



David Friedman  
Acting Assistant Secretary  
Office of Energy Efficiency and Renewable Energy  
U.S. Department of Energy  
1000 Independence Ave, SW  
Washington, DC 20585

August 19, 2016

Dear Mr. Friedman:

Re: Comments on Best Practice Guidelines for Residential Property Assessed Clean Energy (PACE) Financing Programs

The National Association of State Energy Officials (NASEO) greatly appreciates the efforts of the U.S. Department of Energy (DOE) Office of Energy Efficiency and Renewable Energy in updating the *Best Practice Guidelines for Residential Property Assessed Clean Energy (PACE) Financing Programs*. On behalf of the 56 State and Territory Energy Offices (SEOs), NASEO offers the following feedback and comments on this important document:

**Cost-Effective Measures:** In the draft guidelines, DOE recommends that the “financed package of energy improvements...be designed to pay for itself over the term of the assessment,” minimizing the borrower’s debt-to-income ratio and increasing his or her likelihood and ability to repay the obligation. This recommendation holds merit as a general rule-of-thumb for PACE programs to follow; however, in some cases it may be overly restrictive if implemented as a firm program requirement. For this reason, NASEO suggests that DOE refine this guideline in the following ways:

*Clarify whether and how non-cost-saving should be financed.* Such measures may include improvements that affect the home’s energy systems (such as electrical system upgrades) as well as broader non-energy upgrades, but do not necessarily result in cost savings. It is unclear from the draft guidelines whether these measures are considered part of the “financed package of energy improvements” and would thus need to conform to the cost-effectiveness recommendation, which may potentially limit the homeowner’s ability to pursue such upgrades. In some cases, some improvements (such as mold mitigation, lead abatement, asbestos removal flu repairs, and minor roof repairs) are required by code to be addressed in order for the energy efficiency and renewable energy measures to proceed. Programs may wish to allow such

2107 Wilson Boulevard  
Suite 850  
Arlington, Virginia 22201  
  
Telephone: 703.299.8800  
Facsimile: 703.299.6208  
www.naseo.org

#### BOARD OF DIRECTORS

##### Chair

ROBERT JACKSON  
Michigan

##### Vice Chair

MARK GLICK  
Hawaii

##### Secretary

MOLLY CRIPPS  
Tennessee

##### Treasurer

WILLIAM (DUB) TAYLOR  
Texas

##### Immediate Past Chair

VAUGHN CLARK  
Oklahoma

#### Regional Representatives

ASA HOPKINS  
Vermont

TOMMY WELLS  
District of Columbia

MARISA SLATEN  
New Jersey

DAVID GIPSON  
Georgia

KELLEY SMITH BURK  
Florida

TRISTAN VANCE  
Indiana

MARIA REDMOND  
Wisconsin

JEFF ACKERMANN  
Colorado

PAUL MILLER  
Louisiana

ANDREW MCALLISTER  
California

LAURA NELSON  
Utah

#### Affiliates' Co-Chair

ANNA PAVLOVA  
Schneider Electric

MEREDITH TUNICK  
Bosch

#### Executive Director

DAVID TERRY

#### General Counsel

JEFFREY C. GENZER

ancillary and necessary improvements to be excluded from cost-effectiveness calculations if they do not exceed a threshold amount (e.g., 15%) of the total PACE obligation. NASEO recommends that DOE consider identifying such circumstances in the guidelines and providing guidance to programs on how to handle non-cost-saving measures in a way that does not jeopardize the homeowner financially.

*Consider identifying or factoring non-energy benefits:* Some PACE programs may wish to factor quantifiable non-cost-saving benefits into their cost-effectiveness calculations. While many of the benefits associated with home upgrades are difficult to quantify (e.g., health improvements due to reduced allergens, comfort improvements associated with reduced drafts and more consistent temperatures, and reduced ice damming from properly insulated and sealed attics), other benefits (e.g., reduced carbon emissions) are quantifiable and may help PACE programs justify deeper energy efficiency improvements to the home.

