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Focus Country Belgium

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Preface

The aim of this preparatory report is to enable the organisation of regional capacity-building workshops Belgium (Flanders, Wallonia and Brussels capital region). It serves as a guiding document for any stakeholder involved and as a stepping-stone towards the regional long-term strategies for enhancing the overall energy efficiency of public buildings. The objective of a regional workshop is to bring together a wide network of relevant stakeholders in an attempt to seize the energy efficiency market in Flanders, Wallonia and Brussels capital region. Considering the three different legal frameworks and existing energy service markets, it was decided that the approach of the workshops should be more tailored and on a smaller scale.

The invited stakeholders will be mainly subnational authorities but also include SMEs such as local ESCOs, financiers and project developers. In order to implement innovative financing models for energy efficiency, local authorities play a decisive role. Following the successful examples in different European countries, such as the [24 best practice case studies](#) across Europe analysed in the framework of the CITYinvest project, we hope to elaborate a new strategy for energy efficiency in public buildings. Article 4 of the European Energy Efficiency Directive required all EU Member States to develop a National Building Renovation Strategy (as part of the National Energy Efficiency Action plan) by April 2014. This document aims at building further from that strategy to see which innovative financing models could help realizing Belgian Energy Efficiency objectives. Simultaneously this document wants to provoke further debates amongst stakeholders after the CITYinvest regional workshops. It provides an opportunity to remain active and in contact with peers and experts. For further information how to get involved please visit www.CITYinvest.eu or contact e.steyaert@climatealliance.org (Flanders) or erika.honnay@greeliege.be (Wallonia and Brussels capital region).

LEGISLATIVE CONTEXT BELGIUM

Common for all European Member States are the long-term climate and energy frameworks such as the 2030 package that aims for the following targets: 40% reduction of greenhouse gas emissions, a share of 27% of renewables in the energy mix and an indicative target of 27% for energy efficiency (which could be increased to 30% after reviews of legislation in 2016). In order to achieve the *2050 Roadmap: moving to a low-carbon competitive economy*, at least 88%-91% of the CO₂ emissions should be reduced in residential and service (collectively buildings) sectors. Furthermore, the building sector positions itself in the top 3 of sectors with the largest potential (environmental impact of 70-80%) to contribute to the *Roadmap for a Resource Efficient Europe*. Europe has developed a legislative framework that encourages EU Member States to take action on Energy Efficiency: the European Energy Performance of Buildings Directive (EPBD) and the European Energy Efficiency Directive (EED). The EPBD includes the energy performance certificates and nearly zero energy standards for new buildings. The EED on the other hand requires EU Member States to renovate at least 3% of their public building stock each year and develop [National Energy Efficiency Action Plans](#) (NEEAPs, art.4 of EED2012/27/EU). Furthermore, the EED requires Member States to achieve 1,5% new energy savings each year from 1 January 2014 until 31 December 2020. This percentage is calculated based on annual energy sales to final customers of all energy distributors or all retail energy sales companies by volume.

It is required that all Member States define a long-term strategy (NEEAPs) to prepare adequate investments in public and private building stocks. As a first step, an overview of the building stock characteristics needs to be developed, the definition of cost-effective measures for in-depth renovations, the preparation of supportive frameworks for an investment-stable environment and long-term databased estimations.

Basic legislative framework

The regions are responsible for distributing and transmitting electricity locally via networks with a nominal voltage of 70 kV or less.

There is a distinction between operating systems with a voltage of 70 kV and those with a lower voltage. This means that distribution systems (with a voltage lower than 70 kV) operate alongside the following networks:

- the local transmission system (in Wallonia);
- the regional transmission system (Brussels-Capital region);
- plaatselijk vervoernet (in Flanders).

These systems have a voltage of 70 kV and link up with the federal transmission system. Elia operates these systems.

The three regions are also responsible for renewable energies (excluding federally governed North Sea wind farms) and the rational use of energy (RUE).

The basic legislation for each region is the following:

- Flanders: Energy Decree of 8 May 2009;
- Wallonia: Decree of 12 April 2001;
- Brussels-Capital: Ordinance of 19 July 2001.

Electricity market regulators

Regulators are the 'policemen' of the electricity market, ensuring that it operates correctly.

The regulators supervise the operation of the electricity market. They have the power to issue opinions on or approve various documents relating to system operation (tariffs, development plans, etc.). They also play a central role in:

- awarding supply licences;
- authorising cogeneration facilities and facilities which generate renewable power;
- issuing and managing green certificates.

The following regulators oversee the liberalised electricity market in Belgium:

- [CREG](#) at federal level;
- [VREG](#) for the Flemish Region;
- [CWaPE](#) for the Walloon Region;
- [BRUGEL](#) for the Brussels-Capital Region.

Focus on the Context in Wallonia

Within the energy sector, the Region has three main competencies:

- The rational and sustainable use of energy,
- The efficient organization of the regional electricity and gas market by targeting a triple concern: economic, social and environmental,
- The development of renewable energies.

Energy saving measures

In this context, the Walloon Government will advocate especially for the launch of a national initiative to define an energy pact involving all levels of government and market players, including the social partners. The Government will actively support energy efficiency measures including mobilizing the resources from the development of CO2 allowance auctions to help households reduce their

consumption, while improving their quality of life, improve energy efficiency businesses and create jobs.

The Walloon government took measures to achieve those goals by:

- Increasing awareness and consumer information and better coordinating and rationalizing energy support tools (guichets de l'énergie, maisons de l'énergie, conseillers énergie et logement du SPW, entités locales du FRCE, Eco-passeurs) providing a single point of contact, clearly identified by territorial area;
- Promoting awareness of young people, particularly in schools (see the "ecole zerowatt" action here: <http://zerowatt.blogs.sudinfo.be/>);
- Evaluating all subsidies for energy saving and those for housing renovation, simplify, optimize with special attention to household size and low and middle income ;
- Merging, in 2014, the FRCE (Fond de réduction du coût global de l'énergie), after its regionalization, and the system Ecopack within the SWCS. The main goals of the reform are the following:
 - Strengthen the policy of granting free loans to households to finance energy saving measures on the model of the third party investment by modulating the rate according to the income and household size (see Ecopack and Renopack below)
 - Ensure, within available resources, support for borrowers and modest and insecure households, valuing the expertise of Eco-passeurs and FRCE's local entities in collaboration , where appropriate , with CPAS , other relevant social actors and SLSP (Sociétés de Logement de Service Public), and gradually generalize this specific mechanism to cover entire Wallonia.
 - Encourage citizens to invest primarily in the most effective energy saving measures, strengthening the conditions for granting aid and providing information and adequate support;
- Developing the energy air climate plan, focusing on the most effective measures and institute a monitoring of the implementation of the «energy efficiency " to ensure the relevance and efficiency measures and correct it if necessary.
- Implementing standards in compliance with European directives (PEB), to reduce the energy consumption of buildings, favoring dialogue with professionals in the construction and the measures that have the best cost-benefit ratio, considering a gradual application of standards for the sector to adapt without creating additional costs and distinguishing the requirements for new buildings, for renovations and for heritage buildings;

- Supporting the jobs creation and trainings in the fields of energy efficiency, including green building, refocusing *l'alliance emploi-environnement* (employment - environment alliance) for sustainable construction on its primary objective of saving energy and job creation and focusing on the most effective measures at the lowest cost, in consultation with the social partners and with professionals from sectors of construction and training ;
- Investing in research and innovation in energy efficiency;
- Encouraging market players to integrate energy efficiency into their services, especially by encouraging energy network managers to develop energy services for municipal partners.

