

# Deactivation Study Duration Proposed Change Education

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# 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

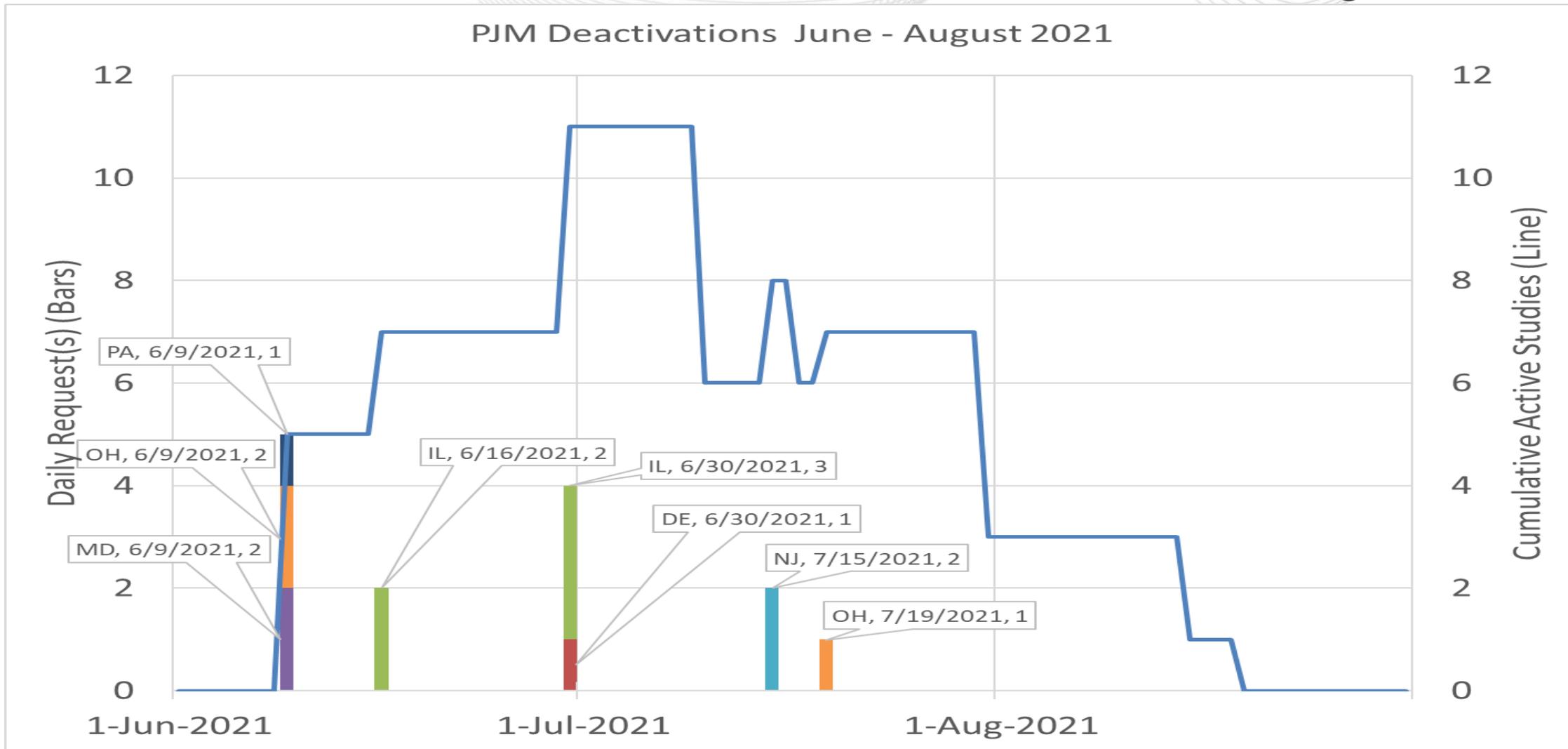
- Volume, Random, Reactionary, Cost Accuracy
  - Tariff does not provide additional time for multiple requests (**volume**):
    - Simultaneously in one notification; or
    - Close in date to each other;
  - Accurate costs / mitigation are nearly impossible in the 30 day timeline:
    - May have multiple 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

