Revolving Loan Fund Bootcamp
SEP National Training Forum

September 29th, 2022

Presented by U.S. DOE and Lawrence Berkeley National Laboratory

Clean Energy Finance Opportunities

Financing programs provide upfront capital, minimize debt burden, leverage private capital, and help to scale and accelerate deployment of clean energy technology.

- **Market Maturity:** Energy efficiency financing is an estimated **$7 billion** annual market; **40%** growth since 2014*
- **Available Support Infrastructure:** Financial institutions, third-party program administrators, contractors, and other service providers are positioned to drive uptake of financing and reduce state burden
- **Federal Funding Resources:**
  - Infrastructure Investment and Jobs Act Funding
    - Section 40502
    - Section 40109
  - Inflation Reduction Act Funding
    - Greenhouse Gas Reduction Fund
  - Annual SEP Funding
  - Unspent American Recovery and Reinvestment Act (ARRA) Funds

*Source: ACEEE, 2020. *Energy Efficiency Program Financing: Size of the Markets*.

Section 40502: Provision Overview

- IIJA Section 40502 authorizes the State Energy Program (SEP) to establish a ***new program*** to provide ***$250M to State Energy Offices (states)*** to capitalize revolving loan funds to provide loans and grants for commercial and residential energy audits, energy efficiency upgrades, and retrofits as well as technical assistance.
  - 40% of funds will be distributed to all states using SEP's existing formula
  - 60% of funds will be distributed to priority states utilizing a new formula determined by the Secretary

- Priority State definition per Section 40501:
  - Among the 15 states with highest per-capita residential and commercial sector energy consumption

    OR
  - Among the 15 states with highest annual per capita energy-related carbon emissions as most recently reported by EIA

- Major statutory requirements:
  - Up to 25% of grant funds can be used for grants or technical assistance for small businesses (fewer than 500 employees) and low-income homeowners.
  - Up to 10% of funds can be used for administrative expenses
  - States must begin using grants within 180 days of receiving them
  - SEP must establish the program within one year of IIJA enactment

Eligible Recipients of 40502 Funds

Eligible Recipients of Loans, Grants, and Technical Assistance — EE RLF Program			
Type of Assistance	**Building Sub-Sector**	**Eligible Recipient(s)**	**Additional Details**

Loans	Commercial	• A business that satisfies both of the following:
		  ○ Conducts a majority of its business in the state that provides the loans.
		  ○ Owns or operates 1 or more commercial buildings or commercial space within a building that serves multiple functions, such as a building for commercial and residential operations.
			• A commercial energy audit must estimate the total energy and cost savings potential for the facility using software approved by the Secretary.

	Residential	• An individual who owns one of the following:
		  ○ A single family home.
		  ○ A condominium or duplex.
		  ○ A manufactured housing unit.
		• A business that owns or operates a multifamily housing facility.
			• Funds should not supplant Federal resources including Weatherization Assistance Program funding.

Grants and Technical Assistance	Commercial	• A business that meets both criteria to receive loans (see above) and has fewer than 500 employees.	• A commercial energy audit must estimate the total energy and cost savings potential for the facility using software approved by the Secretary.
	Residential	• A low-income individual that owns a residential building.	• Funds should not supplant Federal resources including Weatherization Assistance Program funding.

Facilitators

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Training motivation

- This training aims to help SEO staff maximize energy benefits to their states by leveraging IIJA funds and/or other capital sources to support revolving loan funds.

- Available Federal funding sources include:
  - IIJA Section 40109
  - IIJA Section 40502 (Revolving Loan Fund)
  - SEP Annual Appropriations
  - Unspent funds from the American Recovery and Reinvestment Act (ARRA)

Training objectives

- The bootcamp will help participants:
  - Understand the opportunities, needs and limitations of RLFs and other related financing mechanisms
  - Review examples of successful RLF program designs that they may wish to replicate or incorporate
  - Spur ideas on how maximize RLF impact

Agenda

- Overview of revolving loan funds (RLFs)
- Setting goals and expectations
- RLF program design: Considerations and options
- Questions and discussion among states

