

Annual ARR Allocation and FTR Auction Transmission Outage Modeling

PJM determines the transmission outages to model in the simultaneous feasibility test utilized in the Annual ARR Allocation and FTR Auction using the following procedure.

PJM executes the SFT analysis on transmission outages as follows:

1. PJM begins with the initial outage list as it is submitted to PJM by the transmission owners posted on the PJM OASIS. This is a raw list of outages available to the public on the PJM OASIS page. This list is not necessarily a list of approved outages or actual outages that will be occurring as it changes daily and many of the outages are not yet approved. This list consists of all transmission outages of duration of two weeks or longer. Transmission outages will only be considered in final model if scheduled for at least two months or if identified in step four below.
2. PJM reviews the initial outage list for all PJM transmission zones and identifies outages that are occurring during the period of the Annual ARR allocation and FTR auction which do not occur simultaneously. Outages often occur during different times of the year and would not be approved to occur simultaneously because they would cause reliability concerns. Therefore, PJM models the best representation of outages to reflect the expected conditions of the auction time period. In many instances it is impractical and unrealistic to model multiple outages in a similar region that occur during different time periods because the Annual ARR/FTR model is a single year period and if these multiple outages were modeled the optimization program would fail because of a power imbalance or infeasibility.
3. PJM market engineers also review all transmission outages of interest with the PJM interconnection and operations group for the likelihood of the outages actually occurring. In many instances outages are submitted to PJM and posted on OASIS that are not yet approved and will be delayed, cancelled, or rescheduled. Outages might be rescheduled, cancelled, or delayed for reasons such as cancelled transmission upgrades, conflicts with other outages, maintenance cancellations, etc. This information is gathered by the PJM Interconnection Planning department, PJM System Operations department, and the actual transmission owners.
4. PJM market engineers will review the transmission outage list and identify transmission outages that could have a large impact on congestion and possibly FTR revenue adequacy. This determination is made by comparing transmission outages to historical data, focusing on higher voltage transmission outages, considering outage duration, and performing power flow congestion analysis.
5. After this analysis is performed on the initial OASIS outage list and PJM determines the actual outages that will be placed in the optimization program, PJM posts a separate FTR outage list to the FTR web page. This separate FTR outage list is posted publicly along with the actual FTR model usually at least one week before the

bidding window opens so that PJM members have a transparent view of the conditions to be used for the optimization program.

PJM must use reasonable assumptions for the topology to be used as part of the optimization program. The goal of the simultaneous feasibility determination shall be to ensure that there are sufficient revenues from Transmission Congestion Charges to satisfy all Financial Transmission Rights obligations for the auction period under expected conditions and to ensure that there are sufficient revenues from the annual Financial Transmission Right Auction to satisfy all Auction Revenue Rights obligations.

The SFT analysis has resulted in the below transmission outages to be modeled in the 2017/2018 Annual ARR Allocation and FTR Auction.

