

REFERENCE GUIDE FOR STATE ENERGY OFFICES

Federal Energy Efficiency and Renewable Energy Financing Programs

In response to the President’s Climate Action Plan,¹ several federal government agencies offer funding and financing mechanisms to support energy efficiency, renewable energy, and alternative fuel deployment. However, few federal programs have been leveraged and used by state energy policy makers, potentially due to a lack of awareness or uncertainty around how to best integrate federal clean energy financing into existing and planned state policies and programs. This highlights a need for resources and information that can promote better coordination and alignment of state and federal financing programs with the goal of achieving a more effective and expansive flow of low-cost capital to clean energy projects at the state and local level.

With support from the U.S. Department of Energy (DOE), the National Association of State Energy Officials (NASEO) will engage its members, the State and Territory Energy Offices (SEOs), on strategies to tap into federal financing programs to advance clean energy deployment objectives at the state and local level. The end-product of this engagement will be a “Federal Energy Financing Playbook for State Energy Offices,” which will showcase how states have tapped into federal financing and funding mechanisms to advance clean energy investment in their states.

The table on the following page draws significantly from a DOE report, “Federal Financing Programs for Clean Energy,” released in 2016.² The report provides detailed information for business owners, homeowners, investors, and policymakers on the wide variety of federal financing programs available. The departments and agencies covered in the guide include:

- The U.S. Department of Energy (DOE)
- The Overseas Private Investment Corporation (OPIC)
- The U.S. Department of State (State), including the U.S. Agency for International Development (USAID)
- The U.S. Department of Agriculture (USDA)
- The U.S. Department of Housing and Urban Development (HUD)
- The U.S. Department of Transportation (DOT)
- The U.S. Department of the Treasury (Treasury)
- The U.S. Environmental Protection Agency (EPA)
- The U.S. Small Business Administration (SBA)

The table below is intended to provide a “quick reference guide” and synthesis of select federal financing programs that may be of high interest to the State Energy Offices and offers access to information and links where they can dive deeper into these programs.

NASEO is interested in hearing State Energy Offices’ experiences interacting with and using federal financing programs. To share yours, contact Sandy Fazeli at sfazeli@naseo.org.

¹ www.whitehouse.gov/sites/default/files/image/president27climateactionplan.pdf

² www.energy.gov/sites/prod/files/2016/05/f32/Federal%20Financing%20Programs%20for%20Clean%20Energy.pdf

Agency/Office	Financing product	Approach	Potential interest to SEOs:	More information
DOE Loan Programs Office (LPO)	Title XVII Innovative Clean Energy Loan Guarantee	Loan guarantees to qualified advanced fossil energy, advanced nuclear, and renewable/efficient energy projects.	<ul style="list-style-type: none"> • State government may apply for loan guarantees. • May attract corporations and businesses with sustainability goals to state. 	<ul style="list-style-type: none"> • Read DOE Guide pp. 13-21. • Visit LPO's Title XVII webpage.
DOE Loan Programs Office (LPO)	Advanced Technology Vehicles Manufacturing (AVTM) Direct Loan	Direct loans for manufacture of advanced technology vehicles and qualifying components.	<ul style="list-style-type: none"> • May attract automotive manufacturing to state. 	<ul style="list-style-type: none"> • Read DOE Guide pp. 22- 24. • Visit LPO's AVTM webpage.
USDA Natural Resources Conservation Service (NRCS)	Environmental Quality Incentives Program (EQIP)	Direct financial assistance payments to agricultural producers for installation of conservation practices resulting in environmental benefits. Technical assistance with planning, designing, and installation of approved practices.	<ul style="list-style-type: none"> • May be integrated into states' agricultural/rural energy efficiency programs. 	<ul style="list-style-type: none"> • Read DOE Guide pp. 41-42. • Visit USDA's Financial Assistance webpage.
USDA	Multifamily Housing Energy Efficiency Initiative	Additional points awarded to respondents of Notices of Funds Availability (NOFAs) for energy conservation, energy generation, and green property management.	<ul style="list-style-type: none"> • May be used to promote clean energy in state's rural housing and development initiatives. 	<ul style="list-style-type: none"> • Read DOE Guide pp. 44-45. • Consult USDA's open NOFAs for specific opportunities.
USDA	Repowering Assistance Program (RAP)	Financial incentives (up to 50% of project cost) for biorefineries to use renewable biomass as a replacement fuel source for fossil fuels used to provide process heat or power in their operation.	<ul style="list-style-type: none"> • May support state's biomass programs and outreach to eligible bio-refineries. 	<ul style="list-style-type: none"> • Read DOE Guide pp. 46-47. • Consult USDA's RAP webpage.
USDA	Rural Development Biorefinery, Renewable Chemical and Biobased Product Manufacturing Assistance Program	Loan guarantees (up to \$250 million) for development, construction, and retrofitting of commercial scale biorefineries and biobased product manufacturing.	<ul style="list-style-type: none"> • May support state's rural development and manufacturing programs. 	<ul style="list-style-type: none"> • Read DOE Guide pp. 50-51. • Visit USDA's Biorefinery Assistance Program webpage.
USDA	Business and Industry (B&I) Loan Guarantee	Loan guarantees (up to \$25 million) covering: business and industrial	<ul style="list-style-type: none"> • May be combined with Rural Energy for America 	<ul style="list-style-type: none"> • Read DOE Guide p. 52. • Visit USDA's B&I