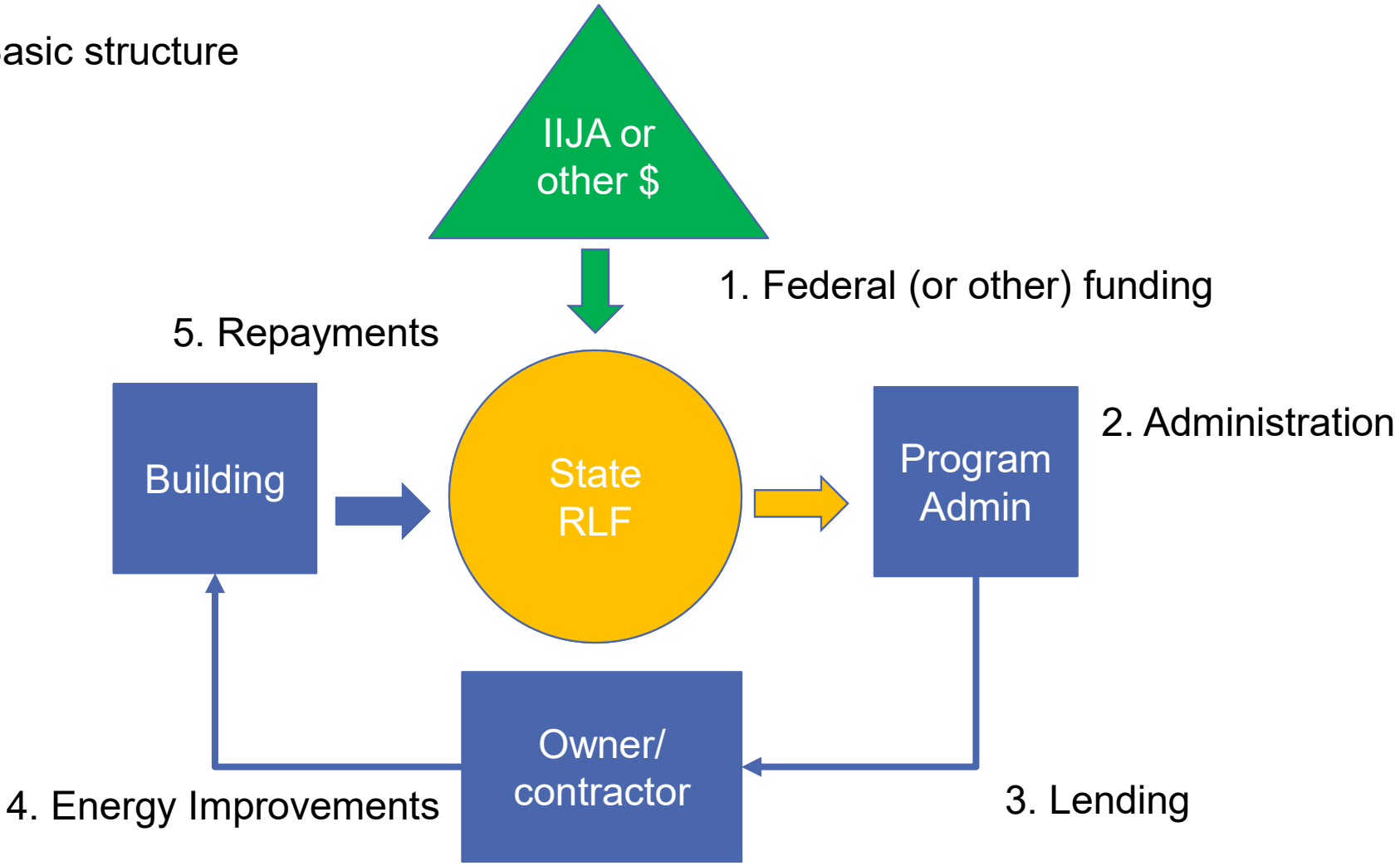
Overview of revolving loan funds

RLF description

- States use energy revolving loan funds to support a variety of projects across multiple end use sectors
  - Projects: Energy efficiency, renewable energy, and water efficiency
  - Sectors: Residential, commercial, public/institutional; some funds serve only one sector, others serve multiple sectors
- States employ a variety of program administration structures
  - Discussed in detail later in this training
- States have leveraged multiple funding sources
  - Petroleum overcharge funds
  - Federal funding: American Recovery and Reinvestment Act (2010), [forthcoming: Infrastructure Investment and Jobs Act (2021)]
  - State funding – appropriations, cap-and-trade revenues
  - Utility customer funds (less common)

RLF description

- Basic structure



Setting goals and expectations

Goals and metrics

- What are your goals for the RLF?
  - Clean energy (energy savings, decreased emissions, regulatory requirements)
  - Economic (economic development, workforce development)
  - Consumer (increased comfort, improved health outcomes, bill savings, improved asset value)
  - Societal (broader participation in the clean energy economy/transition, electric grid impacts, support for LMI households or small businesses)
  - Program self sufficiency and protecting the corpus

- How do you measure performance?
  - Clean energy: Number of projects? Size of project? Improvements with most savings (energy savings, emissions savings)? Meeting legislative or regulatory energy goals?
  - Economic: Dollars invested? Dollars leveraged? Jobs created?
  - Consumer: Dollar value of bill savings?
  - Societal: Number of participants from target groups?
  - Program sustainability: Minimizing losses? Preserving funds?

Gap analysis

- A gap analysis identifies market need for clean energy financing in a given state by:
  - Reviewing existing sources of programmatic and private-sector financing
  - Consulting with stakeholders to determine suitability of existing sources

- Gaps may exist for multiple reasons
  - Access: Certain segments of a sector (e.g., small commercial, credit-challenged residential, local governments) may not be able to access capital at all
  - Terms: capital may be available, but may be expensive, require quick payback, or be otherwise be ill-suited to certain energy projects

- State RLFs that fill gaps tend to provide more value
  - Enable new projects rather than competing with or displacing other financing already available

RLF activity

- How much clean energy have RLF programs been able to fund?
- Who participates (income, credit)? How much do they borrow? How well have RLF participants repaid their loans?
- What are the lessons learned from programs created or enhanced under ARRA?

RLF lending and sourcing

- Berkeley Lab studied 12 State Energy Office RLF programs. In 2014, those program invested approximately $74M in energy efficiency.
- Where the funds went (investment by sector):

Total Loan Volume ($M)	Residential Sector ($M)	Number of Residential Loans	Commercial / Industrial Sector ($M)	Public / Institutional Sector ($M)	Number of Non-Residential Loans
$74	$17	1,595	$12	$45	92