Specifically, to enhance the efforts of enterprises, non-profit sector and public authorities, the Government has taken measures to:

- Dedicate revenue from the upgrading of CO2 allowance auctions to the development of third party- investment systems and energy services (or equivalent) to finance energy savings projects in regional and local public buildings in the non-profit sector (primarily nurseries, schools and nursing homes) and for SMEs, based on a mutual commitment between the Region and the borrower in question;
- Systematize audits and actually measured energy accounting of public buildings to improve their management and give priority to the most profitable energy saving measures¹;
- Continue and simplify branch agreements by focusing on energy efficiency measures and study the possibility of expanding them to service sector and SMEs;
- Promote a circular economy approach, mainly based on the Walloon program "NEXT " to help companies streamline their use of direct and indirect energy, focusing for example the joint use of material and energy flows.

Ensuring access to energy for everyone in an efficient market

Under the organization of the regional energy market, the Government will seek to ensure universal access to energy at a competitive price and effective consumer protection. This covers both households, with particular attention to the most vulnerable ones and the fight against energy poverty.

In terms of prices, the Government has taken measures to clearly identify the components of the bill and master the regional components of the gas and electricity prices, respecting the competencies of the CWaPE and in collaboration with federal stakeholders to ensure consistency of the price policy of the energy to the benefit of consumers.

¹ For more information on the PEB legislation, please visit: www.leguidepeb.be/index.php/accueil2015.

Following the transfer of competences for gas distribution and electricity rates at 1 July 2014, government established guidelines for setting tariffs that allow:

- Quality service at the best price possible,
- Investment needed to modernize networks and access to capital markets,
- A change in the compensation model of network usage into account the evolution of the generation fleet (increased decentralization)
- Transparent and fair burden sharing between all users,
- After a detailed assessment of all the costs of renewable energy development, support for the development of renewable energy sources,
- Consistency between the public service obligations, technical rules and the impact on the price of gas and electricity;

Taking into consideration the analysis of the CWaPE and the operators in which they had emphasized the impracticability of tiered pricing as provided by the decree of the Walloon Government of 16 January 2014, Walloon Government sought other ways of empowerment and equity of electrical consumption:

- Maintain the existing built-in mechanism for recovering unpaid bills;
- Explore the possibility of gradually harmonize the distribution rates, cost of public service obligations and regional government levies, aiming to streamline costs and maintain investments throughout the territory;
- Ensure that any proposal from the CWaPE or government decision likely to have an impact on the price of electricity or gas is subject to a prior specific tariff impact assessment by the regulator. Regarding the price of electricity for businesses, the Government will introduce a compensation for indirect costs incurred by the European mechanism of CO2 allowances for the benefit of industrial users (carbon leakage).

In terms of consumer protection, the Government has taken measures to:

- Evaluate and improve the Walloon consumer protection measures, including by adopting the “gas decree” and the implementing decrees of gas and electricity decrees;
- In the social work of the CPAS with vulnerable consumers, promote, where possible, actions for preventing or reducing power consumption to support energy bills, without reducing the level of welfare and encourage exchange and training sessions for social workers so they are better equipped to help these vulnerable consumers;
- Deploy smart meters on the basis of a positive cost-benefit analysis, taking care not to create additional costs and protect privacy.

In terms of regulation, the Government will ensure effective public regulation to provide quality service at the best quality price to consumers. Besides its role as an independent regulator, CWaPE also plays an advisory role, monitoring and implementing decisions on behalf of the Government, especially in the development of renewable energy.

The role of government, and particularly the municipal authorities in the distribution of electricity and gas is essential. They are the guarantee of a public service working for the benefit of the general interest and economic development of our region. The Government will seek to preserve that role.

Walloon government savings targets

Assessment of current heat consumption in private households²

Wallonia	Total(%)	Partial(%)	None(%)
Rooftop insulation	60	7	33
Cavity wall insulation	27	10	63
Floor insulation	18	5	77
Double glazing	63	13	3x = 9%, 1x =16%

- ✓ Average global heating consumptions for housing of a standard Walloon household: 25 MWh, meaning an average of 320 kWh/m²/year (E label).
- ✓ 25 % of the Walloon households use wood as an extra source of energy (unspecified type, be it open chimney or high-efficient wood furnace) average consumption of 6.25 MWh per household per annum.
- ✓ 50 % of the natural gas heaters have an efficiency certification.
- ✓ 15 % of responding households to the survey were willing to have some energy efficiency works done within 5 years, giving an extrapolated average of 30 % every 10 years.
- ✓ An example municipality (Seraign): main heating system energy source for the 28,000 households (3/4 single private home, 1/4 collective dwellings)
 - Natural Gas : 60%
 - Heating Oil : 19 %
 - Electricity : 19%
 - Other (coal, wood...) : 2%
- ✓ Emission factors in kg C-equ / kWh of energy :
 - Heating oil : 0.077
 - Natural Gas : 0.056
 - Electricity : 0.091 (actual Belgian average); 0.010 for the renewables
 - District heating : 0.025 (mixt 80% wood, 20 % gas)
 - Efficient wood + electricity : 0.0182 (mixt 80 % wood, 20 % electricity)
- ✓ Performance coefficient of 3 for the heating pumps (consumption reduced by 3/4th).

² Diagnosis, Source: national survey 2010 VITO, ICEDD, IBGE, Eurostat survey

Energy savings in private households

Hypothesis 2050³:

- The average global housing heat consumption is divided by a factor of 4, being 80 kWh/m²/year, being 6,25 MWh per year, B label (technically feasible, but costly).
- Development and maximization of the district heating system (mix source of natural gas and wood), high domestic electrification, be it coupled to wood or not (equivalent to what the Denmark did)
- Strong development of individual wood heating (main source).
- Linear evolution until 2050, regarding efficiency in dwellings.
- Strong development of renewables, regarding electricity production.
- Consumptions specifically electrical remain the same at 2 MWh/household/year.

Progression path:

	2010	2020	2030	2040	2050
MWh consumed	700 000	568 400	436 800	305 200	175 000
Heating oil	20	17	5	0	0
Electricity	20	17	10	0	0
Natural Gas	60	57	45	25	0
District heating	0	3	10	25	45
Eff Wood + Elec	0	3	15	25	27,5
Heating Pumps, 2x	0	3	15	25	27,5

	2010	2020	2030	2040	2050
Renewable electricity share (AWAC)	8	25	50	75	80

³ Diagnosis, Source: national survey 2010 VITO, ICEDD, IBGE, Eurostat survey

Emissions factors	0,08452	0,07075	0,0505	0,03035	0,0262
Emissions elec per household	0,169	0,142	0,101	0,061	0,052

Emissions T Ceq	2010	2020	2030	2040	2050
Heating Oil	10780	7440	1682	0	0
Electricity	11833	6836	2206	0	0
Natural gas	23520	18143	11008	4273	0
District heating	0	426	1092	1908	1908
Eff-Wood + Elec	0	241	662	463	252
Heating Pumps, 2x	0	301	827	580	315
TOTAL	46133	33387	17478	7223	2476
Emissions heat T Ceq/households	1,648	1,192	0,624	0,258	0,088
Emissions H+E TeqC/household	1,817	1,334	0,725	0,319	0,14

Emissions of the residential sector are then virtually reduced by 93,3 %, reduction factor being then of almost 13.

