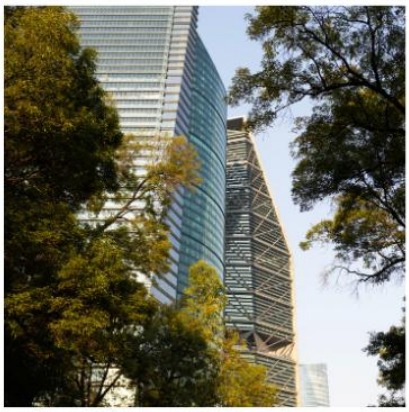
PROSPECT





Learning Handbook on Revolving Funds

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About the project

PROSPECT aims to strengthen the capacity of local and regional authorities (LRAs) across Europe to implement sustainable energy and climate actions by reducing reliance on public funding and increasing the use of innovative financing schemes (e.g., one-stop-shops, energy agencies, energy communities). The project offers a peer-to-peer Capacity Building Programme (CBP) tailored to the needs and time constraints of LRAs, available in multiple languages and structured in adaptable learning modules. Through large-scale outreach, including very small and remote LRAs, PROSPECT CUBE acts as an entry point to EU programmes and financing opportunities for authorities with limited experience in the field.

PROSPECT CUBE builds upon two successful Horizon 2020 initiatives: PROSPECT (2017–2020) and PROSPECT+ (2022–2025).

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Table of Contents

Contents

List of Figures

List of Tables

List of abbreviations

Abbreviation	Description
CBP	Capacity-Building Programme
EE	Energy Efficiency
ESMAP	Energy Sector Management Assistance Program
EU	European Union
GRF	Green Revolving Fund
HVAC	Heating, Ventilation and Air Conditioning
LRA	Local and Regional Authority
M&V	Measurement and Verification
PV	Photovoltaic
REF	Revolving Energy Fund
RES	Renewable Energy Sources
SME	Small and Medium Enterprise

1. Introduction

Local and regional authorities (LRAs) play a central role in delivering sustainable energy and climate actions on the ground. However, the implementation of these actions is often constrained by limited public budgets, competing investment priorities, and increasing demands for accountability and long-term impact. While grants and subsidies remain important, they are frequently insufficient to support continuous investment needs or to enable the scaling up of successful projects over time.

In response to these challenges, revolving funds have gained increasing attention as an innovative financing instrument that allows LRAs to reinvest financial returns or savings from implemented projects into new actions. By design, revolving funds enable a "spend-to-save" approach, whereby an initial capital allocation can support multiple investment cycles, reducing long-term reliance on external funding sources.

Within the PROSPECT CUBE initiative, revolving funds are considered a strategic financing tool that can be used to finance a wide range of sustainable energy and climate actions, including energy efficiency (EE) improvements, renewable energy (RES) deployment**,** climate adaptation measures, and actions addressing energy poverty. Their flexible structure allows them to be tailored to different institutional contexts and policy objectives, while their revolving nature supports long-term planning, financial discipline and continuity of action, helping LRAs move beyond one-off funding towards more durable financing frameworks.

1.1. Purpose of this handbook

The purpose of this handbook is to assist LRAs in understanding how revolving funds work and how they can be designed and implemented to finance sustainable energy and climate actions. It provides an overview of the core principles of revolving funds, outlines key design and governance choices, and highlights practical considerations that influence their performance in practice.

Building on experience gathered through previous PROSPECT initiatives and EU-wide practice, the handbook translates financial concepts into practical guidance for public authorities with different levels of experience. Rather than promoting a single model, it presents a range of approaches and identifies success factors and common challenges, enabling LRAs to assess whether a revolving fund is appropriate for their local context.

1.2. Target audience

This handbook is primarily addressed to LRAs involved in the planning, financing and implementation of sustainable energy and climate actions. It is also relevant for:

- Public administrations and municipal departments involved in budgeting, financial management, asset management or investment planning.
- Local and regional energy and climate agencies supporting LRAs with technical, financial or strategic expertise.
- Public-owned companies, inter-municipal entities and other public bodies involved in the delivery of energy, infrastructure or climate-related services.
- Decision-makers and practitioners seeking to diversify funding sources and reduce dependence on one-off grants.

The handbook is suitable both for authorities with limited experience in innovative financing and for those looking to refine or scale up existing revolving fund schemes.

1.3. How to use this handbook

This handbook is designed to serve as a practical reference that can be read either in full or consulted selectively, depending on the reader's needs and level of familiarity with revolving funds. It introduces the concept and functioning of revolving funds before guiding readers through the main steps involved in setting up and managing such a scheme. It also discusses benefits, risks and success factors, helping decision-makers and practitioners assess suitability and implementation challenges. Finally, practical examples and case studies illustrate how revolving funds have been applied in different contexts and can serve as inspiration for local adaptation.

Each section is structured to stand on its own, allowing readers to focus on specific topics of interest while maintaining a coherent overall understanding of revolving funds as a novel financing instrument.

2. Understanding revolving funds

A revolving fund is a financial mechanism through which capital allocated to specific projects is recovered and reused over time. This core logic is consistently described in European guidance on revolving energy and green revolving funds and distinguishes revolving funds from traditional grant-based financing, where funds are disbursed once and are not replenished (Todeschi et al., 2025) .

In revolving funds, the return of capital is an integral part of the design, requiring clear rules on project eligibility, repayment conditions and fund management. As highlighted in several European implementation guides (Central NSW Joint Organisation et al., 2024), revolving funds function as a financial vehicle, rather than a policy instrument in themselves, and can therefore be adapted to different sectors, governance models and legal contexts, or take different institutional forms (e.g. internal municipal funds, funds managed by energy agencies, or dedicated legal entities). However, they all rely on the same underlying principle of capital preservation and reuse, supported by predictable cash flows and transparent management arrangements (Indvik et al., 2013; Long & Louie.J., 2019).

2.1. How it works in practice?

In operational terms, the functioning of a revolving fund typically begins with an initial capitalisation, which may come from local or regional budgets, national programmes, European funds or a combination of sources. This initial capital is allocated to a fund structure and used to finance a defined set of eligible projects, such as EE measures, RES installations or other climate-related investments (Aditya, 2018). Practical guidance highlights the importance of clearly defining eligible project types and financing conditions from the outset (Indvik et al., 2013; NSW DPIE Sustainable Councils and Communities, 2020).

