United States Environmental Protection Agency

Office of the Chief Financial Officer

Center for Environmental Finance

Meeting Summary of the

Environmental Financial Advisory Board

August 9-10, 2010

Parc 55 Hotel Wyndham

San Francisco, California

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Environmental Financial Advisory Board (EFAB)
Meeting Summary

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Tuesday, August 9, 2010

EFAB Board Meeting (1:30 p.m.)

Opening Remarks and Meeting Overview

Michael H. Shapiro, EFAB Designated Federal Official (DFO) called the meeting to order at 1:30 p.m. He introduced himself as the new DFO and had the members introduce themselves. *Chairman Bradley Abelow* said he is impressed with the Board's work and introduced himself as the new chair. *Mr. Shapiro* gave some background on himself. A 30-year EPA employee and Deputy Assistant Administrator at the Office of Water, he has worked in many parts of the EPA. He said EFAB's work is unique and influential, and this is an exciting time for EFAB. Many projects were completed just before the last DFO stepped down, so there is an opportunity to identify new activities to benefit the Agency and the environment. He said his job as DFO will be to move the process along and provide support to the Board.

EPA Charge: Incentives for Financing Clean Air

Jim Eddinger of the Energy Strategies Group, Office of Air and Radiation, gave background on two new rulemakings. Both rules deal with boilers in industrial, commercial, and institutional facilities. The two rules cover large and small boilers in industry, institutions, and commercial settings and set emission limits for all boilers burning coal, biomass, and oil. There are no emission limits in the rules for gas-fired units. EPA proposed the rules in June, and they have to be promulgated by December 2010. To meet the rules, facilities will have to put on control equipment at the cost of millions per boiler. The Air Office is looking to see if there are incentives that can be put out to have people install more energy-efficient and less-polluting boilers, such as switching to cleaner fuels or retrofitting the units into a combined heat and power system—resulting in greater efficiencies and less pollution. He asked if the Board is interested in coming up with financial incentives to help the facilities and drive them toward installing more efficient technologies rather than adding control equipment.

Member Lindene Patton said the implication is that businesses will not convert to more efficient systems because the Maximum Achievable Control Technology (MACT) is cheaper. She asked about identifying cost-benefit analyses, which will help frame out the recommendations. *Mr. Eddinger* said there had been a cost analysis on the control equipment. In most cases, the cost of changing the system (e.g., fuel switching) is higher than the cost of adding control equipment. All facilities are required by the ruling to do an energy assessment to identify cost-effective energy reduction or conservation measures, but the rule does not require them to implement the findings. Though it will save money in the long run, many companies do not have the money to implement the changes.

Member Rachel Deming asked if the Board should be identifying those benefits. *Mr. Eddinger* said that in the long term, the MACT does not deliver the same benefits. There was discussion on regulation having been on retrofits in the past, and the charge seems to ask if there is a better way to encourage a different kind of compliance. The Board should look to find benefits of a complete replacement or upgrade and figure out an incentive related to that. Part of the work has to be narrowing the scope. EPA is looking for a way to incentivize upgrades over retrofits without mandating it. The upgrades would be a step beyond meeting the regulation. Since each industry has a different structure, it would be helpful to know which industries EPA is most interested in hearing from the Board about. The information could foster a communications package outlining the near, medium, and long-term financial benefits to the industries. This initiative is similar to green buildings, in which up-front cost is exchanged for long-term savings. It is possible that information alone may be enough to make financial institutions willing to finance the upgrades. It is important to consider who will be the beneficiary of the information: the financial sector, the risk management sector, and environmental non-governmental organizations (NGOs).

Mr. Eddinger said EPA is most interested in the most energy-intensive industries, such as the pulp and paper sectors and institutions such as universities. Switching from coal would improve emissions. *Member Philip Johnson* said some things may not require financial incentives so much as synergy between EPA and Department of Energy (DOE). He used the example of research and development of biomass technology by DOE that may be compatible with EPA goals. *Mr. Eddinger* said EPA is limited by the Clean Air Act but is talking with DOE.

There was discussion on whether or not the court cases on the Clean Air Act take into account the evolving technology. The MACT program is based on the average emissions of the best 12 percent of existing units. Courts have vacated rules when EPA has gone outside of that, so EPA is looking for a way to develop an incentive rather than a rule. *Member Steve Thompson* noted that the MACT standard is one of many air quality rules; it is important for the Board to understand the complete context to avoid driving decisions that conflict with other requirements. *Mr. Eddinger* said EPA is trying to develop an approach that looks beyond a single rule and at the entire sector. *Member Steve Thompson* said natural gas is often the solution. However, a fuel-switching recommendation should not consider natural gas a silver bullet.

The members discussed limiting the scope of the charge. The Board can speak to the array of issues and considerations involved in making the change. They also noted that there may be an economic value to reducing energy usage, but there is no immediate value to a company in reducing pollution. There should be a risk management analysis, including reputational implications and other liability and risk issues. The issue must be framed appropriately, since financing won't fix what the authority cannot do. There has to be an outreach program. The large major source facilities are aware of the MACT, but the Area Source Rule may affect 90,000 facilities that may not know it is coming or what to do about it. The larger impact may be on the smaller facilities, which may be unaware the rule is coming.

A comment was made that it may be a matter of having a dialogue with EPA in the framing context that says what kind of white paper is wanted, perhaps making the facilities aware of the rules, how to go beyond them, and financing options. It is important to narrow the scope. The Board's role is to define the cost/benefit analysis and to identify the financing options. *Mr. Eddinger* asked if it was a large leap between the cost/benefit analysis of compliance and going further toward energy efficiency, such as industry subsidies. The question is what public policies do or can affect the decision.

The morning's discussion had touched on the decision being linked to what rules facilities have to comply with. The analysis can be provided if the target companies are narrowed down.

Work Group Report Out: Financing Clean Air Technology

Member Sharon Dixon Peay, Chair of the Work Group summed up the Group's morning discussion. The scope and timeframe were primary concerns for the Work Group, so they discussed what would be achievable and useful. She thanked the members who joined the Work Group and Mary Francoeur for being co-chair. Mr. Eddinger had given the Group a presentation on the different rules and whom they affect. The Group drafted a few questions and a tentative schedule.

Different members were assigned to look at different topic areas before another meeting in four to six weeks. The areas to research were: looking at the regulations affecting air, both proposed and in effect; looking at economic benefits to boiler owners; looking at what currently happens with the boilers--how they are paid for, the cost of new ones; and communicating with DOE and EPA about what's being done and where the money is. Members will work on those topics and hold calls on the information. There will be sessions with research staff and dovetailing with work already being done by the Environmental Finance Centers (EFCs). The schedule is to have working meetings in October and November to look at the analysis and the research and to brainstorm an outline for recommendations. *Member Sharon Dixon Peay* had expected to have an outline by mid-December, but that is ambitious. The problem is the size of the project, so it is important to define the question narrowly.

The rule was scheduled to be finalized by December 16, but there may be an extension of at most two months. Facilities will have three years from finalization to be in compliance. During this time, facilities will be making a lot of decisions. The Work Group could prioritize the deliverables, such as rolling out the broad cost/benefit analysis first, since that is what companies will do first. Financing alternatives can be second.

Mr. Eddinger said the issue is not so much going beyond compliance but finding other ways of complying with the standard, such as more efficient, lower-emitting boilers. The incentive can be the built-in efficiency or some other benefit. EFAB can also look at financing techniques such as bonds. The goal is to have the information in time for the outreach program in the first year after the rule is published. EFAB can contribute follow-on work after the publication. This rule covers electric utility boilers of less than 25 megawatts; so many municipalities with small generators will be subject to the rules. The charge letter does address financing mechanisms. There was discussion on outreach to air pollution control and technology venders. *Mr. Eddinger* said vendors will be doing outreach to facilities and are already contacting EPA for information.