A demographic growth estimated at 25 % has not been taken into account, leading to a virtual factor reduced to 10.

More realistic hypothesis in terms of district heating spray (10% of the needs), performance and refurbishment rate (50% of the objectives), share of renewable electricity (50%) and a growth population of 20 % lead the reduction factor to 2,1.

More details on the electricity and heating savings potential in the tertiary and industry sectors can be found in Annex 1.

Focus on the Context in Flanders

Flanders submitted the requirements as part of its third Flemish Action Plan for Energy Efficiency⁴. The underlying strategic direction is part of the 'Energy Renovation Program 2020'.

Flemish Energy Saving Targets

	Realised in 2012	Estimations for 2016	Target for 2020
NON ETS sectors (transport, buildings, waste, agriculture...)	16.499 GWh final energy 23.660 GWh primary energy	27.416 GWh final energy 35.361 GWh primary energy	36.044 GWh final energy 44.736 GWh primary energy
ETS Sectors	4548 GWh final energy 5093 GWh primary energy	8186 GWh final energy 9167 GWh primary energy	11.825 GWh final energy 13.241 GWh primary energy
Total Energy Savings	21.047 GWh final energy 18.567 GWh primary energy	35.062 GWh final energy 44.528 GWh primary energy	47.869 GWh final energy 57.977 GWh primary energy

The Energy Renovation Program 2020⁵ wants every inhabitant of the region to live in an energy efficient home by 2020. This requires measures such as improved double-glazing, insulated roofs and efficient heating systems. 42% of the energy savings will be realised by the 'Rational Energy Use' service programs (e.g. financial support, incentives and energy scans) of the utilities. The current Flemish renovation rate of the building stock is about 0.7%.

⁴ Derde Vlaams Actieplan Energie Efficiëntie: http://www2.vlaanderen.be/economie/energiesparen/beleid/Energie-efficientierichtlijn/Derde-Vlaams_actieplan_energie-efficientie.pdf

⁵ Concept nota Renovatiepact can be found here: <http://www2.vlaanderen.be/economie/energiesparen/beleid/goedgekeurdeconceptnotaRenovatiepact.pdf>

Reaching the EED 1,5% target of new energy savings would require 65.794 GWh energy saving by 2020. Flanders opted for exemption measures, such as excluding parts of the ETS sectors to a maximum reduction of 25% of the target. This means for Flanders a minimum target of 49.346 GWh. There are no binding obligations for the energy suppliers and DSOs. Alternative measures are bilateral agreements with (non-) ETS sector companies and the substitution mechanisms with the electricity distribution companies for existing building (residential and non-residential).

The Flemish 'Renovation Pact' has following objectives:

- Climate mitigation
- Purchasing power of households security
- Quality of living
- Energy Supply Security
- Fight against energy poverty
- Creation of jobs

Focus on the Context in Brussels Capital Region

The Brussels capital region is composed of the 19 municipalities of Brussels. Brussels is a very particular context as it is a Region with only 1 million inhabitants, 19 municipalities and no provinces. French and Dutch are the 2 official languages in Brussels.

As 2 workshops will be already organized in Belgium: one in Flanders and one in Wallonia, it was decided not to organize a dedicated workshop in Brussels for CITYinvest. Brussels municipalities will be invited to the Walloon and Flemish workshops (people will be able to participate based on their language preferences). Some conferences on CITYinvest will be held with the co-operation of the Brussels communication multipliers. Conferences will be part of other events organized by the identified multipliers, mainly to be organized in 2017.

FINANCIAL FRAMEWORK

The CITYinvest workshop will focus on innovative financing mechanisms, which can provide adequate financing solutions to address large scale and deep energy retrofits in the Belgian building stock. In CITYinvest, across 11 European countries, 24 of these financing schemes have been analysed and compared, including revolving funds, soft loan schemes, ESCO financing, utility funds, (portfolio) guarantees and citizen-based financing models, such as crowd funding and cooperatives. The objective is to investigate which operational and financial components would be applicable for

Flemish and Walloon local authorities and which thresholds should be removed to foster wider deployment of the energy service market.

In the table below there are some European financial support instruments and initiatives. A more comprehensive and elaborated reference guide is developed in the framework of the Covenant of Mayors and can be accessed [here](#).

European Fund for Strategic Investments

- A guarantee of €16 billion should cover first losses of higher-risk projects and an additional €5 billion allocation of EIB capital to co-invest. this should trigger private investments of €315 billion. For Flanders, the Vlaamse Investeringsmaatschappij PMV is responsible for streamlining the projects.

ESIF -ERDF (Belgian Operational Programme)

- One of the European Structural and Investment funds is the European Regional and Development fund, providing grants (co-financing), financial instruments (guarantees, (quasi-) equity participation and risk-bearing mechanisms). Managing authorities can be found [here](#).

Horizon 2020

- Under the 'secure, clean and efficient energy' chapter, different calls focus on buildings and financing topics. Calls relevant for sustainable energy can be found [here](#).

Project Development Assistance

- **ELENA**: managed by the European Investment Bank, that provides grants (90%) for technical assistance to launch large-scale sustainable energy investments
- PDA under Horizon 2020 (call [EE22](#)) available for smaller project sizes (€6-50 million)

European Energy Efficiency Fund ([EEEE](#))

- The Fund operates as a dedicated bank to provide tailor-made debt and equity instruments for local and regional authorities

The renovation loan

- The renovation loan is an ESIF instrument that aims to combine public and private money for energy efficiency investments between €5-30 million. It provides access to finance at preferential conditions for loans up to 20 years maturity

Integrated Territorial Investment instrument

- The ITI is another vehicle to leverage ESI funding and provides an option for Member States to combine infrastructure investment in energy efficiency and training staff

Private Financing for Energy Efficiency instrument (PF4EE)

- Under the EU's LIFE programme together with the EIB, this pilot financial instrument will co-fund energy efficiency programmes. Currently this pilot programs started collaborations with local commercial banks.

Energy Efficiency investments in the Belgian building stock are obviously a very broad spectrum, which we will try to split up in three groups. However, the innovative financing schemes, which will be discussed in the CITYinvest framework can serve different end-users and building owners.

PRIVATE SECTOR AND MAINLY SMES

The Walloon Public Service provides a subsidy (AMURE) to companies for realization of:

- A comprehensive energy audit,
- A partial energy audit,
- A pre-feasibility study,
- A feasibility study,
- An annual follow-up audit;

The grant for the annual surveillance audit and renewable feasibility study are reserved for companies that are part of a branch agreement.

The government is currently setting up a loan facility to help SME to invest in energy efficiency. It should be financed through ERDF funds. This has however not been developed yet and work is under progress.

