Coal Mining

Global abatement potential in 2020 and 2030 is 364 and 427 $MtCO_2e$, respectively. Over 80% of the abatement potential is concentrated in the top 5 emitting countries that include Australia, China, India, Russia, and the United States. China represents the largest single country in terms of abatement potential, accounting for 60% of the global total. The results of the MAC analysis are presented in Table 1 and Figure 1 below by major country and regional grouping at select break-even prices in 2030. In addition, Figures 2 and 3 present the United States and Global MAC curves in 2010, 2020 and 2030.

The MAC analysis results show that a 10% reduction in projected baseline emissions would be cost effective based on current energy price projections in 2030. If an additional emissions reduction value (e.g., tax incentive, subsidy, or carbon price) above the zero break-even price were available to coal mine operators, additional emission reductions could be cost-effectively achieved.

Table 1: Abatement Potential by Region at Selected Break-Even Prices ($/t$CO_2e$) in 2030

Country/Region	Break-Even Price										
	−10	−5	0	5	10	15	20	30	50	100	100+
Top 5 Emitting Countries											
Australia		1.7	2.9	12.7	15.1	15.9	16.4	19.7	20.0	20.1	20.3
China	28.7	30.7	41.4	193.3	207.1	226.0	250.3	251.9	252.6	254.9	254.9
India	3.6	3.6	4.1	12.7	14.6	15.0	15.4	18.3	18.4	18.4	18.6
Russia		4.9	6.7	26.5	28.3	33.8	33.9	34.1	34.2	34.5	34.5
United States	2.7	2.9	3.5	16.5	19.8	20.8	21.7	26.1	26.6	26.8	27.1
Rest of Region											
Africa	0.9	0.9	1.0	5.2	5.7	6.7	6.8	6.8	6.8	6.9	6.9
Central & South America	1.5	1.5	1.7	6.1	7.2	7.4	7.7	8.4	9.2	9.2	9.3
Middle East	0.0	0.0	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3
Europe	1.9	2.1	2.3	9.0	10.3	10.7	11.1	12.9	13.3	13.4	13.5
Eurasia	3.0	3.2	4.1	15.9	17.0	18.2	18.9	20.9	21.0	21.1	21.2
Asia	2.5	2.7	3.4	15.1	16.0	17.3	18.9	19.6	19.7	19.8	19.9
North America	0.1	0.1	0.1	0.5	0.6	0.6	0.7	0.8	0.8	0.8	0.8
Total	**44.9**	**54.5**	**71.3**	**313.9**	**342.0**	**372.7**	**402.0**	**419.9**	**422.9**	**426.1**	**427.2**

