CAE-003 Q:

Motion No. 26, Docket No. 25-08-02, p. 7. Provide data for a representative sample of RRES projects to demonstrate whether UI's recommended method for calculating proxy solar generation using AC inverter nameplate capacity accurately reflects generation as measured at the production meter. If estimated and actual production differ significantly, explain the potential factors that contribute to the difference.

CAE-003 A:

The PowerClerk system automatically calculates estimated first-year production using a standardized formula, as outlined in CAE-003 UI Attachment 1. The United Illuminating ("UI") conducted a review of this methodology by selecting a random sample of projects that have been operational for at least twelve months. The Company compared the actual monthly production recorded by the production meter with the corresponding first-year estimated production calculated in PowerClerk. Based on this analysis, UI determined that for these projects, customers would experience an approximate 1% decrease in both their Solar Production Charge and their applicable Incentive Adder when estimated production is used instead of actual production. Additional detail supporting this finding is provided in CAE-003 UI Attachment 2.

Differences between actual metered production and PowerClerk estimates are expected. Actual solar production measured by a revenue-grade meter often differs from PowerClerk estimates due to factors including year-to-year weather fluctuations, system degradation, unpredicted shading conditions, and system-specific performance losses such as inverter clipping, wiring resistance, or module soiling.