A current Flemish development is the creation of a ESCO fund, which would act as third party investor and is being paid back by the achieved energy savings. The ESCO is responsible for the performance guarantee, which safeguards the profitability. The fund would target SMEs in order to provide financial solutions for energy efficiency investments, which are most of the times outside the core business. This should lower the threshold of risk perception towards these investments from commercial banks. Furthermore, the ESCO Fund should also support the market take-up by providing technical feasibility studies and standardised contracts. The 'Participatie Maatschappij Vlaanderen' was asked to investigate the creation of the ESCO Fund since April 2015.

Local Authorities in Flanders have already investigated the possibilities of engaging SMEs in energy efficiency investments via the [ESKIMO](#) projects. These projects connected different stakeholders (semi-) public agencies, businesses, ESCOs, facilitators, associations etc. in the quest to find pathways to stimulate ESCO services within the SME sector.

RESIDENTIAL SECTOR (HOUSEHOLDS)

For the Walloon Region, the following financial incentives in the residential sector are currently in place:

a. Tax reduction

Since 2012, the only tax reduction that remained, is the one for roof top insulation of 30% (max. 3,050 euro).

A reform of fiscal bonus system is being validated by the government.

b. ECOPACK /RENOPACK.

Ecopack and renopack are two 0% loans, possibly associated with a premium, to finance renovation or energy performance.

The works are determined in a prior interview with advisors. They can be financed up to 1,000 EUR. minimum to 30,000 EUR maximum. The cost of work includes all costs and benefits inherent in the work.

The EcoPack and rénopack come in the form of loans at 0%. They can be combined with each other and an accesspack.

The credit period is based on the applicant's financial capacity, with a maximum of 15 years. The loan must be repaid before the age of 75.

The monthly payment is calculated net of the premium if the eco / rénopack is granted in the form of an installment loan. FLW manages and household's applications for premiums associated with renopack/ EcoPack.

The work funded by the rénopack give the right to the benefit of a premium renovation:
<http://energie.wallonie.be/fr/primes-energie-2015.html?IDC=8793&IDD=12476>

The work funded open EcoPack entitled to the benefit of a premium energy:
<http://energie.wallonie.be/fr/primes-energie-2015.html?IDC=8793>

c. Energy and renovation premiums

As described earlier, premium are made to financially help households and maintain/create jobs in Wallonia. Those are few examples:

PRIME ÉNERGIE

ISOLATION

CHAUFFAGE
ET EAU CHAUDE

AUDIT

TÔITURE

MURS ET SOLS

ÉLECTRICITÉ

MEMBRES

e

NATURE DES TRAVAUX

MONTANT DE LA PRIME (selon la catégorie de revenus du ménage)

CONDITIONS À RESPECTER

NATURE DES TRAVAUX	MONTANT DE LA PRIME (selon la catégorie de revenus du ménage)			CONDITIONS À RESPECTER
	Montant de base Catégorie de revenus C4 entre 41.100,01 et 93.000 €	Montant de base x1,5 Catégorie de revenus C3 entre 31.100,01 et 41.100 €	Montant de base x2 Catégorie de revenus C2 entre 21.900,01 et 31.100 €	
TOIT par le demandeur (max 100 m ² /an)	2€ /m ²	3€ /m ²	4€ /m ²	Résistance thermique du matériau placé > 4,5 m ² /K/W
TOIT par entrepreneur (max 100 m ² /an)	5€ /m ²	7,5€ /m ²	10€ /m ²	Résistance thermique du matériau placé > 4,5 m ² /K/W
MURS par l'intérieur (max 100 m ² /an)	8€ /m ²	12€ /m ²	16€ /m ²	Résistance thermique du matériau placé > 2 m ² /K/W
MURS par la coulisse (max 100 m ² /an)	6€ /m ²	9€ /m ²	12€ /m ²	Résistance thermique du matériau placé > 1,5 m ² /K/W
MURS par l'extérieur (max 100 m ² /an)	12€ /m ²	18€ /m ²	24€ /m ²	Résistance thermique du matériau placé > 3,5 m ² /K/W
SOL par la cave (max 100 m ² /an)	8€ /m ²	12€ /m ²	16€ /m ²	Résistance thermique du matériau placé > 3,5 m ² /K/W
SOL sur dalle (max 100 m ² /an)	8€ /m ²	12€ /m ²	16€ /m ²	Résistance thermique du matériau placé > 2 m ² /K/W
▲ Les valeurs de Résistance thermique doivent être certifiées par un ATG, un ETA, un marquage CE ou repris dans la base de données ephd. Vous pourrez calculer la résistance thermique de votre isolant en divisant l'épaisseur de l'isolant placé par sa valeur lambda - informations sur l'étiquette de votre produit. En cas de doute, contactez un Guichet Énergie Wallonie.				
Chaudière gaz naturel à condensation	200€	300€	400€	Accès à la profession de l'entrepreneur et habilitation CERGA sinon réception par OCA
Pompe à chaleur Eau Chaude Sanitaire	400€	600€	800€	Cahier des charges à respecter
Pompe à chaleur Chauffage ou combinée	800€	1.200€	1.600€	Cahier des charges à respecter et niveau d'isolation thermique K ≤ 45
Chaudière biomasse (à alimentation automatique)	800€	1.200€	1.600€	Rendement > 85% (selon norme NBN EN 303-05) et accès à la profession de l'entrepreneur
Chauffe-eau solaire	1.500€	2.250€	3.000€	Voir Annexe technique H
▲ Liste non exhaustive des PAC et des chaudières biomasses éligibles sur http://energie.wallonie.be				
Audit énergétique (PAE 2)	200€	300€	400€	Réalisé par un auditeur agréé PAE 2
▲ Liste des auditeurs agréés PAE 2 disponible sur http://energie.wallonie.be				
Remplacement de la couverture du toit (min. l'versant et max 100 m ² /an)	8€ /m ²	12€ /m ²	16€ /m ²	Ces travaux doivent être accompagnés d'une isolation dont la Résistance thermique > 4,5 m ² /K/W
Appropriation de la charpente	500€	750€	1.000€	Ces travaux doivent être accompagnés d'une isolation dont la Résistance thermique > 4,5 m ² /K/W
▲ L'Administration peut accorder une dérogation à l'obligation d'isoler :- lorsque les combles sont aménagés en pièces d'habitation et quand l'isolation de la toiture impose des travaux de démolition - pour des travaux de toiture relevant de critères urgents de salubrité et lorsque les revenus ou la situation du ménage bénéficiaire ne permet pas de supporter le coût supplémentaire de l'isolation. Attention, en cas de permis d'urbanisme, des obligations PEB, notamment l'isolation du toit, devront être respectées.				
Remplacement d'un dispositif de collecte et d'évacuation des eaux pluviales	200€	300€	400€	600€
Assèchement des murs - infiltration (max 100 m ² /an)	8€ /m ²	12€ /m ²	16€ /m ²	24€ /m ²
Assèchement des murs - humidité ascensionnelle (max 50 m courant/an)	8€ /m	12€ /m	16€ /m	24€ /m
Renforcement des murs instables ou la démolition/reconstruction de ces murs (max 100 m ² /an)	8€ /m ²	12€ /m ²	16€ /m ²	24€ /m ²
Remplacement des supports des aires de circulations (gîteage, hourdis,... et max 100 m ² /an)	8€ /m ²	12€ /m ²	16€ /m ²	24€ /m ²
Élimination de la meuble ou tout champignon aux effets analogues	500€	750€	1.000€	1.500€
Élimination du radon	500€	750€	1.000€	1.500€
Appropriation de l'installation électrique comportant l'amélioration ou le remplacement du coffret électrique	300€	450€	600€	900€
Remplacement de menuiseries extérieures munies de simples vitrages ou ne respectant pas les critères d'étanchéité (max. 40 m ² /an)	15€ /m ²	22,5€ /m ²	30€ /m ²	45€ /m ²
				Le coefficient de transmission thermique châssis + vitrage doit être égal ou inférieur à 1,8 W/m ² /K

▲ LE MONTANT DES PRIMES ENERGIE ET RENOVATION NE PEUT EN AUCUN CAS DÉPASSER 70% DES FACTURES TVAC

The Flemish current financial incentives based on taxation are:

- Tax reduction for roof top insulation of 30% (max. 3,050 euro).
- 'Woonbonus: this support mechanism was changed in 2015, and now includes fiscal incentives for in-depth energetic renovation. This support should trigger larger EE investments.
- Property owners that lend social housing units benefit from a tax shelter up to 45% (incl. VAT) for energy saving investments.

