Renowatt+

Liège/Hainaut-Wallonia – Belgium

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| --- | --- |
| OWNERSHIP | PUBLIC |
| Program authority | Walloon Region |
| Program Delivery unit  | Renowatt+ |
| Implementation Model | Energy Performance Contracting (EPC) |
| Operating Services | MarketerAggregatorFacilitatorFinancial advisorAssessor |
| Projects Financed | Energy Efficiency (building retrofits)Renewable energy |
| Ambition/targets | Market based |
| Beneficiaries | Public sector (municipalities and public entities) |
| Funding Vehicle | Financial institutionsProperty owners |
| Financial Instruments | Equity/Own fundsLoansGrants |

# Summary

The Renowatt+ program is a program for energy efficiency and renewable energy in public buildings, building on the original Renowatt program. The program was originally managed by the GRE Liège (Groupement pour le Redéploiement Economique – Grouping for the Economic Deploiement – of the Province of Liège in Belgium (Walloon Region).

The GRE Liège was created in 2004 following the announcement of the closure of the Arcelor Mittal steel factories and focuses on creating the conditions for sustainable job creation in the Province of Liège (84 municipalities and 1.1 million inhabitants).

The original Renowatt program was launched in 2014 and concerned a pilot project, financially supported by the European Energy Efficiency Fund (EEEF), with the aim of creating a One-Stop-Shop facility for EPC projects targeting municipalities and hospitals in the Liège Province area.

Under this initial program, 5 EPC were launched covering 59 million euros in 134 buildings for an overall savings objective of 34%.

The Renowatt+ program involves the creation of a new cooperative company (SCRL – Société Coopérative à Responsabilité Limitée) of the same name and is supposed to be supported by an ELENA grant of 4,5 million euros (currently under negotiation). Renowatt+ is defined to act as a public facilitator of EPC projects to be concluded between its customers (municipalities) and private ESCOs. Unlike Renowatt, which covered only the Liège Province area, Renowatt+ is offering its services to other public entities in Wallonia, outside of the Liège Province. In particular, in addition to GRE Liège, 3 other intermunicipal companies in the Hainaut Province area, IDEA, IDETA and IGRETEC, covering 68 municipalities, will participate in Renowatt+.

In addition to assisting municipalities in selecting the buildings and launching public tenders, Renowatt+ will also assist them in securing financing of the investments.

# How does it work?

Renowatt+ will assist public authorities in Wallonia to launch energy renovation programs, following 3 main axes:

* Launch Energy Performance Contracts (EPC), between the public authority and private ESCOs. The EPC will aim at guaranteeing energy savings in the buildings and will include renovation works, installation and possibly energy supply.
* Pooling of buildings according to technical and geographical characteristics, possibly across different public authorities. The purpose is to create pools that are more bankable, create economies of scale, reduce the number of contracts and transaction costs and diversify the risks.
* Act as Central Purchasing Unit, managing all aspects of the public tendering procedure.

Practically, Renowatt+ will:

* Coordinate the activities
* Manage the ELENA grant
* Negotiate with and lobby towards the Walloon Region
* Define the strategic orientations
* Develop auditing tools and technical inventory tools, as well as public tendering tools and documents
* Put in place a data management platform and collect and share data from the municipalities
* Write technical tendering documents
* Follow the actual energy performance
* Coach local partners
* Develop financial tools and execute financial audits
* Perform communication activities

Local activities, in particular contacts with the public entities, are managed by the local entities, i.e. the intermunicipal organizations and GRE Liège.

The process that Renowatt+ manages involves 8 steps:

1. Adhesion to the central purchasing unit
2. Selection of buildings and creation of tendering documents
3. Publication of the selection guideline
4. Selection of the candidates (ESCOs)
5. Sharing of the tender documents
6. Negotiations and contract award
7. Signature of the contract
8. Follow-up of the EPC

The Energy Performance Actions that Renowatt+ will put in place are:

* Building envelop insulation (roofs, walls, floors, etc.)
* Replacement of single glazing windows into double glazing windows
* Improvement of air tightness
* Relighting or relamping
* Improvement of ventilation, sanitary warm water and heating through boiler, ventilation unit, distribution system and emission system replacements
* Installation of energy management systems, BMS, thermostatic valves, etc.
* Installation of PV solar panels
* Installation of CHP units
* User behavioral campaigns

Fig 1. Operational and financial model



# The program delivery unit

Renowatt+ is the program delivery vehicle of the energy retrofitting program Renowatt+ in the Provinces of Liège and Hainaut. It acts as the permanent energy efficiency management office of the program under supervision of its shareholders GRE Liège, IDEA, IDETA, IGRETEC and the Walloon Region.

The role of the PDU is to manage the Renowatt+ framework, to support Renowatt+ users throughout the entire process (from management buy-in to service delivery and performance monitoring), to drive and facilitate the uptake by Walloon based public sector entities and to develop best practice approaches, templates and standards. It acts as projects aggregator, facilitator, marketer and financial advisor.

The Renowatt+ PDU will have 10 FTE staff and employ 16 external consultants.

