

Order 2222 Registration Process

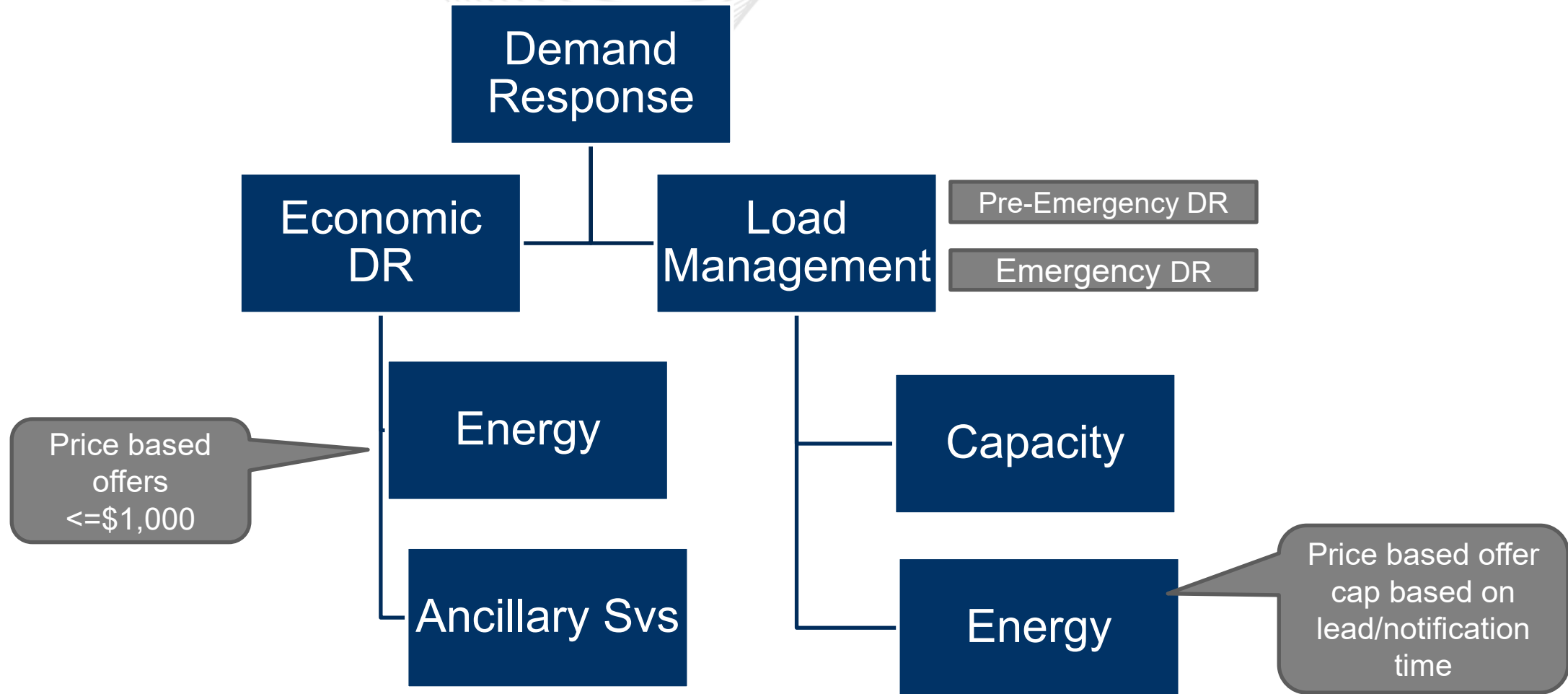
Andrea Yeaton, Lead Operations Analyst

DISRS

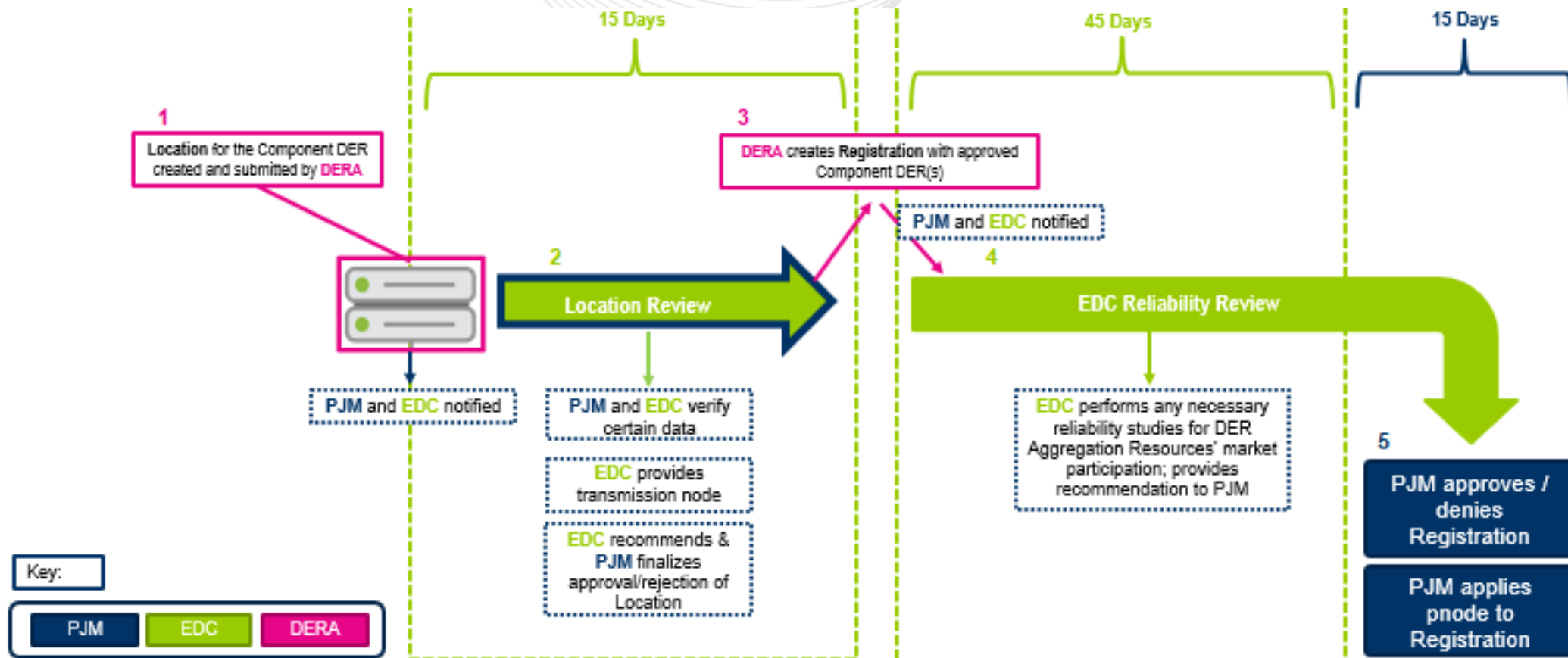
April 6, 2026

- Demand Response model participation in markets is not changing
 - If load can be reduced, it can be eligible for Demand Response
 - Load can be reduced by a generator, turning out lights, manufacturing processes, etc
 - Can participate in various Markets
 - Energy Market - Real-Time and Day-Ahead
 - Ancillary Services Market - Regulation, Synchronized Reserve, Secondary Reserve