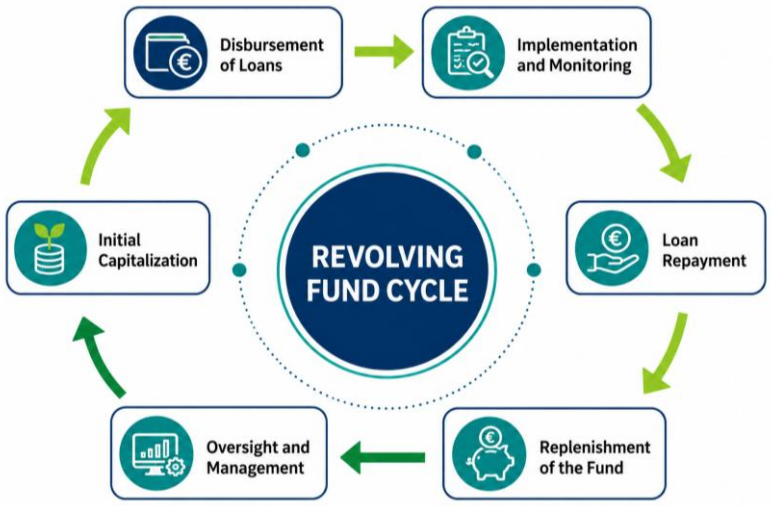

Figure 1. Revolving fund operational cycle (source: Hardiana & Sagala, 2024)

Projects supported by the fund are required to generate measurable financial flows that enable repayment to the fund. Depending on the fund design, these flows may take the form of loan repayments, internal transfers linked to verified energy savings, service fees or other contractual repayment mechanisms. Implementation manuals emphasise that the reliability and traceability of these cash flows are essential to maintaining the revolving character of the fund and ensuring its long-term operability (Indvik et al., 2013; Long & Louie.J., 2019).

Once repayments or savings are returned to the fund, the recovered resources become available for subsequent rounds of investment, allowing the same capital to be reused across multiple project cycles. Experience from municipal and regional revolving funds shows that clear governance arrangements, conservative financial assumptions and systematic monitoring of savings and repayments are key factors in ensuring stable fund operation and effective risk management (Central NSW Joint Organisation et al., 2024; Indvik et al., 2013).

2.2. Arrangements, types and characteristics

Revolving funds can be arranged and operated in different ways, depending on the institutional framework, administrative capacity and objectives of the authority implementing them. Variations may relate to project selection criteria, repayment periods, risk allocation and management responsibilities, all of which influence both the financial performance of the fund and its capacity to support different types of sustainable energy and climate actions.

In all cases, the underlying financial logic of revolving funds remains consistent, but choices related to how a fund is organised, how it provides and recovers financing, and which core features define its operation can vary significantly.

2.2.1. Arrangements

When organising a revolving fund, a first key design decision concerns the institutional arrangement through which the fund is established and managed. Revolving funds may be embedded within existing public administrations or operated through external or semi-autonomous entities acting on behalf of local or regional authorities. These structural choices determine where the fund is institutionally located and how management responsibilities are allocated (Limaye & Derbyshire, 2014; Novikova et al., 2017).

In many cases, revolving funds are set up as internal funds within a municipality or regional authority, with capital allocated from the public budget and managed by internal departments. This approach allows for close alignment with policy priorities and relatively streamlined decision-making processes.

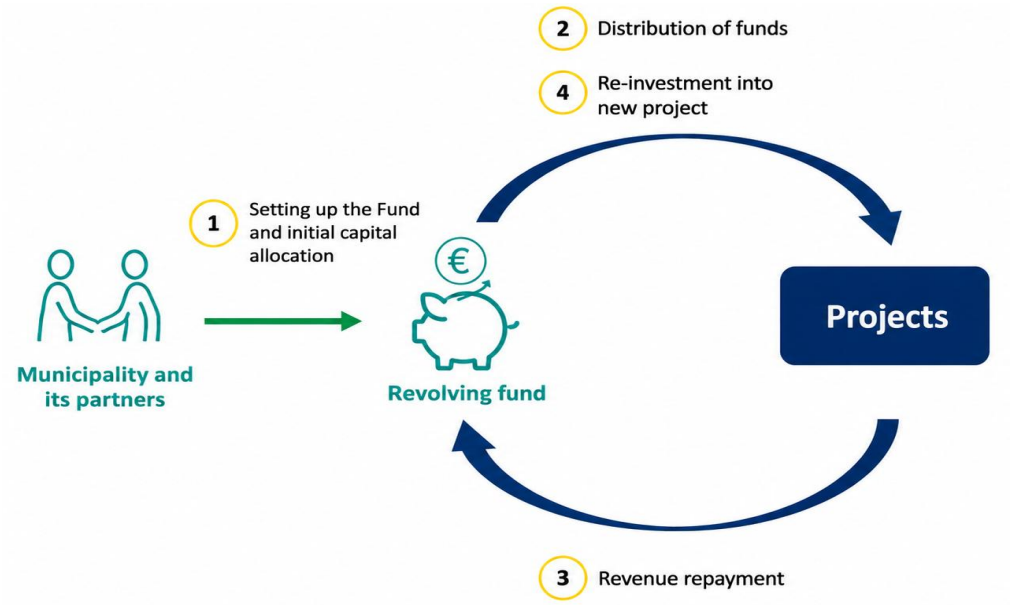

Figure 2. Illustrative example of a simplified local authority–led revolving fund arrangement

Alternatively, fund management may be delegated to energy or climate agencies, public-owned companies or other intermediary organisations. These entities can provide specialised expertise, greater operational flexibility and dedicated staff, while the public authority typically retains strategic oversight. In more complex cases - particularly where multiple stakeholders, blended funding sources or higher financial risks are involved - revolving funds may be established as separate legal entities, with clearly defined governance, decision-making and accountability structures.

These different arrangements influence how decisions are taken, how risks are shared and managed, and how responsibilities are distributed between actors. As a result, they should be carefully assessed in relation to institutional capacities, legal frameworks and long-term local or regional objectives before a revolving fund is established.