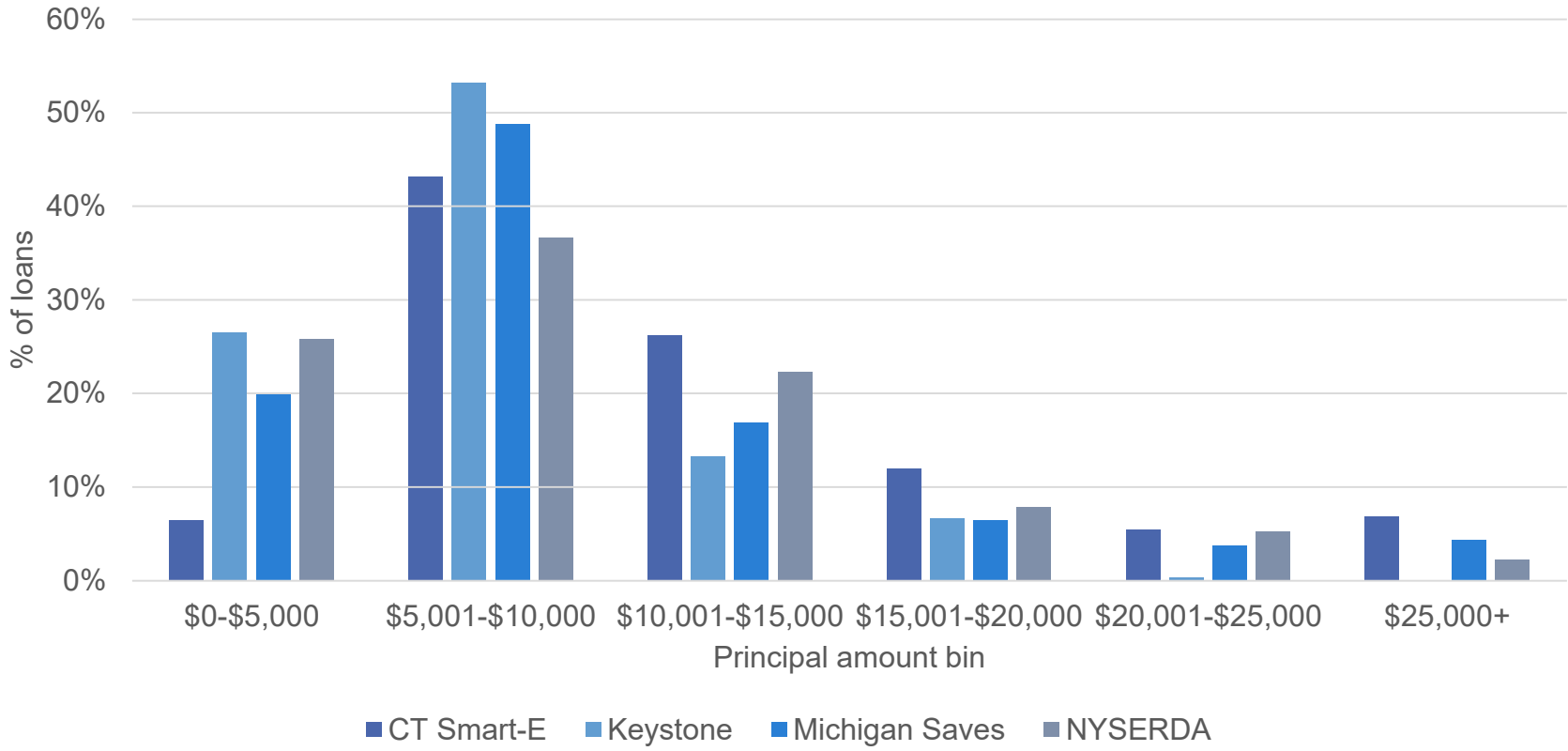
- Where the funds came from (capital source):

Utility ($M)	Private Sector ($M)	Public Sector ($M)	Portfolio Sale ($M)
$10	$9	$44	$12

Source: *Energy Efficiency Program Financing*, Deason, et al, Berkeley Lab 2016

Residential participant loan size

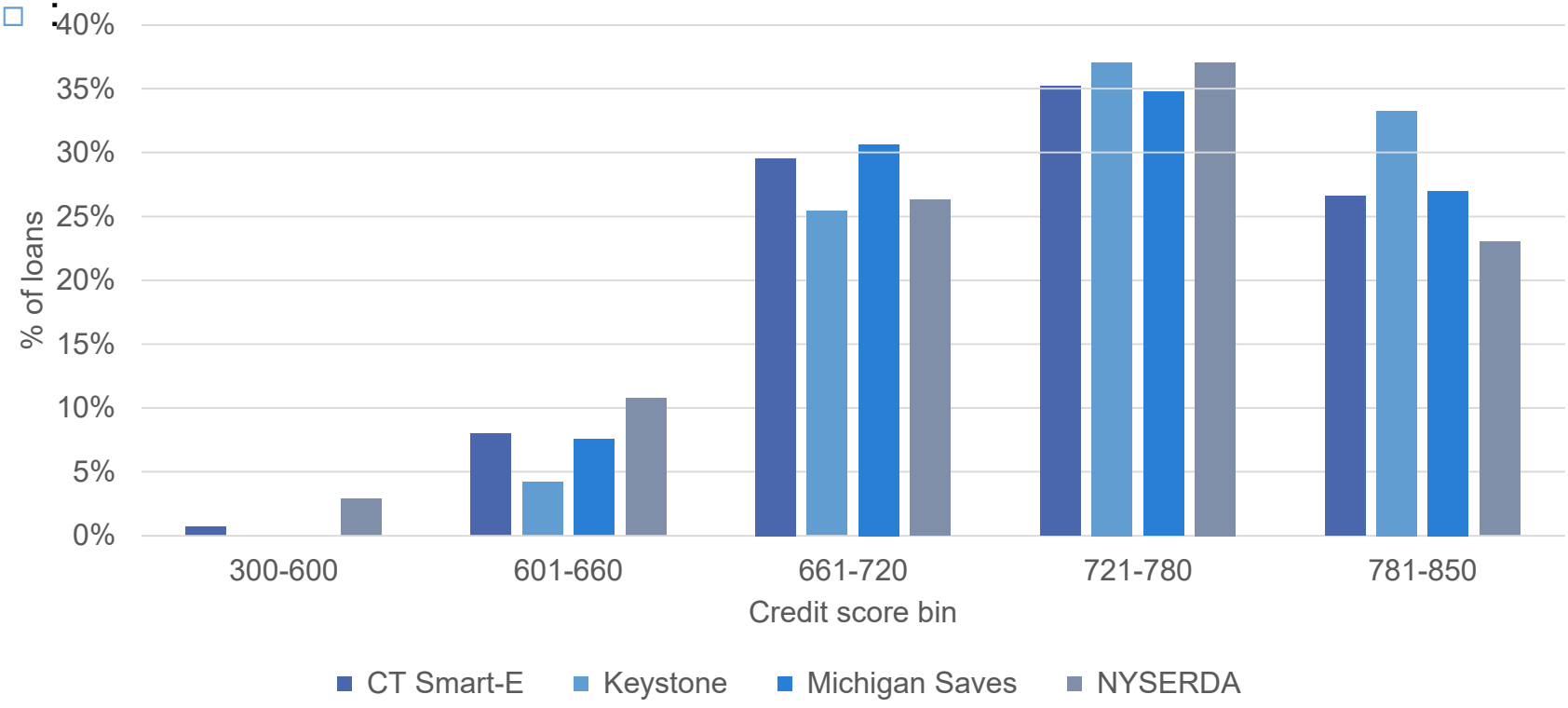
- Loan principal amounts in the Connecticut Smart-E loan, Keystone HELP, Michigan Saves, and Green Jobs Green New York programs over 10 years:



Source: *Long-Term Performance of Energy Efficiency Loan Portfolios* SEE Action 2021

Residential participant credit

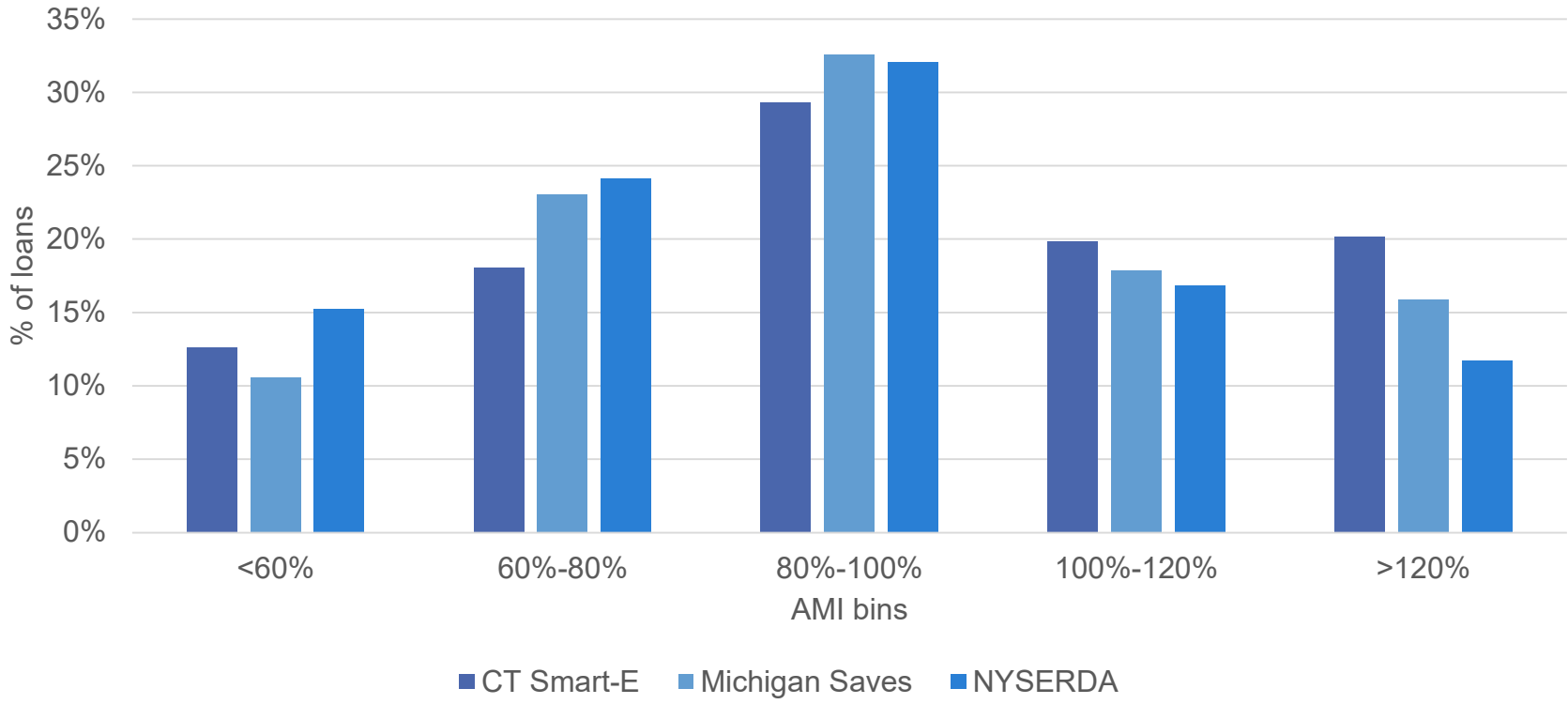
- Borrower FICO scores in the Connecticut Smart-E loan, Keystone HELP, Michigan Saves, and Green Jobs Green New York programs over 10 years:
- :



Source: *Long-Term Performance of Energy Efficiency Loan Portfolios* SEE Action 2021

Residential participant income

- Program participation in the Connecticut Smart-E loan, Michigan Saves, and Green Jobs Green New York programs by Area Median Income (AMI) bin over 10 years:



Source: *Long-Term Performance of Energy Efficiency Loan Portfolios* SEE Action 2021

ARRA funding for RLFs: Facts and figures*

- 35 states capitalized RLFs using funds from the American Recovery and Reinvestment Act; total capitalization was $566 million
- Most state RLFs have loaned out their initial capitalization amount
  - RLFs capitalized using these funds have loaned $796 million
  - Some states have loaned out funds 2+ times
- Ten states account for 68% of this loan volume ($)

* Figures and statistics based on PAGE data (as of 6.1.22). PAGE data is self-reported by states.

ARRA RLF success factors

- *Leverage*: Funds with high lending volume either:
  - Used multiple sources of revolving capital (e.g., funds established before ARRA that used ARRA funds to supplement their existing resources);
  - Engaged private capital providers – through co-lending models or by using federal money as a credit enhancement to spur private lending; or
  - Replenished capital via secondary market transactions

