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To: PACE Working Group

Subject: PACE: Property Assessed Clean Energy Financings - Capital Markets
Financing Issues Paper

Purpose:

To assess the capability of large scale capital markets financing for the Property Assessed Clean Energy (“PACE”) program.

Background:

Certain states have enacted legislation to enable clean energy improvement districts (the “CE Improvement Districts”) to finance the installation of certain approved clean energy equipment for residential and commercial properties. The installation of said equipment will be financed by individual property owners who opt in to the program through special property tax assessments (“Special Property Tax Assessments”) on their properties that amortize over periods no greater than 20 years.

These same certain states have enacted legislation to enable these CE Improvement Districts to issue bonds (the “PACE Bonds”) to finance the disbursements to property owners to install the clean energy equipment. The PACE Bonds are to be secured by a pledge of the Special Property Tax Assessments collections. (Barclays Capital has reviewed the enabling PACE legislation for one state, Colorado (HB 08-1350), to determine how the program would work from one state’s viewpoint.)

The size of the bond issues are likely to vary greatly in size depending upon the demand for the installation of clean energy equipment, the size of the CE Improvement District, the cost of financing the bonds which must be passed on to the property owners, the acceptance of the program by property owners, the perceived risk of the bonds to investors and the demand from investors for these bonds.

The credit quality of the PACE Bonds:

Despite the fact that the PACE Bonds will be secured by Special Property Tax Assessments which can be a very strong municipal revenue stream with the passage of time, it is more than

likely that at first, absence any credit enhancement, the PACE Bonds will not be able to achieve investment grade credit ratings from the rating agencies for the following reasons:

- The PACE Bonds will likely only be backed by Special Property Tax Assessments on a select number of properties in any particular municipal entity so that the PACE Bonds will not be backed by as diverse a population of property taxes than a broader municipal ad valorem property tax would be.
- The CE Improvement District will not have the track record of collection of clean energy Special Property Tax Assessments compared to a broad-based ad valorem property tax.

The PACE legislation for at least one state, Colorado, appears to be based on the municipal bond structures for TIF or Special Assessment Districts (commonly known as “Dirt Bonds”) which are almost always issued as unrated municipal bonds with very high interest rates and sold to high yield municipal bond funds. It is extremely difficult to place these bonds today at any interest rate because of the perceived risk of exposure to the completion of new real estate development which will be the source of property tax revenue to pay debt service on Dirt Bonds. Initially, PACE Bonds may be confused with Dirt Bonds because of their structure, even though they do not have development risk. Utilizing an underwriter who has intimate knowledge of both these programs will be crucial in educating investors on the more attractive risk profile of PACE program.

Obtaining investment grade ratings for the PACE Bonds will be crucial to be able to find a market for these bonds at reasonable interest rates and to convince property owners to opt in to the program by offering a reasonable financing rate for installing the clean energy equipment. Furthermore, even obtaining investment grade ratings may not be sufficient to place bonds at reasonable rates. Most municipal bonds now need unenhanced credit ratings of AA- or better to get a definite chance of being placed. In the current market, bonds in the A rating category can be sold but at significantly higher credit spreads. However, despite the historically wide divergence in credit spreads across rating categories, we are encouraged by the acceptance of traditional corporate taxable investors in the Build America Bond program, established in President Obama’s American Recovery and Reinvestment Act. As this new taxable municipal market evolves, we would expect more investor comfort in lower-rated PACE bond issuance.

Since PACE Bonds cannot now find a large market based on their own credit quality, it is likely that the PACE Bonds will need credit enhancement of some sort, either credit enhancement from a pledge of the general obligation of a state or highly rated city or by a provision for some form of insurance from the Federal Government (in this case under various authorities enacted by Congress for the Dept of Energy to provide insurance for renewable energy loans.) PACE Bonds insured or guaranteed by a credit worthy guarantor will be given ratings based on the strength of the credit enhancement and not on the underlying credit of the Special Property Tax Assessments. In this situation, it is the credit enhancer that would be taking the credit risk on payments from the Special Property Tax Assessments.