2.2.2. Types of revolving funds

From an operational perspective, revolving funds can be broadly distinguished according to the way financial resources are provided to supported projects and how they are recovered. These differences define how the scheme may function in practice and have direct implications for cash-flow predictability, risk exposure and administrative complexity (Central NSW Joint Organisation et al., 2024; Long & Louie, 2019; Orloski et al., 2011; World Bank, 2014).

On this basis, the most common types of revolving funds include:

- Loan-based revolving funds - Projects receive repayable financing and reimburse the fund over a defined period, often under favourable conditions compared to market financing. This type is frequently used when supporting a diverse portfolio of projects or beneficiaries and allows for relatively clear repayment schedules and financial planning.
- Savings-based revolving funds - Repayments are linked to verified cost savings generated by the financed projects. Instead of direct repayments from beneficiaries, resources are returned to the fund through internal budgetary transfers based on achieved savings. This model is commonly applied to EE investments in public buildings or assets.
- Blended revolving funds - Repayable financing is combined with grants, incentives or other support mechanisms. These hybrid models can improve project viability, address affordability constraints or reduce financial risk, particularly when targeting innovative technologies or vulnerable groups.

Table 1 below provides a comparative overview of these approaches in terms of recovery mechanisms, typical use cases and key advantages.

Table 1. Comparison of revolving fund types

Model type	Recovery mechanism	Typical use cases	Advantages
Loan-based	Fixed repayment of principal, often with low or zero interest, over a defined period.	• Small business growth • Clean energy projects Social housing renovations	• Predictable cash flow for the fund • Expands access to credit where private markets may be limited.
Savings-based	Repayments equal to all or a share of verified energy or operational cost savings.	• Internal municipal investments • Public building retrofits • Institutional (i.e. universities) sustainability programmes	• Eliminates the need for separate budget lines • Projects effectively “pay for themselves” through operational savings.
Blended	Combination of repayable finance with non-repayable grants, technical assistance or risk-sharing mechanisms.	• Higher-risk sectors • Early-stage technologies Projects with limited financial viability.	• Improves project feasibility • Reduces risk • Help mobilise additional public or private capital.

The above types are not mutually exclusive but can be combined within a single fund depending on project characteristics, target beneficiaries or policy objectives. Selecting the most suitable approach requires therefore careful consideration of factors such as expected savings or revenues, available administrative capacity and the level of risk the authority is willing to assume.

2.2.3. Key characteristics

Despite their diversity in structure and application, revolving funds share a set of core characteristics that distinguish them from grant-based or one-off financing instruments (Aditya, 2018; Avdvić et al., 2019; Energy Cities, 2017; World Bank, 2014). These can be summarised as follows:

- Recoverability of capital, meaning that financial resources are returned to the fund through repayments, savings or other agreed revenue streams, supported by clear contractual arrangements and robust monitoring to ensure long-term capital preservation;
- Predictable and traceable cash flows, which are essential to maintain liquidity and ensure continuous operation, requiring reliable measurement, verification and tracking of savings and repayments to manage financial risks effectively;
- Long-term operation across multiple investment cycles, enabling strategic planning and continuity of action over time, while requiring sustained political commitment, institutional stability and consistent administrative capacity;
- Clear governance and management structures, including well-defined roles, decision-making procedures and transparent reporting mechanisms, which ensure accountability, effective oversight and the ability to adapt the fund as conditions evolve.

These core characteristics are brought together in Table 2, highlighting how they translate into practice.

Table 2. Core characteristics of revolving funds

Characteristic	What it means for LRAs
Recoverability of capital	Funds are replenished through repayments, savings or revenue streams, ensuring the continuity of the financing mechanism and requiring robust contractual and monitoring arrangements.
Predictable cash flows	Reliable and traceable repayments or savings are essential to maintain liquidity and reduce financial risk, supported by systematic measurement and verification processes.
Long-term perspective	Funds operate across multiple investment cycles, supporting strategic planning and continuity, while requiring sustained political and institutional commitment.
Clear governance and management	Defined roles, procedures and transparent reporting ensure accountability, effective oversight and the ability to adapt the scheme over time.

Overall, revolving funds are most effective in areas and sectors where investments can be standardised, monitored and scaled over time, enabling LRAs to progressively expand investment activity while maintaining financial discipline and continuity of action.

2.3. Why revolving funds matter? Benefits and added value for LRAs

For LRAs, revolving funds represent more than a financing mechanism for individual projects; they provide a strategic framework for mobilising and managing public resources to support the long-term delivery of sustainable energy and climate actions, particularly under constrained budgets and investment capacity.

EXTENDING THE IMPACT OF PUBLIC RESOURCES OVER TIME. By reinvesting repayments or savings into new projects, revolving funds enable the same initial capital to be reused across multiple investment cycles. This allows LRAs to move beyond one-off interventions and progressively build a stable investment pipeline without continuous reliance on new grants or external financing (NSW DPIE Sustainable Councils and Communities, 2020; World Bank, 2014).

IMPROVING FINANCIAL SUSTAINABILITY AND BUDGETARY EFFICIENCY. Savings-based models allow investments—particularly in energy efficiency - to be repaid through future cost reductions, easing pressure on operating budgets and reducing the need for upfront capital allocations. This approach supports more predictable expenditure patterns and strengthens the link between investments and realised savings (Aditya, 2018; Orloski et al., 2011).

STRENGTHENING INTERNAL CAPACITIES AND FINANCIAL DISCIPLINE. The establishment of a revolving fund requires clear investment criteria, repayment rules and monitoring procedures. Over time, this enhances coordination between technical, financial and administrative departments, supports more systematic investment planning and reinforces accountability (Long & Louie.J., 2019).

LEVERAGING ADDITIONAL FUNDING AND PARTNERSHIPS. When combined with grants or other support mechanisms, revolving funds can improve project bankability and reduce perceived risks, facilitating access to regional, national or European funding programmes and, in some cases, attracting private or institutional co-financing (Central NSW Joint Organisation et al., 2024).

PROVIDING A FLEXIBLE AND ADAPTABLE FINANCING FRAMEWORK. Revolving funds can be tailored to different sectors, project sizes and policy objectives—including energy efficiency, renewable energy deployment, climate adaptation and actions addressing energy poverty. This flexibility allows LRAs to align investments with evolving priorities while supporting continuity of action and institutional learning (Hardiana & Sagala, 2024; World Bank, 2014).

