

Market Efficiency Benefit Calculation

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MEPETF

- Existing concerns with capacity benefits skewing B/C ratio
 - LDA Limiting facilities for CETLs can change year to year
- Potential for submission of a disproportionate project for small energy benefits if provides capacity benefits, which are generally very large
- Proposed concept:
 - Separate energy and capacity benefit calculations
 - Modify capacity benefit calculation

- Post “energy drivers” only for JAN-APR 120 window
 - Only projects that pass 1.25:1 B/C ratio under energy benefits; capacity benefits will not be studied at this point
 - Current driver criteria and energy benefit calculation will not change
- After BRA results are published, post “LDA capacity drivers” for 60 day window
 - Current driver criteria will not change (Att. DD Section 15)
 - More discussion needed on whether Capacity benefit calculation as outlined in Att. DD Section 15 is sufficient, or needs to be modified
 - Costs covered by elimination of Locational Price adder over 10 year period

- Simulation years RPM and RTEP year
- Document / Alter Interpolation between RPM and RTEP year; extrapolation over 10 year period
- ME projects approved for Capacity would be included in planning parameters for the next incremental auction, similar to backbone upgrades
 - Would need to align with project in-service date

Appendix



Limiting Facilities for CETL by Deliver Year

LDA	2022/2023	2021/2022	2020/2021	2019/2020	2018/2019
MAAC	Thermal / Overload of High Ridge - Sandy Springs "14" 230 kV for loss of the parallel "34" circuit	Thermal / High Ridge - Sandy Springs 230 kV for the loss of the parallel High Ridge - Sandy Springs - Burtonsville 230 kV circuit	Thermal/Sandy Spring "2334" - High Ridge 230 kV for loss of Sandy Spring "2314" - Burtonsville 230 kV	Thermal/ Keeney - Rock Springs 500 kV line	Thermal / Sandy Spring - High Ridge 230 kV
EMAAC	Voltage / Voltage drop at Branchburg 500 kV and Cochranville 230 kV for loss of Rock Springs - Keeney 500 kV circuit	Voltage / Voltage drop at Cochranville 230 kV for loss of Keeney - Rock Springs 500 kV circuit	Voltage/Low Voltage at Cochranville 230 kV for loss of Keeney - Rock Springs 500 kV; low voltage at Hopatcong & Roseland 500 kV for loss of Branchburg - Hopatcong 500 kV	Thermal/ Keeney - Rock Springs 500 kV line	Voltage / Low voltage magnitude at Cochranville 230 kV
SWMAAC	Voltage / Voltage drop at various 230 kV and 500 kV buses near the contingency for loss of Burches Hill-Possum Point 500 kV circuit	Voltage / Voltage drop at multiple BES buses for the loss of the Burches Hill - Possum Point 500 kV circuit	Thermal/Graceton - Bagley 230 kV CKT #1 and #2 for the loss of the one or the other	Voltage/ Voltage Collapse	Thermal / Conastone - Northwest '2322' 230 kV
PS	Thermal / Overload of Roseland - Cedar Grove 230 kV for loss of Roseland - Williams 230 kV circuit; Overload of Essex - McCarter 230 kV circuit pre-contingency	Thermal / Roseland - Cedar Grove 230 kV for the loss of the Roseland - Williams Pipeline 230 kV circuit; McCarter - Essex 230 kV pre- contingency	Thermal/Voltage/Roseland - Cedar Grove 230 kV for loss of Roseland - Williams Pipeline 230 kV/ Low voltage at Hopatcong & Roseland 500 kV for loss of Branchburg - Hopatcong 500 kV	Thermal/ Roseland - Williams Pipeline 230 kV	Thermal / Roseland - Cedar Grove 230 kV
PSNORTH	Thermal / Overload of Roseland - Cedar Grove 230 kV for loss of Roseland - Williams 230 kV circuit; Overload of Essex - McCarter 230 kV circuit pre-contingency	Thermal / Roseland - Cedar Grove 230 kV for the loss of the Roseland - Williams Pipeline 230 kV circuit; McCarter - Essex 230 kV pre- contingency	Thermal/Voltage/Roseland - Cedar Grove 230 kV for loss of Roseland - Williams Pipeline 230 kV/ Low voltage at Hopatcong & Roseland 500 kV for loss of Branchburg - Hopatcong 500 kV	Thermal/ Roseland - Williams Pipeline 230 kV	Thermal / Roseland - Cedar Grove 230 kV