Member Sharon Dixon Peay said the initial step is cost/benefit analysis and the inputs facilities should look at for long-range planning. The Board can provide analytical inputs and considerations that would be more independent than those the venders will provide. Members noted that IPCC and DOE has already done work on this and discussed holding a workshop to gather that work. Finding a date will be tricky, but a web-enabled approach will bring in more experts.

DFO Shapiro said Gina McCarthy has commented that industry will invest billions of dollars due to the regulations, and that investment will lock them into certain technologies. The choice is whether to invest in yesterday's technologies or technologies that will be more sustainable and robust in the long run. The question is what will make the industries make the latter decision? This issue can be a template to investigate the nexus between environmental and energy finance issues, which will be coming up repeatedly in the future. *DFO Shapiro* said it also reflects the theme for this administration of the transformation to newer technologies that are more energy efficient and more sustainable, achieve multiple benefits, and achieve breakthroughs in environmental management. There is intense interest in bringing new technologies into common usage. Another issue will be discussion with states regarding their role in it. EPA has had discussions with state and local governments prior to the proposal.

Work Group Report Out: Financial Assurance (Cost Estimation)

Members Mary Francoeur and Cherie Rice reported for the group. *Member Mary Francoeur* said the Office of Solid Waste and Emergency Response (OSWER) first asked the Board to look at aspects of the financial assurance requirements in 2004. The charge to the Board was multi-faceted and required an iterative approach to the questions. In a series of reports to the EPA, the Group addressed the financial test as a financial assurance mechanism, captive insurance, commercial insurance, and associated questions. They have made recommendations to the Agency on how to improve the efficacy and efficiency of those financial assurance instruments. The financial assurance requirements were based on the cost estimates, so if the estimates were inaccurate, financial assurance will be inefficient and ineffective. After the March meeting, there was a discussion with state regulators on their concerns, which enabled the report to make solid, reasonable, and implementable recommendations. The expectation is that the recommendations will go to the Agency.

Member Cherie Rice reviewed the recommendations. She said there are two sets of challenges to deal with: substantive issues and procedural problems. Under substantive issues, the first problem was incomplete estimates, often due to failure to include all types of costs or too narrow a scope of work. There is a financial motivation to understate costs to reduce the cost of financial assurance. Estimates for corrective and remedial action will change over time, due to gaining more information about how to fix the situation. Additionally, changes in technology and law affect the remedy. The two procedural factors were availability of information and resources. There is no centralized database for cost estimation data, and what data is out there has not been gathered in a standardized format. Even definitions aren't standardized. There is a constraint of resources to apply to cost estimation. Standardized tools like CostPro and RACER have licensing fees, which state budgets often do not allow spending for. There must be ongoing training for regulators so they can improve their expertise; funding for training is often hard to get.

The recommendations focus on addressing the above factors. The first recommendation was that the appropriate individuals from EPA headquarters participate in the quarterly conference calls between regional staff and state representatives. Second, the Work Group suggested that the Agency solicit input from private sector, Resource Conservation and Recovery Act (RCRA), Superfund project owners, and project insurers who may have valuable information on best practices and the best sources for cost data. The third recommendation was for EPA to create standardized templates or checklists to be used in the cost estimation process for a variety of types of projects. Some states have checklists and templates that can be used as starting tools. The fourth recommendation was that an ongoing body of knowledge regarding cost estimation be created and made available online. To maximize usefulness and accuracy of the data, there should be analysis on the eventual accuracy of the estimates. Some cost estimates that have had significant shortfalls can be collectively reviewed for commonalities to use as future red flags. Fifth, EPA should incorporate best practices and insights gained from the review activities into further cost estimating training that can be provided to state estimating personnel on an ongoing basis. The final recommendation was for EPA to issue guidance clarifying the circumstances in which estimates should be updated because there is not consistency on updating estimates. Projects with higher levels of complexity should have more frequent cost estimating requirements. When a project moves from one phase to another, there should be an updated cost estimate. In no case should reviews be done less than every five years.

DFO Shapiro commented that the recommendations seemed obvious and that the Agency should already be doing these things. *Member Cherie Rice* agreed that they should be doing these things, but they are not. There was discussion on EPA's likely reception of the recommendations. The Board adds value through its commonsense approach, and things that may seem obvious are less obvious outside of the recommendation process. The Agency has not been focusing on financial instruments the way the Board has been. The Work Group engaged a number of stakeholders to reach these recommendations. Much of this work is overseen by the state regulators, so coordination is an issue. *DFO*

Shapiro commented that the Agency approach to cost estimating may be different from industry practice. *Member Cherie Rice* noted that the cost estimates for financial assurance may be different from estimates to actually complete the work. Part of the report is intended to make the two cost estimates more similar. The fact that the projects are unique makes this more complex. *Member Mary Francoeur* said the technology and knowledge has developed considerably in the last 20 years. Cost estimating for RCRA and Superfund is different from balance sheet estimating. The recommendations are helpful to clarify and go back to the basic framework of what needs to be considered going forward and to encourage greater utilization of the knowledge gained to date. *DFO Shapiro* asked about applicability to other parts of the agency, such as the Gulf cleanup. *Member Mary Francoeur* said the important thing is the idea of revisiting the situation as more information becomes available. Cost estimation is not static.

The next steps are for the Board to review the recommendations and provide any comments to the Work Group co-chairs by September 1. There was a question about the scenario in which there would be five years between cost estimates. *Member Mary Francoeur* said there are RCRA and Superfund provisions for revisiting. After completion, when there is 30 years of operation and maintenance, there has to be regular reporting, and if the parameters are in line with expectation, there can be five years between re-estimates. There was discussion on monitoring of the cost estimate and annual renewal of the financial assurance instrument. There could be a review and update of the cost estimate at that time, but that is not the current practice. The recommendation is to renew the cost estimate at least every five years and in many cases more frequently.

One other item from the Work Group was that earlier reports recommended use of independent credit analysis of the insurer. The Financial Reform Act references use of ratings by federal agencies. This may affect those recommendations, so the Work Group recommends issuing a letter to the Agency suggesting that the Office of General Counsel (OGC) look at the law and recommendations to address those issues. Some other agencies have stopped using the rating agencies until they get clarification.

The last item was to go back to the OSWER to see whether the Agency wanted the Work Group to continue on the existing charge or for the Work Group to sunset. To a question on the public perception of rating agencies and the Work Group's recommendation, *Member Mary Francoeur* said independent credit analysis has value, but the Work Group does not yet have a position on that. They are valuable but limited tools.

Public Comment and Adjournment

DFO Shapiro called for public comment. Hearing none, he adjourned the meeting for the day.

Tuesday, August 10, 2010 (9:00 a.m.)

Opening Remarks

DFO Shapiro called the meeting to order and ran over the highlights of the agenda. After the report out on State Revolving Funds Investment Options, the main theme of the day would be project planning, which is an active topic.

Work Group Report Out: State Revolving Funds Investment Options

Member Jim Gebhardt, Work Group Chair, said the report has been long in the making. It grows out of the 2008 leveraging report and the conclusion that the investment side of the SRF equation is not being looked at by the states as much as they should be to maximize the value of the state revolving fund (SRF) efforts. The Work Group's report was lengthy but not exhaustive, since it does not contain the Excel Model that was vetted by Bank of America and Merrill Lynch, but the back of the report was built out with this model in mind.

There is a continuum of modeling for funding used at the state level, from the direct financing model to various leveraged models. Under direct funding, federal and state contributions are lent directly to local governments and the money is recycled after repayment. In leveraged models, the federal equity is invested in a reserve and the state borrows money on the marketplace. In another model, both equity dollars and bond proceeds are used to make loans. In other iterations, there is a sinking fund from the federal and state equity that is paid out as financial assistance to local governments. Both the money and interest are paid out, so the fund diminishes over time. The amount of money allocated to a sinking fund is less than what would be allocated to a reserve model to deliver the same level of financial assistance. The difference could go into a long-term investment account to grow back the sinking fund dollars over 20 or 30 years. New York and Connecticut have been the first to use this leveraging strategy.