2017/2018 Annual ARR/FTR Outages					
Zone	Facility Name	Type	Modeled Period	Scheduled Start Day	Scheduled End Day
AE	CARDIFF 230 KV CAR-CED	LINE	All	2/26/18	5/6/18
AE	CHAMBERS230 KV CHA-CHU	LINE	All	9/11/2017 3/12/2018	11/6/2017 4/11/2018
AE	CORSON 69 KV COR-SEA7	LINE	All	9/18/17	5/6/18
AE	CUMB AE 230 KV CUM-ORC	LINE	All	10/5/17	11/24/17
AE	DEEPWATE138 KV DEE-UPP	LINE	All	9/25/17	12/6/17
AE	DEEPWATE69 KV DEE-WOO	LINE	All	11/7/2017 3/1/2018	11/27/2017 4/7/2018
AE	DOROTHY 138 KV DOR-LEW	LINE	All	1/8/18	5/18/18
AE	HIGBEE 69 KV HIG-LEW1	LINE	All	9/6/2017 4/24/2018	1/22/2018 5/18/2018
AE	HIGBEE 69 KV HIG-LEWI	LINE	All	11/25/2017 1/23/2018	1/6/2018 5/18/2018
AE	LAKEAVEN69 KV LAK-MIDT	LINE	All	9/25/17	2/9/18
AE	LANDIS 138 KV LAN-MIN	LINE	All	9/11/17	1/7/18
AE	MANTUA 69 KV MAN-MIC	LINE	All	12/11/17	3/8/18
AE	MANTUA 69 KV MAN-WEN	LINE	All	12/11/17	3/8/18
AE	QUINTON 69 KV QUI-ROA	LINE	All	3/19/18	4/17/18
AE	SEASLE 69 KV SEA-SWA	LINE	All	9/18/17	5/6/18
AEP	ADAMSAEP138 KV ADA-WAR	LINE	All	3/5/18	5/25/18
AEP	AMOS 138 KV AMO-CRO	LINE	All	8/28/17	11/9/17
AEP	ASTOR 138 KV AST-EBR1	LINE	All	9/13/17	11/30/17
AEP	BEARWALO69 KV BEA-JEW	LINE	All	8/30/17	12/10/17
AEP	BEARWALO69 KV BEA-TAZ	LINE	All	8/30/17	12/10/17
AEP	BEATTY 138 KV BEA-HAL1	LINE	All	9/12/17	11/10/17
AEP	BELPRE 138 KV BEL-PAR	LINE	All	6/14/17	8/25/17

Zone	Facility Name	Type	Modeled Period	Scheduled Start Day	Scheduled End Day
AEP	BERKSHI2138 KV BER-CUR	LINE	All	9/11/17	11/10/17
AEP	BETHEL2 138 KV BET-BRO1	LINE	All	9/11/17	11/17/17
AEP	BLUEFIEL138 KV BLU-SBL1	LINE	All	3/23/17	10/31/17
AEP	BLUFFPOI138 KV BLU-RAN1	LINE	All	9/18/17	11/10/17
AEP	BUCKHORN138 KV BUC-TAZ1	LINE	All	8/1/2017 11/22/2017	11/1/2017 12/22/2017
AEP	CATAWBA 138 KV CAT-CLO1	LINE	All	10/2/17	11/30/17
AEP	CATAWBA 138 KV CAT-KIM1	LINE	All	10/2/17	11/30/17
AEP	CATAWBA 69 KV CAT-CLE1	LINE	All	10/2/17	11/30/17
AEP	CATAWBA 69 KV CAT-MAS1	LINE	All	10/2/17	11/30/17
AEP	CHATFIEL138 KV CHA-HOW1	LINE	All	3/12/18	5/18/18
AEP	CIRCLEVI138 KV CIR-HAR1	LINE	All	6/5/17	12/29/17
AEP	CLOVERD2765 KV CLO-JAC1	LINE	All	9/11/17	9/24/17
AEP	CONESVIL345 KV CON-HYA1	LINE	All	9/5/17	11/10/17
AEP	COOK 345 KV COO-JAC1	LINE	All	6/1/2017 10/16/2017	6/22/2017 12/22/2017
AEP	CROOKEDC138 KV CRO-POP	LINE	All	8/28/17	10/12/17
AEP	DAVIDSON138 KV DAV-ROB1	LINE	All	9/11/17	11/30/17
AEP	DELANO 138 KV DEL-SCI1	LINE	All	9/4/2017 10/23/2017	10/15/2017 12/31/2017
AEP	DUMONT2 765 KV DUM-GRE1	LINE	All	2/16/2018 4/30/2018	4/2/2018 5/18/2018
AEP	DUPONTCS138 KV DUP-SCI1	LINE	All	9/4/2017 10/23/2017	10/15/2017 12/31/2017
AEP	ELIMA 138 KV ELI-HAV1	LINE	All	9/4/2017 2/26/2018	12/8/2017 6/1/2018
AEP	ERIVERMO138 KV ERI-SBL1	LINE	All	3/23/17	9/29/17
AEP	GEORGEWA69 KV GEO-WBE	LINE	All	10/2/17	12/1/17
AEP	GOODHOPE138 KV GOO-POS	LINE	All	9/12/17	5/24/18
AEP	GRANGER 138 KV GRA-TWI1	LINE	All	9/5/2017 2/12/2018	10/30/2017 6/8/2018
AEP	HANGING2765 KV HAN-JEF1	LINE	All	3/5/18	5/10/18
AEP	HEDDINGR138 KV HED-WMT1	LINE	All	9/12/2017 2/13/2018	12/15/2017 5/11/2018
AEP	HUMMELCR138 KV HUM-GRE1	LINE	All	8/14/2017 2/16/2018	9/22/2017 4/2/2018
AEP	HUNTEAEP138 KV HUN-LAO	LINE	All	10/30/17	12/21/17
AEP	ILLINOIS138 KV ILL-IND1	LINE	All	10/16/17	12/8/17
AEP	INDUSTRI138 KV IND-MCK1	LINE	All	10/16/17	12/8/17