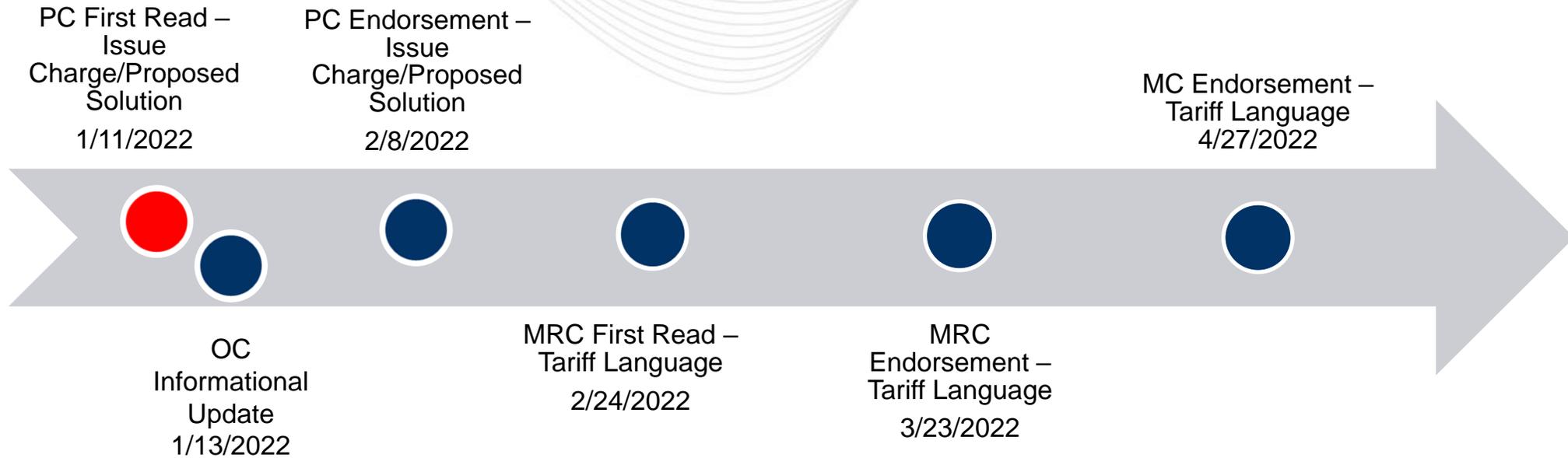
- MISO
  - Advanced Notice: 26 weeks (182 days)
  - Studies:
    - 75 days to identify issues
    - 26 weeks to complete study
- NYISO
  - Advanced Notice: 365 days
  - Studies: Subsequent Quarter
- PJM Current:
  - Advanced Notice: 90 days
  - Studies: 30 days
- PJM Proposal
  - Advanced Notice :
    - submittal date dependent
      - minimum: 3 months and 1 day
      - maximum: 6 months
  - Studies: Subsequent Quarter



# 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.

- 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.



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

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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
<b>6/9/2021</b>			<b>1232.7</b>			<b>648</b>	<b>2448.2</b>
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
<b>6/16/2021</b>		<b>2310</b>					<b>2310</b>
Byron 1		1168.5					1168.5
Byron 2		1141.5					1141.5
<b>6/30/2021</b>	<b>411.9</b>	<b>1192.4</b>					<b>1604.3</b>
Indian River 4	411.9						411.9
Waukegan 7		328					328
Waukegan 8		354.4					354.4
Will County 4		510					510
<b>7/15/2021</b>				<b>235.5</b>			<b>235.5</b>
New Bay Cogen CC				120.2			120.2
Pedricktown Cogen CC				115.3			115.3
<b>7/19/2021</b>					<b>1320</b>		<b>1320</b>
Zimmer 1					1320		1320
<b>Grand Total</b>	<b>411.9</b>	<b>3502.4</b>	<b>1232.7</b>	<b>235.5</b>	<b>1968</b>	<b>567.5</b>	<b>7918</b>