	Program	acquisitions when the loan will keep the business from closing, prevent the loss of employment opportunities, or provide expanded job opportunities; business conversion, enlargement, repair, modernization, or development; purchase and development of land, easements, rights-of-way, buildings, or facilities; and purchase of equipment, leasehold improvements, machinery, supplies, or inventory.	Program loan guarantees and Small Business Administration loan guarantees.	webpage.
USDA	Rural Housing Direct Loan Program	Loans to help low-income buyers purchase single-family homes in rural areas; to build, repair, or relocate a home; or to purchase and prepare sites, including providing water and sewage facilities.	<ul style="list-style-type: none"> • Additional points for loan qualification available for compliance with approved green home criteria (Energy Star for Homes; Enterprise Green Communities, LEED for Homes, National Green Building Standard) • May support states' housing/energy program. 	<ul style="list-style-type: none"> • Read DOE Guide p. 53. • Visit USDA's Single Family Housing Direct Home Loans webpage.
USDA	Rural Repair and Rehabilitation Loan Program	Loans and grants to very low-income homeowners to repair, improve, or modernize dwellings or to remove health and safety hazards.	<ul style="list-style-type: none"> • May be integrated into state or utility low-income housing programs. 	<ul style="list-style-type: none"> • Read DOE Guide p. 53. • Consult USDA's Single Family Housing Repairs Loans and Grants webpage.
USDA	Water and Waste Disposal Loans and Grants	Loans, grants, and loan guarantees to develop water and waste disposal systems in rural towns. Loans and grants are available to applicants unable to obtain affordable financing elsewhere or from their own resources.	<ul style="list-style-type: none"> • May support state's water and waste disposal efficiency goals. • Public bodies, non-profit corporations, and Indian Tribes may apply. 	<ul style="list-style-type: none"> • Read DOE Guide p. 54. • Consult USDA's Water and Waste Disposal program webpage.
USDA Rural Energy for America	Renewable Energy System and Energy Efficiency Improvement	Financial assistance to agricultural producers and rural small businesses to purchase, install,	<ul style="list-style-type: none"> • May be integrated into state's clean energy 	<ul style="list-style-type: none"> • Read DOE Guide pp. 56-7.

