



Technical Focus, Energy & Environmental Committee Meetings

December 2018
Hilton Garden Inn
2020 Jefferson Davis Hwy
Arlington, VA

MINUTES

TUES-WED, December 4-5, 2018

TECHNICAL FOCUS GROUP SESSION

Mike Zebell, Environmental Resources Management, *Technical Committee Chairman*
Todd Young, HDR, *Technical Committee Co-Chairman*

Internal Cost of Carbon

Bernie Evans, Environmental Resources Management, Moderator

Alex James, Environmental Resources Management, reported on the internal cost of carbon as used by Environmental Resources Management (ERM). ERM provides consulting services to companies that want to have a sustainability strategy and plan, as well as a means of reporting the results of these sustainability efforts. An internal price of carbon is a mechanism to help companies manage risk and identify opportunities in the transition to a low carbon economy. Over 600 companies are reportedly using an internal carbon pricing.

Risk management, opportunity identification, and emissions reductions are cited as the main reasons. The approaches include using a shadow price or using an internal carbon fee. Shadow pricing helps the business understand how carbon pricing can impact the business case for projects. An internal carbon fee actually applies an internal transfer cost to businesses. The funds thus raised can then be used to fund carbon reduction projects.

In order to develop a useful system, it is critical to engage all of the key stakeholders across the business. Objectives need to be identified and agreed upon. GHG inventory data is important in order to set a baseline. A change management strategy must be developed. A carbon price can then be calculated/evaluated. The system should be piloted in selected business units to refine the approach. Once the feedback has been applied and the system refined, it can be rolled out across the company.

Price setting can be done using external sources such as a national carbon tax or the price from a carbon trading system. This approach is the simplest, but may not be aligned with the company situation. Benchmarking is another approach that can provide an indication of a carbon price. This approach looks at other companies in the industry to see what price they are using. Internal engagement involves a qualitative review of company processes to arrive at a potential carbon price. In this approach, the pricing decision aims at setting a price that is high enough to induce changes in decision making.



Finally a full technical analysis that establishes the marginal cost of abatement can be undertaken to come up with a carbon price. Pricing can be uniform, differentiated, static, or evolutionary. The choice can be used to impact longer term vs shorter term projects. The carbon price can then be applied to capital expenditures, operational decisions, procurement, and product/R&D decisions. Intensity is still the dominant metric for companies.

Fred Fendt, The Dow Chemical Company, reported on the international implications of applying the cost of carbon. As the millennial generation becomes the major component of the workforce, their views and opinions will drive the move towards “doing something” about climate change. More than half of millennials believe that climate change is the most serious problem facing mankind and more than 90% of those believe that the cause of the change is mankind.

The emissions in Canada has been taking various approaches (no coal, carbon taxes, etc.). Their latest initiative is aimed at having them make their Paris agreement targets. China is starting to include GHG reductions in their policy actions. In the US, there is an initiative in Washington State to institute a \$15/ton CO₂ tax. The measure was defeated over the use of the tax funds that would be generated, not the actual application of the tax. There are a number of regions that have instituted a cap and trade system.

Dow performs lifecycle energy and GHG estimates from the perspective of the customer. The ratio of customer values to resources invested has to be at least 6, which shows much more benefit to society. The emissions come from direct emissions (scope 1), indirect economic impacts (scope 2), and supply chain impacts (scope 3). Regulatory approaches include carbon taxes, cap and trade systems, and reduction mandates. A \$40/metric ton price on carbon adds \$2.50/MMBTU to the cost of natural gas.

Kevin Rennert, Resources for the Future, reported on the Social Cost of Carbon as used by the government. The Social Cost of Carbon represents a figure for the potential future damage cost to society for emitting an additional ton of CO₂ to the atmosphere. It has also been proposed for a carbon tax value. New York and Illinois are using it as a basis for payments to nuclear generators. Several states require its use in energy policy decisions.

The approach to establishing a social cost of carbon starts with economic and environmental modeling of future. This produces an emissions level and a modeled temperature increase. From this information, an estimate of the potential damages is calculated. A discount rate is applied to get to a net present value of this cost. The process is then repeated with an incremental amount of CO₂ emissions to get a potential increase in damage costs. The difference becomes the basis for the incremental cost of adding an additional ton of CO₂ to the atmosphere. The discount rate was evaluated at 2%, 3%, and 5%.