Taken together, these benefits highlight revolving funds as a valuable tool for LRAs to strengthen investment capacity, enhance financial resilience and deliver energy and climate actions more effectively

2.4. Sector-wide application: When and where revolving funds can be used?

Revolving funds are not limited to a single sector or type of intervention; their underlying logic (recovering and reinvesting capital over time) makes them applicable across a wide range of areas where investments generate measurable savings or predictable revenue streams. For LRAs, this flexibility allows revolving funds to be aligned with different sectoral priorities, implementation contexts and levels of market maturity (Aditya, 2018; Long & Louie.J., 2019; Todeschi et al., 2025; World Bank, 2014).

Table 3. Indicative application areas of revolving funds

Area of application	Why revolving funds are suitable
Public buildings & infrastructure	One of the most common applications, where verified energy savings can reliably replenish the fund.
Private buildings & SMEs	Improve access to affordable finance for EE and RES investments, often through loan-based or blended models.
RES and decentralised energy systems	Well suited to small-scale installations with predictable revenues or avoided energy costs, especially when combined with EE measures.
Municipal services & urban infrastructure	Support operational improvements that generate cost reductions or efficiency gains that can be reinvested.
Climate adaptation & energy poverty actions	Contribute to social and resilience objectives, often requiring a combination with grants or subsidies.

To support implementation decisions, Table 4 below summarises indicative examples of revolving funds applications, suitable fund types and key considerations across sectors.

Table 4. Indicative examples of sector-wide application of revolving funds

Application area	Typical investments	Suitable fund types	Key considerations for LRAs
Public buildings & infrastructure	Building retrofits, public lighting, HVAC upgrades	Savings-based, loan-based	• Clear ownership of assets • Reliable measurement of savings
Private buildings & SMEs	EE upgrades, RES installations	Loan-based, blended	• Credit risk management • Cooperation with intermediaries
RES systems	Solar PV, biomass, local energy systems	Loan-based, blended	• Revenue predictability • Regulatory stability
Municipal services & infrastructure	District heating, water services, efficiency upgrades	Loan-based, savings-based	• Stable service revenues • Long-term asset management
Climate adaptation & energy poverty	Building resilience measures, social housing upgrades	Blended	• Lower financial returns • Need for subsidies or grants

2.5. Main stakeholders involved

The successful design and operation of a revolving fund typically involve several stakeholders, each playing a distinct role throughout the fund's lifecycle. Some actors are internal to the LRA, while others provide external financial, technical or implementation support. The specific configuration varies depending on the institutional arrangement, sectoral focus and fund type, and not all actors are required in every case, as certain functions may be performed internally depending on the fund's design.

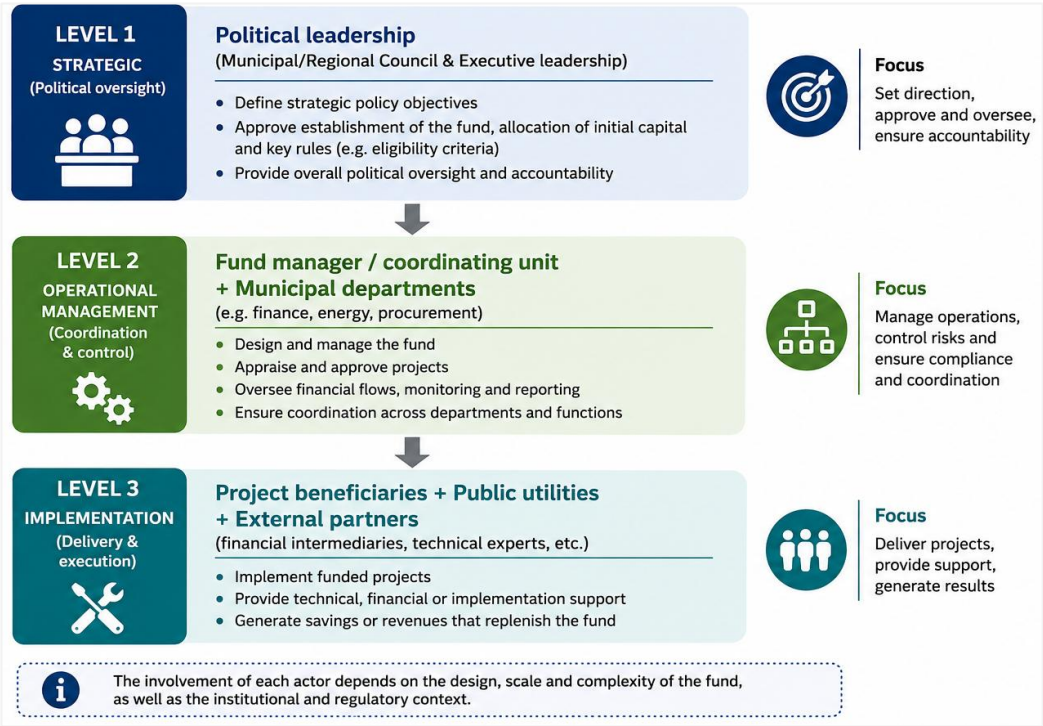

Figure 3. Indicative governance structure of revolving funds across three levels of responsibility

Accordingly, the main internal stakeholders involved in the design and operation of a fund are:

Table 5. Internal stakeholders typically involved in a revolving fund

Actor	Typical role in the revolving fund
Political leadership (municipal/regional council and executive leadership)	Initiate and approve the establishment of the fund; define strategic policy objectives; approve the allocation of initial capital and key rules (e.g. eligibility criteria); provide overall political oversight and accountability.
Municipal departments (e.g. finance, energy, procurement)	Support fund design and implementation; manage budgeting and accounting; contribute to monitoring project performance and reporting.
Fund manager / coordinating unit	Manage day-to-day operations, including project appraisal, fund disbursement, monitoring repayments or savings, and financial reporting.
Public-owned companies / utilities	Act as implementers, intermediaries or fund managers, particularly in sectors such as energy or public services.

Complementing internal actors, the external stakeholders typically supporting a fund's operation, are presented in Table 6.

