INNOVATIVE FINANCING SCHEMES

Lessons learnt from the Covenant of Mayors Community

Covenant of Mayors
for Climate & Energy
EUROPE

Many of the Signatories to the **Covenant of Mayors for Climate & Energy** have implemented innovative financing schemes to fund locally-owned projects in the framework of their Sustainable Energy and Climate Action Plans (SECAP). In this booklet, you will find lessons learnt by cities and regions all across Europe.

The **first section** of the booklet presents financing schemes used to fund projects owned by local authorities. The schemes used to support citizens and companies' actions are in the **second section**.

1ST DELIVERING COVENANT OF MAYORS ACTION PLANS: PROJECTS OWNED BY LOCAL AUTHORITIES

GREEN MUNICIPAL BONDS

HOW DOES THE SCHEME WORK?

A green municipal bond works exactly like a regular municipal bond, but it is supposed to fund projects that have positive environmental and/or climate benefits. Bonds provide the bond issuer (borrower) with external funds to finance long term investments and the bond holder (lender) with a return on the investment. In order to issue a bond, the municipality will have to first identify a project and define the use of the proceeds tracking and reporting. Once the bonds are issued, they can be traded on capital markets.

FOR WHICH SECTORS IS THE SCHEME RELEVANT?

All sectors covered by the SECAP.

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WHICH CITIES ALREADY USE IT?

Cities of Gothenburg, Malmö, Stockholm and Örebro (Sweden), Oslo (Norway), Hannover (Germany), Paris and Region Ile de France.

In 2015, just before the COP21, the **city of Paris** issued its very first green bond worth 300 million EUR. The system proved to be successful in raising the interest of investors. Two years later, the city issued its second climate bond, worth 320 million EUR, on the market. These were long term bonds (17 years) at an interest rate of 1.43%. The reaction of the financial market players was unexpected: in 3 days, very diverse domestic and international investors offered 1.2 billion EUR to the city of Paris !

LESSONS LEARNT & RECOMMENDATIONS

- **Green bonds can be a source of low-cost capital** for municipalities (or local utilities) if they have access to debt markets. Investor demand has been high, often leading to oversubscription.
- **Legal and technical barriers:** Issuers have to be creditworthy and they must be allowed by their central government to issue bonds. Also, the projects financed must reach a critical size.
- **In case the municipality cannot issue a green bond** directly, there are still some options left, including using local government funding agencies or utilities as proxies to issue bonds for low carbon and resilience projects.
- **Green bonds also present an opportunity for capacity building** of environmental staff, and cooperation between departments. Because of the necessary monitoring and reporting mechanisms, the city will have to stay on top of the climate impacts of their investment projects. The opposite is also true, meaning that cities with a sophisticated environmental reporting system, as well as high degrees of cooperation between financial and environmental departments, can have easier access to finance for energy and climate projects.

LEARN MORE

- Guidebook ‘Climate mainstreaming municipal budgets’, Energy Cities, 2018
- Free online courses on Green Bonds for Municipalities, Climate-KIC, the South Pole Group and Climate Bonds Initiative https://bit.ly/2oUhLXc

EARMARKING ENVIRONMENTAL OR ENERGY TAXES

HOW DOES THE SCHEME WORK?

A number of local authorities earmarks local taxes and fees on electricity consumption or congestion charges for projects and campaigns on sustainable energy or transport. In some cases the revenues are partly distributed through grants, loans or subsidies to citizens, research institutions or businesses to support sustainable practices.

FOR WHICH SECTORS IS THE SCHEME RELEVANT?

All sectors covered by the SECAP.

WHICH CITIES ALREADY USE IT?

Cities of Lausanne (Switzerland), Oslo (Norway), Milan (Italy), Nis (Serbia), London (UK).

The City of Lausanne is collecting two different taxes per KWh consumed in every household. One is earmarked for energy efficiency and one for sustainable development measures in general. The amount of the tax is determined each year by municipal decree (0.3 ct/kW in 2018)[1]. The tax is levied directly by the grid operator with the electricity bill, and then the amounts are transferred to the municipality.

In 2012, **Milan** replaced its limited-traffic zone by the 'Area C Milano congestion charge'. Prior to this decision in 2011, the local authority of Milan held a referendum where it asked its citizens whether they would "like to extend the charged zone to the whole city and to all vehicles categories to fund policies for sustainable mobility". With 80% approval, the citizens of Milan overwhelmingly voted in favour of an extended congestion charge, the revenues from which would be earmarked for sustainable transport projects.