Local authorities can trigger the renovation in the residential sector via soft loan schemes. One example is [REGent](#) in the city of Ghent, which prioritizes low-income households in their Rational Energy Use Programme. Households get free advise on how to save energy and water and employs staff from vulnerable groups. It facilitates the renovation works by facilitating the process (from energy scan to the actual measures) and provides financial solutions including low interest loans (0-2%).

PUBLICLY OWNED BUILDINGS

Walloon current examples are:

UREBA.

The UREBA GRANTS are available to municipalities, provinces, CPAS and police districts, schools, hospitals and swimming pools and other non-commercial organizations (asbl, community service, etc. active in philanthropic, scientific, technical and educational OR a field of energy, environmental protection or the fight against social exclusion).

For the installation of energy accounting, conducting an energy audit by an approved auditor, or the completion of a pre-feasibility study for an investment to carry out work to improve the energy performance the building, the rate of subsidy is 50% (or 55% if energy policy enforcement for 2 years) eligible costs. The rate is applied to the remaining non-subsidized project if these investments are subject to other subsidies or premiums (for the same purpose).

To improvement's measures of the energy performance of a building, the rate of subsidy is 30% (or 35% if implementation of an energy policy for 2 years) of the eligible costs. The rate is applied to the remaining non-subsidized project if the work is subject to other subsidies or premiums (for the same purpose).

INFRASPORT

INFRASPORT is a support tool from the Walloon region for local authorities wishing to improve the condition of their sports facilities. Energy renovations of these are included in the eligible measures. The premium rate can go up to 85% of the work.

PLAN "cigogne 3"

The plan cigogne 3 has the same goal that infrasport but for ONE (Office National pur l'Enfance) and crèches.

RENOWATT

See chapter 'Relevant Best Practices'.

Flemish context:

Currently several programs are running to target public buildings. First of all, the regional energy services company '[Vlaams Energie Bedrijf](#)' (VEB) facilitates, delivers and coordinates energy services to realise (amongst other objectives) energy savings in public buildings. VEB is a Central Purchasing Body for energy and facilitates energy efficiency investments of Flemish public institutions. It targets 1,200 Flemish public buildings with a 25% rate of energy savings. The Participatiemaatschappij Vlaanderen (PMV) participates in this publicly owned limited company. The business model is based on energy performance contracting and pooling buildings. It recently managed to successfully tender its first EPC/ESCO project for its customer OPZC Rekem (more info [here](#)).

EANDIS and INFRAX are the two distribution companies in Flanders for electricity and gas. Their shareholders are local authorities. Both had in the past a public general service obligation to assist its shareholders (towns, cities and provinces) with energy conservation measures (free energy bookkeeping, free energy audits etc.). This role is extended since 2010 with the creation of internal 'public ESCO's' through which the DSOs accompany the cities in studying, implementing and financing energy saving investments in their public buildings. The ESCOLIMBURG2020 is a joint project of the Province of Limburg, the Energy Grid Operator Infrac and Dubolimborg (specialised consultancy institute for sustainable housing). The initiative aims to support, optimise and expand the ESCO activities of Infrac, which includes since 2010 a package of free energy services, such as telemetry and monitoring, a feasibility study and an energy register for the properties. The Covenant of Mayors initiative has been a driving force behind this development.

Details on the three financial and operational models can be found in the CITYinvest case studies: [VEB](#), [EANDIS](#), [ESCOLIMBURG2020 Infrac ESCO](#).

Thresholds for wider implementation of financing energy efficiency programs

- Split Incentive: the rental market is difficult to influence by Flemish fiscal and grant programs for energetic retrofits. More info [here](#).
- Multiple ownership of a building block (Renovation for the whole block to be agreed upon by the different owners, but these have different financial situations. The creation of reserve mechanisms could be investigated)

- Lock-in effect by quick-wins due to wrong incentives of grants-based mechanisms. Potential solution could be to reduce single-measure support and favour in-depth renovation strategy for a building/unit.
- Growth of ESCOs: financial support, standardisation of contracts, third party financing from the esco should be supported.
- Bundling of smaller scale projects

Inspirational financing models for energy efficiency programs⁶

Revolving funds

What: A revolving fund is a source of money from which loans are made for several sustainable energy projects. Revolving funds can provide loans for projects that do not have access to other types of financing, or can provide loans at an interest rate below the market standards (soft loans). This counts as an example of financial instruments using European Structural and Investment funds.

Example case studies:

- ✓ [Fred & Ed funds of the Hague](#)
- ✓ [The London Green Fund](#)

Soft loans, loan guarantees and portfolio guarantees

- Soft loan schemes (below market rates and longer payback periods) and loan guarantees (buffer by first losses of non-payment) are mechanisms whereby public funding facilitates/triggers investments in EPC.

- Portfolio guarantees for ESCOs reduces the risks of payment delays, so reduces the overall costs of financing (solid protection from later payments).

Example case studies:

- ✓ [EERSE](#) (Bulgarian Energy Efficiency and Renewable Sources Fund, case study)
- ✓ [OSER Rhone Alps](#)
- ✓ [KredEx Financial Service in Estonia](#)

Commercial green loans: the Belfius Smart City program

The framework agreement between the European Investment bank and the Belgian Belfius bank is a European front running example in channeling EIB financing in a decentralized way to smaller-scale local projects via more favorable conditions (lower interest rates). Energy efficiency is one of the three main priorities for investment. All information is available [here](#).

⁶ Financing model descriptions taken from the Covenant of Mayors Reference Guide, accessible [here](#).

Green Municipal Bonds

Local government (or their agencies) can issue green bonds to fund their sustainable energy projects. A green bond can operate as a normal bond, which is a debt that will be paid back, depending on the characteristics of the bond, with interest. These can be made attractive via tax-exemptions.

Examples:

- ✓ [Gothenburg](#) (SE) green bonds
- ✓ [Varna](#) (BG) municipal bonds
- ✓ [Birmingham](#) (UK) Municipal Bonds Agency

Citizen based financing models

A crowd-funding platform pools resources of different actors, utilizing most of the time an internet-based platform. This can happen in combination with energy cooperatives, which are business models based on shared ownership and democratic decision-making procedures.