 - Capacity Market

Demand Response - One location/premise can participate both as Economic DR and Load Management



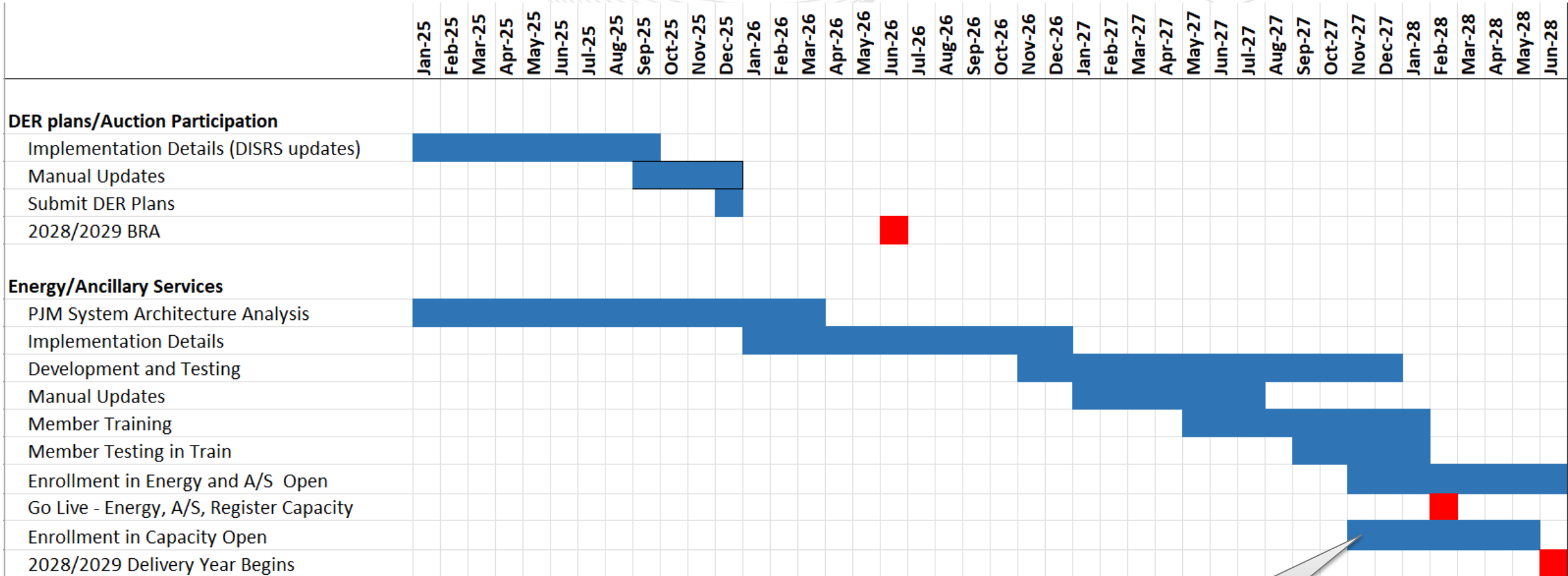
DR Capacity	DR Energy
Mandatory load reductions when dispatched for grid reliability	Voluntary participation; if offer is cleared, then must reduce load
Commitments made in RPM auction 3 years in advance (or FRR Plan)	Offer and clear in Markets Gateway
Monthly payments during Delivery Year	Payments made for each load reduction
Must test once a year unless dispatched in a PAI event	No testing requirements



