

CPP Rollback May Impact SO₂ Emissions Trading Markets

By David Fotouhi, Gibson Dunn & Crutcher LLP

Law360, New York (December 16, 2016, 11:43 AM EST) -- If the U.S. Environmental Protection Agency's Clean Power Plan is jettisoned or substantially scaled back by the D.C. Circuit or the next administration, then the resulting short-term regulatory uncertainty and the potential tapering of recent declines in sulfur dioxide emissions may affect sulfur dioxide emissions allowance prices. Although modifications to the Clean Power Plan will have the most direct effect on greenhouse gas emissions, participants in sulfur dioxide emissions trading markets should carefully monitor market reactions and real-world emissions data as they engage in compliance planning in the coming years.



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The EPA's stated purpose for the Clean Power Plan[1] for existing electricity generating units is to reduce carbon dioxide emissions by more than 30 percent of 2005 levels by 2030.[2] The rule sets limits on carbon dioxide emission rates for sources in individual states and promotes generation shifting from coal-fired electric generating units to renewable sources.[3] The impacts of the Clean Power Plan, however, are predicted to extend far beyond a reduction of greenhouse gas emissions. The EPA acknowledged — and has in fact touted — the Clean Power Plan's "co-benefits" of reducing emissions of other compounds.[4] Indeed, the EPA stated that the Clean Power Plan "will reduce pollutants that contribute to ... soot and smog ... by over 20 percent in 2030," including a 318,000 ton reduction of sulfur dioxide (SO₂) emissions.[5]

As a candidate for the presidency, President-elect Donald J. Trump advocated for "scrapping the EPA's so-called Clean Power Plan," citing the cost of the regulations, impact on the coal industry and his prediction that "[t]his Obama-Clinton directive will shut down most, if not all, coal-power electricity plants — all over the country, they're shutting down." [6] The final rule is currently under review by the D.C. Circuit — oral arguments took place before the en banc court in September, and a decision is pending.[7] If the D.C. Circuit were to invalidate the Clean Power Plan, the EPA under the Trump administration could refuse to defend the rule and not seek certiorari to the U.S. Supreme Court. Even if the D.C. Circuit rejects the challenges to the Clean Power Plan, the EPA could initiate a new rulemaking to rescind the rule's provisions, limit its scope, increase its emissions targets or extend its compliance deadlines. But just as implementation of the Clean Power Plan would result in so-called co-benefits on other nongreenhouse gas emissions like SO₂, unwinding of the Clean Power Plan could affect these co-benefits and could impact other EPA regulatory programs.

The cross-state air pollution rule (CSAPR) took effect on Jan. 1, 2015, and regulates SO₂, annual nitrogen oxide (NO_x) and seasonal NO_x emissions in 23 eastern U.S. states by means of a cap-and-trade program.[8] The EPA divided these 23 states into two groups, and the CSAPR requires covered sources in group 1 states to make a collectively larger reduction in emissions than group 2 states.[9] Implementation occurs in two phases: phase 1 began in 2015 and phase 2 will begin in January 2017.[10] For each state, the EPA set an emissions budget for SO₂ and for NO_x — the sum of these state budgets effectively acts as an emissions cap for each contaminant in phase 1.[11] In phase 2, state emissions budgets generally will decrease from phase 1 levels.[12]

Sources within each group are allocated emissions allowances.[13] Sources must hold a sufficient number of allowances in their compliance accounts each year to cover their emissions in order to comply with the rule.[14] If a source is allocated more allowances than it needs for compliance in a given year, it may trade these allowances within its group or bank these allowances to offset emissions in future years.[15] If a source emits more than its allocation of allowances would cover, it can seek to purchase additional allowances in the emissions trading market for its group.[16]

Phase 2 includes enforcement of an additional restriction: The EPA set an “assurance level” for each state equal to 118 percent of that state’s phase 2 budget.[17] The assurance level is intended to account for emissions variability while limiting the total amount of emissions that can be covered by allowances (either allocated to the source, purchased by the source or banked by the source).[18] If all sources are in compliance with phase 2 limits, emissions will not exceed the assurance levels in any state — effectively serving as an emissions cap.[19]

