



Regional Transmission Expansion Process (RTEP) Incremental Auction Revenue Rights (IARRs) MIC Update for 2018/19 Planning Period

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- Overview
 - PJM Operating Agreement requires annual RTEP IARR analysis
 - The analysis may trigger IARRs for following RTEP:
 - Backbone Upgrades
 - Non-Backbone Upgrades: cost responsibility is assigned to 1) non-contiguous zones or 2) Merchant Transmission Providers
 - The analysis must be completed before Annual ARR process
- Key Takeaways
 - No RTEP IARRs could be awarded for 2018/19 planning period

- Prior to awarding an IARR path for an eligible RTEP project, PJM evaluates a constraint that is most relieved by an RTEP upgrade (i.e. “Impacted Facility”)
- Once an impacted facility is identified, PJM will then evaluate an eligible IARR path that could be awarded subject incremental transfers based on following:
 - IARR Source Points are aggregated pricing points (comprised of up to ten generator busses) with most flow increase
 - Sink Points are aggregated pricing point consisting of the zone with the most flow increase

- IARR analysis comprised of a incremental transfer study

Transfer Type	Description	Table Reference (Appendix)
Pre Upgrade Transfer	Prior to applying the upgrade using IARR path, perform a transfer capability assessment	Pre-Upgrade ARR Capability
Post Upgrade Transfer	After applying the upgrade using IARR path, perform a transfer capability assessment	Post-Upgrade ARR Capability
Incremental Transfer	Calculate delta transfer capability by subtracting pre transfer capability from post transfer capability	IARR MW

- All IARR-eligible RTEP upgrades scheduled to be in-service by end of 2018/19 planning period were analyzed
- All IARR-eligible RTEP upgrades did not produced IARRs

APPENDIX



RTEP IARR Analysis Results for 2018/19 Planning Period

Project #	Type	Upgrade Description	In-Service Date	Impacted Facility*	Pre-Upgrade ARR Capability	Pre-Upgrade Limit	Post-Upgrade ARR Capability	Post-Upgrade Limit	IARR MW
b1589	Non Contiguous	Re-configure the Kearny 230 kV substation and loop the P-2216-1 (Essex - NJT Meadows) 230 kV circuit	6/1/2018	Essex - Kearny 230 kV circuit I/o Hudson - Essex circuits	0	CHICHEST230 KV CHI-EDD I/o CHICHESTER- FOULK 230 LINE	0	CHICHEST230 KV CHI-EDD I/o CHICHESTER-FOULK 230 LINE	0
b2688	Non Contiguous	Germantown Substation: Replace 138/115 kV transformer with a 135/180/224 MVA bank. Replace Lincoln 115 kV breaker, install new 138 kV breaker, upgrade bus conductor and adjust/replace CTs.	6/1/2018	Taneytown to Carroll 138 kV	0	AP SOUTH for I/o BLA-BED	0	AP SOUTH for I/o BLA- BED	0
b1905.1	Backbone	Surry to Skiffes Creek 500 kV Line (7 miles overhead); Surry 500 kV Station Work	5/30/2019	CHUCKATK230 KV 263A I/o L230.Surry- Winchester.214	0	AP SOUTH for I/o BLA-BED	0	AP SOUTH for I/o BLA- BED	0
b2744	Backbone	Rebuild the Carson - Rogers Rd 500 kV circuit	12/31/2018	Carson - Rogers Rd 500 kV I/o Carson - Rawlings 500 kV	0	AP SOUTH for I/o BLA-BED	0	AP SOUTH for I/o BLA- BED	0



RTEP IARR Analysis Results for 2018/19 Planning Period (cont)

Project #	Type	Upgrade Description	In-Service Date	Impacted Facility*	Pre-Upgrade ARR Capability	Pre-Upgrade Limit	Post-Upgrade ARR Capability	Post-Upgrade Limit	IARR MW
b1994	Merchant	Convert Lewis Run-Farmers Valley to 230 kV using 1033.5 ACSR conductor. Project to be completed in conjunction with new Pierce Book Valley 345/230 kV transformation	6/1/2018	Lewis Run – Farmers Valley 115kV	0	EVERTSUB115 KV EVE-STR I/o L115.Everts- Mainesburg	0	EVERTSUB115 KV EVE-STR I/o L115.Everts- Mainesburg	0
b2436	Merchant	Construct a new Bayway - Bayonne 345 kV circuit, North Ave - Bayonne 345 kV, North Ave - Airport, and any associated substation upgrades	6/1/2018	Linden - Bayway 138 kV	0	ATHENIA 230 KV ATH-CLIK I/o L230.CedarGrove- Clifton-Athenia.B- 2228	0	ATHENIA 230 KV ATH-CLIK I/o L230.CedarGrove- Clifton-Athenia.B-2228	0
b2689	Merchant	Reconductor approximately 7 miles of the Woodville - Peters (Z-117) 138 kV circuit; And their terminal equipment; Reconfigure West Mifflin-USS Clairton(Z-15) 138 kV circuit to establish Dravosburg-USS Clairton(Z-14) 138 kV circuit and West Mifflin-Wilson(Z-15) 138 kV circuit;	6/1/2018	Dravosburg - West Mifflin	0	AP SOUTH for I/o BLA-BED	0	AP SOUTH for I/o BLA- BED	0
b2955	Merchant	Wreck and re-build the VFT – Warinanco – Aldene 230 kV circuit with paired conductor.	6/1/2018	ALDENE 230 KV ALD-SPRG	0	CEDARGRO230 KV CED-CLIB I/o L230.CedarGrove- Clifton-Athenia.K- 2263	0	CEDARGRO230 KV CED-CLIB I/o L230.CedarGrove- Clifton-Athenia.K-2263	0
b2956	Merchant	Replace existing cable on Cedar Grove-Jackson Rd. with 5000kcmil XLPE cable.	6/1/2018	CEDARSUB230 KV CED-ROSY	0	CEDARGRO230 KV CED-CLIB I/o L230.CedarGrove- Clifton-Athenia.K- 2263	0	CEDARGRO230 KV CED-CLIB I/o L230.CedarGrove- Clifton-Athenia.K-2263	0