The investment authority works on what they do with the dollars between project stops, and the focus is mostly on short term investments. Most authorities have not progressed beyond treasuries and other high-quality instruments. In 60 percent of the cases, the investment is done by state treasurers or investment boards. In the remaining cases, the SRF administrator chooses the investments. The investments focus on safety, not performance.

The leveraging model investments try to expand funding capacity to fund more projects with the tradeoff of investment earnings growing more slowly, as opposed to an interest-charging loan program. In the blend rate models, both the equity and bond sides go into program funding. The reserve model side has more considerations: safe investments and being able to invest in instruments that synchronize with the cash flow on the bond issue. About 13 states operate on the reserve model and rely on an investment agreement relationship to drive the interest earnings that delivers a subsidy to the communities. The model structure worked well, but the investment market was spotty at times. Many providers did not want to collateralize the investments. With the drop-down of federal appropriations, capacity constraints grew. Facing reduced appropriations, they modified the reserve model to the sinking fund mode, in which recycled dollars were invested in a sinking fund at the time of the bond sale, and future cash flows were immunized by the sinking fund that matched interest subsidies to be paid out over 20 or 30 years. The remaining dollars were invested long term or thrown back into the next year's intended use plans (IUP). The report looks broadly at the SRF in the context of a wider authority, recognizing the properties of the SRF and what it has become: an environmental endowment designed to operate in perpetuity. Thinking of investing beyond high-quality fixed income asset classes can raise concerns and political cross-currents.

The report looked at New York and Connecticut as examples and looked for proxies similar to SRFs, such as the Texas School Permanent Fund, the Nature Conservancy and the Great Lakes Protection Fund. All of these funds use both fixed income and total asset class investments to maximize long term returns. The report contains SRF investment models using leveraging model 2.0, a sinking fund, looking at a model investing solely in treasuries. Using only treasuries, the yields are lower and there is a high degree of safety. There are capital savings that can be reallocated in real time. Another model was to mix treasuries and taxable municipals AA or better. There, the savings ranged from 26 to 28 percent on a per-deal basis. With a small allocation to equities of less than 5 percent, the value of the returns escalated dramatically from 1990-2010. A fixed income investment is a known quantity, and equities are volatile. The report assumed volatility, but the equity is not tapped until it is time to return it to the fund, so time in the market reduces volatility.

There were ten findings:

- The broad SRF investment authority established by the federal Clean Water and Safe Drinking Water Act is largely underutilized;
- All state SRFs manage their investments in accord with local statutory investment authority;
- The majority of states limit investment considerations to short term instruments that compliment direct or blend rate funding models. For most of these states investment authority is limited to short term instruments that are used when investing idle funds;
- States managing leveraged programs based on the reserve model operate with broader investment authority with respect to permitted investment horizons and long term structured investments;
- Twenty one states have statutory authority to broadly invest in taxable municipal securities. It is not clear the extent to which maturity limits govern investment in these securities;
- Only two states, the states of Connecticut and New York, have utilized their investment authority to manage long term investments outside of specifically pledged reserves;

- Integrating long term investment strategies and a state-of-the-art funding model has resulted in a life-to-date capital savings rate of greater than 25% for the New York SRFs;
- The integrated funding and investment models adopted by Connecticut and New York have attributes of well established endowment and pension fund models which are responsible for investing for both current income and fund growth;
- SRF Investment authority and funding models are designed to sustainably manage contributed federal and state dollars with minimal consideration for the time value effects. No mechanism currently exists to sustain fund operations based on endowment or pension based investment strategies. Adopting such strategies will require U.S. EPA, stakeholders, and state policy makers to re-think the asset side of SRF balance sheets and give serious consideration to the role of the investment function in growing the capital base of the program to provide the resources to sustain fund operations by preserving monetary time value by authorizing long term investments that include asset classes that can deliver meaningful real returns; and
- The results of investment scenarios developed for analysis and incorporated in the body of this report suggest that SRFs can develop new funding and investment models that can capture higher returns that can raise SRF returns. These scenarios further demonstrate that inclusion of investments that can deliver higher total returns than fixed income assets can be added to the investment mix on terms that are consistent with current SRF income requirements and which can boost fund sustainability by making investments capable of generating meaningful real returns.

Based on these findings, the Work Group offered three Board recommendations:

- That U.S. EPA identify and promote SRF state-of-the-art investment practices that support more productive utilization of SRF funds among headquarters and regional SRF staff;
- U.S. EPA staff work with stakeholders and SRF administrators to model language changes to the Clean Water and Safe Drinking Water Acts that broaden investment authority to include both fixed income and capital growth asset classes to the stable of permitted investments that SRF administrators can utilize; and
- U.S. EPA develops model regulatory language that would establish the parameters that would effectively govern SRF investment among asset classes.

Discussion

There was discussion on EPA seeking changes to the Acts. EFAB has urged EPA to seek changes to laws in the past, but EPA does not commonly seek such statutory changes. *DFO Shapiro* asked if recommendation three should occur if two is not adopted. *Member Jim Gebhardt* said the model language could still be guidance to the states. There are many other types of investment that can be investigated outside of the scope of earned interest.

There was discussion on broadening the statute with a less prescriptive approach so that changes to the state programs would be allowed, not prescribed. However, since each state has its own investment parameters, they are still limited by their own statures and regulations. *Member Andrew Sawyers* said the concept is innovative, but there are parameters working against doing it in other states. There are nearly 28 states where the fund is invested directly by the state treasurer, who will not want to relinquish that authority. *Member Mary Francoeur* observed that highlighting how to invest those dollars will draw attention to the fact that the SRFs have this money. When governments try to raise money by investing, there are dangers. When there are investment losses, there is the question of who is responsible. *Member Jim Gebhardt* said retained earnings could be considered a buffer for investing beyond fixed income.

Member Thomas Liu commented that the report is not meant to address investment issues in all 50 states, only opportunities that currently exist in a handful of states, especially larger states that have the staff to manage an investment portfolio. Interest rates are currently low, and many providers of guarantee investment contracts face financial problems. SRF programs are victims of their own success because many are running against leveraging ceilings. By growing assets, the states can expand leveraging capacity. *Member Sharon Dixon Peay* said the SRFs have a long track record and should look to ways to increase the self-sustainability of the programs. This is an area SRF managers need to pay more attention to. States will be called upon to use the funds more efficiently and to provide more funding over time.

There was debate on market investments rather than projects. Under the current Act, the retained earnings are viewed as part of the funds, so they are limited. While there is a need for flexibility, nontraditional sources of funding can be a red flag to some. *Member Jim Gebhardt* said the point of the investments was to bring greater value to the programs. This is a way of making the SRF perform with less assistance, which is a future possibility. There was an inconsistency in risk appetite among the members. Members felt that issue had to be addressed if the Board was to support the report. With risk assumption comes accountability, and the actions of the SRFs must be within the law. *Member Andrew Sawyers* said most states will not attempt these riskier funding mechanisms. *DFO Shapiro* said there were a limited number of scenarios in the report, and they might want to run a scenario in which the investment does not do well. The years 1990-2008 was a time of special growth, so there should be a worst case scenario to offset that. *Member Jim Gebhardt* said the model is designed for the equity to be harvested after 20 or 30 years, and even tax-free bonds can show negative returns. *Member Greg Swartz* said many states are not even aware that they have an SRF. He commented that there are many people who may make mistakes with this approach. He expressed concern that locking up the money in equities means there will not be cash to originate loans, meaning more leveraging. Expectations must be managed, and most states do not have the time or resources to do this.

Member Jim Gebhardt requested comments by September 1 so there can be a redline version and a submission in October. Commenters were requested to provide solutions, especially regarding the third recommendation. EPA counsel will be contacted on the idea of sharing and providing tools, but the recommendations as written may not fit within that goal.