# 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.

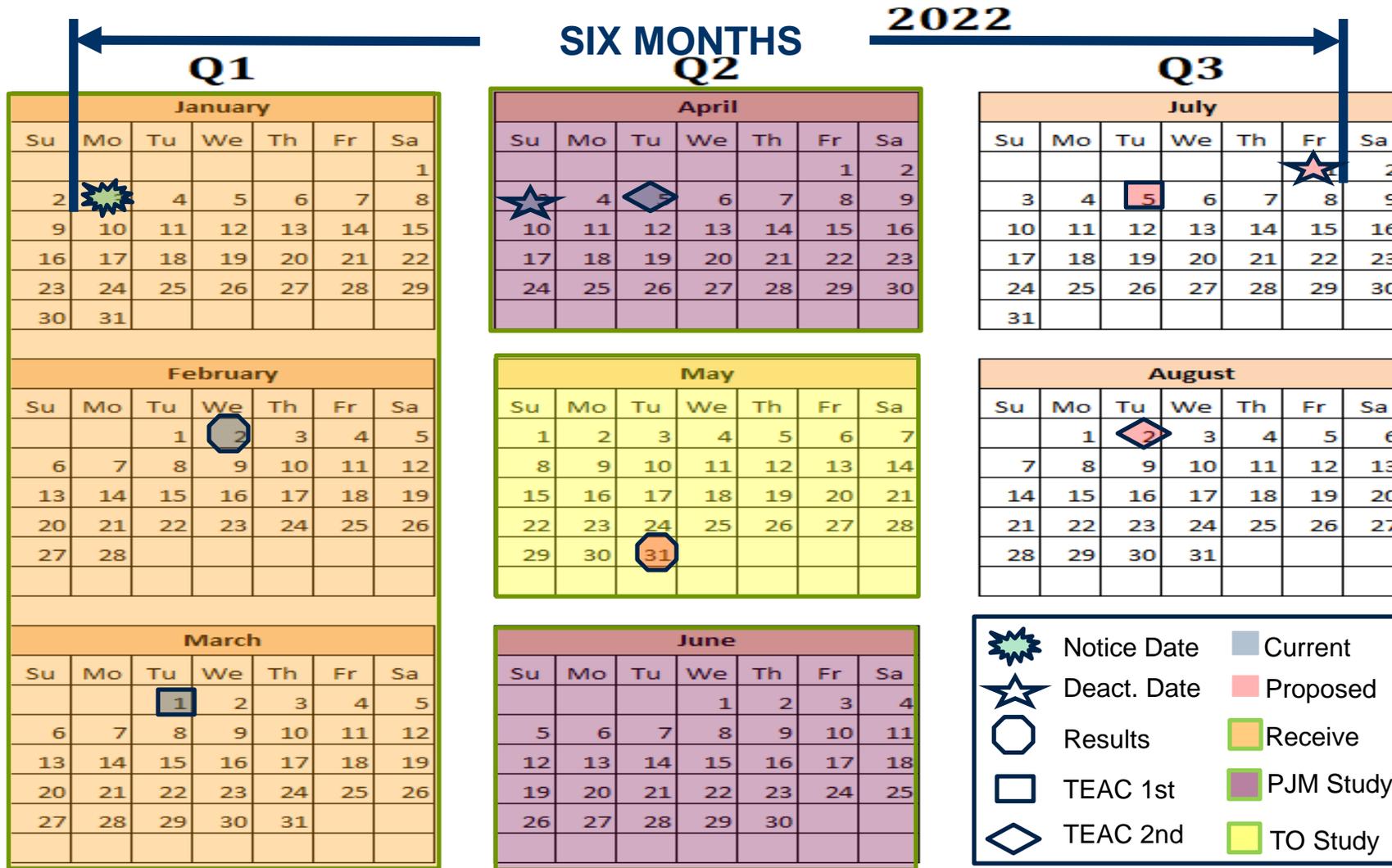
# Multiple Deactivation Notices Example (June 2021)