Table 6. External stakeholders typically involved in a revolving fund

Actor	Typical role in the revolving fund
Financial intermediaries (e.g. banks, financial institutions)	Provide loan administration, co-financing, risk assessment or escrow services, particularly in loan-based or blended models.
Technical experts / energy or climate agencies	Provide technical assistance, support project development, assess feasibility, and verify performance or savings.
Project beneficiaries	Implement funded projects and generate repayments or savings that replenish the fund.
Grant providers / programme authorities	Provide non-repayable funding or incentives to support blended models and reduce financial risks.
Auditors and control bodies	Ensure compliance with legal, financial and reporting requirements, supporting transparency and accountability.

Revolving funds succeed when roles are clearly defined - enabling coordination, accountability and sustained impact over time. For LRAs, this clarity is key to manage resources and maintain long-term momentum.

3. Setting up a revolving fund: A quick step-by-step guide

Setting up a revolving fund is a structured yet progressive process that combines strategic planning, financial design and organisational preparation. While local conditions and institutional arrangements may vary, experience from European cities demonstrates that successful schemes tend to follow a sequence of common steps. These provide a practical pathway for LRAs to move from an initial concept to a fully operational fund in a coherent and efficient manner.

Figure 4. Key steps for setting up a revolving fund

Figure 4 illustrates a clear and phased approach to designing and implementing a revolving fund. Rather than a fixed blueprint, it provides adaptable guidance that can be tailored to different local contexts, enabling LRAs to develop robust and scalable schemes that deliver sustained financial and environmental impact over time.

3.1. Key steps from concept to implementation

The proposed roadmap organises the lifecycle of a revolving fund into seven key steps, providing a clear and structured progression for LRAs and other implementing bodies. Together, these steps form a practical and adaptable framework that supports the design, operational set-up and progressive scaling of the fund, while allowing flexibility to respond to different institutional contexts, policy priorities and levels of capacity.

Step 1 - Define objectives and scope

The first step is to clearly define the objectives and scope of the revolving fund, establishing the strategic framework for all subsequent design and implementation decisions. Key aspects to clarify may include:

- the policy goals the fund will support (e.g. EE, RES, climate adaptation, energy poverty),
- the sectors, assets or target groups to be addressed,
- the intended role of the fund within existing energy and climate strategies.

Clear objectives help align the fund with political priorities, manage expectations and ensure coherence with *other local or regional initiatives.*

Common pitfalls may include:

- objectives defined too broadly, making prioritisation difficult.
- weak alignment with existing strategies or plans.
- insufficient political or senior management support.

Step 2 - Identify eligible projects and measures

Revolving funds are most effective when applied to investments that generate measurable savings or predictable revenue streams. To that end, LRAs should:

- identify standardised and replicable measures,
- assess typical investment costs and payback periods,
- prioritise low-risk projects for the initial phase.

Experience shows that starting with familiar project - such as EE improvements in public buildings – helps build confidence and demonstrate early results.

Common pitfalls to avoid:

- selecting projects without reliable or measurable savings, undermining financial recovery and the revolving mechanism,
- starting with overly complex or high-risk projects, instead of prioritising standardised and replicable measures,
- using unrealistic assumptions on costs or payback periods, leading to financial imbalances,
- over-prioritising short-term returns over strategic alignment and longer-term impact.

Step 3 - Determine the initial capitalisation of the fund

A revolving fund requires sufficient initial capital to begin operations, which typically depends on the types of measures to be implemented, their cost and payback profiles, and the authority's capacity to provide or attract financing. To effectively determine initial capitalisation, LRAs should consider:

- the expected cost of the first investment cycle,
- whether low-cost, quick-payback measures are available,
- the possibility of combining municipal resources with external funding.

A well-calibrated starting capital sets the pace of the fund - too little constrains progress, while a balanced approach enables steady implementation and long-term growth.

Common pitfalls may include:

- underestimating the capital needed to support available measures,
- assuming quick-payback projects will always be available,
- delaying implementation due to insufficient starting capital.

Step 4 - Define the fund type and financial conditions

LRAs should next define how the revolving fund will operate from a financial perspective. This includes selecting the fund type and setting the main financial conditions.

Key decisions may include:

- choosing between loan-based, savings-based or blended models,
- defining repayment mechanisms and repayment periods,
- setting interest rates or service fees, if applicable.

Clear and realistic financial conditions are essential to maintaining liquidity, managing risk and ensuring that funds can be successfully reinvested over time.

Common pitfalls to avoid:

- misalignment between fund model and local context,
- unrealistic repayment conditions or timeframes
- overly complex financial structures and weak balance between risk and sustainability.

Step 5 - Establish governance and management arrangements

Effective governance and management arrangements are critical to the success of a revolving fund. Authorities must decide how responsibilities are distributed and how decisions will be made.

Typically, this step may involve:

- identifying the entity responsible for day-to-day fund management,
- defining roles and responsibilities of internal departments and external actors,
- establishing procedures for project selection, approval and oversight.

Governance structures should be proportionate to the size and complexity of the fund, ensuring accountability and transparency without unnecessary administrative burden.

Common pitfalls may include:

- unclear allocation of roles and responsibilities,
- overly complex governance structures,
- insufficient financial or technical capacity dedicated to fund management.

Step 6 - Set up monitoring, reporting and verification systems

To preserve the revolving nature of the fund, LRAs must ensure that performance is monitored, savings or revenues are verified, and financial flows are tracked.

At this step key elements may include:

- defining indicators for financial and technical performance,
- establishing procedures for verifying savings or repayments,
- ensuring regular financial reporting and review.

Robust monitoring and reporting help identify risks early, support decision-making and provide evidence of impact for internal and external stakeholders.

Common pitfalls to avoid:

- weak or inconsistent data collection,
- overly optimistic assumptions about savings or revenues,
- Limited use of monitoring results for corrective action.

Step 7. Launch, test and scale up the fund.

LRAs may choose to begin with a pilot phase, financing a limited number of projects to test procedures and assumptions. In this case they should:

- monitor performance closely,
- document lessons learned,
- adjust fund design or procedures as needed.

Successful revolving funds can be scaled up by reinvesting returns, expanding to new sectors or attracting additional capital over time.

Common pitfalls may include:

- treating the pilot phase as a one-off exercise,
- weak monitoring and limited use of results,
- scaling up too quickly without consolidation,
- limited reinvestment or expansion over time.