Project Planning

DFO Shapiro directed the members to the established criteria for projects, which are six questions to ask about a proposed project:

- Does it fit with EPA goals and priorities?
- Is there a client?
  - EPA
  - EPA partner (e.g., state/local government)
- Is the project within the Board's capacity?
- Can the Project be completed in one year?
- Are <u>specific</u> recommendations likely?
- How strongly does the Board support the project?
- Is there an opportunity for partnering with the Environmental Finance Center Network?
- Is there a need?

Chairman Abelow reiterated that they are guidelines, not scoring criteria. *DFO Shapiro* introduced a number of project proposals so the Board could think about which ones to pursue and begin to form work groups. EPA is eager to use the Board's expertise and to define cross-cutting themes, including technology innovation to support the environment in energy, water, air pollution control, efficient operations, technologies that achieve multiple benefits, technologies that help sustain economic growth while addressing environmental issues, and getting those technologies out of the lab and into implementation. The EPA charge on incentives for financing clean air technology is an example of this interest. The second theme is the notion of equal access to environmental equality. There are still groups within society that for historic reasons have not kept pace with environmental benefits, such as rural and tribal groups, as well as some urban groups. It is important to engage these groups. The third theme is the notion of how to use the tools and authorities within the Agency to incentivize and complement trends toward sustainable development, using the EPA, Housing and Urban Development (HUD) and Department of Transportation (DOT) partnership to coordinate environmentally and economically sustainable development and redevelopment patterns.

Fleet Upgrade Financing Program: Expansion of the Clean Water SRF Operating Model to Mobil Air Source Contaminant Mitigation

Member Jim Gebhardt said the SRF Work Group had discussed eight proposed projects: (1) making more efficient use of SRF funds for land conservation; (2) undertaking a comprehensive review of cross-state border funding opportunities, such as watersheds; (3) looking at the SRFs from the standpoint of sub-pooling arrangements; (4) capturing the value of the SRF guarantee authority; utilizing surplus SRF credit capacity to expand the scope of SRF finance beyond the traditional SRF footprint: air deposition remediation and energy finance; (5) looking at designing a basket of SRF standardized performance measurements that EPA can use to make SRF policy decisions; (6) the issue of green setasides and how states are addressing the mandates out of ARRA and the 2010 grant awards; (7) and to look at the SRF changes coming out of the ARRA statute; and (8) to make sense regarding what is and what is not working. The topics of greatest interest were the cross-state border opportunity; the sub-pooling arrangements; looking at surplus SRF credit capacity and moving beyond the traditional SRF footprint; and land conservation. The Work Group will follow up the discussions in September.

One of the primary focuses in New York is a climate action plan being assembled to define what a 2050 low-carbon New York economy would look like. The Governor has directed state resources in that area, and there is supposed to be a report in autumn. Transportation is a large issue, particularly moving private haulers toward state of the art vehicles. The Environmental Facilities Corporation saw that the SRF could be a partner on this. Private guarantors not weighed down by residential mortgage exposure have been successful providing guarantees in the municipal market because they have a balance sheet of long and short investments to address payment claims that arise for insurance policies they have underwritten. Using leveraging 2.0, there is a stable source of dollars to support other kinds of credit exposure. New York has half a billion dollars of long term investments on the balance sheet, which re-grows the capital base and can be drawn upon to stand behind risk exposures to further SRF objectives.

EPA has identified the classes of projects eligible under the statute as interpreted by the agency. One of those items was air deposition remediation, since the emissions fall into water bodies. That creates a nexus with vehicles. New York crafted a new indenture that flattens the reserve requirements, making more resources available, creating credit capacity to make guarantees for those the SRF cannot give subsidies and to address other issues. New York plans to provide AAA financing to the fleet vehicle community, working with vendor financiers and other lenders. The clean water SRF can be a partner for those in New York working on air emissions problems, using the SRF for fleet enhancement by providing access to better financing terms and a payment period closer to the life of the vehicle. This is in a conceptual stage; it might be introduced is the 2012 intended use plan at earliest.

Discussion

Member Jim Gebhardt said EFAB can define the financial investment architecture available to SRFs, perhaps including this as part of the toolkit. The subject is researched, so it would not be an extensive effort. *Member Karen Massey* had mixed feelings on this, since New York's SRF program is so different from any other SRF and may not be applicable to most states. *Member Jim Gebhardt* agreed but said all states should be looking at how to make the most of the resources they have. *Joanne Throwe, from the Maryland EFC* said that in Baltimore vehicles that are made in 2007 are not widely available for purchase due to mandates in California and now, New Jersey/New York Ports that are trying to get all their old trucks off the roads. She wondered whether Mr. Gebhardt's effort is for long haul or short haul trucks because they are separate clients with different needs. She said it was very difficult to attract short haul clients without covering up to fifty percent of the cost of the truck in the form of a grant along with a low interest loan on the amount remaining. That wouldn't necessarily be the case for the long haul trucking industry. In addition, truckers tend to have low credit scores making it very difficult to get a loan. Another difficulty is that truckers don't seem to be very interested in retrofits, and they want to keep their trucks as long as possible. It is a hard sector to penetrate but it can be done if the program is specifically designed to meet the needs of the owner/operator.

Member Doug Scott raised two points. His SRF is over-subscribed with ARRA fund requests at 18 to 1. Part of his concern was that SRF funds can be cut, and it cannot be the funding source for everything. Combined Sewer Overflows (CSOs) alone can eat up the whole fund. The 2007 guidance can be used to retrofit coal-fired power plants. The state has not run out of the traditional things they have to use SRF for. In the discussion, use of SRF funds for this project was questioned. Those who own the assets will roll out new vehicles over time without the program, and there are many other needs to be met. *Member Jim Gebhardt* said this effort does not subtract from SRF efforts due to the abundance of credit capacity for offering market access at preferred rates, which comes from repositioning the SRF. No SRF dollars are allocated to support the program.

Member Andrew Sawyers said it is an eligible activity under SRF, but it is unlikely to make a fundable range. It is unclear what the Board can do on the subject. There was concern that if the Board approved of that method, EPA would pressure other SRF funds to do the same. Other states have other priorities. *Ms. Joanne Throwe* added that New York and New Jersey Ports are phasing in a mandate for newer trucks going into the port, so an incentive exists there that do not exist in places that have no mandate but want to develop a voluntary program. *Member Leanne Tobias* suggested that the Board recognize that its recommendations are advisory and that all recommendations are options, not edicts. A report on fleet upgrades is not a mandate to all SRFs and states, just an option that can be considered.

Member Jim Gebhardt said there have been credit enhancements in the past. Ohio has used SRF money to finance brownfield cleanup and used credit enhancement. The brownfields were over aquifers and along riverbanks with direct implications to water quality. SRFs jump started the infrastructure for brownfield financing. The Clean Ohio Program started as a result of the SRF funding. *DFO Shapiro* did not ask for a closure vote.

Environmental Finance Center Network Proposal Projects

Heather Himmelberger, President of the Environmental Finance Center Network and Director of the New Mexico Institute of Mining and Technology EFC, distributed a handout from the EFCs describing activities. EPA's Environmental Finance Program webpage now has a link to all the EFC pages. She provided feedback on potential collaborative efforts.

Jeff Hughes, Director of the University of North Carolina EFC, said he has been working with communities, states, and local governments to develop financing programs with ARRA money. One thing state and local governments were going to use the money for was voluntary environment improvement bonds (VEIB) and deployed under Property Assessed Clean Energy (PACE) programs. The recommendations on VEIB are outdated due to a ruling from the Federal Housing Finance Authority. Communities are using alternatives to PACE, such as credit enhancements for unsecured loans backed by loan loss reserve funds. Many states, especially Pennsylvania, have become involved. The Pennsylvania state treasurer has moved into a warehouse role with the investment funds to support the programs. *Member Jim Gebhardt* commented that New York is having a conversation with the energy agency to provide credit capacity out of the SRF under the investment authority.