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



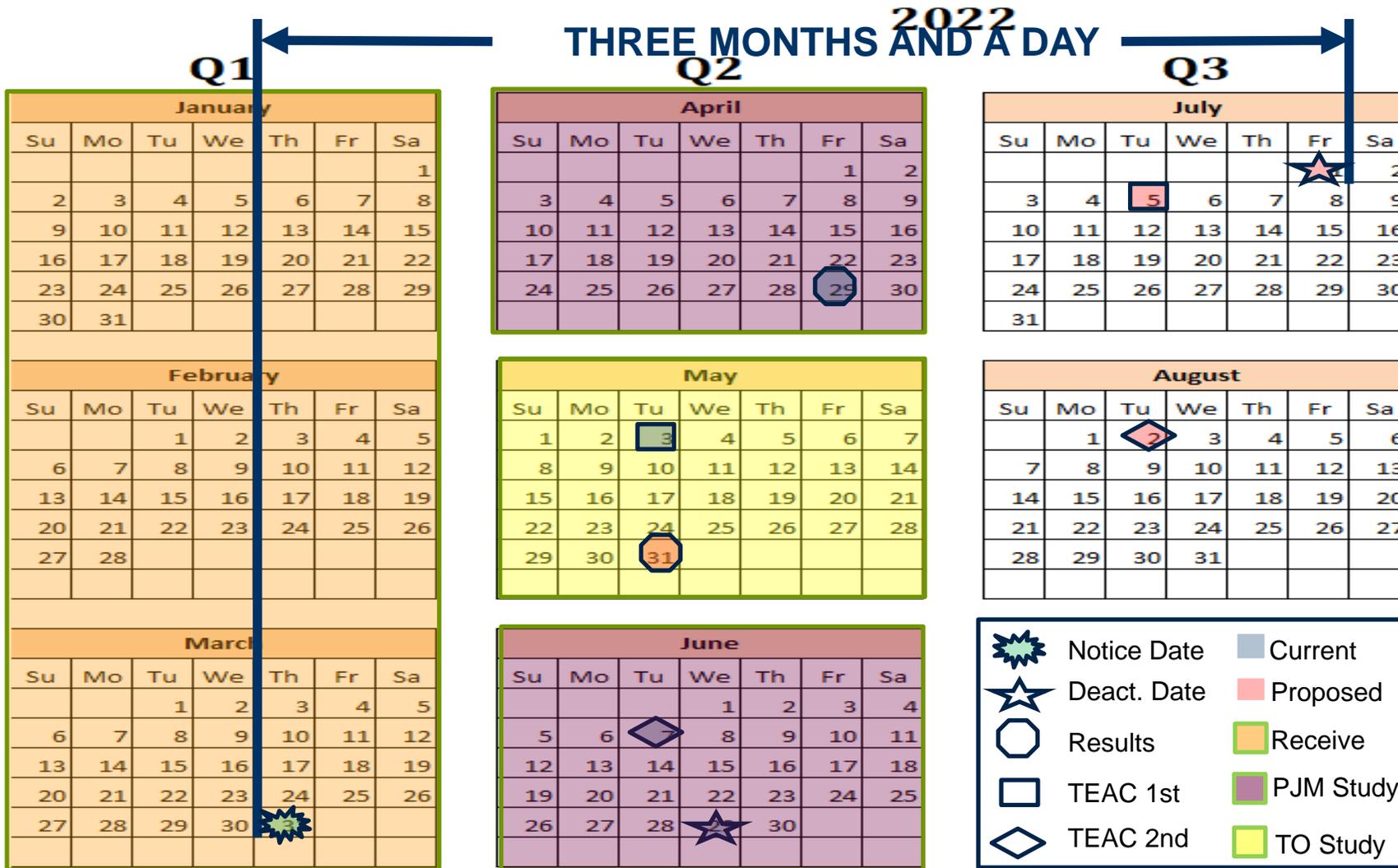
# Comparison Example 1 with Minimum Required Advanced Notification: Deactivation Submitted on First Business Day of a Quarter



Criteria	Current (days)	Proposed (days)
Advanced Notice	90	179
PJM Study	10	21
TO Study	10	22
Results	30	148
TEAC 1 <sup>st</sup> Read	57	183
TEAC 2 <sup>nd</sup> 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 <sup>st</sup> Read	33	96
TEAC 2 <sup>nd</sup> 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](mailto:it_ops_ctr_shift@pjm.com)