***Consumer and Lender Protections:*** NASEO recommends that DOE expand and elaborate its guidelines pertaining to consumer protections. In particular, existing industry practices (which are documented in PACENation's consumer protection policies) that are important to many State Energy Offices include: special protocols to protect and educate senior citizens; the use of a sustainable funding source to originate PACE assessments; and secure handling of personal and financial data. Additionally, Renovate America has established fair pricing requirements that we believe should also be recognized as a best practice.

Regarding property owner education and disclosure, NASEO believes it is crucial that programs advertise and market PACE projects responsibly and manage borrowers' expectations regarding return on investment. Even if a project is modeled to be cost-effective, several factors may affect actual savings-to-investment ratios, including local energy prices, energy usage patterns and needs of the building occupants, changes in occupancy, starting, ending or changing business operations including home businesses, changing weather patterns, and the age and condition of equipment being replaced. PACE programs should discuss these factors with prospective PACE borrowers to ensure that the homeowner is making a fully-informed decision and has reasonable expectations regarding project payback.

***Energy Assessments:*** The draft guidelines encourage the use of home energy assessments to help borrowers identify needed energy improvements in their homes. NASEO suggests that the assessment include an examination of the home's energy equipment as well as historic energy usage to identify appropriate improvements and measures deemed to be cost-effective. Several NASEO members have found DOE's Home Energy Score to be an effective baseline assessment tool.

DOE should consider making its recommendations for energy assessments for emergency replacement of failed equipment more streamlined than those required for multiple-measure projects or whole home retrofits. For instance, opting for ENERGY STAR equipment may help expedite upgrades and reduce the need for an in-depth assessment. This would help meet consumers' needs for timely replacement while still providing information and options regarding the incremental cost and benefits associated with more energy-efficient measures. It may also help position PACE as a useful tool for homeowners opting for energy efficiency and renewable energy improvements in disaster recovery and rebuilding situations. In all cases, energy assessments associated with PACE programs should provide customers with an

estimate of the energy savings, as well as a description of the potential non-energy benefits, to help consumers make fully-informed choices about the products and services they receive.

**Rebates and Tax Credits:** The draft guidelines recommend that PACE programs coordinate with existing utility programs to take advantage of incentives and services (such as energy assessments) available to homeowners. NASEO would like to note that in addition to utility programs, non-ratepayer-funded federal, state, and local programs may offer financial and technical assistance that PACE programs may leverage. State Energy Offices and their partners (such as state Housing Finance Agencies and Development Finance Agencies) may be well-positioned to educate PACE programs on the types of assistance available in their jurisdictions. These agencies have long-standing leadership on PACE specifically and residential energy financing in general; many have also demonstrated sound judgment in investing public funds to leverage private capital in support of energy efficiency and renewable energy deployment. (NASEO's State Energy Financing Program database, available at <http://naseo.org/state-energy-financing-programs>, includes more detail on the structure and size of State Energy Office financing programs.)

**Quality Assurance and Anti-Fraud Measures:** According to a sensitivity analysis released in 2014 by the National Institute of Standards and Technology<sup>1</sup>, installation faults may increase a home's annual energy usage by as much as 30 percent. For this reason, we believe it would be important for DOE's guidelines to further emphasize the importance of contractor knowledge and training in PACE projects and direct PACE programs to more certifications and resources that can support quality installation. NASEO would be happy to help facilitate discussions to identify best practices in this arena.

If you would like to discuss any of this feedback in further detail, please do not hesitate to reach me at [dterry@naseo.org](mailto:dterry@naseo.org) or 703-299-8800. NASEO thanks you for considering these suggestions and appreciates the valuable leadership role that DOE has taken in advancing the PACE market.

Sincerely,

A handwritten signature in blue ink, appearing to read "D. Terry", with a long horizontal stroke extending to the right.

David Terry

---

<sup>1</sup> Available through the Air Conditioning Contractors of America at <http://www.acca.org/communities/community-home/librarydocuments/viewdocument?DocumentKey=4bd83c8b-1c93-4743-989e-40f7422aef35>.