



Deactivation Study Duration Proposed Change Education

David Egan

Manager, System Planning Modeling & Support

PJM Interconnection

Problem: Current Tariff Study Timeline Insufficient

- 30 days is all the Tariff affords PJM to complete Deactivation Studies; in which PJM Planning must complete:

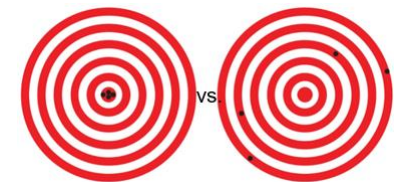
- **Case build(s)** for applicable deactivation period(s);
- **Analyses** (Gen Delivery, Load Delivery, & N-1-1);
- Operations **alignment** with results;
- **Transmission Owner validation** of results;
- If violations are identified:
 - Mitigation **upgrade identification**;
 - Mitigation **upgrade adequacy** verification (sometimes iterative);
 - Assessment of upgrade completion schedule;
 - If schedule exceeds requested deactivation date:
 - Review alternative upgrades or ability to accelerate queue activity to avoid RMR;
 - Identification of operational measures to avoid RMR;
- Notify customer of analyses results:
 - Approval to deactivate as scheduled; or
 - If violation mitigation duration exceeds requested deactivation date:
 - Schedule to mitigate; and
 - Need for unit(s) to operate under RMR.

Additional Problems: Current Tariff Study Timeline Insufficient



• Volume, Random, Reactionary, Cost Accuracy

- Tariff does not provide additional time for multiple requests (**volume**):
 - Simultaneously in one notification; or
 - Close in date to each other;
- Accurate costs / mitigation are nearly impossible in the 30 day timeline:
 - May have multiple solutions;
 - Not looking at other seasons and years;
 - Inadequate time for proper estimating; and
 - Must assume which will be least cost.
- Resources are forced to be redirected upon a deactivation notification:
 - Regardless of other priority work; and
 - Provides no ability to plan resources;