Figure 1: Marginal Abatement Cost Curve for Top 5 Emitters in 2030

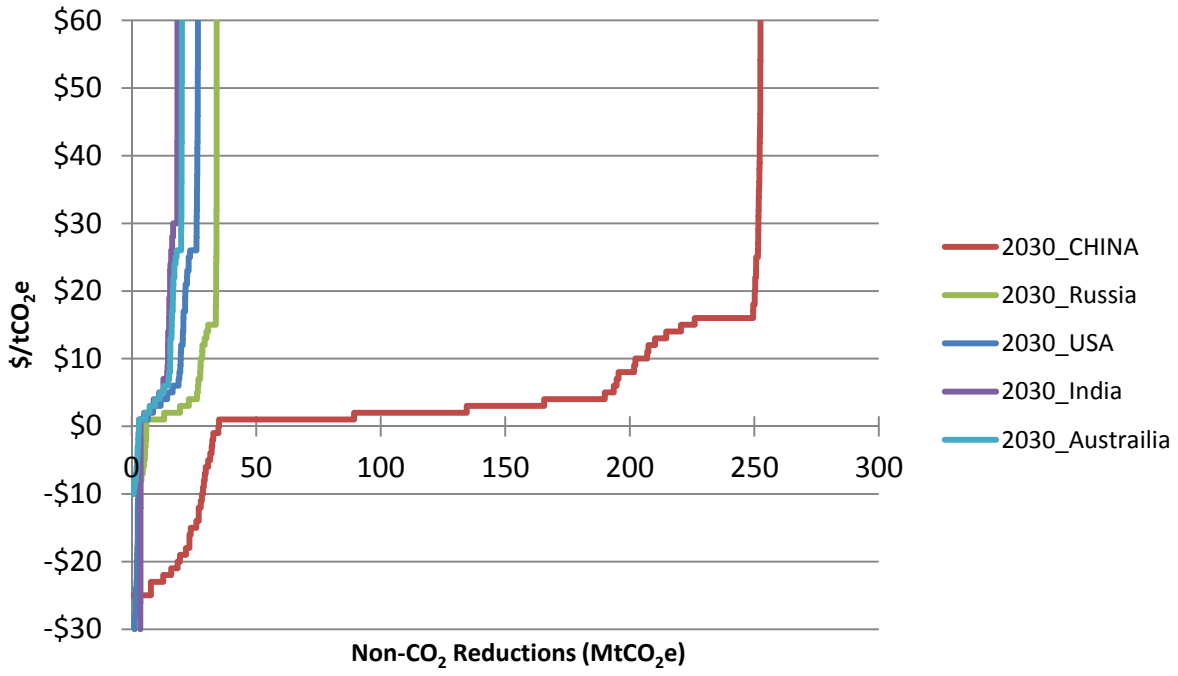

Figure 2: United States - Marginal Abatement Cost Curve in 2010, 2020, and 2030

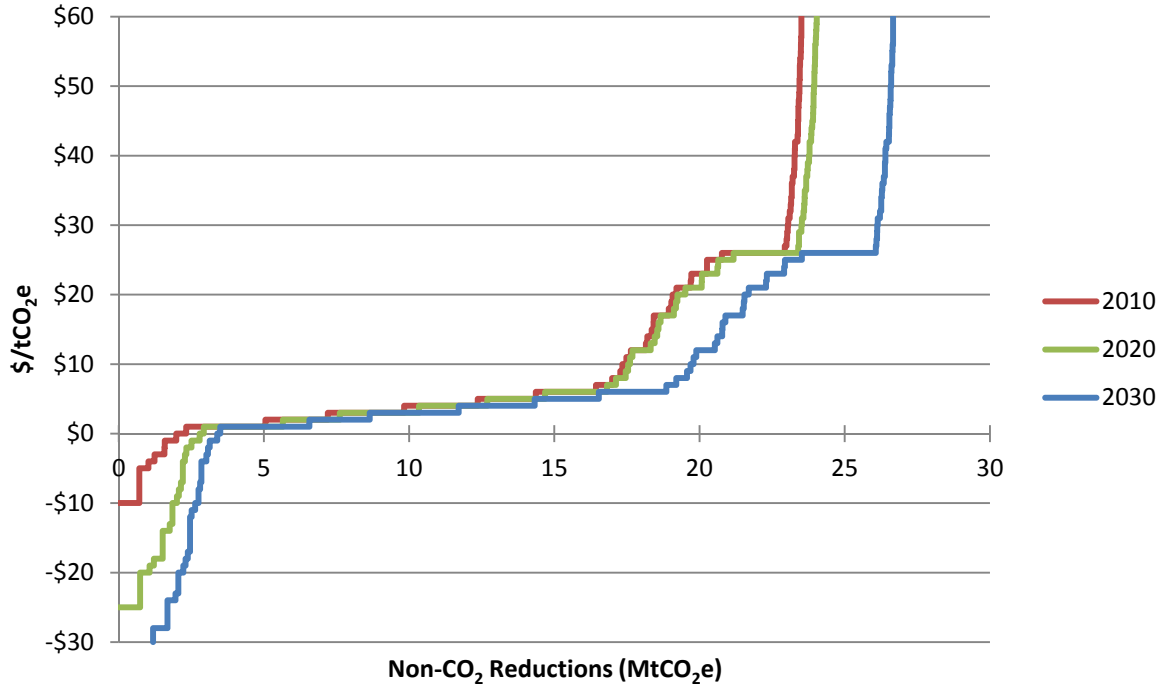
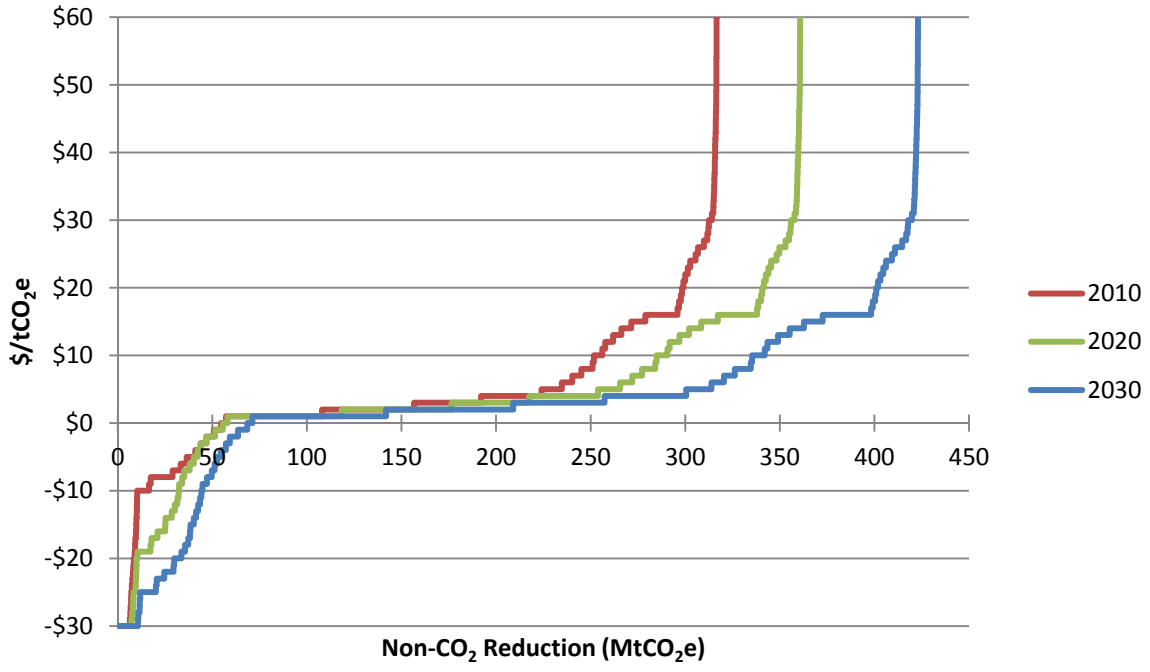
Figure 3: Global - Marginal Abatement Cost Curve in 2010, 2020 and 2030