PJM web application interface. A red circle highlights a 'Microsoft Internet Explorer' error dialog box with the message: "Stop Time must be after Start Time". The error occurs in the 'Path Builder' section, where the 'Stop' time is set to 7:00 and the 'Start' time is set to 12:00. The 'NERC Tag' is 'DEN1234567\_VAP'. The interface includes a sidebar with 'EES Tools' (Organizer, Scheduler, Ramp Viewer, ATC Viewer, Buy OASIS) and a top navigation bar with 'CSS', 'PJM', and 'eSmarts' tabs. The main content area shows a 'Path Builder' section with a 'Direction' dropdown set to 'Import to PJM' and a 'Path' table with columns for 'Path', 'Start', and 'Stop'. The 'Stop' time is 7:00 and the 'Start' time is 12:00. A 'Build Path' button is visible. The error dialog box is overlaid on the 'Path Builder' section.



# Tag times overlap on UI

The screenshot shows the PJM eSuite Path Builder interface. A dialog box is displayed in the center, indicating a conflict: "One or more tag times overlap. Press OK to automatically adjust times. Press Cancel to unlink tag and adjust manually." The dialog box has "OK" and "Cancel" buttons. The background interface includes a "Path Builder" section with a "Direction" dropdown set to "Import to PJM" and a "Build Path" button. On the right, there are "Edit" options: "Single Day", "Calendar", "Real Time", "Real Time/Price", "Two Settlement", and "Tag". Below the dialog, a table shows tag details:

Tag Code	Start	Stop
MK.T00...	00:00	24:00

At the bottom of the interface, there are buttons for "Create New", "Retrieve", "Clear", "Options", "Check Ramp", "Save", "Submit", "View Actuals", and "Submit & Buy OASIS". The PJM logo and "eSuite" branding are visible at the top left.



# File upload - tag times overlap

```
<?xml version="1.0" standalone="no" ?>
- <ees>
- <schedule>
  <pjm_id>V13570</pjm_id>
  <schedule_name>VAP IMPORT</schedule_name>
- <realtime_profile>
  <pjm_status>Pending Action</pjm_status>
  <action_required_flag>Invalid OASIS</action_required_flag>
- <action_required_log>
  <timestamp>2002-02-27T14:58:43</timestamp>
  <message>Start and stop-times of Tag AML_AMANDA00040_TEST and Tag AML_AMANDA00401_TEST were automatically
    adjusted due to time overlap. Download schedule for more details.</message>
</action_required_log>
```



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# E-Tag 1.7 Transition Plan





# E-Tag 1.7 Transition Plan

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- Lead In
  - Tags that complete before April 10, 2002 00:00 CST will not require any special action.
  - Tags that begin after April 10, 2002 00:00 CST will be tagged either during the Transition step (described later) or after Start-up.
  - Tags that span April 10, 2002 00:00 CST must be tagged in a special manner.



# E-Tag 1.7 Transition Plan

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- Transition
  - E-Tag 1.7 systems will be brought online for pre-scheduling purposes. **The E-Tag 1.67 System will remain operational during this time.** However, to allow for entities to begin preparing for the 1.7 Start-Up, the 1.7 system will be **operated concurrently** so users may submit and process tags with a start date of April 10, 2002 00:00 CST or later. This step will also allow for pre-population of the Interchange Distribution Calculator (IDC).



# E-Tag 1.7 Transition Plan

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- Outage
  - April 10, 2002 00:00 CST through April 10, 2002 02:00
  - Any special hardware reconfigurations or software upgrades requiring system downtime will take place during this time. While some systems may require no such change and therefore need no outage period, others may need to be reconfigured.



# E-Tag 1.7 Transition Plan

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- Start up
  - April 10, 2002 02:00 CST
  - In this final step, all E-Tag 1.7 Systems should be brought on line for use. 1.67 Systems should continue to be available for query purposes, but should no longer be used for “live” data. E-Tag 1.67 systems should no longer allow users to write new tags or take any other action beyond viewing and querying (i.e., “read only” functions).



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# Conclusion





## Additional Information

- “What’s New? In Version 1.7 of the NERC Transaction Information System (TIS)”
- “Tagging Essentials for Etag 1.7”
- [www.pjm.com](http://www.pjm.com)





# Conclusion

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Even **MORE** Information can be found at:

[www.nerc.com](http://www.nerc.com)

Follow the links for Tagging!