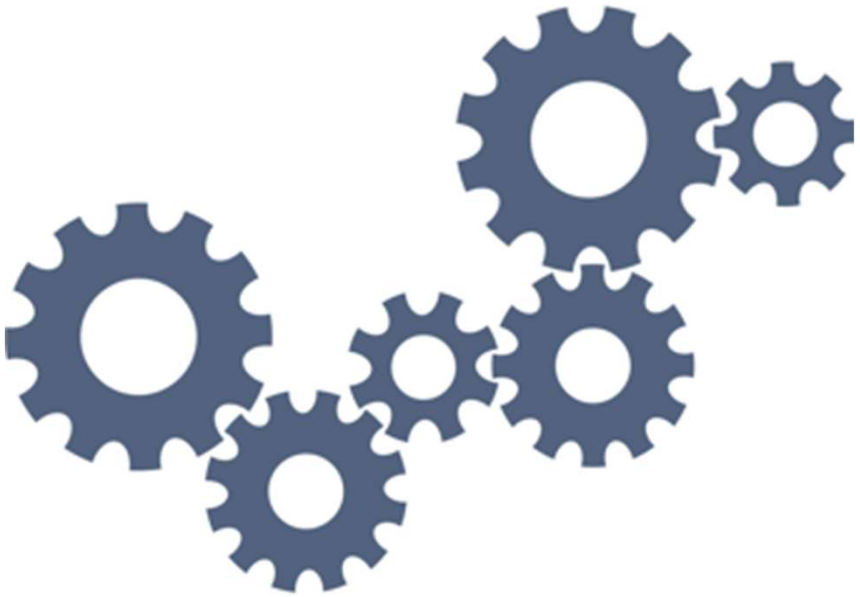
- *Administration*: Many successful funds engaged third parties to help with some aspects of program administration, rather than relying exclusively on SEO staff and resources

- *Partnerships*: Many successful funds partnered with contractors, community groups, local credit unions, or banks to help advertise the program and drive uptake

RLF program design: Considerations and options

RLF functions

- Marketing and outreach
- Loan origination
- Loan servicing
- Monitoring and reporting



Marketing and outreach

- Stimulate awareness and uptake of financing product
- May be most effective to integrate with contractor sales process

Loan origination

- Process financing application
- Perform credit evaluation (e.g., loan origination/underwriting)
- Generate loan documents
- Disburse loan proceeds

Loan servicing

- Collecting and processing loan repayments
- Sending out statements (if required)
- Delinquency collections
- Default collections

Monitoring and reporting

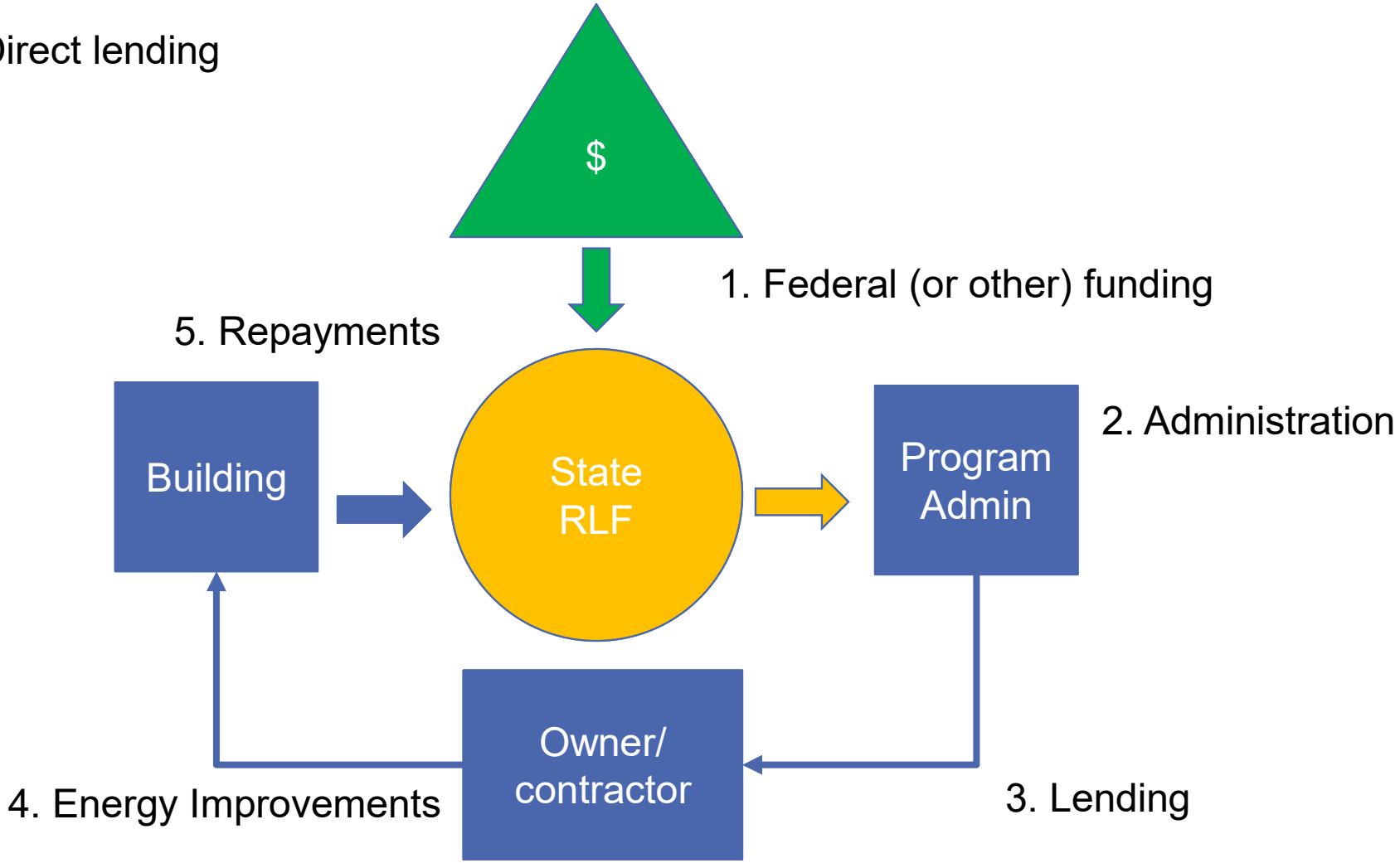
- Regular and consistent process (monthly)
- Review applications received/processed, loan issued, repayments, and delinquencies/defaults
- Comply with reporting requirements from capital provider and Federal flow down requirements (where applicable)

Options for RLF lending structure

- Direct lending
- Co-lending
- Interest rate buydown
- Credit enhancement (loan loss reserves)