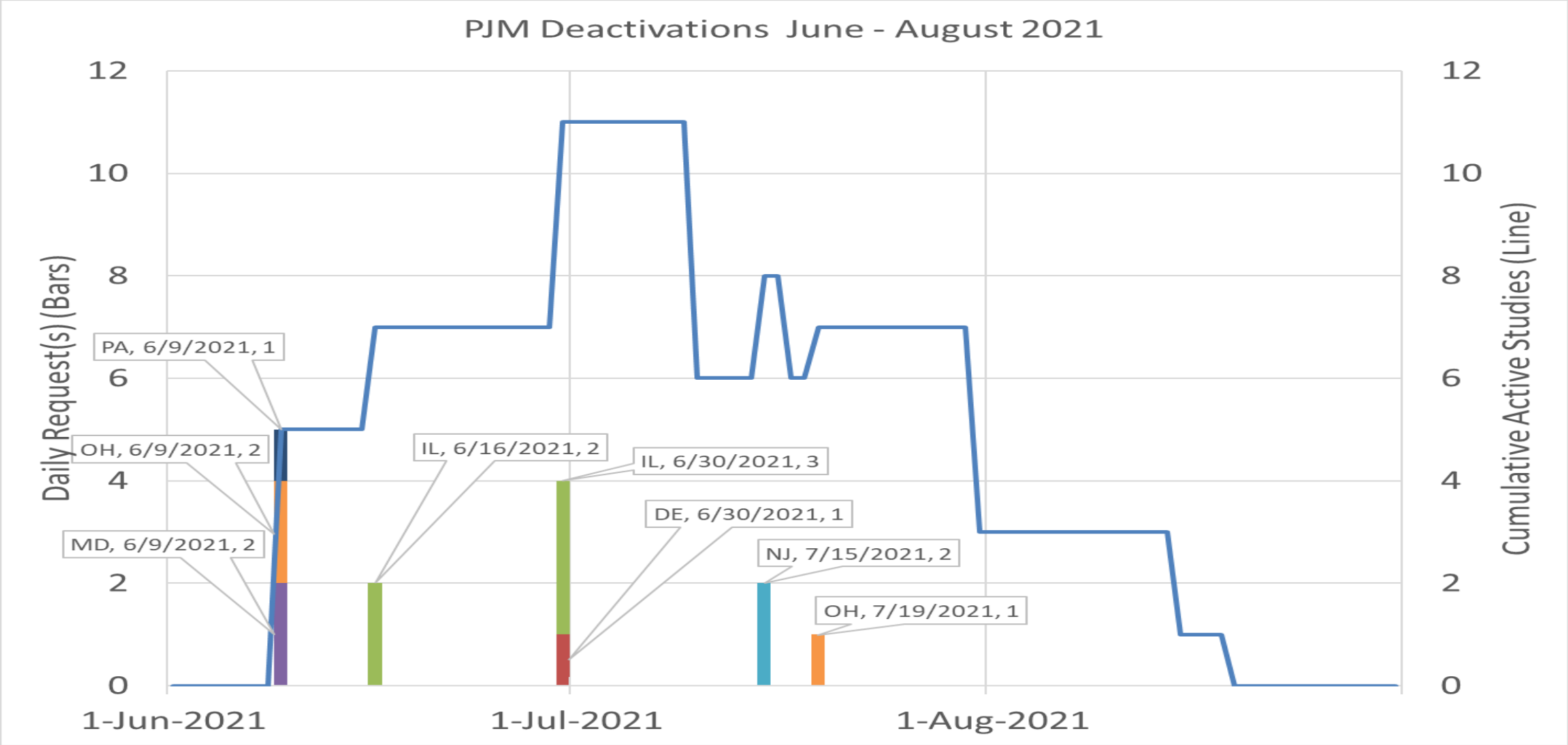
Comparison to other ISO Tariffs



- MISO
 - Advanced Notice: 26 weeks (182 days)
 - Studies:
 - 75 days to identify issues
 - 26 weeks to complete study
- NYISO
 - Advanced Notice: 365 days
 - Studies: Subsequent Quarter

- PJM Current:
 - Advanced Notice: 90 days
 - Studies: 30 days
- PJM Proposal
 - Advanced Notice :
 - submittal date dependent
 - minimum: 3 months and 1 day
 - maximum: 6 months
 - Studies: Subsequent Quarter

Recent Example: PJM Deactivations: June-August 2021



Proposed Deactivation Process Changes

- PJM will study four times per year (quarterly) for all notices received prior to the study commencement date:
 - PJM study period commencements: January 1, April 1, July 1, and October 1.
 - PJM studies as a batch (holistic);
 - Reliability Notifications will be made by end of February, May, August, and September respectively.
 - PJM and TOs have the study period to build cases, run analyses, identify upgrades, review schedule, look for operational measures.
- Accordingly, to request a deactivation a Generation Owner, or designated agent, must submit notice:
 - (a) Between January 1 and March 31 to deactivate July 1 or later;
 - (b) Between April 1 and June 30 to deactivate October 1 or later;
 - (c) Between July 1 and September 30 to deactivate January 1 of the subsequent year or later; or
 - (d) Between October 1 and December 31 to deactivate April 1 of the subsequent year or later.

Benefits of proposed changes



- Clarifies data submittal requirement with the Deactivation Notice;
- PJM & TO study periods become established, rather than unpredictable (improved efficiency);
- Batch studies vs. as submitted (holistic results);
- Sufficient time for
 - additional seasonal, interim year, and short circuit analyses, as required;
 - scheduling upgrades and estimating their costs; and
 - for PJM Operations to identify operational measures.