3.2. Revolving fund setup checklist for LRAs

The checklist below summarises the key elements to consider when setting up a revolving fund. It serves as a quick reference to assess readiness, track progress and ensure that no critical steps are overlooked.

Strategic preparation

☐ Objectives and scope defined

☐ Target sectors and beneficiaries identified

☐ Political and administrative support secured

Project pipeline

☐ Eligible measures identified

☐ Savings or revenue potential assessed

☐ Initial projects prioritised

Financial design

☐ Initial capitalisation determined

☐ Fund type selected

☐ Repayment conditions defined

Governance and management

☐ Managing entity identified

☐ Roles and responsibilities allocated

☐ Decision-making procedures established

Monitoring and control

☐ Performance indicators defined

☐ Verification procedures in place

☐ Reporting and review arrangements agreed

Launch and scale-up

☐ Pilot phase implemented

☐ Lessons learned documented

☐ Strategy for scaling up defined

4. Case study: Fund of Energy Savings and Renewables in Litoměřice (Czech Republic)

The Fund of Energy Savings and Renewables in the city of Litoměřice was established in 2014 as an internal municipal financing mechanism to support EE and RES investments in public buildings. Integrated into the municipal budget, the scheme enables the reinvestment of verified energy savings into new projects, reducing long-term operating costs while limiting pressure on public finances.

General context. Prior to the fund's establishment, Litoměřice had a strong strategic commitment to energy transition, but implementation remained fragmented. Measures were often selected without assessing long-term impacts, and limited resources were available for project preparation. In addition, rising energy costs highlighted the need for a more structured and financially sustainable approach.

How revolving fund was applied. The Litoměřice model uses a savings-driven mechanism in which energy savings generated through EE and RES projects are quantified, monetised and transferred into a dedicated revolving fund.

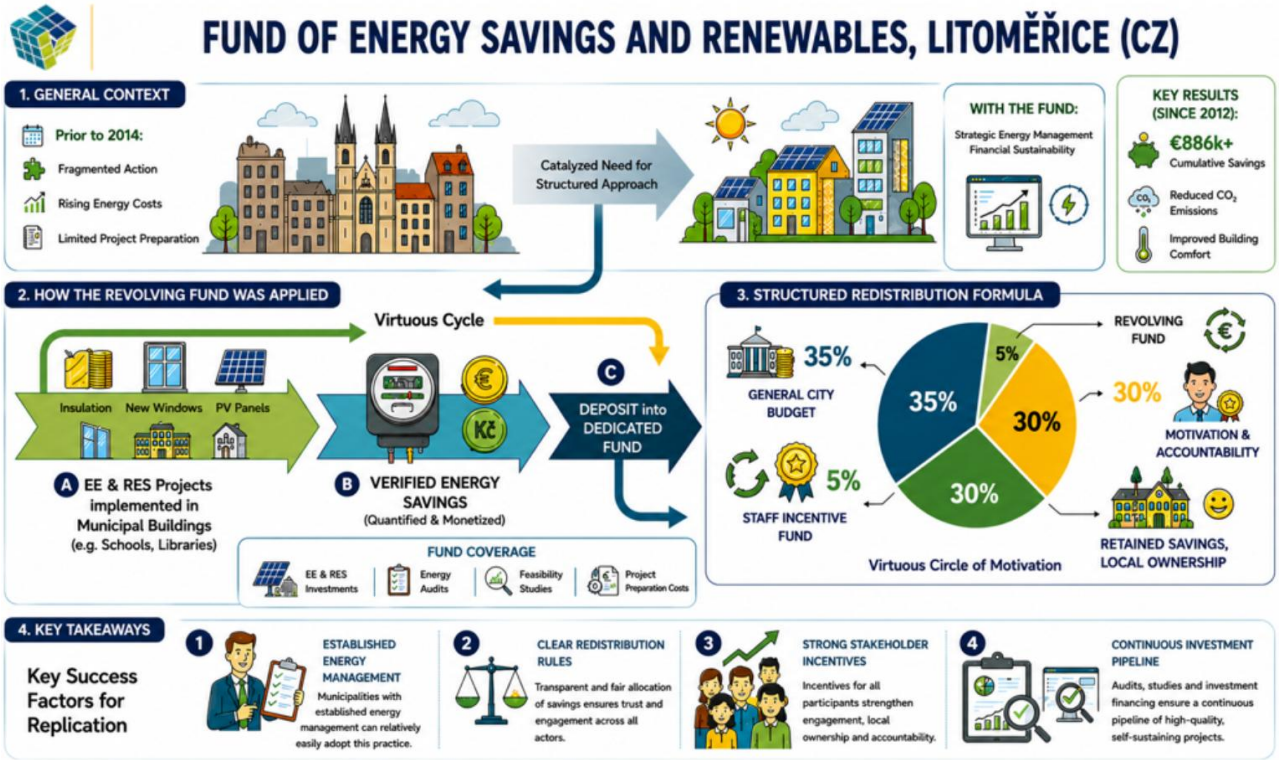

Figure 5. Fund of Energy Savings and Renewables in Litoměřice

A key innovation of the model is its structured redistribution formula, designed to ensure that all participating actors benefit from the achieved savings, as follows:

- 30% is reinvested directly back into the Fund for future projects;
- 30% is retained by the specific organisation where the savings were achieved;
- 35% is returned to the general city budget;
- 5% is allocated to a reward fund for the staff involved.

In this way, the mechanism creates strong incentives for engagement across departments and external actors, while strengthening local ownership and accountability.

The Litoměřice Fund of Energy Savings and Renewables operates with high financial autonomy, covering both capital investments and preparatory costs like energy audits and feasibility studies. This allowed the city to achieve over €886,000 in cumulative savings since 2012, while significantly reducing CO_2 emissions and improving building comfort.

KEY TAKEAWAY. Municipalities with established energy management can relatively easily adopt this practice. Its success stems from linking financial returns directly to organisational benefits - transforming energy saving from a technical requirement into a financial opportunity for the participating entities. By combining investment capital with funding for project preparation, the fund ensures a continuous pipeline of high-quality, self-sustaining projects.

