# Non-Performance Assessment Emergency Action Areas

Underperformance Risk Management Senior Task Force

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- The Non-Performance Assessment will encompass all resources located in the area defined by the Emergency Action
  - Emergency Action areas may be RTO wide, regional (e.g. MIDATL), zonal, or sub-zonal
  - External resources included in assessment for RTO wide events
- The area of the Emergency Action is determined by PJM dispatch in real-time and encompasses effective resources for the problem at hand

- Requests from last URMSTF meeting to review potential scenarios of Emergency Action areas
  - Emergency Action called for a Closed Loop Interface area
  - Emergency Action for local transmission constraint
  - Unrelated Emergency Actions called for areas within a nested LDA
  - Emergency Action called for area with a calculated Balancing Ratio of zero

- Closed loop interfaces are defined by a set of transmission lines that form a "pocket" with effective load and generation to handle transmission issues
  - PJM determines a thermal surrogate for the transmission issue to generate DFAX and identify raise/lower help generation and load
  - A "closed loop" is then created around the effective generation/load and zip codes are identified for effective sub-zonal DR
  - Allows generation and DR within the "closed loop" to set price for the constrained area
- Closed loop interfaces are defined at least one business day in advance and posted on PJM website

- Example: Dispatch issues an Emergency Load Management Reduction Action for the "PN-ERIE" Closed Loop Interface

- PJM will assess all generation and dispatched DR within the defined "PN-ERIE" area for the Performance Assessment Hour

- A single Balancing Ratio will be calculated using the generation and capacity resources within the defined area
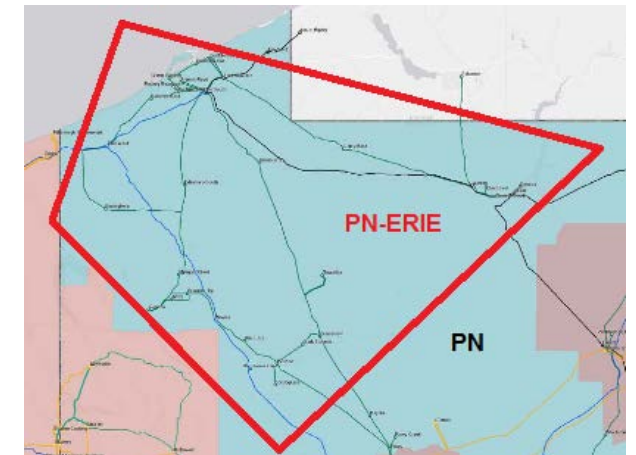
- Example: PJM issues a Load Shed Directive in the Milton, WV, area of AEP for Transmission Control
  - Occurred on May 27, 2015 for 25 MW
- Similar to Closed Loop Interfaces, PJM dispatch will use DFAX to identify raise/lower help generation and load to create a "closed loop" around the effective generation/load for the transmission constraint
- Any generation within the "closed loop" will be assessed for Non-Performance and considered in the determination of the Balancing Ratio for the area

- ## Example: PJM issues the following Emergency Actions
  - Sub-Zonal Emergency Load Management Reduction Action for the "PN-ERIE" Closed Loop Interface in Penelec for local transmission control (MAAC)
  - Load Shed Directive in Atlantic Electric for a local transmission constraint (EMAAC)

- ## EMAAC is modeled as a child LDA within MAAC

- ## Since the Emergency Actions are issued for disparate constraints, each area will be treated as its own Performance Assessment Hour with separate Balancing Ratios and Bonus MW calculated for each area

- ## Retroactive Replacements will only be allowed between capacity resources within the same Emergency Action area

- Example: An Emergency Load Management Reduction Action is issued for the "PN-ERIE" Closed Loop Interface

- No generation within the defined area produces energy or provides reserves/regulation

- DR only curtails to their commitment level; no Bonus DR is calculated

- The numerator of the Balancing Ratio will be zero, and therefore, the Expected Performance will be zero for any generation capacity resources that failed to perform within the area

  - Balancing Ratio = (Generator Actual Performance + DR Bonus) / Generator Commitments