Joanne Throwe, Director of the EFC at the University of Maryland, spoke about Ports and stormwater. There are opportunities in the port communities to work on air deposition, environmental justice, climate change, and energy by greening the Ports. Beyond trying to improve air quality with securing newer trucks that service the Ports, there are other sectors that should be considered, including the harbor crafts, cargo handling equipment, and locomotives. The Ports are very receptive to new ways to green their Ports but are in need of innovative financing to make that happen. The communities that surround Ports are in dire need of help to improve their air and water quality. *Ms. Throwe* proposed that EFAB look at ways to assist with that.

In regards to stormwater, some of the smaller communities that are not a Phase 1 or 2 community but still have stormwater management issues, need assistance with financing their stormwater management programs. These communities are the ones who do not have access because of their small size to state revolving loan money. Financing stormwater management issues is done piecemeal through small grants and is not sustainable. Getting a stormwater fee passed in the community is often very difficult. Communities often reach out to the EFCs for help and it is a very hands-on effort and could be a great opportunity for EFAB to help.

Sam Merrill, Director of the EFC at the University of Southern Maine, commented that Maine had a working group write a policy and analysis piece looking at equity and efficiency tradeoffs of different models of setting up regional stormwater utilities, looking at who bills, who pays, and where the service is provided. There is a nexus between the financial realms and the local political realities. There is an opportunity for EFAB to educate local elected officials who are trying to do this.

Ms. Heather Himmelberger said one of the largest issues related to sustainability is the engineering community, which is stuck in an old business model. Solutions should be incentivized in a different way to encourage sustainability over size. EFAB can start a dialogue on this.

Kevin O'Brien, Director of the EFC at Cleveland State University, said his Center and the University of Maryland EFC have been working through different projects in the Mid-Atlantic to create a nitrogen trading market to rid the Chesapeake Bay of high nitrogen content. There are many aspects on the table for a discussion that may not become a full recommendation to the EPA. It may be related to third party funding and loan guarantees to ensure that the credits have value. *Mr. Kevin O'Brien* will put together a one-page request for EFAB assistance that will be circulated soon to expand on the request to EFAB.

Discussion

Ms. Heather Himmelberger opened the floor for discussion. *Member Leanne Tobias* said there was interest in working on the VEIB follow-on in the Innovative Finance Committee. She said if there is support in EPA to address the subject, there is tremendous need for a broad-based discussion of energy efficient underwriting standards and what a mortgage holder has to know to determine whether to grant permission for the loan to be underwritten. Another area was the issue raised by the California lawsuit that questioned Fannie Mae and Freddie Mac's right to challenge the standing of the local use of tax assessments. She said if EPA is receptive, EFAB could do some short term good on the VEIB issue.

Member Andrew Sawyers said one of the problems with stormwater is getting the projects to rate high enough. The SRF is working with municipalities on MS4 permits to separate stormwater and sewer systems and asked them to come to them with an MS4 permit. The states have an interest in funding such projects. Municipalities without MS4 permits are not being helped unless they are needy communities that rank highly in terms of need to the state. He added that, regarding nutrient trading, the SRF tends to finance offsets. He noted that Virginia has a nutrient exchange program and Pennsylvania is going through the legislative session trying to work out their program. There was discussion on the lack of a single strategy on the Chesapeake Bay.

Member Karen Massey suspected that the Fannie and Freddie issue will be finished before EFAB can do anything. However, she has been working on best practices for PACE programs. Missouri is looking at underwriting criteria and best practices on those types of areas. There already are best practices out on residential underwriting criteria.

There was discussion on the Board's charge, which is to address how to pay, but how to pay for what is part of the question. Members said the meeting had been full of individual projects to fund but no linking to a sponsoring section in the EPA or to a citation to specific statutory authority. There was concern about the use of leveraged federal government money to pay for things that will never raise capital. More information and is needed to make recommendations. For innovative technologies, there is a tremendous supply side push, but essential services are bounded by consumer price protections. When prioritizing the how to pay question, the Board must be cognizant of social limitations.

Member Mary Francoeur said of the VEIBs that she is put off by the Fannie Mae and Freddy Mac determination. When people vote for local bonds, they are creating a lien on their properties. She asked if the Board wanted to address that fact as a follow-on comment to their recommendation on VEIB and their use for PACE programs.

Member Eric Draper said stormwater funding is a large issue in small communities. There is a strong response in the local governments on how to finance water treatment to meet the new criteria. There will be a need to work with local governments to meet the new standard. Regarding PACE, many things have been financed based on the assumption that property values would continue to rise. The decrease in property values requires that governments rethink how to finance water quality improvements. The point was raised that there is a client within EPA. After permits are issued, municipalities have a limited time to build the projects, and they are having difficulty financing the improvements. This is an area for EFAB to work on.

Member Sharon Dixon Peay commented that Connecticut has been doing nitrogen trading for several years. It is important to know what EPA wants to find out about nutrient trading to support that effort and link it to the processes already in place.

Member Keith Hinds said the Board meetings usually have roundtable discussions applying the criteria to projects, including having a client who needs the work, followed by a vote. He said he was pleased to see Fanny and Freddie's response to the VEIB, since it is a ridiculous way of financing an environmental project. He said municipal bond financing does not put a first lien on a mortgage.

Member Philip Johnson said the uneasiness around the table is going on throughout the government. Many of these unusual ideas may have merit, and the Board will have to wade through them and see how to fit them to a client and the Board's role.

Ms. Heather Himmelberger said there are clients for anything in the environmental finance arena when EPA partners are taken into account and thanked the Board for its feedback. *DFO Shapiro* thanked the EFCs for their presentation. He said none of the ideas under consideration have a sponsoring office at EPA. The ideas presented will be narrowed down to a number that they can engage potential clients with. The Board broke for lunch until 1:30 p.m.

Innovative Financing Tools

Member Leanne Tobias said a number of ideas from the Committee had already been discussed by people from the EFCs. There had been a suggestion that the Innovative Financing Tools Work Group build on its report on VEIB to issue recommendations and clarification on the PACE controversy. There was division on the Committee as to whether taxing authority is appropriately applied in the context of PACE and the California lawsuit and whether Fanny and Freddie have the right to object to a program that would impose a superior lien on a first mortgage. There are controversial issues involved with doing a report on PACE, but EFAB is uniquely qualified to do so, since it has already done two.

Second, there are several proposals to work on issues that are nontraditional for the Board, including a proposal from the Office of Solid Waste asking them to look at brownfield sites to determine whether there is an EPA role in upgrading the sites. They noted that EPA's Office of Underground Storage Tanks is partnering with DOE's National Renewable Energy Lab to determine the economic feasibility and environmental benefits of sitting alternative fuel infrastructures such as electricity, natural gas, hydrogen, ethanol, and biodiesel at former gas stations. EFAB might wish to assess the financial barriers and feasibility of these efforts.

EPA's Office of Solid Waste and Emergency Response suggested that EFAB help EPA explore the cost of cleaning and converting abandoned gas stations and other small scale brownfield properties into community health centers, training centers, and other critical social facilities. They note that the EPA Office of Environmental Justice is starting to explore Highway to Healthcare Initiative to convert small brownfield sites into healthcare centers for underserved communities. Several such projects have been undertaken in Florida. There is a substantial leveraging opportunity in the form of ARRA money, and EFAB can help by determining the cost differential between using brownfield sites for such facilities versus clean sites and determining what financial barriers might deter investment in such facilities. A third proposed area centered on the challenges facing community development organizations and small scale developers in lower income areas who have trouble securing pre-development and construction financing. Increasingly, finance depends on private/public partnerships that involve sophisticated tools such as New Market Tax Credits, Low Income Housing Tax Credits, and other vehicles. EFAB can help small and community banks by providing them with information and examples to help them navigate the market and take advantage of these financing sources.

