POWERTY
Interreg Europe

European Union
European Regional
Development Fund

Junta de Andalucía

Consejería de la Presidencia, Administración Pública e Interior
Consejería de Hacienda y Financiación Europea
Agencia Andaluza de la Energía

POWERTY

Guide of Good Practices

Renewable energies for vulnerable groups

Interreg Europe
European Union | European Regional Development Fund

#POWERTY

Web **https://www.interregeurope.eu/powerty/**

1 Introduction to the POWERTY project and this Good Practices Guide

The decarbonisation of the energy system requires that all European citizens can make full use of renewable energies. However, there is a high percentage of citizens with many difficulties to have renewable energy facilities and equipment, in particular the vulnerable groups, including those affected by "**energy poverty**". These difficulties are motivated by economic and technological issues (renewable energy solutions are not adapted to vulnerable groups), but also by other factors of a social and cultural type, use and owners of housing, etc., which influence the types of solutions that should be used, as well as how to manage them.

The general objective of POWERTY is to **increase the use of renewable energies in vulnerable groups**. This way, thanks to the project, new renewable energy installations will be facilitated to provide safe and clean energy to vulnerable households. In addition, companies supplying renewable energies will be encouraged through the project to offer technological solutions that are adapted to vulnerable groups, activating their corporate social responsibility.

In this way, POWERTY will help to tackle energy poverty, promoting vulnerable households with adequate energy supplies, thanks to renewable energies. Given the exceptional conditions of these households, social innovation measures will be promoted, based on greater participation, integration and empowerment of vulnerable groups.

The project will develop a complete learning process to facilitate an effective knowledge flow among regions, counting on 6 partners with different complementary expertise and different levels of competences (regional/national) which enriches the transfer of knowledge. More than 50 best practices and almost 50 events involving 60 stakeholders will establish 5 Regional Action Plans covering a population of more than 25 million inhabitants.

The POWERTY project, approved by the European Commission in the framework of the **Interreg Europe programme**, from August 2019 to August 2023, with a budget of 1.227.226 euros.

The good practices database is the cornerstone of the project. For this reason, one of the main outputs delivered for the first semester is a **Guide of Good Practices**. This document is organised by topics and compiles and makes available to the general public the good practices detected among the consortium and identified and characterised by every consortium partner. Some of this good practices are incorporated into the Policy Learning Platforms as "success stories".

During the POWERTY project, the fruitful interchange of ideas will enlarge and perfect this Guide. It is also expected that, following the periodical consortium meetings as dedicated interregional seminars and other project meetings, the planned study visits will be held, where additional information on the good practices will be provided. This way, visiting consortium regions could make an initial approach on how to adapt these good practices, the ultimate aim of this project.

The POWERTY project aims to ensure the real impact of the achievements in the long term, which will be achieved through new and innovative initiatives put in place and adapted to the local needs and expectations of society.

2 Identification of Good Practices. Guidelines and Methodology

For a successful good practices compilation exercise, a methodological framework was provided as "guidelines" available for every consortium partner to help to identify good practices in renewable energies and energy poverty in Europe, to be done at a regional level.

According to the Interreg Europe Programme:

Good practices is defined as an initiative (e.g. project, process, technique) undertaken in one of the programme's priority axes which has proved to be successful in a region and which is of potential interest to other regions. Proved successful is where the good practice has already provided tangible and measurable results in achieving a specific objective. Although the Interreg Europe programme primarily refers to good practices, valuable learning also derives from bad practices where lessons learnt can be taken into consideration in the exchange of experience process.

In line with the project's objectives, in the frame of **POWERTY,** good practices shall be categorised into the following topics:

1. Identify **renewable energy technologies**, tools and methods;
2. Highlight new **financing mechanisms**;
3. Overcome barriers of a **normative** character;
4. **Empower** citizens and local authorities.

These guidelines will be used in the POWERTY project to assist the partners in selecting their good practices.

The methodology hereinafter proposed is oriented towards results being achieved. That is why these guidelines have been produced following the project deliverable structure, in order to ensure that all relevant aspects have been taken into account.

It should be reminded that the present document focuses only on the regional assessment stage of the project's third semester (from August 2019 to May 2021) and **expects to be enlarged together with the fruitful interchange of ideas among the consortium members**.

The guidelines also provided the partners with a template that contains the description and specific required information defining good practices.