As a general matter, phase 1 emissions budgets for SO₂ were higher than actual SO₂ emissions from covered sources in 2015. For example, in group 1 states, the sum of phase 1 SO₂ emissions budgets was approximately 1.2 million tons greater than all actual SO₂ emissions from covered sources in 2015.[20] Emissions in 2016 have continued this declining trend. Again, taking group 1 as an example, covered sources emitted approximately 620,000 tons of SO₂ through September 2016. Thus, it appears likely that SO₂ emissions from these states in 2016 will fall under the aggregate CSAPR emissions budgets by more than 1.5 million tons.[21] Under the CSAPR, sources may bank these unused allowances for compliance in future years.[22]

The start of phase 2 in January 2017 will usher in lower SO₂ emissions budgets for states in both groups along with assurance provisions designed to limit aggregate SO₂ emissions from all sources. However, actual SO₂ emissions in 2015 were already lower than phase 2 emissions budgets in all group 1 states except for Kentucky, Ohio, Pennsylvania and Tennessee.[23] Extrapolating from the data for the first nine months of this year, it appears likely that actual emissions in 2016 will not exceed the applicable phase 1 SO₂ emissions budgets or even the lower phase 2 SO₂ emissions budgets (if they applied) in any group 1 state.[24] To the extent that SO₂ emissions in 2015 and 2016 are predictive of what emissions will be in 2017, it appears likely that no group 1 state will exceed its SO₂ emissions budget or corresponding assurance level in the first year of phase 2 of the CSAPR.

Likely due to this delta between real-world SO₂ emissions and emissions budgets, emissions allowances have traded at relatively low prices. On Nov. 7, 2016, Platts assessed the price of 2016 vintage and 2017 vintage group 1 SO₂ allowances at \$1.75 per ton, and 2016 vintage and 2017 vintage group 2 SO₂ allowances at \$3.25 per ton.[25] Another factor likely putting downward pressure on prices is the Clean Power Plan’s predicted impact on coal-powered electric generating units. Indeed, one expert’s analysis concluded that the Clean Power Plan would result in coal unit retirements increasing by 45 gigawatts

through 2031, and coal-fired generation declining by about 29 percent over that same period.[26] The U.S. Energy Information Administration has predicted coal unit retirements increasing by 50 gigawatts through 2040, with “nearly all” retirements occurring by 2020.[27] A reduction in coal-fired electric generating capacity to this extent nationwide would undoubtedly result in a decrease in SO₂ emissions from CSAPR covered sources.

Rolling back the Clean Power Plan will have the most direct impact on greenhouse gas emissions. However, this action also could reverse the downward pressure on SO₂ emissions allowance prices. Without the Clean Power Plan’s push toward generation-shifting, covered sources may select not to convert units from coal-fired generation or retire coal-fired generating units before the end of their anticipated useful lives, which could slow or halt the rate of decline in SO₂ emissions. Generators also may choose to invest in new coal-fired generation facilities, which would be subject to the CSAPR.[28] If the EPA were to further reduce phase 2 budgets through a future rulemaking, then these impacts would be exacerbated.

Likely due to this new aura of uncertainty, allowance prices have risen since the Nov. 8 general election.[29] On Nov. 23, 2016, Platts assessed the price of 2016 vintage and 2017 vintage group 1 SO₂ allowances at \$2.50 per ton, and 2016 vintage and 2017 vintage Group 2 SO₂ allowances at \$4.25 per ton.[30] These recent moves represent a 70 percent increase from pre-election prices, signaling that market participants may be weighing a potential rollback of the Clean Power Plan, uncertainty as to how covered sources will react to regulatory changes, and the potential for fewer coal retirements and new investment in coal-fired electric generating capacity. These developments could continue to affect the markets and may reverse the downward pressure on prices.

However, the recent price increases may not be a sign of a forthcoming long-term trend unless the EPA were to reduce phase 2 budgets in the future, given that SO₂ emissions in 2016 likely will fall below the levels of phase 2 budgets, and given that sources will likely be able to use an estimated 2.7 million banked allowances from phase 1 for compliance in future years (subject to state assurance levels). In light of these developments and as a part of their ongoing compliance planning, sources subject to the CSAPR should closely monitor market prices of emissions allowances and emissions data of SO₂ emissions in their state and CSAPR group.