The organization structure is as follows:

External EPC experts

Relays in the intermunicipal companies

Building studies

Operational Team

Management Committee

Board

General Assembly

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| --- | --- |
| Legal structure | Cooperative limited liability company |
| Shareholder description | N/A |
| Equity | Unknown |
| Shareholders | GRE LiègeIDEA, IDETA, IGRETEC |
| Program dedicated staff | Moderate – 10 FTE |
| Program operational costs | Moderate |

# Organization and partnerships

**Unknown.**

# Beneficiaries

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| --- | --- |
| Beneficiaries | Municipalities in the Liège and Hainaut Provinces |
| Type of projects | Energy Efficiency (building retrofits) |
| Operational support | Project facilitation/integration through the Project Delivery Unit |
| Financial support | Project facilitation/integration costs free of charge for 3 years |

# Funding mechanism

The 140 million € necessary to fund the investments of the Renowatt+ program come from 4 sources:

* Own funds from the municipality. This option is rarely going to be used.
* Zero interest loan. The Walloon Region is currently putting in place a fund to finance the energetic renovation of public buildings at a 0% interest rate.
* Financing by a Smart Cities loan by the public bank Belfius as part of a new credit loan at the EIB, managed by Belfius as part of the Smart Cities & Sustainable Development Fund
* Traditional bank loans from financial institutions.

Beneficiaries are eligible for 3 types of regional grants for certain measures.

* UREBA exceptional, to be launched in 2017 to subsidize 30% of investments related to heating and SWW systems, based on renewable energy.
* UREBA classic which will be extended for the period 2017-2020 to subsidize energy saving measures up to 30%. However the amount is limited and cannot be combined with zero interest loans or UREBA exceptional.
* Infrasport, covering 30% of improving sports infrastructure, including energy saving measures. This could apply to swimming pools and sports centers.

At this stage it is not sure that EPC projects will be eligible. In addition the annual amounts being limited they will only cover a part of the investments.

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| Program delivery unit funding | Renowatt+ is expected to get funding from ELENA (4,5 M€) and the Walloon Region (1,475 M€) and other sources (200 k€)  |
| Projects Funding | Projects are being funded through loans. |
| Funding Vehicle | Financial Institutions |
| Fund size | Not applicable |
| Fund type | Not applicable |
| Fund sources | Unknown |
| Financial Instruments | Own fundsLoansGrants |

# Achievements (Targets)

Renowatt+ aims to renovate 500 buildings out of a total of 2000 buildings for a total surface of 650.000 m2.

The types of buildings are:

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| --- | --- |
| **Types of buildings** | **Number of EPCs** |
| Swimming pools | 12 |
| Sports centers | 35 |
| Schools | 340 |
| Other buildings | 113 |
| **Total** | **500** |

75% of the consumption concerned is heat related, 14 % is related to lighting.

790 boilers should be replaced for a total (new) capacity of 109.000 kW.

Renowatt+ aims to install 30.400 m2 of PV panels for an installed power of 3.800 kWc.

In addition to the EPC projects, Renowatt+ will accompany 2 municipalities with the construction of 2 new NZEB schools. An additional 1.900 kWc of PV panels will also be installed in buildings that are not covered by the EPC projects.

The estimated amounts of investments per type of measure are:

|  |  |  |
| --- | --- | --- |
| **Type of measure** | **Amount in thousands of €** | **Percentage** |
| Wall insulation | 2.100 | 2% |
| Roof insulation  | 10.898 | 8% |
| Window replacement | 34.840 | 25% |
| HVAC (boilers, heat pumps, distribution pumps, etc.) | 20.497 | 15% |
| Sanitary Warm Water | 122 | 0% |
| CHP | 3.910 | 3% |
| Ducts insulation | 580 | 0% |
| Distribution (thermostatic valves, radiators) | 4.394 | 3% |
| Lighting | 1.073 | 1% |
| PV solar panels | 4.967 | 4% |
| BMS | 5.361 | 4% |
| Other | 1.260 | 1% |
| PV campaigns | 4.500 | 3% |
| 2 new buildings NZEB | 5.000 | 4% |
| Performance based maintenance | 40.000 | 29% |
| **TOTAL**  | **139.500** | **100%** |

The purpose is to save 53,3 GWh/year or 15.601 tons CO2/year (35%).

The program will create between 1734 and 2371 jobs (FTE) during the program.

# Contact details

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**GRE Liège**

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# Factsheet

**General Info**

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| --- | --- |
| Country | Belgium |
| Model Name | Renowatt+ |
| Date of creation | Ongoing |

**Model Description**

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| --- | --- |
| Ownership | Public |
| Program authority | GRE Liège, IDEA, IDETA, IGRETEC |
| Program delivery unit | Renowatt+ scrl (PDU) |
| Operating services | MarketerFacilitatorIntegratorFinancial AdvisorAssessor |
| Implementation model | Energy Performance Contracting (EPC) |
| Types of projects financed | Energy Efficiency (Buildings retrofit) |
| Beneficiaries | **Municipalities in the Liège and Hainaut Provinces** |
| Geographical coverage | Regional2,3 million inhabitants |

**Financial Model Description**

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| --- | --- |
| Project funding | Public |
| Project funding vehicle  | Property ownersFinancial institutions |
| Financial instruments | LoansGrantsOwn funds |
| Repayment model | Guaranteed savings agreement |

**Project risk Profile**

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| --- | --- |
| Performance risk | ESCOs |
| Recourse | n/a |
| Financial risk | Building ownersFinancial institutions |

**Model Requirements**

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| --- | --- |
| Staff Requirements | Moderate to high10 FTE |
| Equity Requirements | n/a |
| Funding Requirements | ModerateLess than 5M € |

**Model Key indicators**

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| --- | --- |
| Investment volume targeted | 140 M€ |
| Size of project (or project portfolio) | 0,1 M€ to +2,5 M€ |
| Level of average energy savings | 20% - 30% |

**Development maturity**

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| --- | --- |
| Development/implementation stage | Start-up |
| Operational development maturity | Start-up |
| Financial development maturity | Start-up |

**Model Qualification**

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| --- | --- |
| Level of establishment | Well established |
| Growth potential | Large |
| Scalability of the model | High |
| Replicability of the model | High |
| Impact on public balance sheet | High |