STATE ENERGY OFFICE APPROACHES TO FINANCING

National Association of State Energy Officials

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CDFA WEBINAR: Measuring Impact and Data Collection
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ABOUT NASEO

- Membership includes the 56 Energy Officials from the states, territories, and the District of Columbia, as well as private-sector Affiliate partners
- Serves as a resource for and about the Energy Offices on a number of topics, including building energy efficiency, clean energy financing, fuels and grid integration, government affairs, transportation, energy policy planning, and climate
- Works through topical committees to facilitate peer learning across states to improve the effectiveness of energy policies and programs
- Visit www.naseo.org for more information

C/O the Hawaii State Energy Office

C/O the South Carolina Energy Office

NASEO AFFILIATES PROGRAM

A network of +60 private-sector partners, including representatives from business, trade associations, nonprofit organizations, educational institutions, laboratories, and government, interested in state energy policy

NASEO FINANCING COMMITTEE

- Facilitates state collaboration and peer learning on key energy efficiency and renewable energy financing mechanisms and tools at the state and local levels, such as qualified energy conservation bonds, energy savings performance contracting, revolving loan funds, and loan loss reserves
- Identifies market barriers, engages private sector and program partners, and shares solutions toward effective financing programs operated or managed by the State Energy Offices and their public and private partners
- Uses an online forum for committee communications, resources, and knowledge-sharing

NASEO's Financing Committee is chaired by Al Christopher, the Energy Division Director of the Virginia Department of Mines, Minerals, and Energy (left) and Jeff Pitkin, Treasurer of the New York State Energy Research and Development Authority (right).

PRESENTATION PLAN

Introduction to SEO Financing

- SEO Financing Mechanisms:
  - Revolving loan funds
  - Green Banks
  - PACE
  - WHEEL
  - QECBs/bonds
- Measuring impact and data collection

Policy and Program Examples

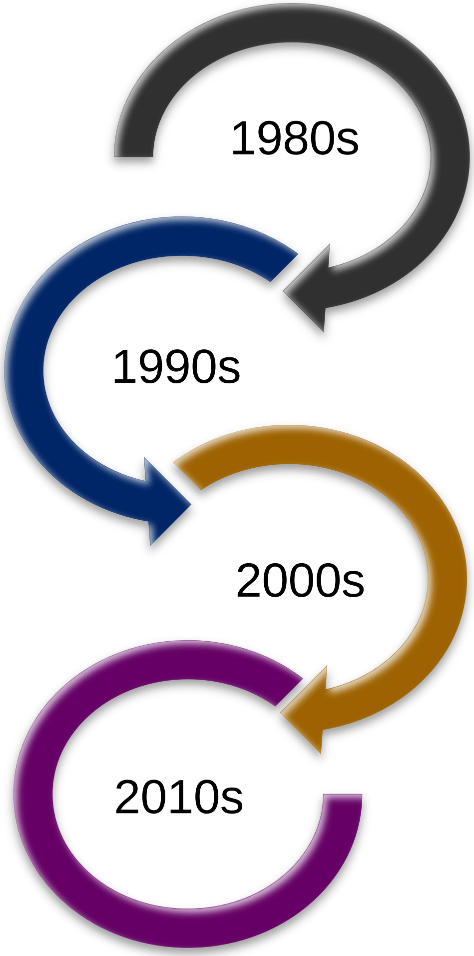
- Texas
- Nebraska
- New York
- Massachusetts
- Alabama
- Washington

