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January 8, 2015

VIA Hand Delivery and Electronic Mail

Office of the Secretary
New Jersey Board of Public Utilities
44 South Clinton Avenue, 9th Floor
P.O. Box 350
Trenton, New Jersey 08625

Re: DRAFT Energy Efficiency Cost-Benefit Analysis Avoided Cost Assumptions” (Rutgers Center for Energy, Economic & Environmental Policy (“CEEEP”), dated December 8, 2014)

Dear Secretary:

Please accept for filing an original and ten copies of the comments of the New Jersey Division of Rate Counsel (“Rate Counsel”) addressing the “DRAFT Energy Efficiency Cost-Benefit Avoided Cost Assumptions” produced by the Rutgers Center for Energy, Economic & Environmental Policy (“CEEEP”) on December 8, 2014. Rate Counsel would like to thank the Board of Public Utilities (“BPU” or “Board”) and CEEP for the opportunity to present comments on the draft.

We are enclosing one additional copy of these comments. Please stamp and date the extra copy as “filed” and return it in our self-addressed stamped envelope. A copy of these comments is also being sent electronically to the publiccomments@njcleanenergy.com.

COMMENTS

Generally, Rate Counsel finds that the proposed avoided costs appear to be reasonable, although there are several areas of concern. These specific areas are discussed below in the sequence of the proposed avoided cost assumptions detailed by CEEEP.

Electricity Prices

The retail prices in Table 1, as noted, are based on the AEO 2014 Reference case results for the Mid-Atlantic region which is reasonable. However, AEO prices do not reflect the possible impacts of future regulations such as those related to greenhouse gases, which may result in higher prices.

The wholesale prices are likewise based on AEO 2014 for the Reliability First/East electricity modeling region that includes NJ. However CEEEP cites an average nominal annual price change of 2.8%, while the wholesale values in Table 1 actually show a compound average growth rate of 3.29%. The relevant Table 81 from AEO 2014 shows an average rate of 3.43% for the same period. Rate Counsel also notes that the AEO generation prices include some capital costs and thus may over represent wholesale energy costs, but the use of the general trend rather than absolute values is reasonable. Use of the historical 2013 PJM LMP data for developing the seasonal prices is also reasonable, although various factors related to load changes, generation mix and fuel prices may cause those relationships to change in the future.

Natural Gas Prices

Wholesale natural gas prices have been extremely volatile in the previous decade, although the current consensus is for them to be relatively low and fairly stable in the foreseeable future. Thus, the use of the AEO 2014 Henry Hub forecast is reasonable.

Retail natural gas prices represent the addition of various fixed and variable costs such as transportation on top of the wholesale price. The approach that was used to project the retail prices is generally reasonable. However, there is a possible inconsistency between the sector prices where the increase in the commercial prices is less than that of the residential prices and the commercial price is almost the same as the industrial price in 2037. It would be more reasonable to expect commercial prices to continue to be modestly above industrial prices.

Environmental Externalities

CEEEP proposes to use values for the Social Cost of Carbon taken from the Interagency Working Group (“IWG”) on the Social Cost of Carbon. CEEEP proposes to convert the reported values (2007\$/metric ton) to nominal dollars using the AEO 2014 projected U.S. GDP Price Index.

Rate Counsel’s consultant, Synapse, has stated that the long-term marginal abatement cost of carbon dioxide emissions is \$100 (2013\$)/short ton.¹ While Rate Counsel does not agree that the value provided by the IWG is the appropriate “social cost” of carbon emissions, Rate Counsel agrees that the IWG value is not an unreasonable assumption (or a starting point) as a proxy for future carbon reduction compliance at this time. Rate Counsel recommends that future reduction compliance takes into account: (1) New Jersey’s goal to reach 80 percent reduction from 2006 levels by 2050 under the Global Warming Response Act of 2007 and (2) a requirement to meet proposed US EPA Clean Power Plan national target to reduce carbon dioxide emissions by 30 percent from 2005 levels by 2030.

¹ <http://www.synapse-energy.com/project/avoided-energy-supply-costs-new-england>

There is some inconsistency about the criteria pollutant prices. The sub section title indicates “emissions permit price” but Table 4 indicates “mean damages per short ton”. To be consistent with the CO₂ prices, it should probably be the latter.

Other Assumptions

Capacity Prices

The approach described seems reasonable. However, Rate Counsel recommends that CEEEP provide additional details about how the prices were calculated since the early year values do not appear to correspond consistently with the PJM-RPM auction results, e.g. 2014 capacity prices should be higher than those of 2013 capacity prices.

Discount Rate

A nominal value of 8% may be too high. For the New England AESC projects,² Rate Counsel’s consultant, Synapse, used US T-bills as the societal rate. In 2013, the rate for 30 year bills was 3.39%, and the CBO projected rate for 10-year T-bills was 5.2%. Rate Counsel recommends further consideration of the appropriate rate to use for avoided costs in New Jersey.

Avoided T&D Losses

Avoided natural gas losses should include the GHG impacts of methane emissions which on volumetric basis are about 25 times that of CO₂.

Avoided T&D Costs

Rate Counsel recommends that the utilities should provide CEEEP with utility-specific avoided T&D values.

² Ibid.

Power Plant Emission Rates

The use of eGRID 2000 for the emission rates likely does not represent current and projected rates. Rate Counsel recommends that CEEEP should also indicate the geographic region represented by those rates.

Dollar values


Rate Counsel recommends that CEEEP note whether the values are in nominal or real dollars in each table and calculation.

Thank you for your consideration of the within comments.

Respectfully submitted,

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