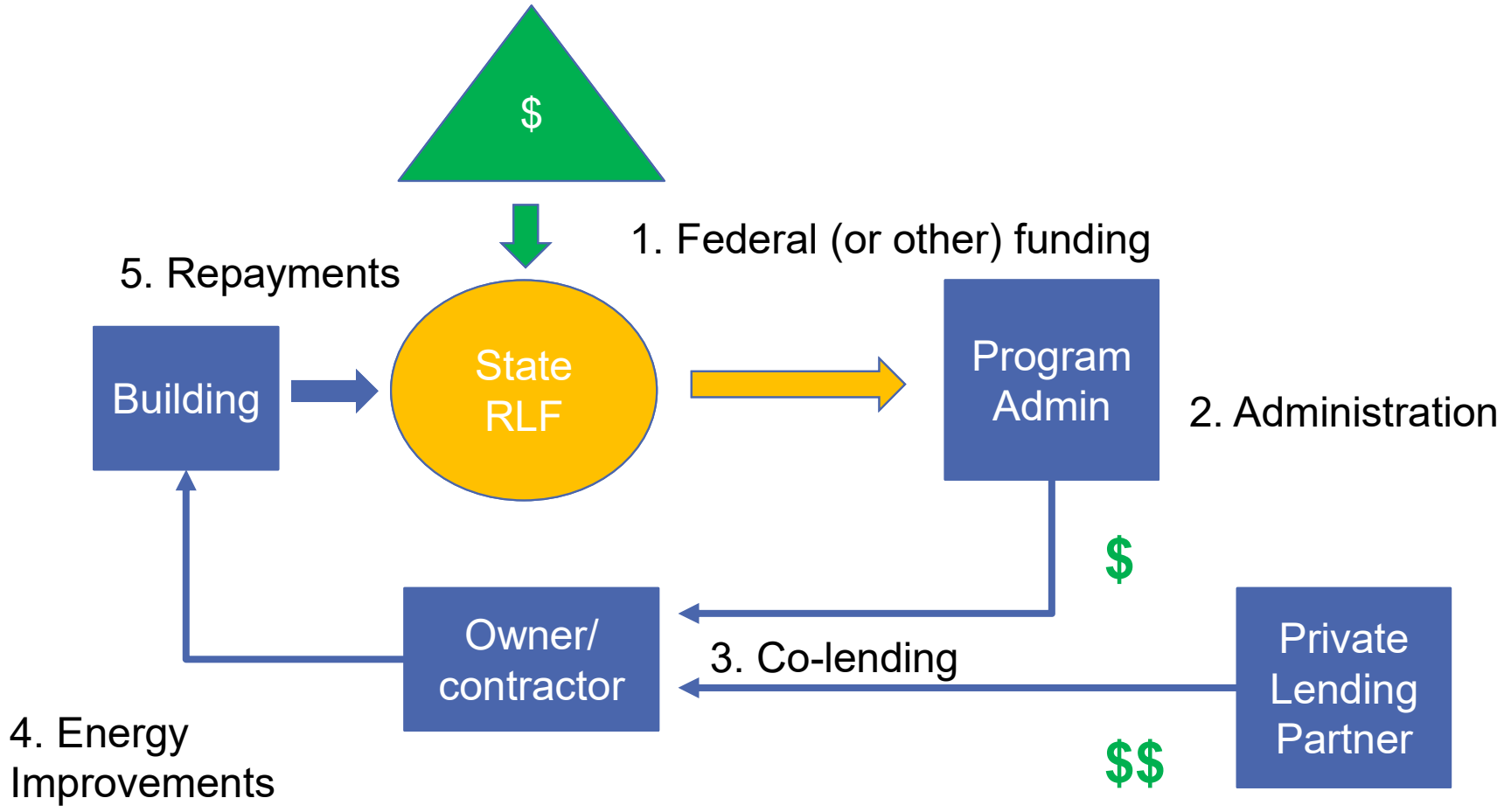
Program structure: Direct lending

- Direct lending



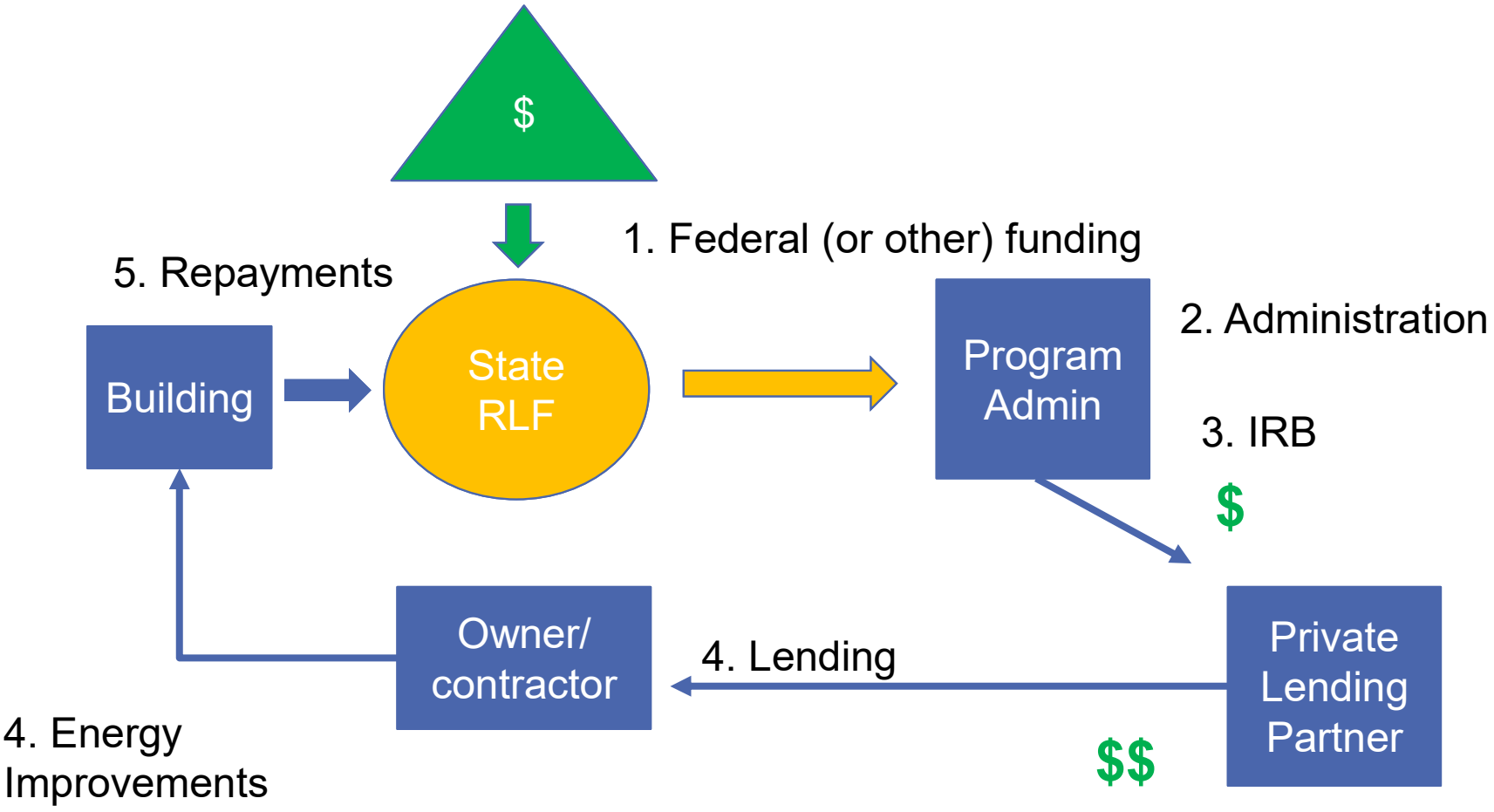
Program structure: Co-lending

- Co-lending model