Review and Approval Timeline



PC First Read –
Issue
Charge/Proposed
Solution

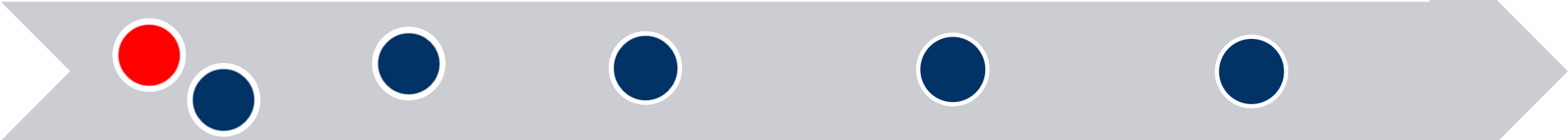
1/11/2022

PC Endorsement –
Issue
Charge/Proposed
Solution

2/8/2022

MC Endorsement –
Tariff Language

4/27/2022



OC
Informational
Update
1/13/2022

MRC First Read –
Tariff Language
2/24/2022

MRC
Endorsement –
Tariff Language
3/23/2022

Conforming Manual 14D language will proceed through the Operating Committee and SOS



Presenter: Dave Egan
[David.Egan@pjm.com]

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Member Hotline

(610) 666 – 8980

(866) 400 – 8980

custsvc@pjm.com



Appendix

Recent Example

PJM Deactivations: June-August 2021

Date/Unit(S)	DE	IL	MD	NJ	OH	PA	Grand Tot
6/9/2021			1232.7			648	2448.2
Avon Lake 10						21	21
Avon Lake 9						627	627
Cheswick 1						567.5	567.5
Morgantown Unit 1			613.3				613.3
Morgantown Unit 2			619.4				619.4
6/16/2021			2310				2310
Byron 1		1168.5					1168.5
Byron 2		1141.5					1141.5
6/30/2021	411.9	1192.4					1604.3
Indian River 4	411.9						411.9
Waukegan 7		328					328
Waukegan 8		354.4					354.4
Will County 4		510					510
7/15/2021				235.5			235.5
New Bay Cogen CC				120.2			120.2
Pedricktown Cogen CC				115.3			115.3
7/19/2021					1320		1320
Zimmer 1					1320		1320
Grand Total	411.9	3502.4	1232.7	235.5	1968	567.5	7918

Single Notification Example

Existing Deactivation 30 Day Study Process

June						
Su	Mo	Tu	We	Th	Fr	Sa
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

July						
Su	Mo	Tu	We	Th	Fr	Sa
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24

First 10 business days:
 PJM develops case and performs analyses. Sends results to PJM Ops and affected TOs.

Second 10 business days:
 TOs confirm PJM results and propose mitigation for violations with schedule and high level costs.

