Unanswered Questions from U.S. EPA's Webcast Part 2: Getting it Funded: Finding Funding for your Clean Energy Programs

May 30, 2012

Questions for Neelam Patel (EPA)

1. *My city wants to implement a bike share program. Does the EPA have any information about how to fund bike share programs?*

Answer: Neelam Patel (EPA): While EPA doesn't specifically provide funds for bike share programs, we can point you to some resources. Through our Climate Showcase Communities Program, we profile 50 innovative climate mitigation projects from around the country. The City of Houston is currently developing a bike share program. For more information, please visit - http://www.epa.gov/statelocalclimate/local/showcase/houston-climate.html

Additionally, the City of Denver has a good program. Denver Bike Sharing was formed at the behest of the Mayor of Denver, and its activities and programs support the goals of the City's Strategic Transportation Plan and Climate Action Plan. For more information, please visit - http://www.denverbikesharing.org/

The U.S. Department of Transportation has additional resources that may be helpful:

http://www.fta.dot.gov/13747_14443.html

http://www.fhwa.dot.gov/environment/bicycle_pedestrian/index.cfm

2. *Who should I contact to discuss an alternate energy project that replaces or decreases the demand for coal and nuclear energy powerplants and has the ability to power entire communities with no emissions?*

Answer: Neelam Patel (EPA): At EPA, the place to get information on alternative energy is from the Green Power Partnership Program (GPP) – www.epa.gov/greenpower. The best contact to answer your question is Matt Clouse in the EPA Employee Directory - http://www.fhwa.dot.gov/environment/bicycle_pedestrian/index.cfm

My program, the US EPA Local Government Climate and Energy Program offers a guide that may be of interest to you - http://www.epa.gov/statelocalclimate/documents/pdf/on-site_generation.pdf

In case it is of interest to you, GPP is hosting its second "project alignment" webinar on July 17, and is currently soliciting project proposals. The webinar will allow 5-8 developers to present their projects to GPP partners and stakeholders - more info and a proposal submittal form available here: http://www.epa.gov/greenpower/alignment/. Submittals are due by June 22.

It may be worthwhile to explore the US Department of Energy website as well.

Questions for Pat McGuckin (Cadmus)

1. *Do revolving loan funds really work? Can you provide examples of successful RLF programs?*

Answer: Pat McGuckin (Cadmus): Yes, revolving loan funds (RLFs) absolutely do work. Some tips here might be helpful:

- The level of "revolving" lending drops after the initial round of lending. For example, suppose you start with $1,000,000 and lend it all out in year 1. If the term of the loans is 5 years, then the loan payments you'll receive back in year 2 will total $200,000 (ignoring any interest, early payoffs, etc). So in year 2, you will only have $200,000 to lend. Revolving lending is a good thing; just recognize that there is this drop-off. You'll want to balance the desire to revolve the money quickly (i.e., shorter loan terms) with the need for the loan payments to be less than the energy savings (longer loan terms = lower loan payments).
- Many RLFs do not grow over time, but if your RLF is funding improvements to your own local government facilities, there is an easy strategy for growing it quickly. For instance, let's say you fund a lighting project that costs $100,000 and generates energy savings of $50,000 / year. If you don't want your fund to grow, you would set up a 2-year loan with payments of $50,000 / year (ignoring any interest). However, if you are willing to defer the budget savings for two more years, you could set up a 4-year loan with $50,000 payments. At the end of 4 years you will have received back $200,000 in payments and doubled the size of your fund. In 8 years your fund will have quadrupled.

  Alternatively, you could set up the loan for 4 years at $40,000 / year. This would give the sponsoring department $10,000 / year in immediate budget savings ($50,000 energy savings - $40,000 loan payment), and would still increase the size of your fund at the end of 4 years.

  The reason this strategy only works for your public sector projects is that private borrowers are not willing to pay much extra to help you grow your fund. In the example above, private borrowers would not look favorably on a $100,000 loan with a 4 year term at $50,000 / year. The reason the strategy can work for a local government program is that the local government will reap the benefits of a growing fund that generates ever-increasing budget savings.
- If a fund doesn't work, it will likely be because of either: a) unrealistic expectations about demand and/ or poor marketing; or b) lending to risky borrowers and/or poor billing/ collection practices. If you are lending to borrowers who might not repay, it is best to charge an interest rate that will cover the losses even in the worst case scenario.
- For examples of successful RLFs, please visit:
  - www.greeningthebottomline.org
  - http://www1.eere.energy.gov/wip/solutioncenter/pdfs/booth_2009_revolving_loan_funds.pdf
  - www.aceee.org/node/3078?id=5109