Zone	Facility Name	Type	Modeled Period	Scheduled Start Day	Scheduled End Day
AEP	INDUSTRI138 KV IND-SPY1	LINE	All	10/16/17	2/2/18
AEP	INDUSTRI138 KV IND-SUM1	LINE	All	10/16/17	12/8/17
AEP	JACKSONR345 KV JAC-TWI1	LINE	All	10/16/17	12/22/17
AEP	KAMMER2 138 KV KAM-ORM2	LINE	All	12/4/14	12/31/17
AEP	KAMMER2 138 KV KAM-ORM3	LINE	All	12/4/14	12/31/17
AEP	KAMMER2 138 KV KAM-ORM4	LINE	All	12/4/14	12/31/17
AEP	KARL 138 KV KAR-L281	LINE	All	9/12/17	12/8/17
AEP	L28 138 KV L28-MOR1	LINE	All	9/12/17	12/8/17
AEP	MCKINLEY138 KV MCK-WAY1	LINE	All	11/10/2017 1/12/2018	12/21/2017 2/23/2018
AEP	NDELPHOS138 KV NDE-LIN1	LINE	All	5/14/2017 9/4/2017	6/23/2017 12/8/2017
AEP	NEWCARLI138 KV NEW-OLI1	LINE	All	9/4/17	10/26/17
AEP	SPRNGRD1138 KV SPR-GEN1	LINE	All	9/12/17	12/8/17
AEP	TANNERS345 KV TAN-MIA1	LINE	All	3/5/18	5/25/18
AEP	WAREROAD138 KV WAR-WAV	LINE	All	3/5/18	5/25/18
AEP	WOODSRD 138 KV DIA-WOO	LINE	All	10/30/2017 3/5/2018 4/23/2018	12/21/2017 4/21/2018 7/7/2018
AEP-AP	CATAWBA 138 KV 1-P	XFMR	All	10/2/17	11/30/17
AEP-IM	INDUSTRI138 KV X1-P	XFMR	All	10/16/17	12/8/17
AEP-OH	BUCKLEYR138 KV TR1	XFMR	All	2/26/18	5/18/18
AEP-OH	LOGTOWN 138 KV LOG-NDEL	LINE	All	11/27/2017 2/5/2018	2/2/2018 6/1/2018
AEP-OH	ROSS 138 KV 1-P	XFMR	All	1/9/17	12/29/17
AEP-OH	ROSS 138 KV 2-P	XFMR	All	1/9/17	12/29/17
AEP-OH	WBELLAI2138 KV TX2	XFMR	All	10/2/17	12/1/17
AEP-OH	WEFOSTOR138 KV T5 XF	XFMR	All	10/2/2017 11/20/2017	11/10/2017 1/26/2018
APSS	502JCT 500 KV MTS-502	LINE	All	10/2/17	10/13/17
APSS	HATFIELD500 KV HAT-YUK	LINE	All	9/11/17	11/3/17
APSS	KEISTERS69 KV T2	XFMR	All	9/11/17	11/30/17
APSS	MEADOWBR500 KV LOU-MEA	LINE	All	3/5/18	4/13/18
APSS	PETERS 138 KV PET-USA	LINE	All	10/23/17	6/1/18
APSS	PINEY FK138 KV PIN-WOO	LINE	All	9/4/17	6/1/18
BC	CONASTON500 KV CNS-PEA	LINE	All	10/9/2017 3/18/2018	10/21/2017 3/24/2018
COMED	12 DRES138 KV TR81CT-S	XFMR	All	11/1/17	12/15/17
COMED	13304 138 KV 133-ROCK	LINE	All	3/1/18	5/25/18