Fundamental criteria for credit enhancement from states or highly rated municipalities or the Department of Energy in order for PACE Bonds to receive high investment grade municipal credit ratings (AA- or better):

- The credit enhancement should be duly authorized by the entity providing the credit enhancement;
- There should be no defenses against payment on the credit enhancement (e.g. the entity could not claim that it will not pay because the energy equipment was not providing the energy savings that was expected or that the funds have not yet been expended.);
- The notice and timing for payment under the credit enhancement must be stipulated in the credit enhancement documents (e.g. the credit enhancement will pay \$xxx dollars to the bond trustee within 3 days after presentment of a notice from the bonds trustee that a payment default on property tax collections has occurred and that a credit enhancement payment must be made in order to avoid a payment default on the PACE Bonds);
- There must be sufficient reserves into the PACE Bonds trust estate to cover debt service payments in the interim while awaiting credit enhancement payments. There must also be sufficient reserves into the PACE Bonds to convert any credit shortfalls not covered by the credit enhancement (e.g. FHA mortgage insurance only covers 99% of principal balance insured, does not pay for up to 9 months and does not cover lost interest for the first 30 days on the insured mortgage note. Any bonds backed by FHA insured mortgage notes must have sufficient cash reserves to cover the FHA 1% assignment fee, 9 months debt service reserve and lost interest of 30 days in order to achieve AAA bond ratings.); and,
- Full faith and credit enhancements for PACE Bonds properly structured should carry the general obligation credit rating of the credit enhancer. Credit enhancements that are subject to appropriation or are moral obligation credit enhancements would typically carry a credit rating one full step below the general obligation credit rating of the credit enhancer.

One example of a PACE financing rated very recently were the Boulder County Clean Energy Options Local Improvement District , Colo.'s \$7.5 million special assessment bonds, series 2009 for which the Standard & Poor's rating of A+ was released on May 14, 2009. The rating was based on the moral obligation of the County of Boulder, Colorado to make up the debt service reserve fund, if tapped, subject to annual appropriation. The general obligation of Boulder County appears to be AAA, so the rating on the Boulder County Clean Energy Options Local Improvement District appears to be a full two rating categories below the County's general obligation bond rating. Pricing for the bonds is not yet available.

Handling the Acquisition Period for Renewable Energy Property Tax Liens

It will take time for a PACE Bond issuer to disburse the money to pay for renewable energy equipment and assemble the Special Property Tax Assessments. As the equipment will be financed it will be necessary for the CE Improvement Districts to lock an interest rate for the liens in order to be able to have sufficient collections to service the PACE Bonds. Preferably the PACE Bonds would be issued in advance to provide a pool of money to advance funds when the equipment is placed in service. The proceeds of the PACE Bonds issuance would be placed in an acquisition account which would be invested in approved investments (say US Treasuries) and would be disbursed to pay approved invoices for approved equipment. Funds could only be disbursed for purposes designated in the program and would have to be audited. Any funds not expended by a certain date (say, three years) would be used to redeem PACE Bonds with an unused proceeds call. The bond proceeds would have to provide enough funds to cover negative arbitrage during the acquisition period. The PACE Bonds would have to have any credit enhancement in place at time of issuance in order to achieve the desired credit rating. Therefore the credit enhancer would have to have assurance that the disbursement of the acquisition funds was being properly handled by the CE Improvement District. The implicit interest rate on the PACE Bonds achieved when issued (the "Bond TIC") would be used to set the underlying interest rate on the Special Property Tax Assessments so that the payments on the Special Property Tax Assessments would be sufficient to pay the PACE Bonds debt service in all events. A structuring agent/investment banker would have to run PACE Bond cash flows to demonstrate that the Special Property Tax Assessment payments are sufficient to pay the PACE Bonds debt service. State Housing Finance agencies have been using a similar process for decades to raise capital to fund the acquisition of affordable single family mortgage loans.

In the event that issuers wanted to reduce the negative arbitrage of raising capital and funding the acquisition of Special Property Tax Assessments over longer periods of time, issuers could do more frequent issuances of Pace Bonds in smaller amounts, however, issuers are going to have to weigh the cost of issuance of more frequent bond issuances vs. the cost of negative arbitrage of fewer issuances but with larger dollar amounts which incur more negative arbitrage. As the market and legal documentation of this program mature, the cost of issuance of more frequent issuances may drop. Needless to say, a program involving more frequent, but smaller issuance sizes increases the need for having some form of credit enhancement – taxable investors are less likely to invest the time and resources required to analyze the underlying credit for small-sized, illiquid transactions.