Example case studies:

- ✓ [Brixton Energy Cooperative](#),
- ✓ [Climate Community Saerbeck](#)

Detailed focus on cooperatives

REScoop stands for renewable energy cooperative, and refers to a business model where citizens jointly own and participate in renewable energy or energy efficiency projects. We also refer to REScoops as community power or community energy initiatives. REScoops do not necessarily have the legal statute of a cooperative, but rather distinguish themselves by the way they do business. They typically respect 7 principles that have been duly outlined by the International Cooperative Alliance:

1. Voluntary and Open Membership
2. Democratic Member Control
3. Economic Participation through Direct Ownership
4. Autonomy and Independence
5. Education, Training and Information
6. Cooperation among Cooperatives
7. Concern for Community

All citizens are eligible to join a REScoop. After purchasing a cooperative share and becoming a member or co-owner of local RES and EE projects, members share in the profits and often are given the opportunity to buy the electricity at a fair price. In addition, Members can actively participate in the cooperative: they can decide in what and where the REScoop should invest, and are consulted when setting the energy price. The profit that is generated by REScoops is shared with the members or reinvested in the social purpose of the organisation. Local authorities can seek collaboration with REScoops that already exist or trigger the development of new initiatives in their local area. By joining forces with a local REScoop, they can either invest in the renewable energy (RES) and energy

efficiency (EE) projects. RES and EE are equally important (it doesn't make sense to produce sustainable energy if you're not using it in an efficient way) if we plan to shift to a more sustainable energy system, but up until now the REScoops have been focussing exclusively on RES production. Producing energy seems way more attractive than savings, not only from a financial point of view. And yet, we now see a clear shift to EE investments. In addition we clearly see that many REScoops reach out for local authorities. Some examples:

- Ecopower (Belgium) uses part of the revenues from wind projects to pay the wages of local energy experts. The latter work on behalf of the local community of Asse (Belgium) and Eeklo (Belgium). Their job is to provide local citizens with energy advice and to develop projects that improve the overall energy efficiency of public buildings in the local community.
- A renewable energy cooperative in Odenwald (Germany) used part of its solar revenues to finance the construction of a sustainable concert hall, a building that benefits all the citizens, not just those who invested in the cooperative.
- PajoPower, EnerGent, Courant d'Air, Ecopower (Belgium) and Carbon Coop (UK) help their members take extensive energy efficiency measures in their homes. Most also help local authorities improve the overall energy efficiency of public buildings. REScoops thus are ideal partners for local authorities who signed the Covenant of Mayors.

Energy savings lead to financial savings which can then be re-invested in renewable energy projects, energy efficiency measures or even in other investments that could benefit the local community as a whole. There are various examples of how local authorities can team up with REScoops:

(1) To become co-investors in renewable energy installations (e.g., wind farms or solar power installations). Emissions Zéro (Belgium) for instance set up a REScoop for the operation of a wind project in the region of Dour (Wallonia, Belgium). 75% of the shares are in the hands of local citizens. The local municipality owns the remaining 25%. Profits are shared among the investors. Thus, the local municipality generates revenues from the project and reinvests these in renewable energy, energy efficiency or other projects that benefit the community.

(2) To provide grounds for RES-investments

In 2001, Ecopower (Belgium) won a public tender in Eeklo (Flanders, Belgium) to erect its first wind turbines on a state-owned piece of land because the tender required direct participation by local citizens. Ecopower was the only organisation that allowed citizens to share in the profits and use the electricity in their homes at a reasonable price.

(3) To support local citizens to set up a REScoop

In Saarbeck (Germany), Ghent (Belgium) and Villers-le-Bouillet (Belgium) the local municipality endorsed the setup of a local REScoop to develop RES and EE projects in the local community.

Detailed focus on crowd funding platforms

An interesting innovative development in the area of crowd funding is the ECCO NOVA platform. It is a collaborative funding platform for major energy projects and improving energy efficiency in buildings. Through a web platform, the company connects project leaders in the renewable or energy transition and savers-investors. Each investor has the opportunity to invest from 500 to 10,000 € in one project. The platform ensures a yield of 6 to 7% / year. ECCO NOVA is a young company (established in 2016), inspired by practices already well established abroad as a shared energy in France, England Abundance, Windcentrale the Netherlands, or Solar Schools in Australia, etc. who managed to raise funds to finance projects in energy renovation while ensuring an attractive interest to investors.

Operation:

The project leader shall submit it to the online platform. ECCO NOVA undertakes to carry out a technical and economic analysis of each project in order to assess the risk: analysis of project developer accounts, analysis of the proposed technical solution and return on investment advanced. The study provides a Ranking information 1 to 5 (least risky to most risky).

Once approved by the analysts ECCO NOVA, the project is submitted online to start fundraising

The amount collected by the platform is transmitted to the project promoter in the form of a debt. The promoter contracted a subordinated loan from each investor / saver who joined the project. As such, this loan is considered quasi-own contribution by a bank because the debt is repaid after the prior payment of all other balance sheet debts in bankruptcy. Project duration: 6 to 8 years. Yield: 6 to 8%, which is defined by the project owner. Maximum loan amount via the platform is set at 100.000 €. Projects covered by the platform are e.g. large wind, biomass boiler collective, renovation of buildings, PV installations, cogeneration, intelligent street lighting, heat network, etc.

Use Cases of the platform:

In general, investments subject to the platform have already partly financing granted by a bank. However, it requires a specific contribution to the project promoter. This own contribution can consist of the amount collected on the platform ECCO NOVA.

Even though some improvement can be made (especially for SME's), we can observe that there is sufficient financing and operational models that have proven to work. No the question is how to

scale-up the market. This puzzle is complex and will require many incremental steps from different stakeholders at the same time. Suggestions to spur market roll-out are:

- By downsizing the risk taken by financier. This goal can be achieved by upgrading the level of accuracy of predicting models (mostly by upgrading the accuracy of technical data as energy consumption) and, in the case of local authorities, upgrading the technical skills of public workers.
- By continuing with standardization of models (as Renowatt has begun to do so), from collecting data to juridical advices.
- Economies of scale are necessary for lowering transaction costs, payback time and increasing the overall security of performance guarantees.
- By finding a way to help the local authorities to invest by giving them the means (financial and organizational) to do so. The example of the Povince of Vlaams Brabant to support EPC coaching is worthwhile to mention⁷.
- By giving more in-built flexibility for mortgage subscription

Relevant best practices

RENOWATT

RenoWatt is a pilot project for the energy retrofitting of public buildings in the Liège province, supported by the European Union.

Through its one-stop-shop, Renowatt provides comprehensive support to the involved entities. It assists them in the concrete achievement of energy retrofitting for their buildings: identification of energy-intensive buildings, funding of the investments and complete management of the procurement procedure.

