

Impact of Brattle's Proposed VRR Curves

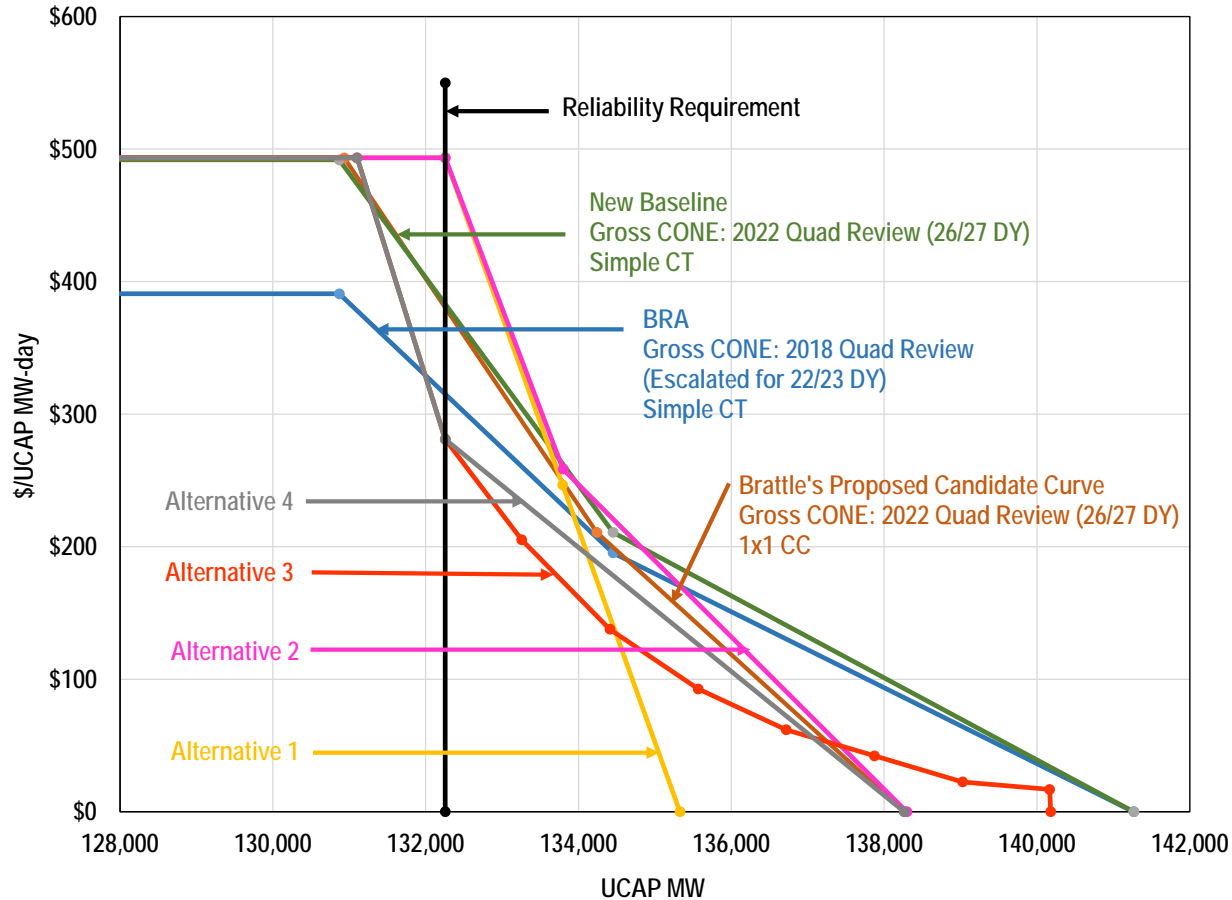
2022 Quadrennial Review
April 22, 2022

IMM



Monitoring Analytics

VRR Curves 2022/2023 Delivery Year



Brattle's Proposal

- **2022/2023 BRA was based on 2018 Quadrennial Review escalated for 2022/2023 Delivery Year**
- **2022/2023 BRA used forward net revenues to derive VRR curves**
- **Brattle's proposed VRR curves are based on 2022 Quadrennial Review for 2026/2027 Delivery Year**
- **Brattle's proposed VRR curves use historical net revenues to derive VRR curves**
- **A new baseline scenario is created by IMM for consistent comparison**