Appendix



Overall implementation schedule



DR registration will not start until 1/1/28 when PLC is available



Manual updates for Energy and Ancillary Services

Order 2222 Manuals	2027						
	1-Jan	1-Feb	1-Mar	1-Apr	1-May	1-Jun	1-Jul
Detailed Work Plan -- Order 2222 Workplan							
M18 Capacity Market	x	x					
M21 Rules & Procedures for Determination of Generating Capability	x	x					
M21a Determination of Accredited UCAP Using Effective Load Carrying Capability Analysis	x	x					
M21b PJM Rules and Procedures for Determination of Generating Capability	x	x					
M11 Energy & Ancillary Services Market Operations	x	x					
M12 Balancing Operations		x	x				
M15 Cost Development Guidelines		x	x				
M14d Generator Operational Requirements		x	x				
M1 Control Center & Data Exchange Requirements		x	x				
M3a Energy Management System (EMS) Model Updates and Quality Assurance (QA)		x	x				
M10 Pre-Scheduling Operations		x	x				
M27 Open Access Transmission Tariff Accounting	x	x					
M28 Operating Agreement Accounting	x	x					
M29 Billing	x	x					
First Read - MIC , M18, M11, M15, M28, M29				x			
Endorse - MIC , M18, M1, M15, M28, M29					x		
First Read - SOS , M1, M12, M14d				x			
Endorse - SOS , M1, M12, M14d					x		
First Read - PC , M21, M21a				x			
Endorse - PC , M21, M21a					x		
First Read - OC , M1, M12, M14d				x			
Endorse - OC , M1, M12, M14d					x		
First Read - MRC , All Manuals						x	
Endorse - MRC , All Manuals							x



Nomenclature: PJM plans to standardize across models to help communication process

