A. Using a rate base of ** ** with 51% equity and 49% debt, an ROE of 9.75%, and a debt cost of 4.47%,[1] I added depreciation and a tax gross-up, and then included Empire's forecast of the wind farm O&M expenses from a tab on Empire's LCOE (Levelized Cost of Energy) direct testimony workpapers in this case to complete the wind farm additions to Empire's cost of service. The resulting Empire revenue requirement is approximately $78.8 million in year one.

Q. How did you determine the SPP energy market revenues associated with the wind farms for year one?

A. I did not develop or calculate the revenue projections myself, I combined the projected annual revenues Empire developed for the three wind farm sites[2]. ,

Q. Have you calculated the net revenue requirement for these wind farms?

A. Yes. Some of the inputs have changed from what they were in Case No. EO-2018-0092, but the end results are the same. Empire's ratepayers are going to face rate increases from the moment the Commission allows recovery of the costs of these wind farms through Empire's rates. Even with Empire's increased SPP revenue expectations and decreased O&M expenses, Empire expects its ratepayers to foot the bill for ** ** million in the first 11 years these wind farms operate. That is a poor turnaround ratio when comparing net cost time period (11 years) to the total anticipated lives of these wind farms (i.e. 30 years). For over one-third of the life of these wind farms, they will be a net cost to Empire and its customers. Interestingly,

[1] Empire used a cost of debt of 4% in its calculation however, a company with a BBB or Baa credit rating can expect to pay 4.47% for issued debt. please see Federal Reserve Bank of St. Louis website "ICE BofAML US Corporate BBB Effective Yield

[2] From the Company updated Kings Point, North Fork and Neosho Ridge workpapers. "Annual Pro Forma" tab

Empire's ratepayers suffer, as the fixed costs of the wind farms are in Empire's base rates, and will not be reduced as a result of actual SPP revenues from the wind farms being lower than the estimated revenues Empire is presenting to this Commission.

Q. Would you elaborate on OPC's rationale that the Commission condition any CCN it grants for these wind farms on the ROE for Empire's investment in them be lower than the ROE the Commission traditionally uses for ratemaking?

A. Empire does not need these wind farms to be able to provide safe and adequate electric service at just and reasonable rates. The Commission should view these wind farms as an economic opportunity primarily to benefit Empire and the TEPs, with any benefit to Empire's customers being ancillary. If Empire is allowed to recover its investment and costs for these wind farms in its customer rates, then at Empire's current ROE of 9.75%, the expected rate impact is nearly $26 million, except to the extent it is offset by SPP revenues. If a ** ** return is sufficient for the TEP(s), then why should Empire be allowed the opportunity to recover from its customers a higher return on its investment in these wind farms. Empire is asking for CCNs to allow it to build wind farms that it does not need to serve its customers, while expecting that its ratepayers bear the risk that the SPP market revenues are insufficient to make these wind farms sufficiently economic to repay Empire and the TEP(s) for their investment and a profit, and have excess revenues to benefit Empire's customers. If the economics of these wind farms are so attractive as Empire represents, then Empire, or one of its affiliates, should pursue building these wind farms as an independent power producer ("IPP"), and earn a return of and a return on its investment through sales of the electricity they generate. It is noteworthy that no IPP is engaging in a similar project nearby where the owners make their profits from SPP revenues exceeding the wind energy costs. As Schedule JSR-R-4 demonstrates, a lower ROE reduces the cost to the ratepayer down to a ** ** over the first 11 years. This will reduce the risks on EDE's customers if the Commission approves this CCN.