[1] Municipalité de Lausanne. (2017). 'Tarif municipal des taxes communales liées à la distribution de l'électricité'.

LESSONS LEARNT & RECOMMENDATIONS

- **Fiscal competences of local authorities:** There are big differences between European countries in terms of which taxes or charges sub-national governments can impose and collect, and whether they can earmark local revenues for the creation of a fund dedicated to climate and energy-related projects.
- **Transparency:** Citizens should be able see where the money collected through the taxes or fees are being spent and what results are achieved.
- **Taxes on energy consumption are often minimal** so that they do not represent a burden for consumers but nevertheless, create a revenue source for the local authority to help finance its SECAP, especially for citizen-outreach campaigns.

LEARN MORE

- Guidebook 'Climate mainstreaming municipal budgets', Energy Cities, 2018

ENERGY PERFORMANCE CONTRACTING

HOW DOES THE SCHEME WORK?

Through Energy Performance Contracting (EPC) an external organisation (Energy Service Company – ESCO) implements an energy efficiency or renewable energy project, and then uses the stream of income from the energy savings achieved or the renewable energy produced to repay the costs of the project. The approach is based on a performance guarantee given by the ESCO, which transfers the technical risks from the client to the ESCO. Consequently, ESCO remuneration is based on demonstrated performance – the measure of performance being the level of energy savings or producible energy.

FOR WHICH SECTORS IS THE SCHEME RELEVANT?

All energy related sectors, but mainly buildings.

WHICH CITIES ALREADY USE IT?

Cities of Modena and Parma (Italy), Ljubljana (Slovenia), Essen (Germany), Barcelona and Murcia Region (Spain)...

In Wallonia (Belgium), RenoWatt acts as a one-stop-shop supporting the public entities (including schools, municipalities and hospitals) in the region throughout the EPC procedure. RenoWatt's comprehensive services go from the initial preliminary energy studies (thereby pooling buildings of different sizes to achieve economies of scale and reach a critical investment size), the identification of financing options and assistance in the procurement process, all the way to the conclusion of the EPC.

In Marche Region (Italy), the MARTE project (Marche Region Technical assistance for healthcare buildings Energy retrofit) aims at creating innovative financing models for energy efficiency investments. It combines EU technical assistance funding with the structural funds. MARTE applied EPC via "Energy Service Plus" contracts to the heating of hospitals in the Region. The project successfully mobilised around €12 million of investment, to improve the energy efficiency of three hospitals and two polyclinics-nursing homes.

LESSONS LEARNT & RECOMMENDATIONS

- **Communication:** A clear and continuous **communication strategy** internal to the local authority is necessary for the relevance and added value of an EPC to be understood by all parties involved.
- **Skills and expertise:** A **multidisciplinary team** is a key element of success. The team should include people with technical, financial, legal, data processing, IT modelling skills, and should be accompanied by a specialist or an EPC facilitator. At the same time, the **assistance and support of the technical and/or energy manager of the public entity** is crucial because of their knowledge of the building stock.
- **Data:** In order to set-up efficient EPCs high quality data is needed. It is therefore strongly recommended to establish a **solid energy data baseline.**
- The following **time-related issues** should be considered:
- **The validation process** takes time because of the different decision-making authorities are involved.
- Linking the EPC with the European Regional Development Fund has been an important factor is some cases, but it can lead to substantial delays due to the need to **conciliate the timelines of the project and the regional funds.**
- EPCs are built on the **return on investment time** of the energy retrofits, which can be very long (more than 10 years for hospitals). Therefore they are only sustainable for extremely long contracts and/or with a public contribution to partially cover the investments.

MORE INFO

- RenoWatt: http://www.renowatt.be/fr/renowatt/
- Toolkit for one-stop-shops based on the RenoWatt model: https://bit.ly/2HfpSH6
- MARTE project: http://www.marteproject.eu/en/
- EPC market in the healthcare sector (MARTE project report): https://bit.ly/2Crw3IN

LOCAL ENERGY COOPERATIVES

HOW DOES THE SCHEME WORK?

An energy cooperative offers citizens the possibility to jointly own and/or participate in renewable energy and energy efficiency projects on municipal sites and infrastructures. After purchasing a cooperative share and becoming co-owners, members share the profits generated and often have the opportunity to buy the produced electricity at a fair price. In addition, each member can influence the investment decisions of the cooperative and is consulted before setting the energy price. Municipalities can support and promote citizens cooperatives but also own part of the shares.

FOR WHICH SECTORS IS THE SCHEME RELEVANT?