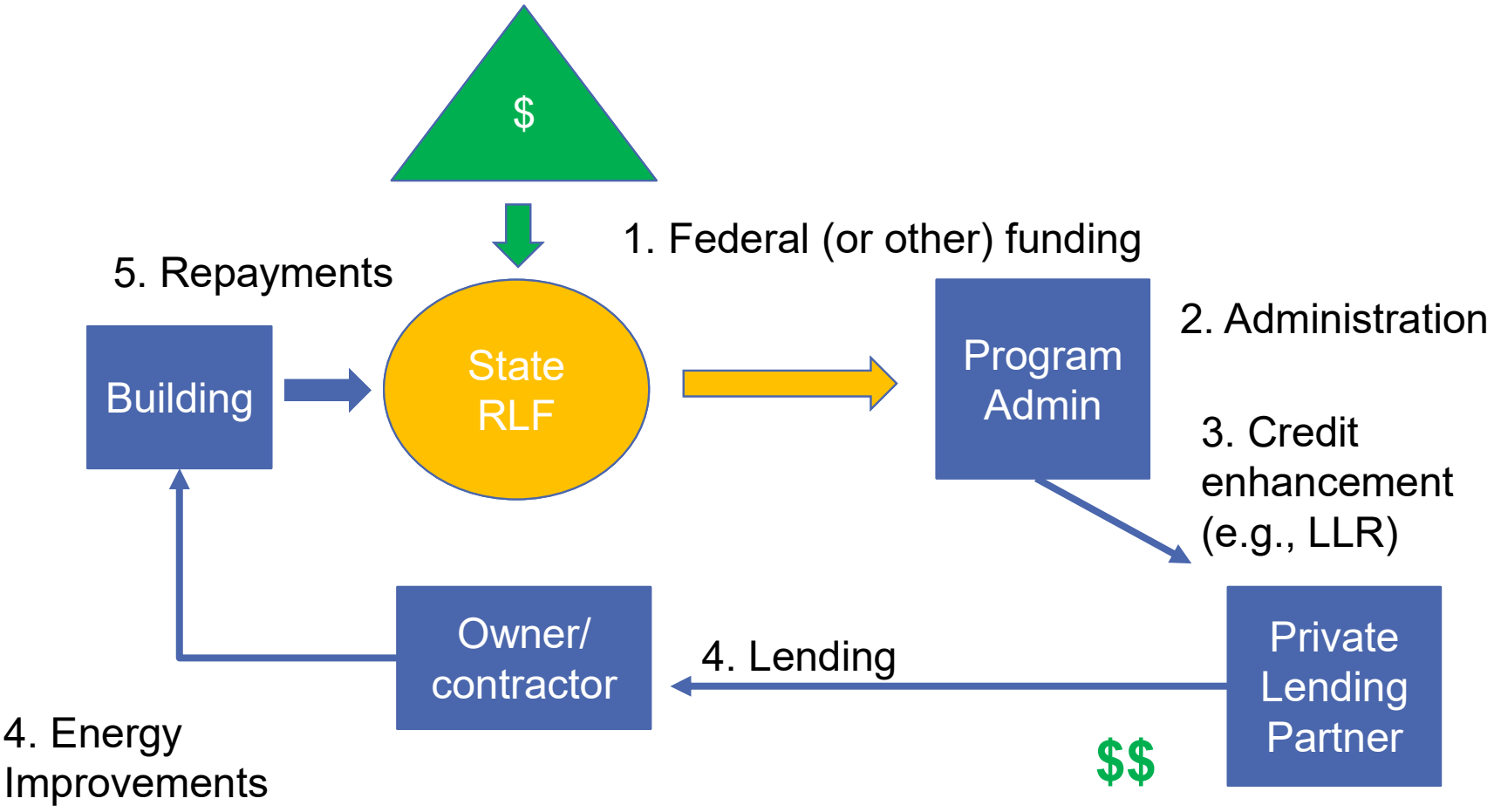
Program structure: Interest rate buydown

- Interest Rate Buydown (IRB) model



Program structure: Credit enhancements (loan loss reserve)

- Loan Loss Reserve (LLR)