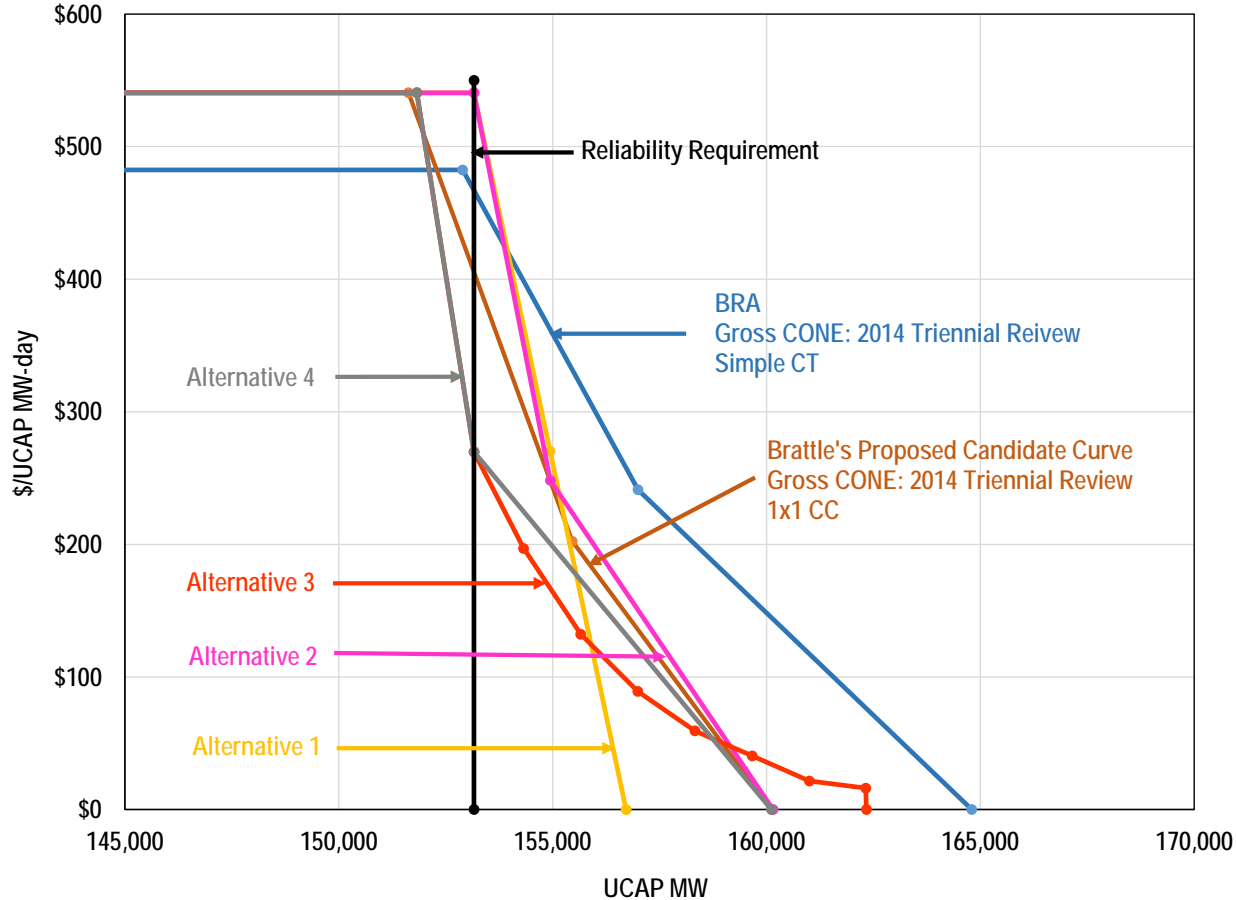
Comparison (2022/2023 Delivery Year)