READ MORE ABOUT THIS PRACTICE. For deeper insights on the Litoměřice Fund of Energy Savings and Renewables, find and download the case study factsheet on the PROSPECT Stories webpage.

For further information on the supporting agency's broader role in sustainable energy management visit the official SEMMO website.

PROSPECT initiative enhances the capacity of LRAs to design and implement innovative financing schemes for energy and climate actions, by providing access to an EU-wide repository of success Stories.

5. Critical conditions influencing a revolving fund

The effectiveness of a revolving fund depends not only on its technical design, but also on the broader institutional and operational context. Experience shows that strong enabling conditions, proactive management of barriers and a clear understanding of risks are critical to its success. This section outlines the key success factors, common barriers and main risks influencing performance in practice.

5.1. Drivers and success factors

Several factors consistently emerge as key drivers of successful revolving fund implementation. These include, but are not limited to, the following:

- Clear strategic alignment and political commitment. Revolving funds are more likely to succeed when they are clearly embedded in local or regional energy and climate strategies and supported by sustained political commitment. This helps ensure continuity over time, even across budget cycles or political mandates.
- Adequate and well-matched initial capitalisation. Ensuring that the initial fund size matches the cost and payback profile of eligible measures is critical. Funds that are too small may struggle to generate momentum, while appropriately capitalised funds can support early success and reinvestment.
- Strong governance and clear roles. Clearly defined responsibilities, transparent decision-making procedures and effective coordination between departments and external actors contribute to smooth operation and accountability.
- Reliable monitoring and verification of savings or revenues. Robust systems to measure performance and track cash flows underpin the revolving mechanism and build confidence among decision-makers and stakeholders.
- Institutional capacity and learning-by-doing. Dedicated staff, access to technical expertise and the ability to learn from early implementation phases support continuous improvement and scaling over time.

5.2. Barriers and limitations

Despite their potential, revolving funds also face a number of common barriers and limitations that can constrain implementation.

- Limited administrative and technical capacity. Smaller authorities may lack the internal resources needed to design, manage and monitor a revolving fund, particularly in its early stages.

- Insufficient project pipelines. A lack of suitable, bankable projects - especially those with measurable savings or revenues - can limit the ability of the fund to operate effectively.
- Budgetary and accounting constraints. Public-sector budgeting rules, accounting practices or procurement procedures may complicate the establishment or operation of revolving mechanisms.
- Dependence on external funding conditions. Where revolving funds rely on grants or programme funding, changes in eligibility rules or funding availability can affect long-term planning.
- Long payback periods. Some measures, particularly in climate adaptation or energy poverty contexts, may have long or indirect payback periods, limiting the speed of capital recycling.

5.3. Key risk dimensions

In addition to structural barriers, revolving funds are exposed to specific risk dimensions that should be actively managed. These may include:

- Financial risk. Risks related to delayed repayments, underperformance of savings, or cost overruns can affect liquidity and the fund's ability to reinvest.
- Operational risk. Weak internal processes, unclear responsibilities or insufficient monitoring systems may undermine effective fund management.
- Regulatory and legal risk. Changes in legislation, procurement rules or state aid frameworks can affect fund design or eligibility conditions.
- Political and institutional risk. Shifts in political priorities or leadership can reduce support for the fund, particularly where benefits materialise over the long term.
- Reputational risk. Poor performance, lack of transparency or unsuccessful projects may reduce trust among stakeholders and decision-makers.

Proactive risk identification and mitigation strategies - such as conservative financial assumptions, pilot phases and transparent reporting - are therefore essential components of fund design.

5.4. Synthesis of critical conditions affecting revolving fund implementation

Table 7 below brings together the key drivers, barriers, risks and mitigation measures influencing the design and operation of revolving funds. It offers an integrated overview to inform strategic choices and operational practice, enabling LRAs to identify challenges early and respond with appropriate measures.

Table 7. Summary of critical conditions influencing the implementation of a revolving fund in practice

Dimension	Key drivers/enabling factors	Common barriers/risks	Mitigation measures
Political & strategic	• Sustained political support • Clear alignment with local objectives and priorities • Long-term vision beyond annual budget cycles	• Changing political priorities • Limited ownership across departments • Short-term decision horizons	• Formal political endorsement • Integration into local strategies (e.g. SECAPs) • Regular reporting to decision-makers
Institutional & governance	• Defined roles and responsibilities • Clear decision-making procedures • Proportionate governance structures	• Fragmented responsibilities • Unclear accountability • Overly complex governance arrangements	• Clear governance framework • Designated managing entity or unit • Simple and transparent procedures
Financial design	• Adequate initial capitalisation • Realistic assumptions on savings or revenues. • Clear repayment rules	• Insufficient initial capital • Overestimated savings • Delayed or incomplete repayments	• Conservative financial assumptions • Phased or pilot approach • Clearly defined repayment schedules
Technical & data	• Reliable baselines • Measurable savings or revenue streams • Technical expertise	• Poor data quality. • Weak M&V systems. • Limited technical capacity	• Standardised baselines • Robust M&V systems • Gradual capacity-building
Operational	• Clear project eligibility and prioritisation criteria • Efficient administrative processes	• Limited project pipeline • Administrative burden • Implementation delays	• Transparent selection criteria • Bundling of projects • Streamlined approval and monitoring processes
Continuity & scaling	• Systematic reinvestment of recovered resources. • Learning-by-doing approach	• Revolving logic weakened over time • Fund treated as one-off instrument	• Ring-fencing recovered funds • Periodic reviews • Gradual expansion of scope and scale
Risk management	• Early identification of financial, operational and institutional risks • Adaptive management	• Financial underperformance • Regulatory changes • Reputational risks.	• Early risk screening • Regular performance reviews

6. Summary of key takeaways

WHAT IS A REVOLVING SCHEME ABOUT? A revolving fund is a financing mechanism that allows LRAs to invest in energy and climate actions while continuously reusing financial resources. Instead of relying on one-off expenditure, investments are recovered - through repayments, verified savings or other agreed revenue streams - and reinvested in new projects, allowing a single initial capital allocation to support multiple investment cycles over time.

By combining financial discipline with long-term planning, revolving funds help LRAs strengthen investment capacity, optimise the use of public budgets and progressively build a stable pipeline of projects. Their flexibility allows them to be adapted to different local priorities, institutional arrangements and market conditions.