All sectors covered by the SECAP.

WHICH CITIES ALREADY USE IT?

Cities of Ghent and Mouscron (Belgium), Krizevci (Croatia), Barcelona (Spain)...

Public lighting in the **City of Halle** (Belgium): The cooperative Pajopower worked together with the Covenant signatory Halle to replace 445 traditional public street lights with LED. The cooperative attracted citizens to participate financially and was able to cover the total investment, hereby helping Halle to save both energy and money.

LESSONS LEARNT & RECOMMENDATIONS

- **Vision:** Local authorities provide the framework for the cooperative to work. Therefore, they need to have a clear long-term climate and energy vision, which should include citizen participation. A lot of effort is needed to communicate the vision and inform about the participatory initiatives.
- **Win-win situation:** the municipality saves both energy and money. At the same time, the cooperative benefits from the promotion done by the municipality. For example the city's "adopt your streetlight" campaign in Halle helped the cooperative to gain more members.
- **Public tenders:** A key recommendation for a municipality willing to use this model is to apply specific criteria in the Call for Tenders recognizing the value of cooperative market players. Local authorities can also support starting cooperatives and facilitate the communication between the cooperative and the citizens, as well as provide networking with potential partners.

MORE INFO

- Public lighting project in Halle https://bit.ly/2CnkCvn
- Luyts S. (2017). 'Collaboration between Local Authorities and Renewable Energy Cooperatives: A bottom-up approach, partners in mitigating climate change'. KTH School of Industrial Engineering and Management, Stockholm.
- REScoop – Municipality approach https://bit.ly/2RJBxC4

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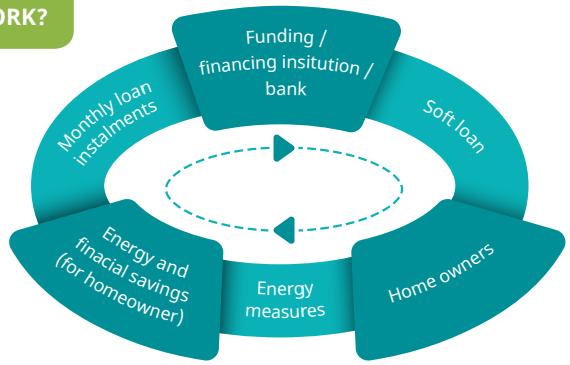
2ND

DELIVERING COVENANT OF MAYOR ACTION PLANS: SUPPORTING CITIZENS' AND BUSINESSES' ACTIONS

SOFT LOANS FOR HOME RENOVATION WORKS

HOW DOES THE SCHEME WORK?

Soft loans provide homeowners with money at lower-than-market interest rate. It represents an incentive to carry out energy-efficient renovation works.



Depending on the money and staff available for setting up the financing scheme, there are different Business model alternatives:

Money not available	Money already available	
Option 1	**Option 2**	**Option 3**
Partner banks provide soft loans	Partner banks provide soft loans, but the Region subsidises the interest rates, pays for the banks' operational costs and a guarantee fund	Local authorities set up a revolving fund which disburses soft loans and pay a fund manager

FOR WHICH SECTORS IS THE SCHEME RELEVANT?

Private residential buildings

WHICH CITIES ALREADY USE IT?

Delft (Netherlands), Bordeaux Metropole (France), Brussels-Capital Region (Belgium), Parma (Italy), and Frederikshavn (Denmark) have set up soft loan schemes, getting 18 local banks and financing institutions on board!

The Brussels Capital Region decided to launch a Brussels Green Loan, a zero to low interest loan which helps homeowners to pre-finance energy renovation work. Homeowners have a choice between:
1- A short-term consumer loan with an interest rate of 0% or 1% which they have to reimburse in up to 10 years.
2- A long-term mortgage with a personalised interest rate between 0% and 2% which needs to be reimbursed within a max. of 30 years.
Long maturity results in lower monthly installments. The loans are offered by Crédal, a local financial cooperative and the Housing Fund (Le Fonds du Logement/Woningfonds) of the Brussels Capital Region.