Zone	Facility Name	Type	Modeled Period	Scheduled Start Day	Scheduled End Day
COMED	144 WAYN138 KV TR81CT-S	XFMR	All	9/11/17	11/11/17
COMED	16914 138 KV 16914 2	LINE	All	9/18/17	12/8/17
COMED	21 KINCA345 KV 2102 1	LINE	All	9/18/17	11/3/17
CPL	WARRENT 115 KV 45B	LINE	All	9/17/2017 3/19/2018	11/17/2017 5/18/2018
DEOK	08BROWN 138 KV 08B-STU1	LINE	All	9/18/2017 3/5/2018	10/28/2017 4/14/2018
DEOK	08WARREN138 KV 08W-NIC	LINE	All	2/12/18	6/1/18
DEOK	MIAMIFOR345 KV 10	XFMR	All	3/5/18	5/25/18
DEOK	MIAMIFOR345 KV 9	XFMR	All	11/20/2017 3/5/2018	12/20/2017 5/25/2018
DOM-C	ACCA 115 KV 159A2	LINE	All	2/5/18	4/28/18
DOM-C	BRUNSSWY500 KV 585A	LINE	All	9/17/17	6/1/18
DOM-C	CARSON4 500 KV 585A1	LINE	All	3/1/18	6/15/18
DOM-C	CARSON4 500 KV TX1H	XFMR	All	6/8/15	2/1/18
DOM-C	CHASECTY115 KV 1009A	LINE	All	10/31/17	6/1/18
DOM-C	KERRDAM 115 KV 137A1	LINE	All	5/1/17	10/31/17
DOM-C	WHITESTN115 KV 65A	LINE	All	1/11/17	12/9/18
DOM-E	FENTRES4500 KV TX3	XFMR	All	1/1/18	6/15/18
DOM-E	REEVESAV115 KV 129A	LINE	All	1/8/18	7/6/18
DOM-E	REEVESAV115 KV 51B	LINE	All	1/8/18	7/6/18
DOM-E	SEWELLPT115 KV 48A	LINE	All	1/8/18	6/29/18
DOM-E	SEWELLPT230 KV TX6	XFMR	All	3/6/18	6/29/18
DOM-E	SURRY4 500 KV 567A	LINE	All	9/15/17	2/28/18
DOM-E	TAUSSIG 115 KV 107B	LINE	All	3/6/18	6/29/18
DOM-E	YADKIN4 500 KV TX2	XFMR	All	10/24/17	11/23/17
DOM-E	YORKTOW4115 KV 34D	LINE	All	7/11/16	5/31/19
DOM-N	BELVOIR 230 KV 220A	LINE	All	9/17/17	12/22/17
DOM-N	CTRYCLDP115 KV 145C	LINE	All	7/16/17	5/15/18
DOM-N	LADYSMTH500 KV 574A	LINE	All	9/24/17	10/13/17
DOM-N	MINEROAD115 KV 47G	LINE	All	2/1/18	5/31/18
DOM-N	PENTAGON69 KV 174A	LINE	All	5/31/17	10/1/17
DOM-N	POSSUMP4115 KV 145A	LINE	All	7/16/17	5/15/18
DOM-N	SLABTNDP115 KV 47F	LINE	All	7/21/17	2/28/18
DOM-N	SMOKTNDP115 KV 145D	LINE	All	2/4/18	5/15/18
DOM-S	CAROLINA115 KV 54A	LINE	All	10/9/2017 1/15/2018	11/16/2017 6/27/2018
DOM-S	CAROLINA115 KV 81G	LINE	All	9/18/17	11/2/17
DOM-S	CAROLINA230 KV TX4	XFMR	All	10/9/17	11/16/17