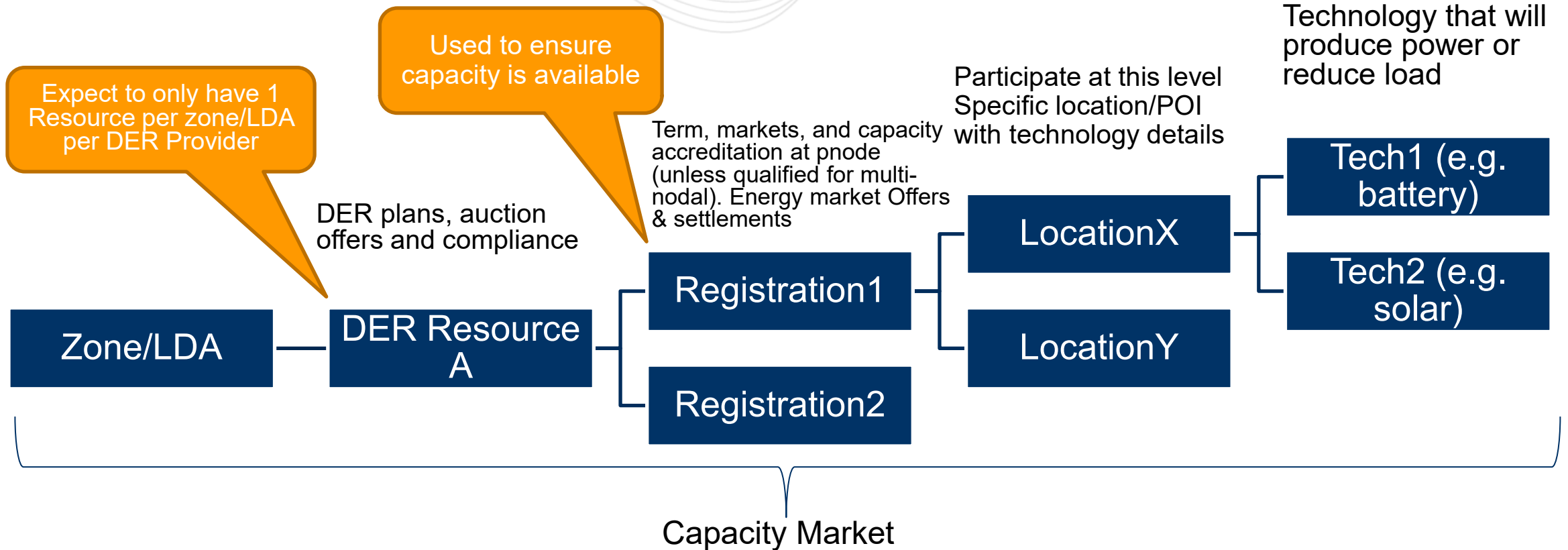
- **Location = Component DER.** For DR related activity this is the EDC account number for retail premise. For DG, this is unique EDC reference number for POI.
 - Confirmed by EDC in 15 day location review process prior to registration process.
- **Registration = ~DER Aggregation Resource.** One of more locations based on the aggregation rule (pnode or zone & EDC). Identifies the markets, time and amount eligible to participate.
 - Reviewed by EDC in 45 day registration review process.
 - Requires PJM final approval based on EDC input
 - May have multiple registrations at same pnode.
- **DER Resource = DER Capacity Resource.** One or more registrations in the same LDA/Zone. Identifies “resource” that will offer into the capacity market.

- **DG** – Distributed Generation that interconnects through the State interconnection process (does not go through the PJM queue)
 - Existing BTMG or NRBTMG that will convert to DG must notify PJM by September prior to DY to ensure load forecast and OPL are accurate for future Delivery Year.
 - May not be a PJM Generation resource (Capacity or Energy Only)
- **DRwl** – DR with injections (same as DR but will participate in the wholesale market with both load reductions and injections)
 - Single DER Component/Location may either participate in DER or DR model
- **DR** – Demand Response, only reduces load at POI (EDC account number). Does not participate in the market at times when there are injections onto the distribution system.

One location may on participate with one provider as one of the following: DER, DR, PRD, PSA or front of the meter Generation

- PJM member with PJM DER participation agreement
- Size limit: Registration: 100 kW min size requirement; no maximum size
Location: no minimum size, maximum size is 5 MW
- Registration and location data requirements subject to EDC review process
- RERRA approval
 - Small EDC is Opt in
 - Large EDC where location includes DR has opt out
- Settlement and Telemetry data
 - Settlement data by location required 1 business day after dispatch (hourly or more granular)
 - Telemetry by registration required at 1 minute scan or more granular based on market rules (i.e.: regulation)
- Aggregations
 - Energy market (includes must offer requirement for Capacity Resources)
 - location ≤ 0.1 MW @ transmission zone and EDC (“multi-nodal aggregation”)
 - One location may be >0.1 MW
 - location >0.1 MW @ pnode (typically a load bus on the transmission system)
 - Capacity market = lower of LDA or transmission zone (for example – aggregate to DPL-S). Minimum DER Capacity Resource size is 0.1 MW.
- One Member (“PJM org”) per location for participation across all models
- Location on NEM contract may only participate in ancillary service markets with injection.

Energy and A/S Market Only



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Order 2222 Timeline and Registration Process Review



Demand Response
Operations

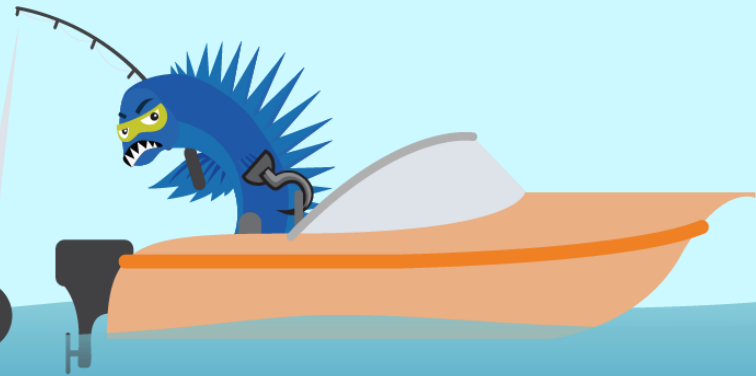
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**PROTECT THE
POWER GRID**

**THINK BEFORE
YOU CLICK!**



**BE ALERT TO
MALICIOUS PHISHING
EMAILS**



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