- 4 Energy Performance Contracts (EPC) with a savings guarantee
- 40 million euros' worth of investments generated over 30 months
- 700 jobs mobilised (design/retrofitting work/maintenance)
- 10 public entities already involved in the project

By acceding to the Central Markets, participating entities undertake to respect the **principles of RenoWatt:**

- Establish Energy Performance Contracting (EPC)
- Reduce the energy bill and CO2 footprint of cities and towns
- Ensuring the energy performance of the work. The Energy Performance Contracts can guarantee a reduction in energy consumption by including an external maintenance of buildings

⁷ For more information: http://www.vlaamsbrabant.be/binaries/EPC-coaching-2015_tcm5-102598.pdf

- Working as pools of buildings bringing together different public authorities.
- Provide an attractive size for CPE
- Diversify the risk for financiers and get more attractive financing conditions
- Reduce transaction costs

RenoWatt's advantages

- Technical analyses and support in the building screening process : Technical feasibility analyses performed by experts
- UREBA (Rational Energy Use in Buildings) SUBSIDIES: Negotiation of UREBA-type subsidies at the Walloon government level
- Outside traditional investment guidelines set up by the Walloon Region
 - o For the municipalities benefitting from the Regional Centre for Municipalities Support: traditional investment guidelines do not apply to energy retrofitting works (the duration of the calculation is extended to 20 or 25 years, according to the circumstances)
 - o Preparation of the "outside traditional investment guidelines" files for the administration, on behalf of cities and municipalities
- Public Procurement
 - o Carrying out of all the specifications at the Central Procurement Board level and launching of procurement procedures
 - o Negotiations with ESCOs
 - o Legal advice from an expert in public procurement
 - o Constant engagement with cities and municipalities
- Financial package
 - o Negotiations (EIB and other third-party investors) to set up interesting financial packages for public entities
 - o Thanks to the size of RenoWatt procurements, access to types of funding that would not be available to a city or municipality alone
 - o Analysis of the financial return for the buildings and for the city or municipality
- Neutral and "public" facilitator
 - o Neutral and non-profit organisation working in the interest of public entities
 - o Knowledge of the constraints of public entities
 - o "Public-public" cooperation - no need for public procurement

The intercommunal IGRETEC, IDETA have launched in 2011 a third party investment model in energy efficiency to help municipalities to identify the energy efficiency works, to make the energy efficiency works on their behalf and to finance the works. The municipalities is reimbursing the works based on the energy savings. The model, although very well conceived, has only completed 7 refurbishments

- o Studies are very detailed
- o Return on Investment for energy efficiency works needs to be lower than 15 years
- o Building per municipalities are limited to 2

Communication multipliers

Walloon region

The following organizations can be reached out to help to roll-out innovative energy efficiency models:

- ICEDD
- CLUSTERS,
- UVCW
- GRE Liège
- Provinces
- Alliance emploi environnement
- POLLEC
- Union des Villes et des Communes
- Intercommunal working directly with the municipalities in Wallonia

On top of those organizations, “Le Salon des Mandataires” can be as well a good communication multiplier. This is an annual event held in February dedicated to all the public authorities levels in the Walloon region. Most of the members of Walloon parliament, government and administration are attending this event as well as the (deputy) mayors and other local authorities representatives. This event constitutes a unique opportunity to reach efficiently various institutions from the public and private sector (finances, construction,...) and offers a major show-case for the CIYTYnvest/RenoWatt project. More than 13.000 visitors were welcomed in 2016 for the 11th edition of “Salon des Mandataires”. About 355 exhibitors were present making of this event a major place of exchange of ideas and experiences in the public field.

RenoWatt has participated in February 2016 in the Salon des Mandataires and could reach directly more than 50 municipalities in Wallonia.

Flemish region

The following organizations can be reached out to help to roll-out innovative energy efficiency models:

- [VSG](#) (association of local authorities)
- [Vereniging Vlaamse Provincies](#)
- [Vlinter](#): Network of Flemish intercommunales (local associations of municipalities)
- [Bond Beter Leefmilieu](#) and [Energy Saving Pioneers](#)
- Flemish department [LNE](#) (Leefmilieu, Natuur en Energie)

Brussels Capital Region

As explained in the introduction, on top of inviting municipalities to the Walloon and Flemish workshops, some conferences will be however held within the Brussels communication multipliers.

The discussion how to organize it and to which event bundle the conference is still ongoing and cannot be detailed in this report.

The identified multipliers are the following:

IBGE

Bruxelles Environnement (also known as IBGE) is the public service responsible for the environment and energy at the Brussels-Capital Region. It is tasked with conducting research, planning and providing advice on environmental issues. It also helps the authorities and businesses in Brussels to develop environmental plans.

Bruxelles Environnement manages various environmental themes for the Brussels-Capital Region, including air, water, waste, ground, green space and biodiversity, health and environment, noise, energy, and eco-mobility. It provides also services such as the environmental awareness-raising label among the general public, in schools and businesses:

Entreprise Ecodynamique label:

The [Entreprise Ecodynamique Label \(FR/NL\)](#) focuses on the official recognition and adoption of best environmental management practices in businesses and public or private organisations. It rewards environmental dynamism and advances made in waste management, energy consumption and rational use of raw materials. The label is free of charge. The award criteria are explained on the Bruxelles Environnement website.

Planning and support

- Drawing up sector plans for managing and preventing waste, dealing with noise nuisances, managing the Forêt de Soignes (Sonian Forest), as well as Air and Climate plans
- Development and management of green spaces (including the Forêt de Soignes in the Brussels-Capital Region)
- Help to businesses with regard to environmental obligations

Environmental permit and inspection

- Granting environmental permits, approvals and certificates
- Monitoring compliance with environmental legislation

SIBELGA

Sibelga is the only distribution network operator for electricity and natural gas in the 19 communes of the Brussels Capital Region. Sibelga is also responsible for monitoring meters and for validating and administering consumption data.

Sibelga's services:

- Carry electricity and natural gas to all homes via the distribution network
- [Open and close the meters](#)
- [Carry out work on connections and meters](#)
- [Read the meters](#), validate consumption data and then pass this on to the energy supplier
- Deal with [electricity malfunctions and gas odor](#)
- Maintain and repair [street lighting](#).
- Give advice on the rational use of energy (RUE)
- [Protect vulnerable users](#) by providing services as a social supplier
- Install power limiters

Sibelga staff members act as advisors on rational use of energy, needs to help municipalities to reduce their energy consumption. Sibelga is currently in discussion with RenoWatt to understand how it could duplicate the model in Brussels region.

Association of the City and the Municipalities of the Brussels-Capital Region

Association of the City and the Municipalities of the Brussels-Capital Region

The Association of the City and the Municipalities of the BrusselsCapital Region (AVCB/VSGB) is a non-profit organisation established and managed by the local authorities within the Region and aimed at providing them with services. The City and the Municipalities are part of the Association as active members, together with the Public Centres for Social Welfare (CPAS/OCMW) and inter-municipal associations as supporting members. Through its mission, Association of the City and the Municipalities of the Brussels-Capital Region could be an excellent leverage to disseminate CITYinvest in Brussels Region.

REGIONAL WORKSHOPS

Regional Workshop Wallonia

The Regional workshop will be mainly targeted to public authorities. As already described, the best place to gather public authorities is the “Salon des Mandataires”. The regional workshop will not be organized as the ones in the other regions as it will be tailored to the salon des mandataires: A stand, private invitation to the stand as well as a one-hour conference will be organized.

RenoWatt has been recognized as an initiative, which will continue to to be spread across Wallonia (currently: Liège province). The presentation will be mainly focused on RenoWatt outcomes and the steps to up-scale RenoWatt at the Walloon level.