The Office of Sustainable Community Partnership (OSCP) also proposed several projects. The first was a study of the use of the Redfield to Greenfield concept, which converts brownfields into parkland and sells the remaining high-value land, utilizing the return to replenish the fund set up for the purpose. A second project might be to look at the possibility of public facilities financing equitable development, creating financing infrastructures that can serve the needs of specific underserved markets. Third, they asked EFAB to look into ways to create infrastructure funds and financing mechanisms to promote sustainable community development, including energy efficiency activities. Specific additional issues posed by the OSCP in the contest of financing mechanisms included the following:

- Suitability of classifying sustainable real estate as a special asset class;
- Identifying what types of patient capital vehicles exist to support sustainable development, which are best suited for today's capital sources, how long-term debt structure can achieve more equitable development, transit oriented development, and other types of mixed use development or repurposing;

- Considering the role of equity financing criteria in private and joint public-private development, especially for sustainable uses;
- Identification of federal limitations on commercial square footages as an obstacle to sustainable community development and economic development. OSCP suggested looking into whether those commercial restrictions should be revised;
- How New Market Tax Credits can be better used to foster sustainable community development; and
- How best to design and apply the creation of water utility fees for sustainable community development and how water utility fees can be used or combined to promote and enhance green infrastructure practices associated with sustainable development.

Together, the two memos identify a wide array of financing structures for EFAB to look at. Both offices have asked for recommendations that would provide a roadmap as to how best to deploy the broad assembly of financing structures for brownfield redevelopment and sustainable community development. There was disagreement among Board members as to whether or not they were proper areas for EFAB to address. *Member Leanne Tobias* noted that EPA offices have expressed interest, but there has to be support on the Board if the recommendations are to go forward. She recommended seeing whether there is enough agreement to undertake the projects and create an actionable report. Work group members also expressed support for a possible VEIB follow-on study. Two members suggested proposals that fit into the use of financial mechanisms to support underserved communities and tribal communities. *Member Leanne Tobias* suggested also discussing those proposals and appropriate targets for the Innovative Financing Work Group to work on. The Board might also consider establishing a new committee to deal with community issues and underserved communities and social justice issues.

Funding Mechanisms for Tribal and Disadvantaged Communities

Member Debbie Livesay, who works with a tribe in Southern California, said SRFs are not an option for tribes. First, they don't take money from states, being sovereign nations. Nongaming tribes have a lot in common with disadvantaged communities. Most nongaming tribes live well below the poverty level in homes they don't own. On her reservation, most of the homes are on septic tanks and wells. The water is high is arsenic and ammonium perchlorate. Her question was how to pay for infrastructure to resolve issues of tribal and disadvantaged communities. There is no structural basis for repayment of a loan and no economic basis on which to give a tribe a loan. She is working projects such as solar power and algae farming for biofuel and pharmaceutical algae, but the concepts need seed money. If the projects happened, they could pay back the loans on infrastructure projects. She wanted to see the Board figure out ways to pay for infrastructure. She has been working with United State Department of Agriculture (USDA) and the local Resource Conservation & Development Council (RC&D), which gives loans and writes grants to pay them back. The Bureau of Indian Affairs (BIA), EPA, Indian Health Services, HUD, and other agencies have to work together to get something done. She asked for the Board to look into funding mechanisms for tribes.

Leveraging Private Investments to Create Sustainable Communities

Member Philip Johnson said no community is sustainable if it cannot produce jobs and wealth and has no access to food, transportation, clean water, and clean air. The community has to participate in the process. Most brownfields exist in low-income communities, which also have issues of clean air and water. The new administration seems to understand sustainability. The question is how to achieve the level of sophistication in the communities to help them access capital to finance development.

Brownfields represent an opportunity to create jobs, eliminate blight, and create green spaces. One barrier is that nonprofits, like community organizations, are not eligible for revolving loan funds. He has been trying to get nonprofits into sustainable activities. Funding at a community level is extremely difficult. He said there is work to be done on developing brownfields and that the definition of brownfields should include closed big box stores, abandoned parking lots, old shopping centers, and vacant housing. He commented that stimulus money did not reach a sufficient number of low-income urban and rural areas, though they had shovel-ready projects. He said there is a need for a sustainability fund that allows community-based groups and organizations to have access to flexible money to develop projects and create private/public partnerships to clean up communities of brownfields and other problems.

Such a sustainability fund might allow five-year loans at a reasonable rate. He suggested creating partnerships across communities for brownfields development. *Member Philip Johnson* asked the Board to consider studying the creation of an entity to give communities to access to financing not from revolving funds. He said it would be useful to listen to the community-based groups to understand their funding issues. He noted the sophistication of the community organizations and their need for capital.

Discussion

When asked about the last EFAB report on VEIBs, *Member Leanne Tobias* said there are residential underwriting issues to be addressed in the context of the PACE controversy. EFAB's input may or may not be needed, depending on whether Fannie Mae, Freddie Mac and their regulator, Federal Housing Financing Authority (FHFA), develop underwriting criteria and on whether the California lawsuit against FHFA is settled in a reasonably short time frame. There was general consensus that EFAB's previous reports had comprehensively addressed the use of VEIBs for PACE programs and other purposes. One big issue of concern was risk management criteria. The compromise was that it is a risky tool that requires a high level of skill. Whether or not to undertake additional reporting by EFAB should be reviewed by EPA. *Member John Boland* commented that DOE and other agencies are pushing for the program while FHFA is opposing it. EPA will have to decide whether or not to get involved. *DFO Shapiro* said the Board is unlikely to reach a consensus at this meeting. Reporting on this subject will depend on EPA's interest.

Officials at Fannie Mae and Freddie Mac have discussed the development underwriting criteria for PACE loans. Some of the data is contained in EPA's EnergyStar database. It would be useful to investigate some of the issues on a short-term basis. EFAB and EPA can develop recommendations that will be helpful to the industry, DOE, the Administration, and to Fannie Mae and Freddie Mac. *Member Mary Francoeur* said addressing the PACE bonds is an appropriate role for the Board, since circumstances have changed since the release of EFAB's recommendations. The Board is in a position as an independent advisory board to say things the government cannot say. *Mr. Jeff Hughes* clarified that commercial PACE is something people he is working with are curious about. The LBL lab is doing a lot of technical research work on this and will release a report on the status of commercial PACE across the country. One idea was that it is not necessary to weigh in for or against the current debate, but in light of the debate, EFAB can look at how the concept can be improved, given the concerns all parties have. *Member Greg Swartz* said the notion of using property to secure a public benefit is not new. Mechanisms to do it exist, but they must be modified to make them work. One thing to discuss is how to pencil out clean energy technology. He suggested that the standard for tax exempt bonds be not who owns the project but who benefits from it, since privately owned improvements can have public benefit.

DFO Shapiro summarized the discussion that EFAB might provide an update to the report, but it would be nice to know who the agency clients would be and whether they want the feedback. There was discussion on there being interest unofficially expressed by the Office of Air and that there is a core group of members who would like to do the project. *DFO Shapiro* nominated *Member Leanne Tobias* to lead the effort, and five members volunteered to look into a charge and who in the Agency would be interested. They will review the prior reports and suggest improvements to meet emerging needs.

Member Leanne Tobias said the proposals on tribal communities and sustainable communities had interest from the Solid Waste Office and the Sustainable Communities Office. *Member John Boland* commented that the discussion on abandoned gas stations did not take into account what is generally found under gasoline stations. Both of the proposals drew on skills the Board does not have, such as estimating costs and benefits of remediation. Those are not finance issues but engineering issues. The ideas are unlikely to be successful due to the cost of remediating the stations is usually very high. *Member Mary Francoeur* agreed that the Board cannot provide financing for a business plan that does not work on an economic/real estate basis, since there is no mechanism for repayment. She noted that gas stations are where they are because that is where people need gas. With a different type of vehicle, the needs may be different. *DFO Shapiro* said there is a fund to clean up underground storage tanks, and some of these sites may be economically viable. There was a question as to whether those controlling the fund want EFAB advice.