2. *No mention of the emerging offsets market and the VCS protocol? Like Maine Housing?*

Answer: Pat McGuckin (Cadmus): This is a marvelous idea that holds real potential, and Maine Housing is leading the way. The concept is that an energy efficiency program could at least partially pay for itself by calculating the reduction in carbon emissions resulting from the program and selling the carbon offsets. The challenge is that it has not been an easy process to get the estimated reductions certified so that they can be sold, and the market for such carbon offsets is still emerging. At this point, it might be difficult for a local government to duplicate what Maine Housing is doing. However, it would be wise to follow developments on this front. Check out http://media.gm.com/content/media/us/en/gm/news.detail.html/content/Pages/news/us/en/2011/Jan/0126_chev.html and www.mainehousing.org/ABOUT/Carbon.

3. *Wouldn't you need to agree on M&V prior to conducting these programs so weather variations don't skew results? (Talking about Behavioral and Operational Energy Savings)*

Answer: Pat McGuckin (Cadmus): Yes, agreeing on M&V up front is very important. Although having an energy model and adjusting for weather variations would be ideal, it is also possible to just focus on the actual reductions versus prior years and acknowledge that the reduction will be impacted by weather. The important thing is to agree on a method at the outset.

It should also be noted that the energy savings typically vary with the seasons. This is important to setting proper expectations if a loan is used to fund improvements, since monthly loan payments are usually constant. For example, suppose a project will save $120,000 / year in energy costs, so the loan payments are set at $10,000 / month. On an annual basis, the project will cover the loan payments. However, in the shoulder seasons when energy use is low, the energy savings will also be low, and the loan payment in those months is likely to exceed the savings. It is a good idea to discuss this phenomenon up front.

4. *Leasing is rolling out big time in California - are the carbon credits they will gain be a loss for a local government that we can't recover?*

Answer: Pat McGuckin (Cadmus): Typically, whoever owns a project (in this case the lessor) will claim the credits, although a utility will sometimes get credits in return for providing a rebate or similar incentive. So yes, it's hard to see how a local government could justify getting credits unless you are somehow providing direct funding (e.g., rebates) or indirect funding (e.g., marketing support) for the leasing program.

On the plus side, leasing can be a "no cost to local government" option for a community to make good progress against its energy and climate action goals. Reaching out to support or help facilitate local leasing efforts may be worthwhile.

Note that solar leasing - and also tax-exempt lease purchase agreements - will be covered in Webcast 3 of this series on Wednesday, June 13th, at 2:00 ET. You can register for the webcast, titled "*Getting it Done: Financing Options for Your Clean Energy Programs*", at: https://www2.gotomeeting.com/register/977254058.

Questions for Marvin Lee (Philadelphia)

1. *I have heard that demand response payments have gone down because of reduced demand from the slowdown in the economy and the lower electric costs due to lower natural gas prices. Is this true?*

Answer: Marvin Lee (City of Philadelphia): In the PJM region, the demand prices have been consistently above $40,000 per megawatt per year in the last several years and the prices are already established through an auction process through the summer of 2015. $40,758 / megawatt per year in 2011/2012 and $51,708, $90,642 and $49,330 in 2012/2013, 2013/2014 and 2014/2015, respectively. I am sure the slowdown in the economy makes an impact on the total demand of the electricity, but the School District of Philadelphia expects to use the Demand Response program as a funding vehicle for the foreseeable future.

2. *Can there be a good explanation between the energy reported sold by the supply and the quantity reported by the distributer or is that indication of a mistake?*

Answer: Marvin Lee (City of Philadelphia): As long as the unit of measure is the same, the quantity from the energy supplier and the quantity from the distribution must be equal in individual account levels. However, the aggregate quantity may be different if the electricity supplier is not providing the power for the entire portfolio. For example, there are 7 accounts (out of total 443 accounts) that the School District of Philadelphia receives power from the default power supplier, which is our distributor, so the aggregate quantity from supplier is different than the total quantity from the distributor.

Questions for Nate (Orlando)

1. *How much does the BAS system that Orlando uses cost?*

Answer: Nate Boyd (City of Orlando): It is actually difficult to answer because there are so many different pricing scenarios and complex levels of sequences of operations, and there are regional cost differences between vendors. To be exact, the controls component of the $1.76M we spent on upgrades so far was $750k.