Zone	Facility Name	Type	Modeled Period	Scheduled Start Day	Scheduled End Day
DOM-S	KITTYHWK230 KV TX7	XFMR	All	9/18/17	12/15/17
DOM-S	LKGASTON115 KV 90A	LINE	All	7/11/17	12/30/17
DOM-S	SEABOARD115 KV 56C	LINE	All	9/1/2017 10/9/2017	9/30/2017 11/16/2017
DOM-S	TARBORO 230 KV TX3	XFMR	All	7/24/17	9/29/17
DOM-W	BRANDYDP115 KV 70A	LINE	All	1/8/18	4/13/18
DOM-W	BREMO4 138 KV TX8A	XFMR	All	2/12/18	6/15/18
DOM-W	DOOMS4 500 KV 534A	LINE	All	1/1/18	6/1/18
DOM-W	LEXINGTN230 KV 2084A	LINE	All	4/2/18	5/24/18
DOM-W	LOWMOOR 230 KV TX3	XFMR	All	4/2/18	5/24/18
DOM-W	LOWMOOR 230 KV TX4	XFMR	All	4/2/18	5/24/18
DPL	CEDARCRE230 KV CED-MIL	LINE	All	9/5/17	5/25/18
DPL	CHAPELST138 KV CHA-HAR	LINE	All	1/2/18	5/31/18
DPL	CHURCH 138 KV CHU-TOW	LINE	All	10/2/17	11/22/17
DPL	CRISFIE 69 KV T3	XFMR	All	9/4/17	11/10/17
DPL	FELTON 138 KV FEL-SHA	LINE	All	9/4/17	12/29/17
DPL	FRUITLAN69 KV FRT-PEM	LINE	All	9/18/17	12/29/17
DPL	HARESCOR138 KV HAR-RED2	LINE	All	2/18/18	5/31/18
DPL	INDIANRI230 KV IND-PIN	LINE	All	3/5/18	4/27/18
DPL	KENNEY 69 KV KEN-STO	LINE	All	12/11/17	4/1/18
DPL	LEWESREA69 KV LEW-MID	LINE	All	9/11/17	10/27/17
DPL	MARIDEL 69 KV MRD-OCC	LINE	All	10/16/17	12/1/17
DPL	MIDDLETO138 KV MID-TOW	LINE	All	10/2/17	11/22/17
DPL	PINEYGRO230 KV AT20	XFMR	All	3/5/18	4/27/18
DPL	REHOBOTH138 KV REH-ROB	LINE	All	9/11/17	11/22/17
DPL	SHARP 69 KV SHA-VIE	LINE	All	10/2/17	12/29/17
DUQU	ARSENAL 138 KV ARS-OAK	LINE	All	9/4/17	5/25/18
DUQU	BEAV DUQ138 KV BEA-CRE8	LINE	All	9/18/17	11/10/17
DUQU	BEAV DUQ345 KV BEA-MAN4	LINE	All	9/18/17	1/12/18
DUQU	BRUNOTIS138 KV BRU-COLO	LINE	All	5/30/2017 11/6/2017	6/23/2017 12/8/2017
DUQU	BRUNOTIS345 KV BR1-COL	LINE	All	9/18/17	12/15/17
DUQU	BRUNOTIS345 KV BRU-COL	LINE	All	9/18/17	11/24/17
DUQU	COLLIER 345 KV COL-CRE	LINE	All	9/18/17	12/15/17
DUQU	COLLIER 345 KV T2	XFMR	All	11/6/17	12/21/17
DUQU	CRES DUQ138 KV CRE-HOP	LINE	All	9/18/2017 10/30/2017	10/27/2017 12/22/2017
DUQU	CRES DUQ138 KV CRE-MON	LINE	All	9/18/2017 10/30/2017	10/27/2017 12/22/2017