Capital Market Access

Issuers who could issue PACE Bonds in sufficient size (say \$100 million for each offering) that had achieved high investment grade credit ratings could access the capital markets by issuing bonds directly assuming that the issuers' general obligation pledge or moral obligation pledge was on the bonds - that is a pledge to back the bonds with a full faith and credit of tax revenues from the municipal entity or a moral obligation to back the bonds subject to appropriation of the revenues of the municipal entity. .

Issuers who could not issue bonds of that size would be better off selling bonds through a pooling structure that could aggregate bonds to achieve larger economies of scale, obtain better pricing and handle the credit enhancement process. The pools would be assembled and sold by a conduit/underwriter (the “Pooling Agent”) that would assemble structure and sell securities backed by pools of smaller PACE Bonds. The Pooling Agent could be a designated state agency or a securities firm. The Pooling Agent would commit to buy PACE Bonds at a certain interest rate, purchase and assemble pools of the PACE Bonds, arrange credit enhancements, servicing providers and trustees, structure securities backed by pools of the PACE Bonds, get the pools rated by credit rating agencies and then sell highly rated securities into the capital markets. As the PACE Bonds are all taxable, the Pooling Agents that are securities firms could assemble pools of PACE Bonds that have geographic diversity. Pooling Agents that are state agencies would bring knowledge of state local conditions and issuers, and, in the case of State Housing Finance Agencies, have long track records in servicing single family and multifamily mortgage loans in their states. However, their limitations would be that they could only assemble pools located in one state. In the event that Congress may make PACE Bonds tax exempt, having a statewide issuer would add benefits in achieving lower costs (usually, although not necessarily now) that come from funding the PACE Bonds with tax exempt bond issuance.

Pooling Agents typically have long experience in hedging markets while assembling pools of smaller assets for securitization so Pooling Agents could provide fixed pricing for smaller PACE Bonds while they assemble pools of PACE Bonds for later securitization.

A requirement for widespread securitization of PACE Bonds will be standard documentation: standardized notes, liens, bonds, opinions, assignment documents, etc., similar to what Fannie Mae and Freddie Mac have done in the mortgage industry.

Delinquencies, Defaults and Recovery

Inevitably there will be delinquencies, defaults and recoveries from defaults on the Special Property Tax Assessments. Recoveries can come from a tax sale of the properties or simply a sale of the delinquent tax lien to a third party. Procedures must be worked out to ensure that delinquencies and defaults do not interrupt the payment of debt service on the PACE Bonds. These procedures may vary from state to state or even municipality to municipality depending upon the laws relating to achieving recovery from delinquent Special Property Tax Assessments. These procedures will probably result in having a prompt draw on a credit enhancement while the delinquent tax recovery proceeds unless there are sufficient reserves to cover debt service during the process. The credit enhancer (let us assume that it is DOE, here) will want to be assured that ultimately the recovery of the funds advanced to install the clean energy equipment will occur and that the CE Improvement Districts will move with move with sufficient diligence to achieve a recovery so that the credit enhancer is reimbursed for any credit enhancement payments. Assuming however, there are sufficient reserves to cover debt service, then the DOE wrap is acting in effect as a “back-stop” to the initial delinquency coverage of the local agency from reserves. It is important to note that from the DOE’s perspective, its risk exposure is only

the delinquent tax payments and not the entire bond amount, so the potential funding exposure is small relative to the amount of outstanding bonds.

One way to better assure the recovery of any credit enhancement payments may be to require risk share of any losses on delinquent Special Property Tax Assessments between the DOE and the local municipality that must be settled within a certain time period. This would provide incentives to the municipality to use sufficient diligence to achieve a satisfactory Special Property Tax Assessments lien recovery. Another method would be to require that municipalities pursue delinquent Special Property Tax Assessments on a certain timeline and using certain approved procedures. Any credit enhancer of bonds backed by renewable energy Special Property Tax Assessments will surely want effective recovery procedures in place that protect their credit enhancement rights.

Credit Enhancement Fees

Credit enhancers should be paid for any credit enhancement for these transactions with fees based on assessment of underlying credit risk. Barclays Capital can provide comparable fees for credit enhancement charged by providers currently in the market place. Due to recent dislocations in the credit markets fees have moved upward lately. Credit enhancers would be expected to retain outside legal counsel to draft credit enhancement documents and comment on other transactions documentation. The cost of the credit enhancers outside legal counsel should be reimbursed out of bond proceeds.