LESSONS LEARNT & RECOMMENDATIONS

- **Holistic approach:** A soft loan financing scheme should be part of a global energy retrofit programme, ideally offered in a one-stop-shop. Although lack of attractive financing is one of the greatest barriers, non-financial barriers remain very important, possibly undermining the financing scheme.
- **Start small:** it is better to start with a low budget and low-risk soft loan scheme, test it out and make it grow. Building up the municipality's internal capacities step by step, and learning from the process and new partnerships can help gaining stronger political support for a more ambitious energy retrofit programme.
- **One financing tool does not fit all:** at first, simple loan schemes tailored for specific target groups are better and easier to implement. With time, more complex schemes or structures can be put in place (e.g. public or public-private third party financing operators).
- **A city or region is not a bank:** a city or a region should not manage the loans. A partner bank or a fund manager should do it.
- **A bank is not a technical expert:** Partner banks can provide basic advice to homeowners on the energy retrofit programme. On the other hand, it is not their core business to carry out technical checks of energy renovation work, homeowners' eligibility or relevance of contractors' quotes. Local authorities should provide technical support to homeowners and let the banks focus on their own job.

LEARN MORE

- Guidebook 'Financing the energy renovation of residential buildings through soft loans and third-party investment schemes', Energy Cities, 2017: https://bit.ly/1sRghcZ

ON-TAX FINANCING

HOW DOES THE SCHEME WORK?

Local taxes can be used to recover payments from citizens & companies for energy efficiency measures financed by private investors. These investors lend the money for retrofits up-front and then get repaid over a timescale of up to 20 years through an additional charge on a property-related tax bill. In the US, the **'PACE scheme'** can pay for energy efficiency, renewable energy, and water conservation upgrades to homes and buildings, covering up to 100% of the project's costs.

In Europe an equivalent scheme, **EuroPACE**, is currently under development and will be launched in a few leading cities. As the local tax system is different from the US in several EU countries, EuroPACE does not only focus on the property tax, but on any property-related taxes, i.e. waste collection taxes.

FOR WHICH SECTORS IS THE SCHEME RELEVANT?

Private residential and tertiary buildings

WHICH CITIES ALREADY USE IT?

Olot (Spain) is the first city in Europe currently testing the the EuroPACE scheme.

LESSONS LEARNT & RECOMMENDATIONS

- **Not viable everywhere:** Through the research in preparation for the EuroPACE project, it became clear that the fiscal differences between European countries will not allow this scheme to be developed equally. The most adapted states identified are: Austria, Belgium, Italy, Poland, Romania, and Spain.
- **Trust:** investors needs to be sure that the local authority will have the capacity to regularly collect the taxes in question. This is not always the case in cities where local tax collection is irregular or not effectively enforced.

MORE INFO

- The Horizon 2020 EuroPACE project has conducted a market review to determine viability and attractiveness of the PACE on-tax financing scheme across Europe. Check whether your country is likely to adopt PACE here: www.europace2020.eu

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THIRD-PARTY INVESTMENT

HOW DOES THE SCHEME WORK?

Third-party investment is a scheme where the investment on the renovation of a building is not paid by the homeowner but by a third-party investor. Thus the homeowner does not take on a debt but pays a service fee to the investor instead. The investment can be done via an Energy Performance Contract. In this case the costs are repaid through the guaranteed energy savings.

FOR WHICH SECTORS IS THE SCHEME RELEVANT?

Private residential buildings, social housing

WHICH CITIES ALREADY USE IT?

City of Stuttgart (Germany)

The city of Stuttgart developed a 'care-free energy renovation package' for home-owners. The package includes: planning, building and construction, operation and maintenance, financing, guarantee and risk assumption. Homeowners do not need to secure upfront financing for the replacement of the heating system. This is financed by a municipal ESCO to whom the homeowners pay a monthly service fee through energy supply contracting.

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Home owners visit the Energy Advice Centre (EAC) and get tailor-made support for energy-efficient retrofitting carried out in four steps:

CONCEPT PHASE	PLANNING PHASE	IMPLEMENTATION PHASE	USAGE PHASE
x Energy audit x Independet technical and x financial advice x Energy retrofitting concept	x Project approval x Selection of technology x Detailed cost planning x Contracting x Quality check by the EAC	x Installation of technical systems by the ESCO x Building envelope retrofitting by the general contractor x Quality check by the EAC x Turnkey delivery of the renovated building	x Maintenance and optimisation of the technical building system by the ESCO during the contracting period x Quality check by the EAC

LESSONS LEARNT & RECOMMENDATIONS

- **Market gap Analysis** is the first thing a city should develop, to learn about the buildings and type of homeowners/tenants on its territory.
- **Trust:** The city as an institution is trusted by its citizens and should play a key coordination role in the massive energy retrofit programmes. It should be a guarantor of high quality retrofit works. The city should provide assistance (legal, technical, financial expertise) for the development of a standard energy retrofit scheme, including standard contracts, quality criteria, etc.
- **Start small:** It can be difficult to find a 'general contractor' responsible for financing of global retrofits (incl. building envelope). The scheme should be first tested on simple cases before moving to the more complex ones.