Zone	Facility Name	Type	Modeled Period	Scheduled Start Day	Scheduled End Day
DUQU	CRES DUQ138 KV CRE-NOR	LINE	All	9/18/2017 10/30/2017	10/27/2017 12/22/2017
DUQU	CRES DUQ138 KV CRE-SEW	LINE	All	9/18/17	11/10/17
DUQU	CRES DUQ138 KV CRE-VAL	LINE	All	9/18/2017 10/30/2017	10/27/2017 12/22/2017
DUQU	CRES DUQ345 KV CRS-MAN	LINE	All	9/18/17	1/12/18
DUQU	CRES DUQ345 KV T1	XFMR	All	9/18/2017 10/30/2017	10/27/2017 12/22/2017
DUQU	CRES DUQ345 KV T3	XFMR	All	9/18/2017 10/30/2017	10/27/2017 12/22/2017
DUQU	CUTLRHAM69 KV CUT-KBU	LINE	All	5/31/16	12/1/17
DUQU	USAP 138 KV USA-WOO	LINE	All	9/4/17	10/30/17
FE	02BRIM 138 KV 02B-BTAP	LINE	All	6/1/17	12/29/17
FE	02KHTP 138 KV 02K-KEL2	LINE	All	9/6/17	12/19/17
FE	02KHTP 138 KV 02K-KEN2	LINE	All	9/6/17	12/19/17
FE	BLUEBELL138 KV BLU-02A1	LINE	All	1/31/17	7/31/17
FE	BROOKSID138 KV BRO-MAD1	LINE	All	9/1/17	10/31/17
FE	CAMPOHED69 KV CAM-KEI	LINE	All	9/1/17	12/31/17
FE	CHAMBROE138 KV CHA-CHR1	LINE	All	8/14/17	12/29/17
FE	DOWLING 138 KV DOW-MIDW	LINE	All	8/28/17	12/29/17
FE	EVANSOE 138 KV EVA-GOO1	LINE	All	9/15/17	11/3/17
FE	EVERGFE 138 KV WCI-EVE1	LINE	All	10/24/12	12/31/20
FE	EVERGFE 138 KV WCI-EVE2	LINE	All	10/24/12	12/31/20
FE	HUDMUN 138 KV HUD-CHR1	LINE	All	8/14/17	12/29/17
FE	LAKEMORE138 KV LAK-CLA1	LINE	All	9/4/17	12/7/17
FE	LAKEMORE138 KV LAK-GLC1	LINE	All	9/4/17	12/7/17
FE	LEMOYNE2138 KV LEM-BTAP	LINE	All	6/1/17	12/29/17
FE	MF_NF_T 138 KV 04K-04M2	LINE	All	9/6/17	12/19/17
FE	MF_NF_T 138 KV 04K-04N1	LINE	All	9/11/17	11/10/17
FE	MF_NF_T 138 KV 04K-04N2	LINE	All	9/6/17	12/19/17
FE	MIDWAYTE138 KV MID-BTAP	LINE	All	6/1/17	12/29/17
FE	RYAN 138 KV RYA-SEV1	LINE	All	10/20/17	12/15/17
FE	SHENANGO138 KV SHE-CED1	LINE	All	10/2/17	12/1/17
FE	STRYKER 138 KV TR3	XFMR	All	2/2/17	12/31/17
FE	TANGY 138 KV TR2	XFMR	All	9/18/17	12/29/17
FE	WCIHOTST138 KV WCI-WCI1	LINE	All	10/24/12	12/31/20
FECL	02FOWLES138 KV 02F-02C3	LINE	All	9/15/17	10/27/17
FECL	02FOWLES138 KV 02F-02D1	LINE	All	9/15/17	10/27/17
FECL	02FOWLES138 KV 02F-02P1	LINE	All	9/15/17	10/27/17