Program (REAP)	Guaranteed Loan and Grant Program	and construct renewable energy systems; make energy efficiency improvements; and use renewable technologies that reduce energy consumption.	financing and incentive programs.	<ul style="list-style-type: none"> Consult USDA REAP webpage.
USDA Rural Energy for America Program (REAP)	Energy Audit and Renewable Energy Development Assistance Grant Program	Grant assistance to entities that will assist agriculture producers and small rural businesses by conducting energy audits and providing information on renewable energy development assistance.	<ul style="list-style-type: none"> May be used to provide assistance and audit's for rural renewable energy development. 	<ul style="list-style-type: none"> Read DOE Guide pp. 56-7. Consult USDA REAP webpage.
USDA Rural Utilities Service (RUS)	Electric Loan Program	Loans and loan guarantees to finance the construction of electric distribution, transmission, and generation facilities, including system improvements and replacements required to furnish and improve electric service in rural areas.	<ul style="list-style-type: none"> Program can also be used to finance demand side management, energy conservation programs, and on-grid and off-grid renewable energy systems 	<ul style="list-style-type: none"> Read DOE Guide pp. 58-9. Visit USDA RUS webpage.
USDA Rural Utilities Service (RUS)	Energy Efficiency and Conservation Loan Program	Provides rural utilities with low-interest loans (tied to Treasury interest rates) to finance efficiency and conservation projects for commercial, industrial, and residential consumers. Utilities are authorized to re-lend the money.	<ul style="list-style-type: none"> May be used to support rural cooperative financing (including on-bill) programs. 	<ul style="list-style-type: none"> Read DOE Guide p. 60. Visit USDA RUS webpage.
USDA Rural Utilities Service (RUS)	High Energy Cost Grant Program	Grants to purchase, construct, install, repair, replace, or improve energy generation, transmission, or distribution facilities in communities with extremely high energy costs that are at least 275 percent higher than the national average. On-grid and off-grid renewable energy projects, energy efficiency, and energy conservation projects are eligible	<ul style="list-style-type: none"> States are eligible to apply. 	<ul style="list-style-type: none"> Read DOE Guide pp. 61-2. Visit USDA's High Energy Cost Grants webpage.

USDA Rural Utilities Service (RUS)	Rural Energy Savings Program (REAP)	Provides Rural Energy Savings Program (RESP) loans at 0% interest to entities that agree to in turn make loans (at no more than 3% interest) to qualified consumers for energy efficiency measures.	<ul style="list-style-type: none"> • May be used to support rural cooperative financing (including on-bill) programs. 	<ul style="list-style-type: none"> • Read DOE Guide p. 63. • Visit USDA's RESP webpage.
HUD Federal Housing Administration (FHA)	Energy Efficient Mortgage (EEM) Program	FHA insurance for energy efficiency improvements (energy package) to be financed as part of a borrower's home purchase or refinance. Energy package must be cost-effective based on a home energy assessment, eliminating need for borrower to income qualify.	<ul style="list-style-type: none"> • May be integrated into states' residential energy efficiency programs. 	<ul style="list-style-type: none"> • Read DOE Guide pp. 67-8. • Visit FHA's Energy Efficient Mortgage Program webpage.
HUD Public and Indian Housing (PIH)	Energy Performance Contracting (EPC)	Subsidies and guidance offered to public housing authorities (PHAs) to implement EPCs in public housing	<ul style="list-style-type: none"> • May help support states' low-income housing and public housing initiatives. • May attract ESCOs to work on housing in state. 	<ul style="list-style-type: none"> • Read DOE Guide p. 75. • Visit PIH's EPC webpage.
HUD Federal Housing Administration (FHA)	Rehabilitation Mortgage Assistance 203 (k) Loans	FHA's primary program for the rehabilitation and repair of single family properties. Energy improvements are eligible for 203(k) financing.	<ul style="list-style-type: none"> • May support compliance with residential energy codes and standards. 	<ul style="list-style-type: none"> • Read DOE Guide p. 77-8. • Visit FHA's 203(k) webpage.
DOT	Transportation Infrastructure Finance and Innovation Act Program (TIFIA)	Federal credit program offering secured loans, loan guarantees, and standby lines of credit for eligible transportation project. Eligible applicants include state DOTs, transit operators, special authorities, local governments, and private entities.	<ul style="list-style-type: none"> • Can be used for highway, transit, rail, transit-oriented development, surface transportation, and rural infrastructure projects, including alternative fuel projects. 	<ul style="list-style-type: none"> • Read DOE Guide p. 91-2. • Visit DOT's TIFIA webpage.
DOT Federal Highway Administration (FHWA)	State Infrastructure Banks (SIBs)	Revolving infrastructure investment funds providing loans or credit enhancements for qualified projects.	<ul style="list-style-type: none"> • More than 30 states have a SIB; must pass enabling legislation to establish one. 	<ul style="list-style-type: none"> • Visit FHWA's Federal Credit Assistance Tools webpage.
DOT Federal	Congestion Mitigation	Funds transportation-related	<ul style="list-style-type: none"> • State Energy Offices have 	<ul style="list-style-type: none"> • Visit FHWA's CMAQ

