

2019-2020 Stage1A ARR 10 Year Analysis

Transmission Expansion Advisory Committee October 17, 2019 Xu Xu, Market Simulation



– Purpose:

- Update stakeholders on PJM's Stage 1A 10-Year Auction Revenue Rights (ARR) analysis
- Key Takeaways
 - 2019 Stage 1A 10-Year ARR analysis identified violations on both internal and external (M2M) facilities
 - The planned upgrades can accommodate to remove the violations and restore stage1A ARR capability.



- ARRs (Auction Revenue Rights) allocated who fund the embedded costs of the transmission system
 - Firm network customers
 - Point-to-point customers
- On an annual basis:
 - PJM allocates ARRs through a multi stage process (Stage 1A, 1B and 2)
 - PJM conducts an annual simultaneous feasibility analysis to determine if the transmission system can accommodate Stage 1A ARRs to cover base load for the next 10-year period.



Results of 2019/20 Stage 1A ARR 10-year Analysis

Facility Name	Facility Type	Pseudo Tie Flowgate		Upgrade expected to fix infeasibility	Expected in-service date
BELLEFON138 KV T3	Internal	No	1	PJM RTEP b3118: Expand existing Chadwick station and install a second 138/69 kV transformer at a new 138 kV bus tied into the Bellefonte – Grangston 138 kV circuit. The 69 kV bus will be reconfigured into a ring bus arrangement to tie the new transformer into the existing 69 kV via installation of four 3000A 63 kA 69 kV circuit breakers.	2020
KILMER 230 KV KIL-LAKI and LAKENELS230 KV LAK-MID	Internal	No	1	PJM RTEP b3042: Replace substation conductor at Raritan River 230 kV substation on the Kilmer line terminal.	2023
PLEASNTV230 KV 274D	Internal	No	1	PJM RTEP b3026: Re-conductor the entire 230 kV line No.274 (Pleasant View-Ashburn-Beaumeade) using a higher capacity conductor with an approximate rating of 1572 MVA.	
Tanners Creek-Miamifort 345kV I/o East Bend-Terminal 345kV	Flowgate	No	1	PJM RTEP b2968/2831: Upgrade and/or Rebuild the Tanner Creek – Miami Fort 345kV line	2021
Eugene-Cayuga 345 I/o Rockport- Jefferson 765	Flowgate	No	1	PJM RTEP b2777: Reconductor the entire Dequine - Eugene 345 kV circuit #1	2021



Revision History

• V1 – 10/10/2019 – Original slides posted