2022/2023 BRA	New Baseline	Brattle's Proposed Candidate Curve
2018 Quadrennial Review	2022 Quadrennial Review	2022 Quadrennial Review
Escalated for 2022/2023 DY	2026/2027 DY	2026/2027 DY
Gross CONE: Simple CT	Gross CONE: Simple CT	Gross CONE: 1x1 CC
Forward Net Revenue for CT	Historical Net Revenue for CT	Historical Net Revenue for CC
AS Offset: \$2,199 per MW-Year	AS Offset: \$2,199 per MW-Year	AS Offset: \$3,350 per MW-Year
Reliability Requirement: 2020 IRM Study	Reliability Requirement: 2020 IRM Study	Reliability Requirement: 2020 IRM Study
Point A: Q = 99 percent of RR (IRM - 1.2 %); P = Max {Gross CONE, 1.5 x Net CONE}	Point A: Q = 99.00 percent of RR (IRM - 1.2 %); P = Max {Gross CONE, 1.5 x Net CONE}	Point A: Q = 99.00 percent of RR (IRM - 1.1 %); P = Max {Gross CONE, 1.75 x Net CONE}
Point B: Q = 101.70 percent of RR (IRM +1.9 %); P = 0.75 * Net CONE	Point B: Q = 101.70 percent of RR (IRM +1.9 %); P = 0.75 * Net CONE	Point B: Q = 101.50 percent of RR (IRM +1.7 %); P = 0.75 * Net CONE
Point C: Q = 106.80 percent of RR (IRM + 7.8 %); P = 0.00	Point C: Q = 106.80 percent of RR (IRM + 7.8 %); P = 0.00	Point C: Q = 104.50 percent of RR (IRM + 5.2 %); P = 0.00

Scenario Results for 2022/2023 BRA

2022/2023 BRA		
Proposed Curve	Total Load Payments (\$/Year)	Percent Impact
Baseline	\$3,967,112,819.79	NA
Vertical VRR Curve	\$2,659,527,127.95	49.2%
Brattle Candidate Curve	\$3,660,217,707.07	8.4%
Brattle Alternative 1	\$3,181,977,522.51	24.7%
Brattle Alternative 2	\$3,666,934,373.56	8.2%
Brattle Alternative 3	\$3,304,942,098.76	20.0%
Brattle Alternative 4	\$3,618,970,208.65	9.6%

VRR Curves 2021/2022 Delivery Year



Comparison (2021/2022 Delivery Year)

2021/2022 BRA	Brattle's Proposed Candidate Curve
2014 Triennial Review	2014 Triennial Review
2021/2022 DY	2021/2022 DY
Gross CONE: Simple CT	Gross CONE: 1x1 CC
Historical Net Revenue for CT	Historical Net Revenue for CC
AS Offset: \$2,199	AS Offset: \$3,350
Reliability Requirement: 2017 IRM Study	Reliability Requirement: 2017 IRM Study
Point A: Q = 99 percent of RR (IRM - 0.2 %); P = Max {Gross CONE, 1.5 x Net CONE}	Point A: Q = 99.00 percent of RR (IRM - 1.1 %); P = Max {Gross CONE, 1.75 x Net CONE}
Point B: Q = 102.50 percent of RR (IRM + 2.9 %); P = 0.75 * Net CONE	Point B: Q = 101.50 percent of RR (IRM + 1.7 %); P = 0.75 * Net CONE
Point C: Q = 107.60 percent of RR (IRM + 8.8 %); P = 0.00	Point C: Q = 104.50 percent of RR (IRM + 5.2 %); P = 0.00

Scenario Results for 2021/2022 BRA

2021/2022 BRA		
Proposed Curve	Total Load Payments (\$/Year)	Percent Impact
BRA	\$9,300,877,106.03	NA
Vertical VRR Curve	\$6,377,021,161.71	45.8%
Brattle Candidate Curve	\$7,768,009,352.10	19.7%
Brattle Alternative 1	\$6,868,593,113.99	35.4%
Brattle Alternative 2	\$7,645,470,765.89	21.7%
Brattle Alternative 3	\$6,416,834,679.53	44.9%
Brattle Alternative 4	\$7,563,470,534.20	23.0%

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