DPLSOUTH	Thermal / Overload of Cedar Creek - Silver Run 230 kV circuit for the loss of Cartanza - Milford 230 kV circuit	Thermal / Cedar Creek - Silver Run 230 kV for loss of Cartanza - Milford 230 kV circuit	Thermal/Red Lion - Cedar Creek 230 kV for the loss of Cartanza - Milford 230 kV	Thermal/ Red Lion - Cedar Creek 230 kV line	Thermal / Red Lion - Cedar Creek 230 kV
PEPCO	Voltage / Voltage drop at various 230 kV and 500 kV buses near the contingency for loss of Burches Hill-Possum Point 500 kV circuit	Voltage / Voltage drop at multiple BES buses for the loss of the Burches Hill - Possum Point 500 kV circuit	Voltage/Voltage drop at High Ridge 230 kV station for the loss of Burches Hill - Possum Point 500 kV line	Voltage/ Voltage Collapse	Thermal / Burches Hill -Talbert '068' 230 kV
ATSI	Thermal / Overload of Wylie Ridge - Toronto 345 kV for loss of Kammer - South Canton 765 kV circuit and South Canton 765/345 kV transformer; Overload of Tidd - Collier 345 kV for loss of Wylie Ridge - Toronto 345 kV circuit	Thermal / South Canton - Harmon 345 kV for loss of the Sammis - Star 345 kV circuit	Thermal/South Canton - Harmon 345kV line for the loss of the Hanna - Canton Central 345kV line	Thermal/ South Canton - Harmon 345 kV line	Thermal / Tidd - Collier 345 kV
ATSI-CLEVELAND	Thermal & Voltage / Overload of Wylie Ridge - Toronto 345 kV for loss of Kammer - South Canton 765 kV circuit and South Canton 765/345 kV transformer; Overload of Inland Q11 - Clinic Health 138 kV for loss of Inland Q11 345/138 kV transformer; Low voltage at Ashtabula 345 kV for loss of Eastlake #5 synchronous condenser	Thermal / South Canton - Harmon 345 kV for loss of the Sammis - Star 345 kV circuit	Voltage/Low Voltage at Hayes for the loss of the Hayes - Davis Besse 345kV line	Thermal/ Black River-US Steel 138 kV line	Turned off all internal generation
COMED	Thermal / Overload of Dumont - Stillwell 345 kV for loss of Dumont - Wilton Center 765 kV; Overload of Peach Bottom - Conastone 500 kV for loss of Peach Bottom - Furnace Run 500 kV circuit	Thermal / Dumont - Stillwell 345kV line for the loss of Dumont - Wilton 765 kV circuit	Thermal/Eugene - Dequin 345kV line for the loss of the Greentown - Jefferson 765kV line	Voltage/ Voltage Collapse	Thermal / Loretto - Wilton 345 kV Blue line
BGE	Voltage / Voltage drop at Pumphrey 115 kV bus for the loss of Waugh Chapel 230 kV capacitor	Voltage / Voltage drop at multiple BES buses for the loss of the Waugh Chapel 230 kV capacitor	Thermal/Pumphrey - Howard 230 kV line pre-contingency (Basecase)	Thermal / Pumphrey 230/115 kV transformer	Thermal / Pumphrey 230/115 kV transformer
PL	Thermal / Pre-contingency loading of Wescosville 500/138kV XFMR	Thermal / Wescosville 500/138 kV transformer pre-contingency	Thermal/Wescosville 500/138 kV transformer pre-contingency (Basecase)	Thermal / Wescosville 500/138 kV transformer	Thermal / Wescosville 500/138 kV transformer
DAYTON	Thermal / Overload of Sugarcreek - Circuit 13822 Tap 138 kV circuit pre-contingency	Thermal / O.H. Hutchings - Sugarcreek 138 kV line for the loss of Sugarcreek - Centerville and Sugarcreek - Normandy 138 kV line	Thermal/Sugar Creek - OHH 138 kV line for loss of OHH - College Corner 138 kV		
DEOK	Thermal / Overload of Tidd - AA2-121 Tap 345 kV for loss of Wylie Ridge - Toronto 345 kV circuit; Overload of Pierce 345/138 kV transformer for loss of Pierce - Foster 345 kV circuit	Thermal / Pierce 345/138 kV transformer for loss of the Pierce - Foster 345 kV circuit; Greendale - Miami Forte 138 kV for loss of the Tanners Creek - Miami Forte 345 kV circuit	Thermal/Tanner - Miami Fort 345 kV line for the loss of the Terminal - South Bend 345 kV line		