The intercommunal and the communication multipliers will be one of our communication channels to reach out and invite the municipalities

Timing	What	Organisation
2 days	<ul style="list-style-type: none">- Posters and leaflet to Introduce innovative financing for energy efficiency: what's happening across European markets (CITYinvest materials)- Posters on RenoWatt- Video on REnoWatt	CITYinvest and GRE Liège - continuous presence during the 2-days event
First day	<p>Conference (60 min)</p> <ul style="list-style-type: none">- Introduction on CITYnest (10 Min)- Walloon incentives to help municipalities to launch public	GRE Liège Administration or Cabinet of the Minister (still to be confirmed) and CITYinvest

	<ul style="list-style-type: none"> retrofitting (10 min) - RenoWatt (25 min) (including experience sharing of one of the municipalities) - Q&A with audience (15 min) 	
First day	Cocktail – event on the stand to invite municipalities and discuss with them on the project and how to launch it in Wallonia	GRE liège
Second day	Breakfast on the stand with municipalities and technicians	GRE Liège

Regional Workshop Flanders

Timing	Potential elements of the workshop	Organisation
20 minutes	Introduction innovative financing for energy efficiency: what's happening across European markets: CITYinvest materials	CITYinvest
60 minutes	<p>(Focus on Flemish context)</p> <ul style="list-style-type: none"> - The state of play for renovating Flemish building stock via EPC, an opening speech on the barriers and opportunities. 	Energy Savings Pioneers, Factor4 (tbc)

	<p>- Local authorities role in scaling-up energy efficiency investments</p> <p>Financing incentives for EE investments in Flanders: current measures and prospects (ESCO Fund)</p> <p>Q&A with audience</p>	<p>VVSG, Covenant of Mayors</p> <p>Minister of Budget, Finance and Energy Bart Tommelein (tbc)</p>
10 minutes	Local example 1: Renovating building stock: programs and projects for different building types	Ghent
10 Minutes	First EPC contract between public sector and ESCO in Rekem	More info
20 minutes	Learning from what's happening across the language border	GRE Liège, Erika Honnay
30 minutes	Panel debate between the different levels of decision-making powers: local-regional-national	Professionally moderated
30 minutes	Panel debate between different perspectives on financing solutions: revolving funds, citizen-based modes, ESCO financing, EANDIS/infrac,...	Citizen based: REScoop.eu & REScoop.Vlaanderen
60 minutes	<p>Roundtable discussions (2x30 minute)</p> <p>With short pitches on different elements to scale-up the EE market in Flanders:</p>	Speakers to be decided later. The session will start with small elevator pitches of the 4 moderators of each roundtable discussion to explain the key discussion topics. In this way, the audience can decide to which two

	<ul style="list-style-type: none"> - SME sector (ESCOs, contractors, facilitators) - Financial institutions discussion standardisation, aggregation (fund operators, banks, intermediaries) - Building owner associations, split incentives - Legal advisors on EPC contracting 	roundtables they will go.
20 minutes	Feedback from the roundtables: each moderator gives a 5 minutes summary of the discussions	
30 minutes	3 short presentations on inspiring best practices (from other Member states) and Q&A	CITYnvest case studies such as Cambridgeshire, The Hague, Oser in Rhône-Alpes region of France, PadovaFit in Italy, etc.
20 minutes	Discussion on what does it take to replicate successful financing models in Flanders?	
10 minutes	Closing session: wrap-up of what we learned today and what could be done by all the different stakeholders to remain involved in CITYnvest and get started in their own territories.	Moderator/Climate Alliance

Expert & stakeholders mobilisation

Federal and regional Government representatives

Local Governments (municipal, provincial, intercommunal) and their networks

- Vlaamse Vereniging voor Steden en Gemeenten

- 'Intercommunales' are collaborations between municipalities in one geographical area. In the framework of the Covenant of Mayors, Flemish *intercommunales* play an important role in triggering the political ambition, providing technical support to signatories and raising awareness. Some *intercommunales* are also Covenant of Mayors Coordinators, such as Leiedal, IOK, IGEMO and Interleuven. Also some provinces take up this role, such as Vlaams Brabant, Oost-Vlaanderen, West-Vlaanderen and Limburg, which was the frontrunner province in 2008.

Financial service providers/financial institutions

Building users

Construction businesses

Energy (service) Sector: ESCOs and private sector stakeholders, energy distributors and local energy agencies

To a less extent; Research & Academia, NGOs, Media

Representatives of local cooperatives and other community energy projects

Flemish sources

http://www2.vlaanderen.be/economie/energiesparen/beleid/Energie-efficientierichtlijn/Derde-Vlaams_actieplan_energie-efficiëntie.pdf

<http://www2.vlaanderen.be/economie/energiesparen/beleid/goedgekeurdeconceptnotaRenovatiepact.pdf>

<http://www.energysavingpioneers.be/aanbevelingen>

http://www.energiesparen.be/renovatiepact/WG_financiering

http://www2.vlaanderen.be/economie/energiesparen/beleid/Synthesenota_aanbevelingen_geintegreerdbeleid.pdf

Walloon sources

Chapter XXIII of the Declaration of Walloon Regional Policy 2014-2019

<http://energie.wallonie.be/fr/aides-et-primes.html?IDC=6317>

<http://www.gre-liege.be/renowatt.php>

<http://www.energieplus-lesite.be/>

<http://wallex.wallonie.be>

Brussels sources

Websites of:

- Elia
- Sibelga
- IBGE
- Union des villes et des communes de Bruxelles Capitale

Annex 1

Electricity and heating savings in industry, trade and service sectors

> Tertiary sector

In 2007, consumptions of the Walloon tertiary sector were distributed as this :

Natural gas: 43 %

Electricity: 42 %

Heating oil: 15 %

It has been estimated, according to the Walloon's territory Bilan Carbone, that the consumptions related to the tertiary sector are equivalent to a third of the housing sector, or 210 000 MWh. Weighting it on the given above Walloon balance, emissions can be set evaluated at 15 508 T eq C in 2007.

Hypothesis 1

The « 100 % renewables » set that the consumptions of the tertiary sector almost stay the same until 2050, due to the development of bureaucratic items, even though buildings are meanwhile refurbished. Electricity provides 100 % of the sectorial needs, emissions are then evaluated at 2100 T eq C, a 7,4 reduction factor.

Hypothesis 2

If we make the assumption that the scenario of the French non for profit organization « Virage Energie Nord Pas de Calais » can be translated to the Walloon situation, then the hypothesis are:

- Energy consumptions linked to heating are cut by a half
- Two third of the needs are met with district heating, the last third with gas
- Specific electrical consumptions are stable

70 000 MWh of electricity (80% renewable)

23 300 MWh of natural gas

46 700 MWh from district heating

Being $1834 + 1304 + 1168 = 4\,306$ T eq C, or 3,6 reduction factor.

> Industrial sector

Modernization of electrical processes, a better sizing of motors and transport means and an increased flexibility of use lead to consumptions stabilization (VE NPDC hypothesis). Heat consumption remains stable as well, of which two third from from natural gas and the last third from renewables.

- 530 000 MWh electric, or 13886 TeqC within a 80 % renewables hypothesis in 2050.
- 300 000 MWh for heat, or 11200 TeqC

More or less 25 000 TeqC, vs 66 290 initialy, or a 2,6 reduction factor, all other things being **equal**.