Member Steve Thompson said he is familiar with non-gaming tribes struggling with technical assistance, due to the sovereignty issue. He commented that there are funding sources that are not well coordinated and communicated to tribal communities. It is within the Board's purview to ask what funding sources are available to tribes from the federal government and what the mechanism for coordination is. The coordination issue is common for community-based financing. *Member Greg Swartz* suggested that if tribal communities are not sustainable the communities can be relocated, as is sometimes done with other unsustainable communities. He said tribal loans and State Revolving Funds are exceedingly difficult, both in working with the tribes and with having a reliable source of repayment for non-gaming tribes. There are several public funding programs, and he said the criteria for grants should be based on the ability to do the project and the sustainability of the project. *Member Greg Swartz* said the grant criteria are too complex and under too many authorities.

In discussion, EFCN members hoped the project would not show tribes how to piece together funding sources but to look at developing LLC/NGO hybrids to attract private financing. There was strong opposition to moving the tribes but rather that the tribes should be assisted in staying and prospering on their native lands, and that financing mechanisms should be used to this end.

The project may be more about economic development than financing, and a small workgroup should discuss the issue to come up with a good question for the report. Tribes are different from other communities, with different funding mechanisms available to them due to being on trust lands and not being able to sell the land. The programs are all piecemeal, making things difficult. *Member Debbie Livesay* suggested that in-lieu-mitigation can pay for projects. There are many projects in place to help tribes become self-sufficient, but the seed money is still needed. *Member Leanne Tobias* suggested that the Board might look not only at existing tribal models, but also at relevant international models that can be imported.

Member Andrew Sawyers asked how a sustainability fund would be paid back. *Member Philip Johnson* said the project or projects must be viable. There have to be studies and a business model. He said the sustainability fund could be used to lend money to plan around or acquire a brownfield. Once the brownfield is owned by the community or a community organization, money would need to be obtained to remediate the brownfield and make it viable for development. Finding a user for the site takes money. The sustainability fund should be patient money and should set forth a repayment process so the borrowed money is a quasi-equity situation because there is a long-term ability to repay the money. Once the project is developed, there can be a structured situation so the underwriting of the project can structure the payment. There are many pots of money from different federal agencies with no environmental component, and the development fund can get an environmental component attached to some of these funds to buttress the sustainability fund. He said tribes should be able to access the sustainability fund.

Member Mary Francoeur said the Board can add value by identifying the issues that become important to lenders when contemplating lending to tribes or for community development. She did not see how the Board could establish a sustainability fund. *Member Chiara Trabucchi* suggested that the Board analyze the needs of tribes and underserved communities more carefully to determine appropriate questions for the Board to address. She suggested that EFAB members interested in tribal and sustainable community issues engage appropriate EPA offices to formulate a question or questions that the Board might be able to address.

Member Leanne Tobias suggested either establishing a new committee to look at these issues or that a subcommittee of the Innovative Finance Group meet with the Agency and develop a charge that falls within the purview of EFAB. *DFO Shapiro* said in the past there was a small community workgroup that discussed similar issues and produced reports. There are also small community programs, so it would be useful for the new committee to read through those reports. It was noted that one issue facing small communities is that there are communities in the states that SRFs cannot get to because they isolated or remote. A work group can formulate a more detailed agenda and develop answers to questions of how to pay and best uses of funds for tribal and underserved communities.

Ms. Heather Himmelberger said EPA's interest in sustainable communities is holistic, while past EFAB work has focused on particular issues such as wastewater or brownfields. She said EPA would like to see EFAB take a more holistic approach, which would also produce a more consistent message from the Board.

Member Lindene Patton said the Board has identified a vast group of economic development challenges. For this Board, the best focus is to determine where the primary drivers of or impediments to economic development are actually environmental or natural resource impairment that could benefit from an appropriately-designed environmental finance solution. If the issues are not driven by environment or natural resource impediments that can be solved by an environmental finance solution, the issue may not belong in the Board. Trying to make a tool fix too many different problems increases the chance of the financial instrument's failure.

Public Comment

DFO Shapiro called for public comment. Hearing none, he recessed the meeting until 4:15.

Summary and Closing Remarks

DFO Shapiro called the meeting back to order. Though the Board was not ending the meeting with projects, he said this was appropriate at this stage.

Chairman Abelow summarized where the Board was and made some proposals about going forward. He said the challenges being faced are affected by the fact that it is still a new administration. The Board started with the proposal that came to it, which was an explicit charge on clean air, but the Board is not completely comfortable with everything the charge asks. The Board understands what the Agency is looking for, the Board has a client, and the Board has a group of people willing to lead on this. The challenge is the Board's discomfort with the scope. The Board is willing to go forward, with the caveat that there is more work to be done on limiting the scope and making sure it asks questions the Board can answer. This project has importance in terms of the theme of how to finance emerging environmental technologies. If the Board can address this problem, the solutions will be applicable in other circumstances as well.

There was a robust discussion on SRF. The report discussed merits comment, and there will be some revision to the report, integrating comments and bringing the report to conclusion. There was a list of other projects going forward, and the next step is to review those with the agency and figure out if they can prioritize the proposed projects and figure out what to take on. On the VEIB, there is a workgroup in place and a meeting will be scheduled, with the intent to figure out whether to reissue or comment on the already-issued reports.

The discussion on tribal and sustainable communities is at least two different topics. The first topic is tribal and rural issues, and one possible question is how to finance environmental services in communities that do not have the capacity to finance them. Since the Board does not have consensus on the problem, there is not consensus on the question the Board can take on. There must be further discussion with the Agency on shaping this into a project the Board can pursue. The same observations could be made about sustainable communities, where there are several proposals but none specific enough for the Board to agree on what the project is. Again, more work is needed to determine what can be addressed.

DFO Shapiro raised another item: the Cost Estimation Group. The work group requests comments on its final draft by September 1st. These are important issues for the Agency and the nation. His final point was that people are thinking of new ideas for EFAB, so he may soon contact the members with new ideas to bring in.

Discussion

Member Debbie Livesay said figuring out who the client might be is still an issue, but many members want to work on tribal issues. She volunteered to chair the group. A member commented that tribal issues should not be combined with rural or any other category due to the unique tribal situation, though problems of tribal communities and low-income rural communities may look similar.

A member commented that combined sewer overflow falls between water and wastewater issues. If EPA is interested, the Board might want to look at a revenue stream that can fund infrastructure improvements in that area of need. Beyond access to SRF money, there is the question of how they will repay the loan. *Member Mathilde McLean* commented that for CSOs and sanitary sewer overflows (SSOs) security is not an issue. They have resources to finance the project. There are properties creating infrastructure needs that do not pay water or sewer bills, such as vacant parking lots. She suggested trying to find mechanisms to apply fees for stormwater collection from those not currently targeted. Members discussed what group should address it. It can he handled under the SRF platform, and the Office of Water would be the client. The SRF group will reconvene to look at the questions before them and will communicate with the Office of Water.

Member Philip Johnson said members had been interested in trying to find out about sustainable communities. He volunteered to lead that effort from the point of view of smart growth and similar issues. He will meet with the Agency. The issue is close to the Administration's concerns. The question is how to create a process.

Members had discussed the water finance issue for infrastructure that is sustainable in the form of landscape architecture improvements. That is a specific subsection of water management that intersects with sustainability. *DFO Shapiro* said green infrastructure is fundable through the SRFs he suggested discussions on whether there are specific questions in that area. One member discouraged Board involvement, since the states are already working on the issue. There are a lot of cross currents in this area on the mandate aspects, the cost-effectiveness of green projects, and a sense that there is a lot of work going on in the states. There are a lot of other people doing investigative research on this and testing pilot financings that occurred over the last couple years. *DFO Shapiro* said it is a high priority for the Deputy Administrator, so EFAB should continue to discuss it.