Zone	Facility Name	Type	Modeled Period	Scheduled Start Day	Scheduled End Day
FECL	AVONLAK2138 KV AVO-CLI1	LINE	All	5/29/2017 9/6/2017	6/27/2017 10/4/2017
FECL	EASTLAKE138 KV EAS-04M1	LINE	All	9/18/17	12/22/17
FECL	IVY 138 KV IVY-INL2	LINE	All	9/15/2017 11/1/2017	10/16/2017 12/29/2017
FECL	JUNIPER 138 KV JUN-02P3	LINE	All	8/1/2017 9/18/2017	8/21/2017 10/27/2017
FECL	JUNIPER 345 KV JUN-HAR1	LINE	All	9/18/17	11/10/17
FECL	LESTER 138 KV LES-04K2	LINE	All	9/6/17	12/19/17
FECL	LESTER 138 KV LES-KEN2	LINE	All	9/6/17	12/19/17
FECL	LINCOLN5138 KV LIN-LLO2	LINE	All	12/19/16	12/31/25
FECL	LONGFIEL138 KV LON-04N1	LINE	All	9/18/17	11/10/17
FECL	LONGFIEL138 KV LON-04N2	LINE	All	9/7/17	12/18/17
FECL	LONGFIEL138 KV LON-MAX1	LINE	All	9/18/17	11/10/17
FECL	LONGFIEL138 KV LON-MAX2	LINE	All	9/7/17	12/18/17
FECL	MAXWELL 138 KV MAX-04M1	LINE	All	9/7/17	12/18/17
FECL	NORWAY 138 KV NOR-04M1	LINE	All	9/18/17	12/22/17
FECL	NORWAY 138 KV NOR-MAX1	LINE	All	9/18/17	11/10/17
FEPA	SHARON 138 KV TR 3	XFMR	All	8/1/17	12/1/17
JC-S	ATLANTIC230 KV ATL-LAR	LINE	All	9/25/17	12/18/17
JC-S	LAKWOOD230 KV LAK-LAR1	LINE	All	9/25/17	12/18/17
ME	GERMANTO138 KV 1 BANK	XFMR	All	3/23/16	11/30/17
ME	GERMANTO138 KV GER-TAN	LINE	All	3/23/16	11/30/17
ME	HUNTERST115 KV HUN-OXF	LINE	All	8/21/17	12/4/17
ME	MIDDLJCT115 KV 2 BANK-S	XFMR	All	2/26/18	5/31/18
ME	MIDDLJCT13 KV 2 BANK-T	XFMR	All	2/26/18	5/31/18
ME	MIDDLJCT230 KV 2 BANK-P	XFMR	All	9/19/2017 2/26/2018	10/12/2017 5/31/2018
ME	PORTLAND230 KV 3 BANK	XFMR	All	9/18/17	12/15/17
PE	LIMERTAP69 KV LIM-MOS	LINE	All	4/9/18	6/3/18
PEP	10THST 138 KV 10T-BUZ6	LINE	All	9/16/2017 3/3/2018	12/9/2017 5/12/2018
PEP	BELLSMIL230 KV 121-13T	XFMR	All	9/13/17	12/16/17
PEP	BELLSMIL230 KV 121-1T	XFMR	All	9/13/17	12/16/17
PEP	BELLSMIL230 KV 121-5T	XFMR	All	9/13/17	12/16/17
PEP	BELLSMIL230 KV BEL-QUI9	LINE	All	9/13/17	12/16/17
PEP	BETHESDA138 KV BET-VAN5	LINE	All	9/16/17	12/15/17
PEP	BLUEPLAI230 KV BLU-PAL6	LINE	All	9/9/17	12/16/17
PEP	BLUEPLAI230 KV BLU-PAL7	LINE	All	9/1/17	12/15/17