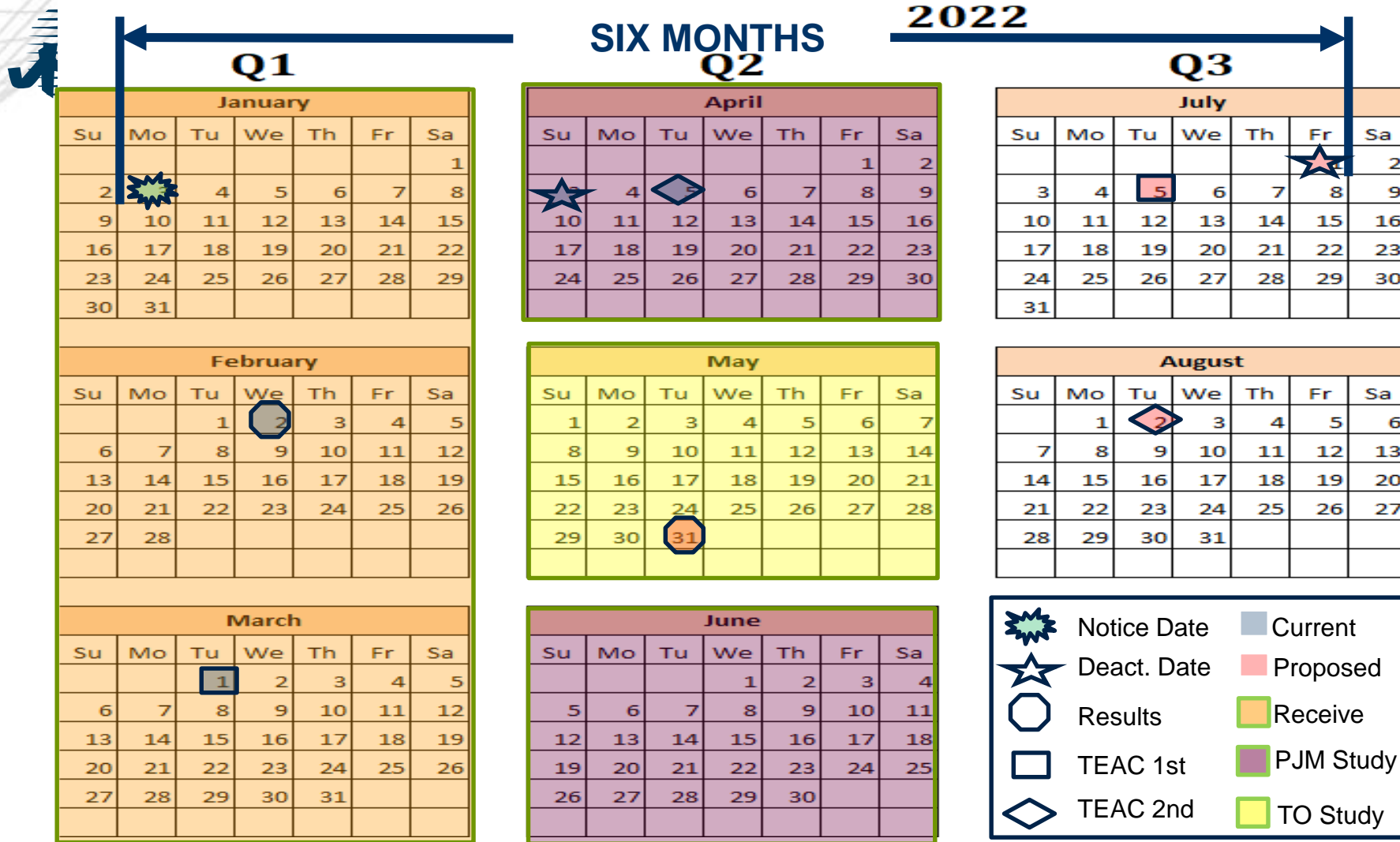
Final business day(s): PJM drafts and reviews letter with analyses results (violations) and duration for system upgrades. PJM issues letter customer and IMM by day 30.

Multiple Deactivation Notices Example (June 2021)

June						
Su	Mo	Tu	We	Th	Fr	Sa
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