Member Mary Francoeur said the Financial Assurance Group will draft a letter as a follow-up to the issues related to the Financial Regulatory Reform Act. The last item will be to go back to the Agency and confirm that they are finished. *DFO Shapiro* said a question was raised as to whether a consultation with the Office of Resource Conservation and Recovery on whether some limited conservation may be valuable. He will check back with the Office of Solid Waste. He said the volunteer chairs are in place but that the tribal group may be separated from rural, and members interested in working in these areas should contact staff. These are not new workgroups but exploratory teams to see if there is a project they can adopt. The charges should be reframed and brought to the next Board meeting. The tentative dates for the next meeting are March 8 and 9, 2011 in Washington DC. The day's agenda completed, he adjourned the meeting.

Appendix

Attendee List

EFAB Members Present:

Chairperson:

- Bradley Abelow, NewWorld Capital Group, New York NY

State and Local:

- James Gebhardt, Chief Financial Officer, NY State Environmental Facilities Corporation, Albany, NY
- Gregory Mason, Chief Operating Officer, Georgia Environmental Facilities Authority, Atlanta, GA
- Karen Massey, Deputy Director, Missouri Environmental Improvement and Energy, Jefferson, MO
- Mathilde O. McLean, Treasurer, New York City Water Board, New York, NY
- Sharon Dixon Peay, Financial Administrator, Hartford, CT
- Andrew Sawyers, Program Administrator, Maryland Water Quality Financing Administration, Baltimore, MD
- Douglas P. Scott, Illinois Environmental Protection Agency, Springfield, IL
- Steven Thompson, Oklahoma Department of Environmental Quality, Oklahoma City, OK

Business and Industry:

- William Cobb, Vice President, Freeport-McMoRan Copper & Gold, Inc.
- Lindene Patton, Zurich Financial Services, Chief Climate Product Officer, New York, NY
- Cherie Collier Rice, Treasurer and Vice President of Finance, Waste Management, Inc., Houston, TX
- Leanne Tobias, Principal, Malachite, LLC, Bethesda, MD
- Chiara Trabucchi, Principal, Industrial Economics, Incorporated, Cambridge, MA

Banking, Finance, and Legal:

- Rachel Deming, Partner, Scarola Ellis LLP, New York, NY
- Mary Francoeur, Managing Director, Assured Guaranty Group, New York, NY
- Ann Jennifer Grodnik, Assistant Vice President, Public Finance, Seattle-Northwest Securities, Seattle, WA
- Keith Hinds, Financial Advisor, Merrill Lynch, Albuquerque, NM
- Thomas Liu, Managing Director, Bank of America Merrill Lynch, New York, NY
- Jay Spector, Financial Officer, Wells Fargo Advisors, LLC, Scottsdale, AR
- Greg Swartz, Vice President, Jaffray & Co., Phoenix, AZ

Associations, Organizations, Academia, and Public Interest Groups:

- Scott Anderson, Consultant, Senior Policy Advisor, Environmental Defense Fund, Austin, TX
- Dr. John Boland, Professor Emeritus, John Hopkins University Department of Geography and Environmental Engineering, Baltimore, MD
- Eric Draper, Deputy/Policy Director, Audubon of Florida, Tallahassee, FL
- Philip Johnson, Director of Programs, Sustainable Community Development Group, Washington, DC
- Deborah, Livesay, Water Resources/ Wetland Managers, Salton City, CA

Designated Federal Official:

- Michael Shapiro, Deputy Assistant Administrator, Office of Water, Environmental Protection Agency, Washington, DC

Environmental Finance Center Network:

- Joanne Throwe, President EFCN, University of Maryland, College Park, MD
- Sam Merrill, Director, EFC, University of Southern Maine, Portland, ME
- Sara Jade Pesek, Director, EFC, New York, NY
- Jeff Hughes, Director, EFC, University of North Carolina, Chapel Hill, NC
- Lauren Heberle, Director, EFC, University of Louisville, Louisville, KY
- Carol Norton, Assistant Director, EFC, University of Louisville, Louisville, KY
- Kevin O’Brien, Director, EFC, Cleveland State University, Cleveland, OH
- Heather Himmelberger, Director, EFC, Albuquerque, NM
- Angela Buzard, Director, EFC, Wichita State University, Wichita, KS
- Sarah Diefendorf, Director, EFC, Dominican University of California, San Rafael, CA

EPA/EFAB Staff:

- Joseph L. Dillon, Director, Center for Environmental Finance, Washington, DC
- Vanessa Bowie, Staff Director, Center for Environmental Finance, Washington, DC
- Aileen Atcherson, Analyst, Center for Environmental Finance, Washington, DC
- Alecia Crichlow, Analyst, Center for Environmental Finance, Washington, DC
- Susan Emerson, Analyst, Center for Environmental Finance, Washington, DC
- Sandra Keys, Analyst, Center for Environmental Finance, Washington, DC
- Timothy McProuty, Analyst, Center for Environmental Finance, Washington, DC
- Pamela Scott, Analyst, Center for Environmental Finance, Washington, DC

USEPA Presenters: Jim Eddinger, EPA, Energy Strategies Group, Office of Air and Radiation

Other Guests:

- Leigh Herrington, USEPA, Office of Air and Radiation, RTP North Carolina
- Cari Shiffman, USEPA, Office of Enforcement and Compliance Assurance, Washington, DC
- Bob Stewart, USEPA, Region IV, Atlanta, GA

ENVIRONMENTAL FINANCIAL ADVISORY BOARD
August 9-10, 2010 Public Meeting
Parc 55 Hotel – San Francisco, CA

DRAFT AGENDA

MONDAY, AUGUST 9, 2010

1:30 PM	Opening Remarks and Introductions *~ Bradley Abelow, EFAB Chair* *~ Michael Shapiro, EFAB Designated Federal Official*
2:00 PM	EPA Charge: Incentives for Financing Clean Air Technology *~ Peter Tsirigotis, Director, Sector Policies and Programs Division* *Office of Air Quality Planning and Standards* *Office of Air and Radiation*
2:45 PM	Work Group Report Out: Financing Clean Technology *~ Sharon Dixon Peay*
3:30 PM	**BREAK**
3:45 PM	Work Group Report Out: Financial Assurance (Cost Estimation) *~ Mary Francoeur and Cherie Rice*
4:30 PM	Public Comment
4:45 PM	First Day Summary/Action Items
5:00 PM	Adjourn for the Day

ENVIRONMENTAL FINANCIAL ADVISORY BOARD
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TUESDAY, AUGUST 10, 2010

9:00 AM	Opening Remarks ~ *Brad Abelow and Mike Shapiro*
9:15 AM	Work Group Report Out: State Revolving Funds Investment Options ~ *Jim Gebhardt*
10:00 AM	**Project Planning**
	Fleet Upgrade Financing Program: Expansion of the Clean Water SRF Operating Model to Mobil Air source Contaminant Mitigation ~ Jim Gebhardt
11:00 AM	**BREAK**
11:15 AM	Environmental Finance Center Network Project Proposals ~ Heather Himmelberger
12:15 PM	**LUNCH**
	Project Planning (continued)
1:30 PM	Financing Structures and Systems in Sustainability Districts ~ *Leanne Tobias*
	Funding Mechanisms for Tribal and Disadvantaged Communities ~ *Deborah Livesay*
	Leveraging Private Investments to Create Sustainable Communities ~ *Philip Johnson*
4:00 PM	Public Comment
4:15 PM	Second Day Summary/Action Items/Closing Remarks ~ *Brad Abelow and Mike Shapiro*
5:00 PM	**EFAB ADJOURNS**