HOW ARE REVOLVING FUNDS STRUCTURED IN PRACTICE? A revolving fund typically starts with an initial capital allocation, which is used to finance eligible projects that generate measurable financial returns - such as repayments or verified savings. These resources are then returned to the fund and reinvested in new projects, such as EE measures, RES installations or other climate-related actions, creating a continuous investment cycle.

Supported projects are required to generate measurable financial flows that enable resources to be returned to the fund. Depending on the design, these may take the form of loan repayments, internal transfers linked to verified savings, service fees or other agreed mechanisms. Ensuring that these flows are reliable and traceable is essential to maintaining the revolving nature of the fund.

From an organisational perspective, revolving funds can be organised through:

- internal arrangements, where the fund is managed within the LRA, allowing close alignment with policy priorities and streamlined decision-making;
- external or semi-autonomous arrangements, where management is delegated to specialised entities (e.g. energy agencies or public companies), providing additional expertise and operational flexibility.

In both cases, clear rules for project selection, financial flows and monitoring are essential to ensure effective operation and long-term sustainability.

WHAT ARE THE MAIN REVOLVING FUND MODELS AND HOW THEY ARE APPLIED ACROSS SECTORS? Revolving funds can be structured in different ways depending on how financial resources are provided to projects and how they are recovered. These differences influence how the fund operates in practice, including cash-flow predictability, risk exposure and administrative complexity.

Table 8. Summary of the main revolving fund models

Model type	Recovery mechanism	Typical use cases	Key advantages
Loan-based	Fixed repayment of principal (often with low or zero interest) over a defined period	SMEs, clean energy projects, social housing	• Predictable cash flows • Improves access to finance where markets are limited
Savings-based	Repayments linked to verified savings (e.g. energy or operational cost savings)	Public buildings, municipal assets, institutional programmes	• No need for separate budget allocation • Projects "pay for themselves"
Blended	Combination of repayable finance with grants, incentives or risk-sharing mechanisms	Innovative technologies, higher-risk projects, social or vulnerable groups	• Improves feasibility • Reduces risk; mobilises additional funding
Loan-based	Fixed repayment of principal (often with low or zero interest) over a defined period	SMEs, clean energy projects, social housing	• Predictable cash flows • Improves access to finance where markets are limited

In practice, these models are not mutually exclusive and can be combined within a single fund depending on project characteristics, target beneficiaries and policy objectives. Selecting the most appropriate model requires considering expected savings or revenues, administrative capacity and the level of financial risk. Typical applications include EE in public buildings, municipal infrastructure, RES systems, and selected climate adaptation or energy poverty actions.

WHO SHOULD USE REVOLVING FUNDS? Revolving funds are particularly suitable for LRAs and other public or publicly mandated bodies that:

- manage public assets, services or infrastructure,
- aim to finance measures with measurable savings or predictable revenues,
- seek to complement grants with more sustainable financing approaches,
- want to strengthen internal investment planning and financial governance.

They can also be relevant for authorities working with private building owners or SMEs, especially when implemented through intermediaries or combined with grants and other support mechanisms

WHEN ARE REVOLVING FUNDS MOST EFFECTIVE? Revolving funds are most effective when applied to investments that generate measurable savings, predictable revenues or long-term cost reductions, enabling financial resources to be recovered and reinvested. Their performance is strengthened when key enabling conditions are in place, including:

- a clear and realistic project pipeline, aligned with local energy and climate priorities and capable of sustaining repeated investment cycles,
- an initial level of capitalisation that reflects the cost and payback characteristics of the targeted measures, avoiding underfunding or unrealistic expectations,
- robust governance and management arrangements, ensuring transparent decision-making and clear allocation of responsibilities,
- reliable monitoring, verification and financial tracking systems, which underpin predictable cash flows and preserve the revolving nature of the fund,
- sufficient institutional capacity and long-term commitment, enabling authorities to operate, adapt and gradually scale the fund over time.

Under these conditions, revolving funds can deliver sustained financial and environmental benefits, support continuity of action and become a core component of local and regional investment strategies.

References

Aditya, L. (2018). *Financing Energy Efficiency, Part 1: Revolving Funds*. (Link)

Avdvić, S., Hadžikadić, E., & Ančić, D. K. (2019). Energy Efficiency Revolving Fund as a New Financial Mechanism in Bosnia & Herzegovina. *7th Regional Conference Industrial Energy and Environmental Protection in South Eastern European Countries*. (Link)

C40. (2016). *C40 Cities Good Practice Guide – City Climate Funds*. (Link)

Central NSW Joint Organisation, Hunter Joint Organisation, & Mid North Coast Joint Organisation. (2024). *Design a Revolving Energy Fund Kit. A guide for local government*. (Link)

Energy Cities. (2017). *Revolving energy saving fund*. (Link)

Hardiana, M. D., & Sagala, S. (2024). *Revolving Funds: An Innovative and Sustainable Solution for Climate and Disaster Resilience*. United Nations Development Programme. (Link)

Indvik, J., Foley, R., & Orlowski, M. (2013). *Green Revolving Funds: A Guide to Implementation & Management*. (Link)

Limaye, D., & Derbyshire, W. (2014). *Financing Municipal Energy Efficiency Projects*. (Link)

Long, S., & Louie.J. (2019). *Clean Energy Revolving Fund Handbook*. (Link)

Novikova, A., Stelmakh, K., Emmrich, J., Stamo, I., & Hessling, M. (2017). *Guideline on Finding a Suitable Financing Model for Public Lighting Investment - Deliverable D.T2.3.3*. (Link)

NSW DPIE Sustainable Councils and Communities. (2020). *Revolving Energy Fund - Light Implementation Guide*. (Link)

Orloski, M., Dautremont, J., & Weisbord, D. (2011). *Greening the Bottom Line the Trend toward Green Revolving Funds on Campus*. (Link)

Todeschi, V., Bertoldi, P., Hernandez Moral, G., Clementi, E., & Treville, A. et al. (2025). *Financial instruments for mitigation, adaptation and energy poverty actions - Covenant of Mayors Guidebook Complementary document 5*. (DOI)

World Bank. (2014). *Establishing and Operationalizing an Energy Efficiency Revolving Fund – Guidance Note*. (Link)

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