

All Phase II facilities are subject to the requirements of the Phase II regulation, even if they do not generate electricity. Therefore, unless EPA modeled a facility to cease operations and exit the marketplace, EPA assigned compliance costs to non-dispatched facilities. While none of the Phase II units that stand-by in the base case are modeled to be economic closures under the preferred option, it is possible that other economic measures, *e.g.*, impacts on pre-tax income, may be overestimated for these facilities. This would be the case because revenues might be understated if the modeling assumption that these facilities do not generate electricity is not realistic.

EPA requests comment on this part of the analysis.

B. Revised Results for the Preferred Option

This section presents the revised impact analysis of the preferred option. The impacts of compliance with the preferred option are defined as the difference between the model output for

the base case scenario and the model output for the post-compliance scenario.⁸ EPA analyzed impacts from the preferred option using output from model run year 2010. 2010 was chosen to represent the effects of the preferred option for a typical year in which all facilities are in compliance (compliance years for the preferred option are 2005 to 2009).⁹ The analysis was conducted at two levels: the market level including all facilities (by NERC region) and the Phase II facility level (including analyses of the in-scope Phase II facilities as a group and of individual Phase II facilities). The results of these analyses are presented below.

1. Market-Level Impacts of the Preferred Option

The market-level analysis includes results for all generators located in each NERC region including facilities both in scope and out of scope of the proposed Phase II rule. Exhibit 1 below presents five measures used by EPA to assess market-level impacts associated with

the preferred option: (1) Incremental capacity closures, calculated as the difference between capacity closures under the preferred option and capacity closures under the base case; (2) incremental capacity closures as a percentage of baseline capacity; (3) post-compliance changes in variable production costs per MWh, calculated as the sum of total fuel and variable O&M costs divided by total generation; (4) post-compliance changes in energy price, where energy prices are defined as the wholesale prices received by facilities for the sale of electric generation; and (5) post-compliance changes in pre-tax income, where pre-tax income is defined as total revenues minus the sum of fixed and variable O&M costs, fuel costs, and capital costs. Additional results are presented in *Chapter B3: Electricity Market Model Analysis* (sec. B3–4.1) of the EBA, as updated for this NODA analysis. Chapter B3 also presents a more detailed interpretation of the results of the market-level analysis.

EXHIBIT 1.—MARKET-LEVEL IMPACTS OF THE PREFERRED OPTION (2010)

NERC region	Baseline capacity (MW)	Incremental capacity closures (MW)	Closures as % of baseline capacity	Change in variable production cost per MWh	Change in energy price per MWh	Change in pre-tax income (\$2002)
ECAR	118,529	0	0.0	0.1	0.0	–1.1
ERCOT	75,290	0	0.0	0.0	6.1	–6.0
FRCC	50,324	0	0.0	0.4	0.6	–3.1
MAAC	63,784	0	0.0	–0.1	0.0	–0.9
MAIN	59,494	434	0.7	0.8	–0.3	–0.7
MAPP	35,835	0	0.0	–0.1	–0.4	–0.6
NPCC	72,477	0	0.0	–0.4	0.9	0.8
SERC	194,485	0	0.0	–0.1	0.0	–0.5
SPP	49,948	0	0.0	–0.1	–0.2	–0.4
WSCC	167,748	0	0.0	0.0	0.0	–1.1
Total	887,915	434	0.0	0.0	n/a	–1.1

One of the ten NERC regions modeled, MAIN, would experience economic closures of existing capacity as a result of the preferred option. However, this closure of 434 MW of nuclear capacity represents a relatively small percentage of baseline capacity in the region (0.7 percent). Three NERC regions would experience increases in variable production costs per MWh, although the largest increase would not exceed 1.0

percent. In addition, three NERC regions would experience an increase in energy price under the preferred option. Of these, only ERCOT would experience an increase of more than 1.0 percent (6.1 percent). Pre-tax incomes would decrease in all but one region, but the majority of these changes would be on the order of 1.0 percent or less. ERCOT would experience the largest decrease in pre-tax income (–6.0 percent). Only

one region, NPCC, would experience an increase in market-level pre-tax income (0.8 percent).

2. Facility-Level Impacts of the Preferred Option

The results from model run year 2010 were used to analyze two potential facility-level impacts associated with the preferred option: (1) Potential changes in the economic and operational characteristics of the group

⁸ Two base case scenarios were used to analyze the impacts associated with the preferred option and the waterbody/capacity-based option. The base case scenario used to analyze the preferred option was developed using EPA's electricity demand assumption. Under this assumption, demand for electricity is based on the Annual Energy Outlook (AEO) 2001 forecast adjusted to account for demand reductions resulting from the implementation of the Climate Change Action Plan (CAAP). The base case for the waterbody/capacity-based option was

developed using the unadjusted electricity demand from the AEO 2001. (See the Appendix of ch.B8 of the EBA, as published for the proposed rule, for further explanation on the two base cases; <http://www.epa.gov/ost/316b/econbenefits/b8.pdf>.) EPA is currently completing additional IPM runs and will develop analyses of both options using both base cases. EPA intends to place these additional analyses in the docket during the comment period on this Notice. EPA expects to use information from the analyses in today's Notice and these additional

analyses to support decision-making for the final rule.

⁹ EPA also analyzed potential market-level impacts of the preferred option for a year within the compliance period during which some Phase II facilities experience installation downtimes. This analysis used output from model run year 2008. See ch. B3, sec. B3–4.3 of the EBA, as updated for this NODA analysis, for the results of this analysis.