Applications and Potential Partnerships

- Deepening SEO-DFA partnerships and coordination

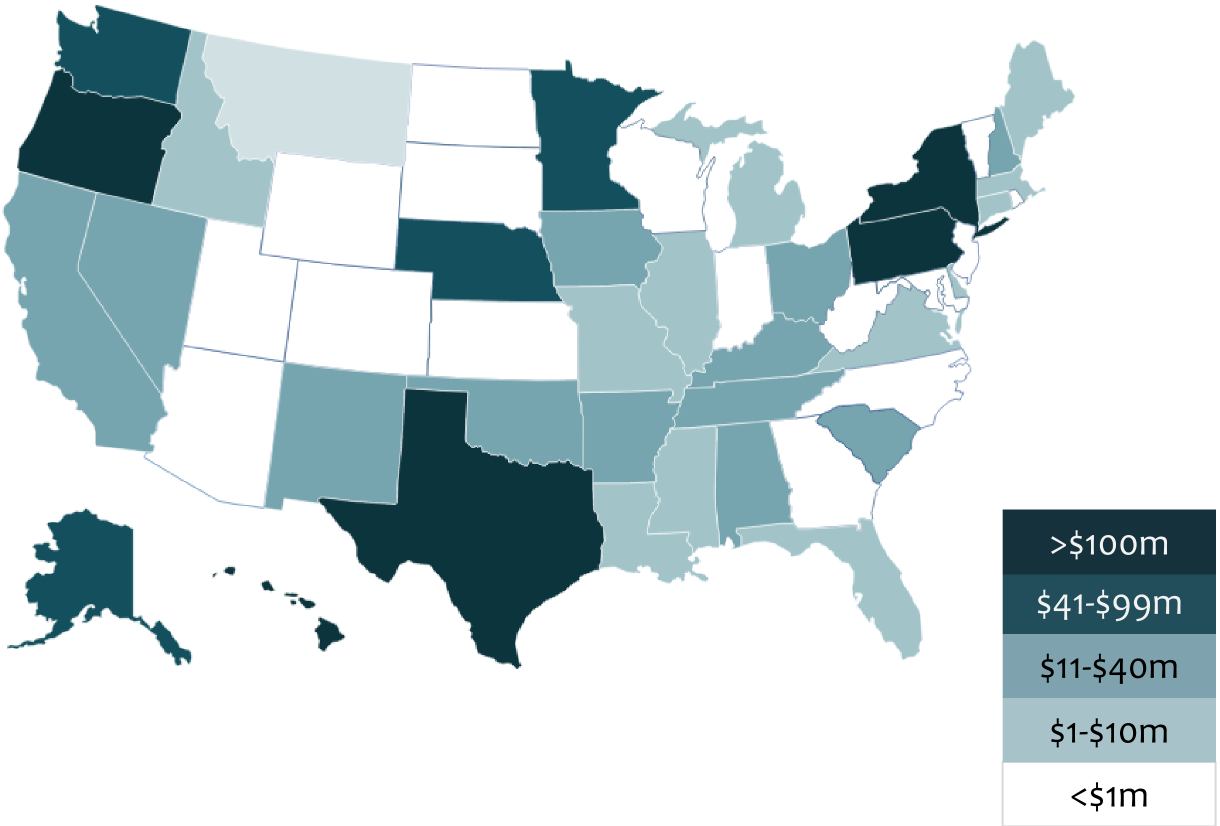
Introduction to State Energy Office Financing

HISTORY OF STATE ENERGY FINANCING



- Revolving loan funds; experimentation with programs for public facilities, heralding energy savings performance contracting
- Risk-oriented technology innovation funds, increasing focus on commercialization
- Accelerated use of public benefit funds for cost-effective efficiency and renewables and for energy savings performance contracting programs
- Expansion of public-private partnerships through PACE, WHEEL, credit enhancement structures
- Increasing focus and sophistication in alt fuel vehicle financing and bigger embrace of transportation as an energy, environmental issue

REVOLVING LOAN FUNDS



Known capitalization of State Energy Office-operated or –supported revolving loan funds. *Source: NASEO Financing Database, http://naseo.org/state-energy-financing-programs.*

- Initial capital fund offers long-term, low-interest loans
- Principal and interest payments are used to reseed the fund
- 35 states have at least one RLF; some combined with credit enhancement or rate buy-down
- Administration can be done in-house (TX), third-party (AL), as a loan participation program (AL), or using grants

PACE

- Property Assessed Clean Energy (PACE)
- SEOs typically get involved in state legislative process, statute development
- May create or support the creation of statewide programs and initiatives to support market consistency and user-friendly programs
- May be called on to assess the need for consumer/borrower protections and protocols

PHOTO: Solar PV system at Crest Mechanical in Hartford. C/O the Connecticut Green Bank.

NASEO REPORT: "Accelerating the Commercial PACE Market: Statewide Programs and State Energy Office Participation in Commercial PACE Financing," now available at http://naseo.org/publications

WAREHOUSE FOR ENERGY EFFICIENCY LOANS (WHEEL)

- Funds unsecured residential energy efficiency loans originated in participating programs
- Loans are aggregated into diversified pools and used to support the issuance of rated bonds sold to institutional investors
- Proceeds from these bonds allow WHEEL to continue purchasing eligible loans from state and local programs for future rounds of bond issuance
- Key milestones:
  - Approved use of Recovery Act funds (June 2012)
  - First securitization (June 2015)

ReHome™ FLORIDA

ReHome™ NEW YORK

KeystoneHELP™

KY HOME PERFORMANCE℠

Greater Cincinnati Energy Alliance

QUALIFIED ENERGY CONSERVATION BONDS

- At least 209 projects, totaling just over $1 billion, have been funded to date. Projects have been financed with QECBs in at least 37 states. Some states, such as Kansas and Kentucky have exhausted or nearly exhausted their allocations (with Colorado, Nebraska, Montana, California and Alabama close behind), while up to 14 states have yet to use any portion of their allocation. Approximately 37% of the $3.2 billion in allocations are now known to have been issued.