The Office of Management and Budget (OMB) typically uses 3% (consumer impacts) and 7% (industrial impacts). The Obama administration settled on 3%. The value was on the order of \$30/ton increasing with inflation.

The Trump administration changed some of the ground rules and issue new guidelines that are in the range of \$1 - \$8/ton. The RFF intends to improve the scientific basis for the SCC estimates with the NAS recommendations and deliver a transparently updated SCC with associated uncertainty bounds. Ultimately, a freely available, open source software set of tools for SCC estimation would result. The



goal would be to grow and inform the public, scientific, and user communities through extensive outreach and engagement. The web site is www.rff.org/SCC.

GOVERNMENT AFFAIRS SESSION

Anthony Reed, Archer Daniels Midland Co., *Government Affairs Committee Chairman*

The House of Representatives has flipped to the Democrats (235 – 200). There are a lot of new members. By 2020, most of the House members will have changed from 2008. That will mean some new members on some of the key committees for next year. There is a lame duck session to get “must done” bills passed.

For the March Meeting, it will be important to reintroduce CIBO to the new members on both sides of the aisle. There will be a lot of sensitivity to climate issues going forward.

The Democrats will want to tee up their issues in preparation for the 2020 presidential campaign. With all of the new people, simple explanations at the fundamental level of energy, manufacturing, the economy, etc.

The CIBO website needs to be updated so that an incoming member can understand what we do and what our issues are.

On the Senate side, the new EPA administrator will be nominated early next year. Issues that have not been addressed at EPA should be brought up for that process.

Bracewell LLP provided a speaker panel for lunch, which included **Dee Martin, Anna Burhop, and Liam Donovan** all from the Bracewell Policy Resolution Group, to bring us up to date on the recent election results. The basic results were that the Senate stayed Republican with a majority of 53 to 47. The House flipped to the Democrats, as they picked up 40 seats to take a 235 to 200 majority (although there is still one being decided). The pickup came mostly from districts that were carried by Democrats in the 2016 election. Geographically, the East Coast and West Coast went primarily Democrat along with New Mexico, Arizona, and half of Nevada. Most of the rest of the country went Republican with a few urban areas that went Democrat.

There are roughly 85 – 90 “freshman” members. Nancy Pelosi is still expected to become Speaker of the House. However, there was already a “sit in” at her office within 2 days of the election. In Washington State, there was a referendum of a potential carbon tax for that state of \$15/ton. The referendum failed. However, it is expected that we will see more of this kind of legislative proposal being put forward.

Democrats did pick up some state houses (7 governorships), which could provide a spring board for states to create some kind of climate initiatives. California is already pushing for eliminating fossil fuels. The Midwest Climate Initiative could be resurrected. The New England states have RGGI and are pushing renewable standards. In the House, there will be a lot of oversight and investigations toward President Trump and the Republicans. There will be a lot of clean energy initiatives. Anything that EPA has done in the last 2 years will be subject to oversight and investigation.

On taxes, it is likely that the President's tax returns will get subpoenaed. Bad feelings still exist on both sides. We can expect the House to propose to repeal or replace the tax cuts that were passed



last year. Since such a bill would have to pass the Senate and the President, it will not likely succeed (similar to Republican efforts on Obamacare).

On trade, a new trade agreement with Mexico and Canada was negotiated. Congress will still have to approve.

With China, the escalation in tariffs was halted for 90 days. This step has bought some time, but the main issues still need to be resolved.

On infrastructure, there is some possibility of some bipartisan legislation. There has not been a lot of pressure for a new bill. Preliminary proposals have had little traction.

ENERGY COMMITTEE SESSION

Frederick (Fred) P. Fendt, The Dow Chemical Company, *Energy Committee Chairman*
Robin Mills Ridgway, Purdue University, *Energy Committee Vice-Chairman*

The minutes from the June Meetings were approved.

Robin Ridgway reported on the Implementation of Sustainability by States. CIBO would like to collect information on what each state might be doing relative to sustainability and climate issues. The committee members will be requested to help identify these activities which, perhaps, could potentially lead to some kind of guidance document. Information would include RPS targets, GHG targets, efficiency goals, recycling goals, renewable subsidies, etc. Send information to Candy Marriott cmariott@cibo.org, Carl Bozzuto cbozzuto1@gmail.com, and Bob Bessette Bessette@cibo.org

Fred Fendt, reviewed the issues that were identified during our conference call to help put together positions for future use. These include thermal energy, electricity, renewables, energy efficiency and CHP, energy diversity, and energy/sustainability.