MORE INFO

- Guidebook 'Financing the energy renovation of residential buildings through soft loans and third-party investment schemes', Energy Cities, 2017: https://bit.ly/1sRghcZ

REVOLVING FUNDS

HOW DOES THE SCHEME WORK?

A revolving fund is a reserve of money used to finance a particular set of activities by lending to one or more borrowers. Over a given period of time, the borrower is expected to repay the original sum that restocks the fund. Usually, an interest is charged to the borrower as a fee for administrative costs but also to protect the fund from being depleted.

FOR WHICH SECTORS IS THE SCHEME RELEVANT?

Energy savings, energy efficiency, renewable energy production.

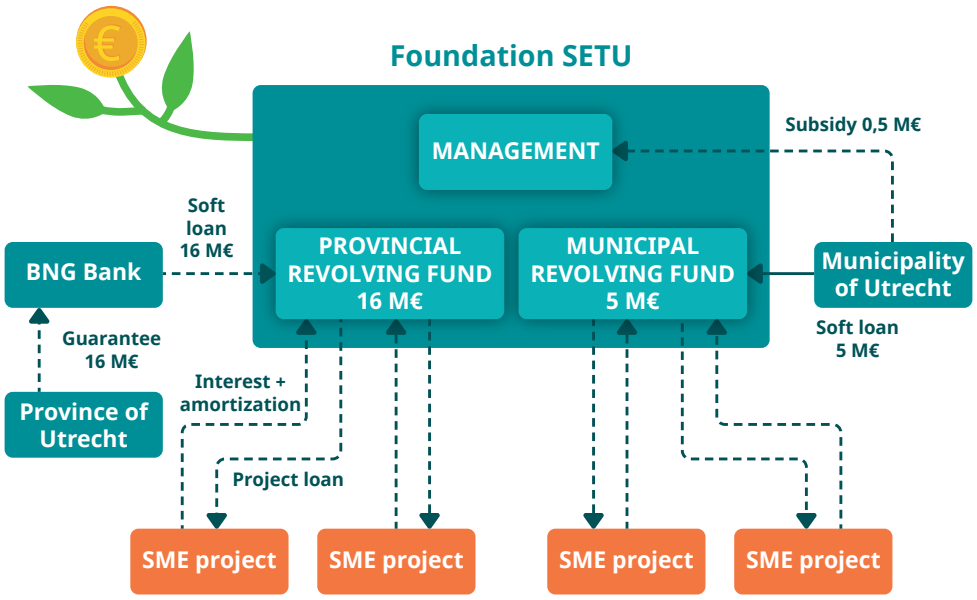
WHICH CITIES ALREADY USE IT?

City of Paris, Region Centre (France), city of Amsterdam...

The Energy Fund Utrecht (EFU) with a total capital of €21 million is a joint initiative between the City of Utrecht and the Province of Utrecht, but it is managed by a SETU foundation. Part of the fund capital (1,25 M€) comes from the European Funds for Regional Development (ERDF).

EFU provides loans to SMEs and non-profit organisations (e.g. sport and health associations) for the implementation of energy saving and/or renewable energy projects that are feasible yet not sufficiently bankable. The loan and interest have to be paid back to the fund in an agreed upon period (less than 10 years) and can then be invested again into a new project. Since 2013, EFU has financed more than 30 projects for an amount of 6 million EU in total, unlocking about 20 million EUR of private investments and reducing about 7,000 tons of CO^2 annually.

www.setu.nl/nl/aboutsetu



LESSONS LEARNT & RECOMMENDATIONS

- **Additionality to the financial market:** A public fund should i.e. offer solutions for feasible projects or SMEs that are considered too risky or too small to be financed by financial institutions.
- **The social return of a project** should be valued just as much as its financial return by a public fund.
- **Funding alone is not enough**, but should be combined with business development support. Often project ideas and plans, made by citizens and SMEs, come to a halt because of a lack of professional support and/or local barriers.
- **Cities could seek EU funding** such as ERDF to co-finance the fund.
- **Scale the fund up to regional level.** Utrecht started the fund in 2013 as a 5 million EUR city fund; the Province joined in 2018 with an additional 16 million. Transforming the fund into a regional fund and the growth of the fund capital has significantly increased the efficiency of management and communication.

MORE INFO

- EFU (in Dutch): www.energiefondsutrecht.nl

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