Options for RLF administration

- Self-administered – SEO performs all functions internally
  - Example: Texas State Energy Conservation Office LoanSTAR Program
- Partially Outsourced – SEO contracts out for certain tasks (e.g. loan origination, loan servicing)
  - Example: NYSERDA Green Jobs-Green New York Program
- Fully Outsourced – SEO contracts out for program delivery
  - Example: AlabamaSAVES Program

Advantages/disadvantages of administration options

Option	Advantages	Disadvantages
Self-administered	• Control program delivery	• Requires expertise that may not be available in house • May compete with other staff and program priorities
Partially Outsourced	• Access external expertise (particularly important for compliance with federal/state regulations for lending and loan servicing) • Alleviate some staff burden	• Small number of fee-for-service providers (except servicing)
Fully Outsourced	• Same as Partially outsourced • Alleviate more staff burden	• Same as Partially outsourced • Less control over program delivery

RLF program design tradeoffs

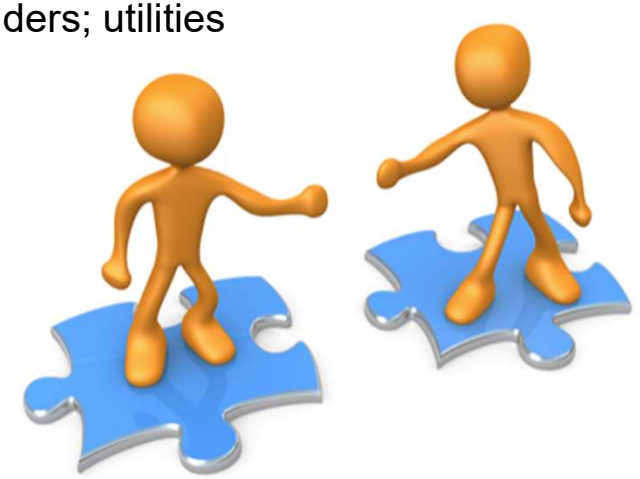
- Risk tolerance
- Beat the market or complement the market
- Broadening access to underserved borrowers
- Policy goals vs financial goals

RLF program design elements

- Project eligibility
- Borrower eligibility
- Loan underwriting standards
- Types of loans
- Loan terms

Leveraging partnerships

- Engaging private capital can dramatically expand the potential volume of lending and resultant energy impacts that a RLF can achieve
  - Many RLFs that have attained high volumes (though not all) have engaged private capital
- Infrastructure Investment and Jobs Act directs that State shall, to maximum extent practicable, use the grant to leverage private capital
- How to do this?
  - Listening sessions with stakeholders – contractors; lenders; utilities
  - Deliberately and persistently build partnerships
  - Attract private capital – avoid competing with it
  - Cross-promotion opportunities



Financial terms

- The financial terms offered to customers impact fund uptake, fund sustainability

- Balancing act
  - Low interest rates = higher demand, potential run on the money; high interest rates may result in little demand
  - Long loan terms = more projects that pencil out for borrowers, but slow repayment; some private capital providers will be unwilling to offer longer terms

- Changes to terms create timing considerations

Protecting the corpus

- Successful RLFs often face challenges in maintaining available funding
  - Unavailability could have negative market impacts (e.g., frustrated program partners, frustrated program participants/potential participants, and reputational impacts that could hinder participation in future program initiatives)

- Factors that can improve fund sustainability:
  - Strong underwriting criteria
  - Effective servicing and monitoring
  - Setting interest rates sufficient to cover anticipated losses and expenses, including administration costs
    - IIJA RLF provision caps administrative costs at 10%

Generating program participation

- Determine who is best equipped to be responsible for lead generation
  - Contractors
  - Program staff
  - Community organizations
- Integrated approach to project generation – financing is one piece
- Community-based participation

Resources

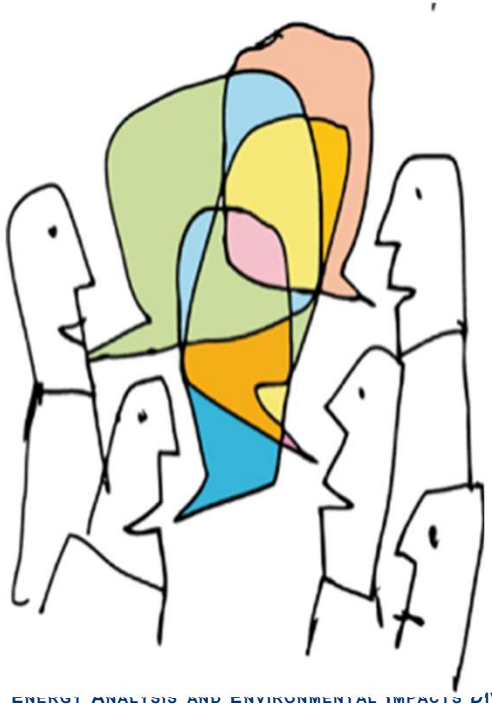
- NASEO State Energy Revolving Loan Fund resources
  - www.naseo.org/issues/energy-financing/revolving-loan-funds
- NASEO Energy Finance
  - https://www.naseo.org/issues/energy-financing
- DOE resources
  - https://www.energy.gov/eere/slsc/revolving-loan-funds
- Berkeley Lab research on energy efficiency financing
  - https://emp.lbl.gov/projects/financing-energy
- Specific Berkeley Lab reports:
  - Long-term Performance of Energy Efficiency Loan Portfolios https://emp.lbl.gov/publications/long-term-performance-energy
  - Energy Efficiency Program Financing
    https://emp.lbl.gov/publications/energy-efficiency-program-financing
  - Energy Efficiency Financing Program Implementation Primer https://emp.lbl.gov/publications/energy-efficiency-financing-program
- NYSERDA Green Jobs-Green New York loan data
  - www.nyserda.ny.gov/Researchers-and-Policymakers/Green-Jobs-Green-New-York/Data-and-Trends
- Minnesota Trillion BTU application document
  - https://www.sppa.com/wp-content/uploads/Trillion-BTU-Loan-Application.pdf

Experience on the ground

- Nebraska Dollar and Energy Saving Loan Program

COMMERCE DEPARTMENT

- Minnesota Trillion BTU Loan Program



Questions and discussion among states

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