Robin Ridgway worked the slides to record some ideas to flesh out the issues. We started with addressing what is energy. CIBO members make things, which require people, energy, and raw materials. Some examples were given, including food energy for people. Thermal energy is used in all of our facilities in the forms of steam, hot water, hot air, cold water, and cold air. There is a trend towards more electrification. However, electricity has to be generated from another energy source and transmitted to the end user. Renewables can be utilized when available. Many renewables are site specific such as geothermal or hydropower. To a limited extent, electricity can be stored in batteries, but the amount is insufficient to meet our energy needs. Energy efficiency can be helpful to manufacturers as it reduces costs. Energy efficiency can be pursued to the extent it is economical to do so. Similarly combined heat and power can be helpful under the right circumstances. There are still a number of barriers to further applications of combined heat and power.

ENVIRONMENTAL COMMITTEE SESSION

Chuck Hallier, Cargill Incorporated, *Environmental Committee Chairman*
Amy Marshall, AECOM *Environmental Committee Vice –Chairman*

John (Jay) Hofmann, Trinity Consultants, Inc., reported on state level NSR activities. Key issues include interpretation of the word “adjacent” for the definition of major source, the project aggregation



rule, the project netting rule, and the use of actual to potential actual for applicability. The most significant issue is the project netting rule. This basically involves taking credit for shutting down a unit (reducing emissions) while modifying another unit (perhaps increasing emissions).

The EPA has now stated that the emissions can be netted to determine if NSR applies. Further, emissions decreases do not have to be permitted. There is some concern about gaming the system relative to project aggregation (or disaggregation). The definition of a project is somewhat vague. The question is "what are the relevant aspects of plant changes that potentially tie them together as a single project".

EPA has stated that projects separated by 3 years are not substantially related. That means that projects separated by more than 3 years are not to be aggregated. Further, projects within the 3 year period do not have to be aggregated.

For the adjacent rule, proximity is now the major criteria. However, there are still support facilities, SIC Code, and common control issues that could lump a facility in with another source. There are some other issues to be considered at EPA such as RMRR, but these are not currently in play. The efficiency issue for GHG reductions needs to be addressed, as efficiency projects won't get done if they trigger NSR.

Amy Marshall, AECOM, reported on the "Once In Always In" (OIAI) policy. The 1995 policy was withdrawn. Now if a unit reduces its HAP emissions below the major source threshold, it could be a minor source. California and the eNGOs have sued EPA stating that there was no review and comment. They also claim that companies will increase their emissions up to the threshold, which would cause an increase in emissions. Since the policy is not a rule, the notice and comment claim may not apply. Most states have anti backsliding rules, which would prevent emissions increases. Briefs have been filed. EPA will respond in January.

The Environmental Defense Fund did an analysis for the Houston/Galveston area claiming if OIAI is removed, emissions would rise well above what the Boiler MACT rules allow.

Relative to Boiler MACT, the remanded portions are being examined to address the issues. Solid fuel units will likely see a 6% reduction for mercury and a 13% reduction for HCl.

On the CO issue of 130 ppm, a white paper is being prepared to summarize the issues to support the EPA limit. The paper supports the use of CO as a surrogate for organic HAP and the level of 130 ppm.

Chuck Hallier, Cargill Incorporated, reviewed the issues that were identified during a conference call for environmental issues. A number of potential issues were identified including air, land, water, permitting, regulations vs guidance, monitoring/reporting, cooperative federalism, citizens enforcement, WOTUS, waste vs fuel definition, GHGs, CO2 neutrality, coal combustion byproducts, and the 1990 CAA changes. For air, the substantial emissions reductions that have been achieved should be highlighted. CIBO members are highly regulated under the CAA. Regulatory certainty is very desirable. The 5 year NAAQS changes are detrimental to company planning. CAA reform would be needed to accomplish this.



For land issues, the definition of solid waste can discourage the recycle and use of alternate fuels. Renewables take up more land area than fossil fuels. Land reclamation and land application needs to be considered. Policies that encourage the reuse and recycle of materials are needed.

For water, we support the old rule on WOTUS rather than the Obama proposed rule. We don't support the groundwater nexus arguments.

