PROSPECT

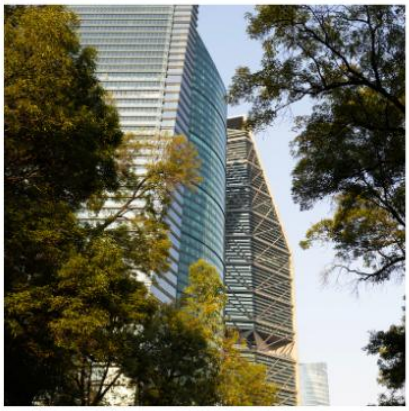












Energy Performance Contracting (EPC) – Learning Handbook at a Glance

Co-funded by the European Union under project ID 101212861. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or CINEA. Neither the European Union nor the granting authority can be held responsible for them.

Technical information

Project Acronym	PROSPECT CUBE
Project Name	Capacity Building for Local and Regional Authorities
Grant Agreement No.:	101212861
Topic:	LIFE-2024-CET-LOCAL
Type of Actions:	LIFE-PJG (LIFE Project Grants)
Project Coordinator:	Institute for European Energy and Climate Policy (IEECP)
Website url:	https://h2020prospect.eu/

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).

Disclaimer

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Climate, Infrastructure and Environment Executive Agency (CINEA). Neither the European Union nor the granting authority can be held responsible for them.

Copyright message

This report, if not confidential, is licensed under a Creative Commons Attribution 4.0 International License (CC BY 4.0); a copy is available here: https://creativecommons.org/licenses/by/4.0/. You are free to share (copy and redistribute the material in any medium or format) and adapt (remix, transform, and build upon the material for any purpose, even commercially) under the following terms: (i) attribution (you must give appropriate credit, provide a link to the license, and indicate if changes were made; you may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use); (ii) no additional restrictions (you may not apply legal terms or technological measures that legally restrict others from doing anything the license permits).

Table of Contents

Contents

1. About this guide 3

1.1. What the full learning handbook covers? 3

1.2. Who should use the full learning handbook? 3

2. What is EPC? 4

2.1. How does EPC work in practice? 4

2.2. Where can EPC be applied? 5

2.3. Why does EPC matter? 5

1. About this guide

This concise guide highlights the key concepts, applications and takeaways of the full PROSPECT CUBE Learning Handbook on Energy Performance Contracting (EPC), offering an accessible introduction to this performance-based approach to financing and implementing energy efficiency investments. It explores how public authorities and other organisations can use EPC arrangements to deliver energy efficiency and decarbonisation measures while managing technical, operational and financial risks.

Drawing on the experience of the PROSPECT initiative and broader European EPC practices, the publication outlines the contractual, financial and operational considerations involved in developing and implementing effective EPC projects.

1.1. What the full learning handbook covers?

The full learning handbook is structured as a modular reference and learning resource covering:

- The fundamentals of EPC and how it works
- EPC financing arrangements and contractual models
- Benefits and added value of EPC
- Sector-wide EPC applications
- Key stakeholders and governance structures
- A step-by-step EPC implementation guide
- Critical success factors, barriers, and risks

The publication also highlights lessons learned and implementation insights from the PROSPECT initiative and the broader European EPC experience.

1.2. Who should use the full learning handbook?

The full learning handbook is designed for both newcomers and experienced practitioners involved in the planning, financing, management, or implementation of energy-related investments. Developed in the framework of the PROSPECT initiative, it primarily supports local and regional authorities (LRAs) and energy agencies seeking to better understand how EPC works in practice and how it can support the delivery of sustainable energy and climate objectives.

The publication combines conceptual guidance, implementation steps, and real-life case studies to help readers navigate the EPC process from project preparation to long-term performance monitoring.

2. What is EPC?

EPC is a performance-based contractual arrangement through which an Energy Service Company (ESCO) designs, implements, and often finances energy efficiency and related upgrade measures, while guaranteeing measurable performance outcomes - typically linked to verified energy or cost savings.

Under an EPC scheme:

- The ESCO assumes technical and performance risks.
- Investments are repaid over time through verified savings.
- Payments are linked to achieved performance results.
- The EPC client benefits from reduced energy consumption, lower operational costs, and upgraded infrastructure without requiring major upfront investment.

EPC is increasingly recognised across Europe as an effective mechanism for accelerating the energy transition, particularly in public-sector buildings and infrastructure.

2.1. How does EPC work in practice?

At its core, EPC is based on a long-term partnership between the EPC client and the ESCO. The two most common EPC models in the European context are:

- Guaranteed savings models, where the EPC client typically secures financing while the ESCO guarantees a defined level of energy or cost savings.
- Shared savings models, where the ESCO finances the investment and recovers costs through an agreed share of the achieved savings over the contract period.

Beyond these, additional EPC variants are also used in practice, including:

- Chauffage models, where the ESCO delivers a defined energy service under a long-term outsourcing arrangement.
- First-Out models, where all achieved savings are initially allocated to repaying the ESCO investment until full cost recovery is achieved.

Across all models, the common principle remains the same: investments are gradually repaid through verified energy savings generated during the contract period, while the ESCO assumes responsibility for delivering the agreed performance outcomes.

2.2. Where can EPC be applied?

Although EPC is most widely used in public buildings and street lighting, its application has expanded significantly across sectors. Typical EPC applications include:

- Municipal buildings, schools, universities, hospitals, and social housing
- Public lighting and smart-city infrastructure
- Commercial and residential building portfolios
- Transport and mobility infrastructure
- Water and wastewater facilities
- Industrial and energy-intensive facilities
- Renewable energy communities and aggregated asset portfolios

This flexibility makes EPC particularly relevant for integrated urban energy transition strategies.

2.3. Why does EPC matter?

EPC offers public authorities and organisations a practical pathway to modernise infrastructure, reduce energy consumption and emissions, improve operational efficiency, and accelerate climate action while limiting upfront investment requirements.

By linking payments to verified performance outcomes and transferring technical and performance risks to specialised ESCOs, EPC enables long-term energy efficiency and decarbonisation investments through structured, performance-based arrangements.

When supported by robust governance, reliable baseline data, clear procurement procedures, and effective stakeholder collaboration, EPC can become a powerful mechanism for scaling sustainable energy investments and delivering long-term public value.

PROSPECT

LinkedIn: Capacity building for cities and regions | PROSPECT+

Website: https://h2020prospect.eu/







Co-funded by the European Union.