Zone	Facility Name	Type	Modeled Period	Scheduled Start Day	Scheduled End Day
PEP	BLUEPLAI230 KV BLU-POT2	LINE	All	9/9/17	12/16/17
PEP	BLUEPLAI230 KV BLU-POT3	LINE	All	9/1/17	12/15/17
PEP	BURCHESH230 KV BUR-PAL1	LINE	All	9/9/17	12/16/17
PEP	BURCHESH230 KV BUR-PAL2	LINE	All	9/1/2017 1/7/2018	12/15/2017 6/2/2018
PEP	BURCHESH230 KV BUR-TAL2	LINE	All	9/9/17	12/16/17
PEP	BURCHESH500 KV NO.2TR	XFMR	All	9/1/2017 1/7/2018	12/15/2017 6/2/2018
PEP	BURTONSV230 KV BUR-METO	LINE	All	9/11/17	11/3/17
PEP	DICKERSH230 KV DIC-QUI4	LINE	All	9/16/17	12/21/17
PEP	FTSLOCUM69 KV FTS-TAK4	LINE	All	9/23/2017 5/4/2018	12/9/2017 6/9/2018
PEP	METZTAP 230 KV 163-1T	XFMR	All	9/11/17	11/3/17
PEP	METZTAP 230 KV MET-TAK8	LINE	All	9/11/17	11/3/17
PEP	PALMERS 230 KV 084-2T	XFMR	All	9/9/17	12/16/17
PEP	PALMERS 230 KV 084-3T	XFMR	All	9/1/17	12/15/17
PEP	POTOMAC 230 KV STAC-7T	XFMR	All	9/1/17	12/15/17
PEP	POTOMAC 230 KV STAC-8T	XFMR	All	9/9/17	12/16/17
PEP	TAKOMA 230 KV 027-10T	XFMR	All	9/11/17	11/3/17
PEP	TAKOMA 230 KV 027-8T	XFMR	All	9/11/17	11/3/17
PL	ALBURTIS500 KV ALB-BRN	LINE	All	5/4/18	6/29/18
PL	ALLENOW138 KV ALL-CEA1	LINE	All	6/8/17	7/28/17
PL	BRNGSVIL500 KV TX2	XFMR	All	7/21/17	8/20/17
PL	CUMB PL 230 KV CUM-WSH	LINE	All	10/1/17	4/30/18
PL	DAUPHIN 230 KV 2	XFMR	All	8/31/17	10/31/17
PL	EFFRTMTN138 KV EFF-MCM1	LINE	All	8/18/17	4/20/18
PL	EFFRTMTN138 KV EFF-MCM2	LINE	All	8/18/17	4/20/18
PL	EPALMERT230 KV 1	XFMR	All	9/4/2017 4/6/2018	10/13/2017 6/11/2018
PL	HOSENSAC230 KV HOS-WES	LINE	All	10/4/17	12/5/17
PL	JENKINS 230 KV JEN-SUS	LINE	All	3/13/17	12/29/17
PL	LACKAWAN500 KV 4	XFMR	All	6/5/2017 4/2/2018	6/20/2017 5/28/2018
PL	MILTON 230 KV 1	XFMR	All	9/29/17	12/12/17
PL	SUNBURY 230 KV 22	XFMR	All	9/15/17	11/17/17
PL	SUNBURY 230 KV SUN-SUS	LINE	All	9/15/17	11/17/17
PL	WESCOSVI230 KV 2	XFMR	All	10/4/17	12/5/17
PN	4MILEJCT230 KV 4MIL-ERE	LINE	All	10/26/17	3/19/18
PN	BEDFORD 115 KV BED-NEW	LINE	All	1/15/18	5/31/18

Zone	Facility Name	Type	Modeled Period	Scheduled Start Day	Scheduled End Day
PN	ERIEE 230 KV ERI-SRI	LINE	All	10/26/17	3/19/18
PN	ETOWANDA115 KV ETO-GAS	LINE	All	9/18/17	5/15/18
PN	FARMERSV115 KV FAR-LEW	LINE	All	9/15/17	5/31/18
PN	NMESHOPP230 KV NME-OXB	LINE	All	9/4/17	5/25/18
PN	TGAS 115 KV STR-GAS	LINE	All	9/18/17	5/15/18
PS-N	ATHENIA 138 KV ATH-FAI	LINE	All	9/20/17	12/3/17
PS-N	ATHENIA 230 KV 220-2	XFMR	All	9/20/17	12/3/17
PS-N	BAYONNE 138 KV BAY-MAR1	LINE	All	2/15/18	4/1/18
PS-N	BAYWAY 138 KV BAY-DOR	LINE	All	11/1/17	12/22/17
PS-N	BAYWAY 138 KV BAY-LINZ	LINE	All	9/15/17	12/29/17
PS-N	BERGEN 230 KV 220-4XF	XFMR	All	9/18/17	12/11/17
PS-N	ECRRF 138 KV ECR-ESS	LINE	All	9/15/2017 3/31/2018	10/14/2017 5/31/2018
PS-N	ESSEX 138 KV ESS-NEW	LINE	All	10/2/17	11/16/17
PS-N	HUDSON 230 KV HUD-SWAH	LINE	All	1/5/18	2/19/18
PS-N	LINDEN 138 KV LIN-NOR	LINE	All	9/18/17	12/22/17