For 316(a) and 316(b) rules, the one size fits all approach is not acceptable. A market based approach to nutrients is desirable. The proposed effluent guidelines for steam plants may not be applicable to industrial boilers.

For the MS4 program, quality based regulations are desirable. The storm drains and other discharges that are not under control of the plant, should not be in the regulation. Permitting needs to be streamlined. A de-minimis level should be instituted for minor equipment. Emergency equipment should be exempt. Permitting requirements should encourage energy efficiency projects.

CIBO supports the NSR changes that have been issued. More realistic modeling in the permitting process is desirable. The flexibility in the DRR (Data Requirements Rule) is a good example. There should be no NAAQS modeling if the plant meets the permit limits. Ambient levels are now approaching background levels. Modeling should be a tool rather than the regulation. State agencies and the regulated community need the certainty of a regulation. Guidance is subject to interpretation. Guidance should not be part of enforcement. Monitoring for the sake of monitoring has no environmental benefit. Record keeping should be reasonable. Citizen scientist monitoring is a dangerous precedent. CBI needs to be protected. Electronic reporting needs to be unified and simplified. Cooperative federalism runs the risk of different standards in all jurisdictions. The preference is to have states enforce the rules, but not make their own rules. We don't want EPA to second guess state decisions. Citizens don't really have the tools to correctly monitor emissions. This just adds cost with little or no benefit.

CIBO members have already demonstrated good stewardship of the environment. Members are already using energy evaluation programs and are members of Energy Star and CHP programs. We support the use of biomass based fuels. There have been GHG emissions reductions by member companies. Energy efficiency is part of our business. MSW is a renewable. Landfill gas is a renewable. For coal combustion byproducts, don't treat industrials like EGU's. ACAA claim's 70% of CCR is beneficially used. CIBO supports the reuse of this material.

Mark Dreux, Arent Fox LLP, provided an update on the RMP (risk management plan) rule. EPA had issued the new RMP rule in Jan. 2017. The new administration issued a "delay rule" shortly thereafter. The DC Circuit Court vacated the delay rule in August, 2018.

In September, the Court issued a mandate, meaning that the 2017 rule is essentially in place. EPA has announced that they will come out with a reconsideration.

The 6 immediate concerns are the compliance audits for each covered process, supervisors training requirements, incident reports with expanded content and 12 month deadline, PHAs (process hazard analysis) must address findings, safety information must be kept up to date, and emergency response coordination.



For the audit issue, the number of covered processes must be established. EPA claims this is not a new requirement, but there is a difference of opinion between EPA and OSHA. EPA has expanded the training requirements to include employees with “process operational responsibilities” (supervisors). The content of the incident report has been increased to include the description of the incident, in chronological order, providing all relevant facts. The report must be completed within 12 months of the incident. The root cause requirement has been delayed until 2021. A “near miss” incident must also be reported.

The PHA shall address the findings from all incidents and other potential failure scenarios. This requirement essentially means doing things twice. Process safety information (PSI) must be kept up to date. It is suspected that this requirement is intended to force plants to comply with updated safety requirements, even though the plant was designed to an older requirement. A facility has to coordinate with local emergency personnel (LEPC). Meetings and training exercises must be documented and reported. Between the Court mandate and the release of a reconsidered rule, facilities are at risk of not implementing these requirements.

Rob Kaufmann, Koch Companies Public Sector, reported on the NAAQS and Climate issues. EPA has planned accelerated reviews of the ozone and PM2.5 levels by the end of 2020. In addition, the makeup of the CASAC has been changed. Members can no longer be receiving major EPA grants. The special CASAC subcommittees on ozone and PM2.5 were disbanded. This could be a problem, as there are thousands of pages of health effect reports that have to be looked at in order to come up with a standard. If a standard gets challenged, there could be an issue with any reports that were not sufficiently reviewed. The current ozone standard could likely remain. However, the PM2.5 standard is a target for reduction. Recent studies are finding effects down as low as 5 micrograms per cubic meter (the current standard is 12). If the standard were reduced even to 9, over 30 states would be in non-attainment. EPA has been active on the implementation front. Guidance has been released for the states on the good neighbor SIP issue.

Final SIP rule requirements for the 2015 ozone standard were released in November. A blue print for states use for the second round of regional haze submittals was issued. Exceptional events evaluation (wild fires, weather events, etc.) is being worked on. International emissions can be considered in designating non-attainment areas. The MOG analysis now shows that nearly all areas will come into attainment by 2023 with no further controls requirements.