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[1] Final Rule, Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 80 Fed. Reg. 64,662 (Oct. 23, 2015) (CPP Rule).

[2] U.S. EPA, “Fact Sheet: Clean Power Plan by the Numbers” (Aug. 2015) (CPP Fact Sheet), available at <https://www.epa.gov/sites/production/files/2015-08/documents/fs-cpp-by-the-numbers.pdf> (last accessed Dec. 9, 2016).

[3] CPP Rule, 80 Fed. Reg. at 64,803-11.

[4] See, e.g., CPP Fact Sheet (“The transition to cleaner sources of energy will better protect Americans from other harmful air pollution, too. By 2030, emissions of SO₂ from power plants will be 90 percent lower compared to 2005 levels, and emissions of NO_x will be 72 percent lower.”).

[5] CPP Fact Sheet; see also U.S. EPA, “Regulatory Impact Analysis for the Final Clean Power Plan” at ES-6 (Oct. 23, 2015). The Supreme Court stayed the enforcement of the Clean Power Plan on Feb. 9, 2016, pending judicial review. *West Virginia v. EPA*, 136 S.Ct. 1000 (Mem.), No. 15A773 (Feb. 9, 2016) (opinion granting application for stay).

[6] Donald J. Trump, Speech to the Economic Club of New York (Sept. 15, 2016); see also Donald J. Trump, Speech to the Detroit Economic Club (Aug. 8, 2016) (“As a result of recent Obama EPA actions coal-fired power plants across Michigan have either shut down entirely or undergone expensive conversions. The Obama-Clinton war on coal has cost Michigan over 50,000 jobs.”).

[7] *West Virginia v. EPA*, No. 15-1363 (and consolidated cases) (D.C. Cir.).

[8] Federal Implementation Plans: Interstate Transport of Fine Particulate Matter and Ozone and Correction of SIP Approvals, 76 Fed. Reg. 48,208 (Aug. 8, 2011) (CSAPR Final Rule).

[9] See *id.* at 48,261-62; see also U.S. EPA, “State Budgets, Variability Limits, and Assurance Levels for SO₂ (tons)” (Feb. 2016) (EPA State Budgets), available at https://www.epa.gov/sites/production/files/2016-02/documents/budgets_annualso2.pdf (last accessed Dec. 9, 2016).

[10] See Rulemaking to Amend Dates in Federal Implementation Plans Addressing Interstate Transport of Ozone and Fine Particulate Matter, 79 Fed. Reg. 71,663 (Dec. 3, 2014).

[11] CSAPR Final Rule, 76 Fed. Reg. at 48,268-70. EPA has amended certain states budgets through a series of subsequent modifications to the final CSAPR rule; it has posted a table of the current budgets on its website. See EPA State Budgets.

[12] *Id.*

[13] CSAPR Final Rule, 76 Fed. Reg. at 48,284.

[14] *Id.* at 48,340-41. “If a source fails to hold sufficient allowances for compliance to cover the emissions, then the owners and operators must provide, for deduction by the administrator, two allowances allocated for the control period, in the year of when the emissions occurred, any prior year, or the year immediately after the year of the emissions, for every allowance that the owners and operators failed to hold as required to cover emissions. In addition, the owners and operators are subject to discretionary civil penalties for each violation.” *Id.* at 48,341.

[15] *Id.* at 48,263-64 (“The EPA is finalizing this rulemaking with the same prohibition on SO₂ trading between group 1 and group 2 states that was defined in the proposal. Further, the EPA clarifies that while trading of allowances (i.e., buying, selling, and banking) is allowed without restriction, it is specifically the surrender of SO₂ allowances for compliance that is limited [within each group].”); see also *id.* at 48,288 (“Under the trading programs, any source may emit a ton of SO₂ or NO_x for which it holds a corresponding allowance, which it may acquire either by initial allocation or by subsequent purchase, to the extent consistent with the assurance provisions ... that ensure achievement of the

requisite overall reductions in each state.”).