Highway Administration (FHWA)	and Air Quality Improvement Program	environmental projects in non-attainment areas for state DOTs, metropolitan planning organizations, and other sponsors.	used CMAQ funds to advance alternative fuel and electric vehicle projects.	Program webpage.
Treasury Community Development Financial Institutions Fund (CDFI)	New Markets Tax Credits (NMTCs)	Provides tax credits to Community Development Entities for investing in low-income communities, including for housing development, renewable energy installations, and facilities providing community services.	<ul style="list-style-type: none"> • May support states' low income housing and community development programs. 	<ul style="list-style-type: none"> • Read DOE Guide p. 95-6. • Visit CDFI's NMTC webpage.
Treasury	Qualified Energy Conservation Bonds (QECBs)	Federally-subsidized bonds for qualified energy conservation projects.	<ul style="list-style-type: none"> • States and large local governments have received over \$3 billion in QECB allocations, and many have successfully issued bonds for clean energy projects. 	<ul style="list-style-type: none"> • Read DOE Guide p. 97-8. • View Treasury Department's guidance on QECBs.
EPA	Clean Water State Revolving Fund (CWSRF)	Capitalization grants to states and Puerto Rico for revolving loan funds to construct municipal wastewater facilities, control nonpoint sources of pollution, build decentralized wastewater treatment systems, create green infrastructure projects, protect estuaries, and fund other water quality projects.	<ul style="list-style-type: none"> • EPA provides grants to all 50 states plus Puerto Rico to capitalize state CWSRF programs, with an additional 20% matching contribution from states. • States and cities have leveraged CWSRF to finance and credit-enhance EE and RE projects. 	<ul style="list-style-type: none"> • Read DOE Guide pp. 101-104. • View EPA's CWSRF webpage.
EPA	Drink Water State Revolving Fund (DWSRF)	Capitalization grants to states and Puerto Rico for revolving loan funds to improve drinking water treatment; fix leaky or old pipes; improve source of water supply; replace or construct finished water storage tanks; conduct other infrastructure projects to protect public health.	<ul style="list-style-type: none"> • EPA provides grants to all 50 states plus Puerto Rico to capitalize state CWSRF programs, with an additional 20% matching contribution from states. • Portion of each state's 	<ul style="list-style-type: none"> • Read DOE Guide pp. 105-108. • View EPA's DWSRF webpage.

			grant can go toward water efficiency, energy efficiency, and other green infrastructure projects.	
SBA	7(a) Loan Program	Loan guarantees for start-up and existing small businesses to access capital from participating institutions.	<ul style="list-style-type: none"> • Loan proceeds may be used to support businesses' operational expenses, short-term capital needs, equipment purchases, etc. • May support SEOs' small business partners in state. 	<ul style="list-style-type: none"> • Read DOE Guide pp. 111-112. • View SBA's 7(a) program webpage.
SBA	Certified Development Company/504 Loan Program (CDC/504)	Low-interest loans for the purchase of land, including existing buildings; purchase of improvements, including grading, street improvements, utilities, parking lots, and landscaping; construction of new facilities or modernizing, renovating, or converting existing facilities; purchase of long-term machinery and equipment.	<ul style="list-style-type: none"> • Energy efficiency upgrades to buildings or manufacturing facilities owned by small businesses are eligible uses of 504 loans. 	<ul style="list-style-type: none"> • Read DOE Guide pp. 113-114. • View SBA's CDC/504 program webpage.