There is no limit on the number of good practices to be collected among the consortium members. As a requisite, a **total minimum number of 50** shall be collected. For the POWERTY project purposes we will consider the above

quoted definition for Good Practice as stated in the Interreg Europe Programme taking into account the key criteria suggested for the Good Practices selection:

- The action is finished or in progress, but in any case, with proven results.
- The action has a clear potential for replication in other territorial contexts.
- The action can be classified under one or more than one of the 4 topics defined in the Application Form (AF), namely:
    - Identify renewable energy technologies, tools and methods;
    - Highlight new financing mechanisms;
    - Overcome barriers of a normative character;
    - Empower citizens and local authorities.
- The action has already provided tangible and measurable results in achieving a specific objective. It is recommended (if possible) to be related to one or more of the **self-defined performance indicators** in the AF. This is direct impact estimation:
    - **Policy 1.** Additional capacity for renewable energy production for vulnerable groups (kW)
    - **Policy 2.** Number of residential housing that consume renewable energy (collective or individual projects) concerning vulnerable groups
    - **Policy 3.** Number of funded projects with energy poor households applicants
    - **Policy 4.** Number of homes/buildings that consume renewable energy belonging to vulnerable groups.
    - **Policy 5.** Number of households with increased energy efficiency addressed to vulnerable groups.

Any other features that may enhance the Good Practice potential will be welcome. In particular, impact on some success indicators might be collected, as total renewable energies associated to the practice, reduction of CO_2 emissions, reduction of energy spending, perceptions by users by survey (comfort quality of life...), research and patents output, total investment outcomes, number of jobs created, etc.

During the good practices collection, it was recommended to the consortium partners that the **good practices selected are meant to help other**

partners' to fully or partially cover their regional needs, previously identified in their respective regional analysis (SWOT analysis). Also, partners need to meet the output performance indicators stated in the AF for each policy instrument as the project success depends partially on it. In consequence, special attention should be paid to the above when making the final selection of regional good practices.

3 Good Practices Repository

The good practices identified are listed as follows by 4 POWERTY topics.

Some of this good practices were presented during the three **Interregional Thematic Seminars of POWERTY** (here the link with information about these presentations).

- Topic 1: Renewable energy technologies
- Topic 2: Financial mechanisms
- Topic 3: Normative
- Topic 4: Empowering

3.1 Topic 1: Renewable energy technologies:

Spain	Energy improvement of 149 social houses using renewable energy
	Solar neigborhood
	Solar cookers and ovens as a one more measure to overcome energy poverty
	Public policy of Innovative (PPI) Public Procurement of the Andalusian Regional Government
	Data-driven value-added services for collective self-consumption plant that include vulnerable group
	Renewable Energies favour the labour insertion of vulnerable people in a farm in Seville
	#SolSurAutoproduction: Collective purchase model of 50+1 self-consumption photovoltaic installations
France	The Grenoble area's district heating network : renewable energy, affordable for vulnerables groups
	Sponsorship to enable residents of social housing to reduce their bills thanks to solar electricity
Bulgaria	Facilitation of renewable energy solution for self-consumption in residential buildings
Poland	Home Exchange, a program to eliminate energy poverty in the region by building microhouses
Lithuania	Remote renewable energy power plants for prosumers
	Renewable energy platform for prosumers

The information about each good practice are explain as follow:

3.1.1 Energy improvement of 149 social houses using renewable energy

All details of the good practice: here

Expert opinion of Polity Learning Plaftorm of Interreg Europe: *Improving efficiency of social housing is challenging due a number of different ownership models across Europe, and a lack of incentives for change. Inhabitants often either lack funds to invest in renewables, or lack incentives to invest in property which they do not own. As such, the public sector must often take the lead. This practice demonstrates the benefits of assigning responsibility to a single agency which can identify buildings for improvement, specialise in appropriate actions and implement them at scale. In this case, ERDF grant funding has been used – an option open to many European regions – but other models for financial instruments are emerging and will be essential for meeting the goals of the EU's climate policy and its Renovation Wave. More information on energy efficiency in social housing can be found in this webinar replay from the Policy Learning Platform: here*

3.1.2 Solar neighborhood

Summary: Barrio Solar is an initiative aimed at promoting shared self-consumption and solidarity in neighborhoods in urban and rural areas, through the installation of photovoltaic plants for shared self-consumption in community buildings in the neighborhood.