[16] Id. at 48,340-41

[17] Id. at 48,265-70; see also Revisions to Federal Implementation Plans to Reduce Interstate Transport of Fine Particulate Matter and Ozone 77 Fed. Reg. 10,324, 10,330 (Feb. 21, 2012) (amending final rule so that assurance provisions are not effective during phase 1).

[18] CSAPR Final Rule, 76 Fed. Reg. at 48,294 (“These assurance provisions limit emissions from each state to an amount equal to that state’s trading budget plus the variability limit for that state (i.e., the state assurance level).”)

[19] Id. at 48,341 (“[T]he assurance provisions ensure that each state will eliminate its significant contribution to nonattainment and interference with maintenance that the EPA identifies in this action.”).

[20] Compare EPA State Budgets with U.S. EPA, Air Markets Program Data, Transport Rule SO₂ Annual Group 1 Program (TRSO₂G1) 2015 dataset (“2015 Air Markets Program Data”), available at <https://ampd.epa.gov/ampd/> (last accessed Dec. 9, 2016). A similar delta exists with regard to group 2 states; the sum of phase 1 SO₂ emissions budgets for group 2 states was approximately 400,000 tons greater than actual SO₂ emissions from covered sources in 2015. Id.

[21] Compare EPA State Budgets with U.S. EPA, Air Markets Program Data, Transport Rule SO₂ Annual Group 1 Program (TRSO₂G1) 2016 dataset (2016 Air Markets Program Data), available at <https://ampd.epa.gov/ampd/> (last accessed Dec. 9, 2016).

[22] 76 Fed. Reg. 48,271 (“Banking of allowances for use or trading in future years is allowed.”).

[23] Compare EPA State Budgets with 2015 Air Markets Program Data. While greater than its phase 2 budget, emissions of SO₂ in 2015 from covered sources in Tennessee (which amounted to 59,697 tons) are lower than Tennessee’s phase 2 assurance level of 69,423 tons. Id.

[24] While new sources would not be subject to the Clean Power Plan, they would be subject to another EPA rule promulgated in tandem with the Clean Power Plan. See Standards of Performance for Greenhouse Gas Emissions from New, Modified, and Reconstructed Stationary Sources: Electric Utility Generating Units, 80 Fed. Reg. 64,510 (Oct. 23, 2015).

[25] “Daily CSAPR allowance assessments, Nov. 7,” Platts Coal Trader (Nov. 7, 2016).

[26] Statement of David Harrison, Jr., Ph.D, Hearing on Impacts of U.S. Environmental Protection Agency Regulations, House Committee on Oversight and Government Reform (Feb. 26, 2015), available at http://www.nera.com/content/dam/nera/publications/2015/PUB_Harrison_EPA_Testimony_0215.pdf (last accessed Dec. 9, 2016).

[27] U.S. Energy Information Administration, “Analysis of the Impacts of the Clean Power Plan” (May 22, 2015) (“The Clean Power Plan has a significant effect on projected retirements and additions of electric generation capacity ... Projected coal plant retirements over the 2014-40 period, which are 40 GW in the [Annual Energy Outlook] 2015 Reference case (most before 2017), increase to 90 GW (nearly all by 2020) in the Base Policy case (CPP).”), available at

<https://www.eia.gov/analysis/requests/powerplants/cleanplan/> (last accessed Dec. 9, 2016).

[28] See 76 Fed. Reg. 48,284 (“The EPA is setting aside a base 2 percent of each state’s budgets for allowance allocations for new units ... To this base 2 percent, the EPA is setting aside an additional percentage on a state-by-state basis, ranging from 0 to 6 percent (yielding total set asides of 2 percent to 8 percent), for units planned to be built.”). In fact, President-elect Trump has criticized the Clean Power Plan specifically because it discourages investment in new coal-fired power plants, he argues. See Nick Timiraos, “Trump Advisers Estimate Big Revenue Surge from Trade, Regulation Policies,” *The Wall Street Journal* (Sept. 25, 2016).

[29] Jim Levesque, “Seasonal NOx pricing continues slide in CSAPR market,” *Platts Coal Trader* (Nov. 10, 2016).

[30] “Daily CSAPR allowance assessments, Nov. 28,” *Platts Coal Trader* (Nov. 28, 2016).