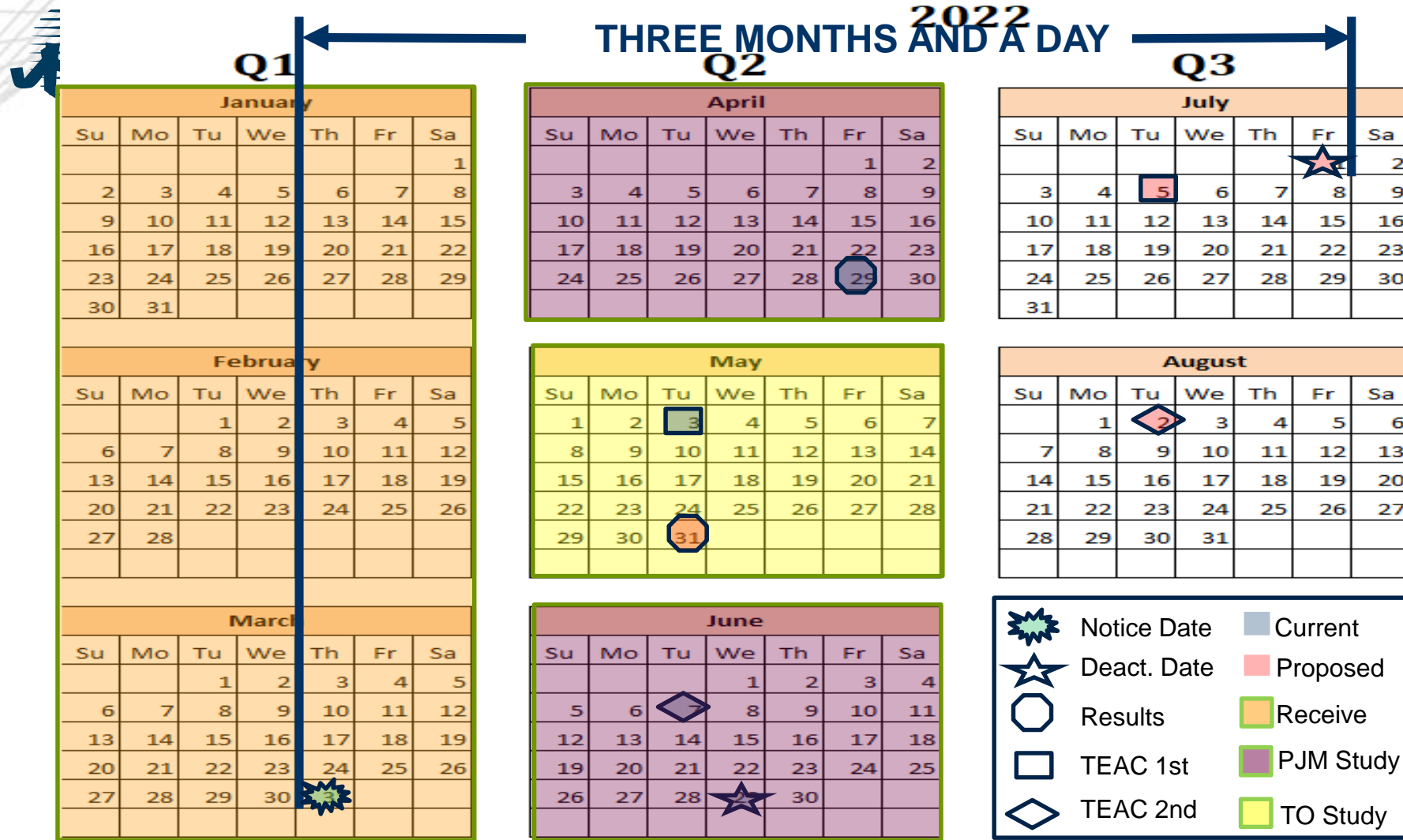
July						
Su	Mo	Tu	We	Th	Fr	Sa
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

Comparison Example 1 with Minimum Required Advanced Notification: Deactivation Submitted on First Business Day of a Quarter



Criteria	Current (days)	Proposed (days)
Advanced Notice	90	179
PJM Study	10	21
TO Study	10	22
Results	30	148
TEAC 1 st Read	57	183
TEAC 2 nd Read	92	211

Comparison Example 2 with Minimum Required Advanced Notification: Deactivation Submitted on Last Business Day of a Quarter



Criteria	Current (days)	Proposed (days)
Advanced Notice	90	92
PJM Study	10	21
TO Study	10	22
Results	30	61
TEAC 1 st Read	33	96
TEAC 2 nd Read	68	124

**PROTECT THE
POWER GRID
THINK BEFORE
YOU CLICK!**



Be alert to
malicious
phishing emails.

Report suspicious email activity to PJM.
(610) 666-2244 / it_ops_ctr_shift@pjm.com