In Barrio Solar, both neighbors and businesses that are less than 500 meters from the installation can participate without having to make any investment

or change energy market, only by paying a small monthly bill, with which they can benefit from savings of around 30% energy on your bills. Energy that they will now receive from the plates of the installation of their neighborhood.

Barrio Solar is an initiative that wants to reach all the people in the neighborhood where it is installed, therefore, a percentage of the energy it generates goes to families in the neighborhood who are in a situation of energy poverty without having to pay any monthly fee, simply benefiting from the savings in the bill that solar self-consumption generates. By not having to change electricity marketers, these vulnerable participants can maintain their contracts in PVPC with a social bonus.

The objective of Barrio Solar is not only to promote collective self-consumption in vulnerable households. The photovoltaic installation that is carried out should be the first stone of a community work project around the acquisition of awareness, commitment and habits aimed at contributing to the fight against the climate crisis and energy poverty.

For which, it will be launched in the neighborhood where the Barrio Solar Office is held. This office will be a reference space in terms of renewable energy, responsible consumption and sustainability in the neighborhood.

Stakeholder: ECODES

3.1.3 Solar cookers and ovens as a one more measure to overcome energy poverty

All details of the good practice: here

Access to the presentation of this good practice at the first POWERTY international seminar: here

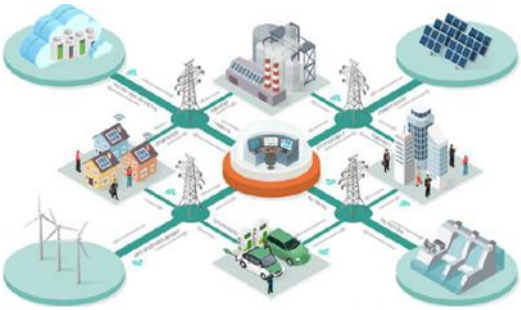
3.1.4 Public policy of Innovative Public (PPI) Procurement of the Andalusian Regional Government

All details of the good practice: here

Expert opinion of Polity Learning Plaftorm of Interreg Europe: *This good practice from Andalusia demonstrates that public procurement for innovation (PPI) in the social housing sector can be successfully used to enable the construction of nearly-zero energy buildings. This is in line with EPBD obligations for new buildings, with the overarching policy goals pursued under the European Green Deal and, of course, is instrumental to the addressing energy poverty.*

3.1.5 Data-driven value-added services for collective self-consumption plant that include vulnerable group

All details of the good practice: here



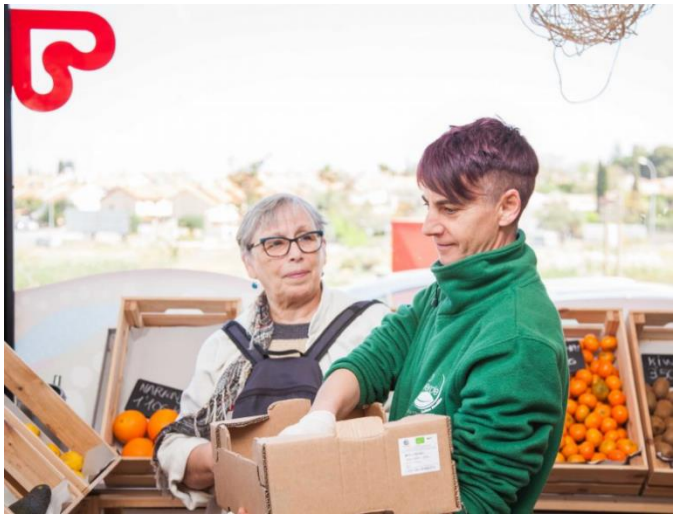
Access to the presentation of this good practice at the first POWERTY international seminar: here

Expert opinion of Polity Learning Plaftorm of Interreg Europe: *Community energy schemes will be a key component of our energy transition but managing such projects can be a real challenge. This platform is an interesting, replicable approach for obtaining and managing energy data to enable optimal installation performance and self-consumption within the community. The practice's focus on also tackling energy*

poverty is especially interesting, enabling vulnerable users to benefit from sustainable energy.

