

Subject:
VISTAS/CENRAP Phase II Analysis
From:
"Venkatesh, Boddu" <BVenkatesh@icfconsulting.com>
Date:
Wed, 31 Aug 2005 11:00:37 -0400
To:
"Gregory Stella" <gms@alpinegeophysics.com>
CC:
"Haydel, Juanita" <JHaydel@icfconsulting.com>

Greg:

ICF had recently performed the following four runs for the VISTAS/CENRAP Phase II analysis using IPM version 2.1.9 as developed for EPA:

- i) Base Case with EPA 2.1.9 coal, gas and oil price assumptions.
- ii) Base Case with EPA 2.1.9 coal and gas supply curves adjusted for AEO 2005 reference case price and volume relationships.
- iii) Strategy Case with EPA 2.1.9 coal, gas and oil price assumptions.
- iv) Strategy Case with EPA 2.1.9 coal and gas supply curves adjusted for AEO 2005 reference case price and volume relationships.

The above two strategy runs were parsed for 2009 and 2018 run years.

The above four runs were based on VISTAS Phase I and the EPA 2.1.9 assumptions. The changes that were implemented in the above four runs are summarized below:

- i) Unadjusted AEO 2005 electricity demand projections were incorporated in the above four runs.
- ii) The gas supply curves were adjusted for AEO 2005 reference case price and volume relationships. The EPA 2.1.9 gas supply curves were scaled such that IPM will solve for AEO 2005 gas prices when the power sector gas demand in IPM is consistent with AEO 2005 power sector gas demand projections.

- iii) The coal supply curves used in EPA 2.1.9 were scaled in such a manner that the average mine mouth coal prices that the IPM is solving in aggregated coal supply regions are comparable to AEO 2005. Due to the fact that the coal grades and supply regions between AEO 2005 and the EPA 2.1.9 are not directly comparable, this was an approximate approach and had to be performed in an iterative fashion. The coal transportation matrix was not updated with EIA assumptions due to significant differences between the EPA 2.1.9 and EIA AEO 2005 coal supply and coal demand region configurations.
- iv) The cost and performance of new units were updated to AEO 2005 reference case levels in all of the above four runs.
- v) The run years 2008, 2009, 2012, 2015, 2018, 2020 and 2026 were modeled.
- vi) The AEO 2005 life extension costs for fossil and nuclear units were incorporated in the above runs.
- vii) The extensive NEEDS comments provided by VISTAS, MRPO, CENRAP and MANE-VU were incorporated into the VISTAS Phase I NEEDS.
- viii) MANE-VU's comments in regards to the state regulations in the northeast were incorporated.
- ix) RPS in the northeast was modeled based on the RGGI analysis. A single RPS cap was modeled for MA, RI, NY, NJ, MD and CT. These states could buy credits from NY, PJM and New England model regions.
- x) The investments required under the Illinois power, Mirant and First Energy NSR settlements were incorporated in the above runs.

Thanks,

Venkatesh