

EXHIBIT 4.—MARKET-LEVEL IMPACTS OF THE WATERBODY/CAPACITY-BASED OPTION (2013)—Continued

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)
WSCC	186,001	2,150	1.2	2.9	1.4	-1.7
Total	994,126	3,162	0.3	1.2	n/a	-0.5

Two of the ten NERC regions modeled, MAIN and WSCC, would experience economic closures of facilities as a result of this option. The capacity closures in MAIN and WSCC represent 1.5 percent and 1.2 percent, respectively, of baseline capacity in these regions and 0.3 percent of total baseline capacity for all regions taken as a whole. Variable production costs per MWh and energy prices would increase in all NERC regions. The increases in variable production costs would exceed 1.0 percent in six NERC regions, and two regions, MAIN and WSCC, would experience increases of more than 2.0 percent. Energy prices would increase by more than 1.0 percent in nine of the

ten regions modeled, with FRCC experiencing the largest increase (3.8 percent). Half of the regions would experience a reduction in pre-tax income, while the other half would experience increases in this measure. The majority of these changes would be less than 2.0 percent. FRCC, MAAC, and NPCC would experience the largest decrease in pre-tax income (-5.4, -4.1, and -3.3 percent, respectively), while the largest increase would occur in MAPP (2.0 percent).

2. Phase II Facility-Level Impacts of the Waterbody/Capacity-Based Option

The results from model run year 2013 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 of in-scope Phase II facilities and (2) potential changes to individual facilities within the group of Phase II facilities. EPA analyzed the same measures as discussed for the preferred option to assess impacts to the group of Phase II facilities resulting from the waterbody/capacity-based option: economic closures, changes in variable production costs per MWh of generation, total generation, and pre-tax income. Exhibit 5 below presents the results from this analysis, by NERC region.

EXHIBIT 5.—IMPACTS ON PHASE II FACILITIES OF THE WATERBODY/CAPACITY—BASED OPTION (2013)

NERC	Baseline capacity (MW)	Closure analysis		Change in variable production cost per MWh	Change in generation	Change in pre-tax income
		Capacity (MW)	% of baseline capacity			
ECAR	82,258	0	0.0%	0.3%	0.1%	1.0%
ERCOT	44,400	0	0.0	0.3	0.6	0.5
FRCC	27,513	0	0.0	0.3	3.5	10.5
MAAC	34,696	0	0.0	0.8	1.0	7.7
MAIN	34,944	1,012	2.9	1.2	2.5	1.5
MAPP	15,723	0	0.0	0.0	0.1	2.0
NPCC	37,219	0	0.0	0.8	-0.6	-9.2
SERC	107,458	0	0.0	0.7	0.1	-0.1
SPP	20,471	0	0.0	-0.7	-0.6	1.4
WSCC	28,093	2,150	7.7	0.5	-29.2	-30.7
Total	432,776	3,162	0.7	0.0	-2.1	-2.1

Similar to the results of the broader market-level analysis, MAIN and WSCC are the only regions that would experience incremental capacity closures at Phase II facilities under this regulatory option. In MAIN, 1,012 MW, or 2.9 percent of baseline Phase II capacity, would retire; in WSCC, 2,150 MW, or 7.7 percent of baseline Phase II capacity, would retire. In aggregate, these closures of 3,162 MW represents less than 1.0 percent of total baseline Phase II capacity. Phase II facilities in only one region, MAIN, would experience an increase in excess of 1.0 percent in variable production cost per MWh. Phase II facilities in seven NERC regions would experience a decrease in generation. Of these, three regions would see reductions in excess of 2.0

percent with the largest decrease occurring in WSCC (-29.2 percent), partially because of the post-compliance closures. Similar to the market level, FRCC, MAAC, and NPCC would experience relatively large reductions in pre-tax income (-10.5, -7.7, and -9.2 percent, respectively). However, the highest reduction would be seen in WSCC (-30.7 percent), where the compliance costs per MW of Phase II capacity is relatively high, and where only a relatively small portion of the overall capacity is regulated under the Phase II rule.

To assess potential shifts in economic performance among individual facilities subject to this rule, EPA analyzed the same facility-specific changes as for the preferred option: changes in capacity

utilization (defined as generation divided by capacity times 8,760 hours), generation, revenue, variable production costs per MWh (defined as variable O&M cost plus fuel cost divided by generation), and pre-tax income.

Exhibit 6 presents the total number of Phase II facilities with different degrees of change in each of these measures. This exhibit excludes 30 in-scope facilities with significant status changes (nine facilities are baseline closures, three facilities are policy closures, and 18 facilities changed their repowering decision between the base case and the policy case). These facilities are either not operating at all in either the base case or the post-compliance case, or they experience fundamental changes in the type of units they operate; therefore,