On climate, the Obama CPP has been withdrawn. The proposed replacement is the Affordable Clean Energy (ACE) rule. The social cost of carbon has been revamped. Revisions to 111(b) have been proposed, which could allow the construction of new coal plants. GHG PSD significant emission rates have been established. Biomass from managed forests are expected to be considered as “carbon neutral”. CAFÉ standards for passenger cars and light duty trucks have been relaxed.

Lisa Jaeger, Bracewell LLP, reported on litigation and reconsideration issues. CIBO is now involved in only 3 cases.

At the Supreme Court, Justice Kavanaugh was sworn in on Oct. 8, 2018. Outside of Justices Breyer and Ginsburg, the rest of the justices are relatively young (late 50s and 60s).



The Utility MATS cases are mostly in standstill. The Technical Corrections Rule and Reconsideration Rule are in standstill. The startup/shutdown rule is moving, but our concern was BMACT. We used the MATS provisions in the BMACT case, so hopefully that will prevail. The supplemental finding is still an issue. The cost/benefit analysis showed significant cost and minimal benefit. The EPA was directed to consider cost. This issue is still in play. EPA is supposed to be coming up with a standard approach to doing cost/benefit analysis.

For the MACT/RTR rules, some issues were recently decided by the DC Circuit Court. The brick MACT cases were decided and some decisions will impact our BMACT cases. The UPL for variability was one of the issues. The Court decided that for limited data sets the application was OK. However, for "ad-hoc" adjustments to the limits, the Court decided against EPA's use of the UPL. EPA will have to go back and redo the 5 limits that used UPL to see if they can do it in a way that will pass muster. Health based emission limits for HCl were rejected. Alternate MACT floors for sources were rejected. Startup/shutdown work practice standards were OK. Malfunctions and affirmative defense still show up in several MACT cases.

The Portland Cement RTR is still in litigation. EPA wanted SCRs on kilns. Industry has claimed that the technology is not proven on kilns. However, some kilns were forced to install SCRs under consent decrees. In the pulp mill RTR, the issue was setting emissions standards for each HAP and the use of a solid surrogate for gaseous mercury. The National Yeast Association RTR challenged EPA on a change to the monitoring method, a no residual risk determination leading to a stricter standard, data deviations, and time issues. On the CAA RMP rule, the ACC challenged the rule. EPA issued a delay. An administrative reconsideration is pending. The Court decided that the rule could stay in effect while reconsideration is taking place.

The Regional Consistency Rule was decided that EPA's interpretation was correct (ie EPA should be consistent), but that certain Court actions may force some inconsistencies. The "once in/always in" policy was withdrawn. This has been challenged. An industry coalition is preparing an amicus brief. The challenge also claimed that the withdrawal should have gone through notice and comment. For water, the industry coalition got confirmation that the 25% portion for cooling water threshold was maintained. The inclusion of USFWS and NMFS in preparing the standard was upheld. A decision was issued in September.

The Supreme Court took a decision on the Endangered Species Act in favor of industry. A tract of land had been designated "critical habitat". Industry pointed out that the species in question did not, and could not, live on this land. The Supreme Court agreed. As a result, a designation decision can now be challenged without waiting for an enforcement action. Further, this was determined to be an "abuse of privilege" on the part of the agency. The decision was unanimous (8 – 0). On the EGU Effluent Limitation Guidelines issued in 2015, industry challenged the rule as well as the eNGOs. Both sides are on both sides of the petitions. Some parts are in reconsideration. Some parts were delayed and then the delay was challenged.

On WOTUS, some states are under the new rule and some are not. On the coal ash issue, citizen suits claimed that leachate traveling through groundwater to surface waters constitutes a point source. The Circuit Courts have disagreed on this interpretation. EPA has requested comment on ground water releases.



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There are 2 cases coming up to the Supreme Court. The 9th Circuit Court has applied additional language (less than 1000 ft, de minimis amount, and direct hydrological connection). The 4th Circuit Court had something similar without the distance requirement.

On the 2008 definition of solid waste, EPA had created a transfer based exclusion. The eNGOs sued and a settlement was reached. In 2011, the transfer exclusion was eliminated. However, in 2015 a revised rule was issued that took out the verified recycler version and reinstated the transfer exclusion. The eNGOs have sued again. The issue is back in front of the DC Circuit Court.