- Recommended QECB Resource: Energy Programs Consortium, http://www.energyprograms.org/2016/04/qecb-papers/

- Recent successes include Virginia's Green Communities Program, VirginiaSAVES

VIRGINIASAVES™
Sustainable and Verifiable Energy Savings

DMME
Virginia Department of Mines Minerals and Energy

CLEAN SOURCE CAPITAL

ABUNDANT POWER
BUILDING DATA THAT WORKS

VSBFA
Virginia Small Business Financing Authority

VRA Virginia Resources Authority

SEO Financing Themes

- Willingness to assume some level of risk (for some states)
- Supporting proof of concept to show that clean energy can be a wise investment, to catalyze the market, and to familiarize bigger players with energy financing
- Pursuing financing not necessarily as a money-maker, but to advance a public purpose (energy savings, economic development, job growth)
- Program success is not just about putting in funds in place, but also about:
  - Thoughtfulness behind structure and design of the funds
  - Programmatic framework that accompanies financing
  - Working with partners to build demand
  - Educating the workforce and borrowers on financing

Measuring Impact

ENERGY:

Tracking savings

Utility planning

Metrics and Methods

FINANCING:
Underwriting

Loan performance data

QA/QC

MARKET GROWTH:

Job creation impacts

Impacts on LMI

Policy and Program Successes

TEXAS

LoanSTAR (Saving Taxes and Resources)

- Administered in-house by the State Energy Conservation Office
- For tax-district supported and publicly owned facilities
- Started 1998 with a capitalization of $128 million
- Has made over 260 loans supporting $430 million in projects
- SECO has used its energy financing expertise to chair the PACE-in-a-Box Technical Standards working group, which created voluntary underwriting methods for PACE cities and counties

SECO
State Energy Conservation Office

NEBRASKA

Dollar and Energy Savings Loan Program

- Loan participation program
- Nebraska Energy Office purchases each loan at a 0% interest; lenders purchase remainder at selected market rate
- Lowers borrowers' costs while still providing an attractive yield for lenders
- 2:1 private-to-public capital ratio, with NEO's $153.3 million catalyzing private investment to support over $320 in loans

TOP: C/O the Nebraska Energy Office
BOTTOM: C/O of Bold Nebraska

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NEW YORK

Green Jobs Green New York

- Initial RGGI fund covers residential, multifamily, commercial and not-for-profit lending
- Subsequent funding from U.S. Department of Energy and through refinancing:
  - August 2013: $24m Series 2013A residential EE financing revenue bonds supported by guarantee from NYS Environmental Facilities Corporation
  - September 2014: $30m short-term financing credit facility through EFC
  - August 2015: $46m in Series 2015A residential EE financing using State Revolving Fund (breakthrough transaction)

TOP: C/O NYSERDA
BOTTOM: C/O of Environmental Defense Fund

MASSACHUSETTS

Home Energy Assistance Team (HEAT)

- Provides 0% interest loans from participating lenders for unsecure residential energy efficiency upgrades
- Created in 1996 by the Department of Energy Resources (at the direction of the legislature)
- Today, completely ratepayer funded and operated by investor-owned utilities in partnership with community banks

Courtesy of the Massachusetts Department of Energy Resources

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ALABAMA

AlabamaSAVES

- Funded by Recovery Act
- Provides low-interest loans to commercial and industrial energy efficiency projects
- Sponsored by the Alabama Department of Economic and Community Affairs (ADECA, which houses the State Energy Office) and administered by Abundant Power
- Has made over $50m from $25m capital fund

TOP: C/O ADECA
BOTTOM: C/O BDC Network

WASHINGTON

Clean Energy Fund

- Proposed by governor and created by 2013 legislation; expanded in 2015 budget
- Provides grants to non-profit lenders; lenders determine target sectors/markets
- Minimum 1:1 leverage of state funds; some recipients have far surpassed this leverage (for instance the Puget Sound Cooperative Credit Union's 20:1 leverage)

C/O the Clean Tech Alliance Washington

Applications and Potential Partnerships

THE CASE FOR DEEPENING SEO-DFA PARTNERSHIPS

- Support the public purpose of energy financing
- Understand potential use of State Energy Office funds as credit enhancers to deals that may otherwise be perceived as risky or un-creditworthy
- Coordinate public funds more effectively and combine energy and financing expertise
- Down the pike (potentially): greater role for energy efficiency and renewables in climate planning (i.e., Clean Power Plan, other emissions regulations from EPA) → help make sure that development finance investments are captured and acknowledged in states' compliance strategies and potential credit trading regimes

THANKS FOR YOUR TIME AND ATTENTION!

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