3.1.6 Renewable Energies favour the labour insertion of vulnerable people in a farm in Seville

All details of the good practice: here



Expert opinion of Polity Learning Plaftorm of Interreg Europe: *The benefits of installing solar parks on agricultural fields are endless. In the case at hand, the energy produced by PVs enables greater access to underground water which allows an organic farm to obtain more vegetables harvested by workers at risk of poverty and social exclusion who, for this precise reason, receive specific training thanks to the partnership between the farm and a charitable organization. The skills training scheme showcased has a great interregional learning value. Its transferability to other European regions where green jobs of this kind could be created is undisputed. Moreover, local and regional policymakers should also be made aware of the growing scientific evidence (among others, see e.g., https://www.sciencedirect.com/science/article/pii/S1364032121003531) on the benefits for pollinators and wider biodiversity stemming from the installation of solar parks on farmlands, which should also be a great argument in favour of their deployment. Finally, because of water stress exacerbated by climate change, policymakers should also be encouraged to promote as much as possible the reuse of reclaimed water in their territories. This would contribute to reducing the pressure on scarce underground water resources and would be aligned with the latest EU policy and legislative initiatives, chiefly the new Circular Economy Action Plan and the recently adopted minimum quality requirements for water reuse (Regulation (EU) n º 2020/74).*

3.1.7 #SolSurAutoproduction: Collective purchase model of 50+1 self-consumption photovoltaic installations

All details of the good practice: here

Expert opinion of Polity Learning Plaftorm of Interreg Europe: This excellent practice shows how to involve citizens and especially communities in the energy transition and how to foster private invstment into roof-top solar PV through a set of supportive actions. Grouping interested roof owners together helps bringing down the costs of the individual roof top installation through one large order. It also allows to call for several offers and get the best price. Support that is non-financial allows to harness private financing, which is a very good way for the public sector to increase the share of renewables. The community approach where for 50 privately financed PV systems 1 is donated to a "good-cause" shows a social economy model that can inspire others. The support to self-cosumption also helps alleviate energy poverty and is an excellent practice in line with Green Deal philosophy of an energy transition leaving noone behind. Highly replicate and already being replicated inside of Andalusia, it can inspire policy makers from all over Europe.

3.1.8 The Grenoble area's district heating network: renewable energy, affordable for vulnerables groups

All details of the good practice: here

Expert opinion of Polity Learning Plaftorm of Interreg Europe: *This good practice shows that woodchips (compliant with RED II sustainability criteria) can be an effective substitute of oil and natural gas to fuel district heating systems and that waste-to-energy has a clear role to play in the transition towards a*

circular and carbon neutral economy. The results achieved in the Grenoble metropolitan area thanks to forward-looking investments and planning with the view to increase the share of renewables in the energy-mix and to use them to power the local district heating network are remarkable. The choices that were made have enabled a considerable reduction of average energy bills to the benefit of all inhabitants connected to the network. This may certainly inspire other policymakers to follow suit, especially in cities and regions where district heating is still too dependent on fossil fuels.

3.1.9 Sponsorship to enable residents of social housing to reduce their bills thanks to solar electricity

All details of the good practice: here

Expert opinion of Polity Learning Plaftorm of Interreg Europe: *The added value of this good practice is to be found in the very nature of the funding scheme described which acts on two fronts: the social one and the energy one. Regional and local policymakers from across Europe could consider implementing or supporting similar schemes to tackle energy poverty as a social phenomenon and to boost renewables and energy efficiency at the same time, concurring to what should be the ultimate outcome in the energy sector: the total decarbonisation of electricity production. Provisional data from year 2020 indicate that, where applied, the scheme had a very positive response by social landlords and dwellers.*

3.1.10 Facilitation of renewable energy solution for self-consumption in residential buildings

All details of the good practice: here

Expert opinion of Polity Learning Plaftorm of Interreg Europe: *Expanding residential battery storage in Europe is fundamental for reaping the full range of benefits stemming from a wider deployment of renewables, including the reduction of energy poverty. This good practice clearly shows the difference between installing PV only and installing PV together with battery energy storage systems (BESS). The latter case allows to maximise self-consumption of decentralized electricity produced from renewables by prosumers and energy communities. This replicable good practice may certainly inspire policymakers, especially in the many European regions where the uptake of BESS in residential buildings is still rather limited.*

3.1.11 Home Exchange, a program to eliminate energy poverty in the region by building microhouses

Summary: Some people who lives in a large house or apartment that are not adequately insulated and generate huge heat losses, can not afford to maintain the house and they are in an energy poverty situation.

Looking at the financial perspective, it turned out that in such houses to introduce renewable energy, the buildings must first be insulated and this requires large financial outlays, much larger than putting up a small house that fully uses renewable energy. So, this program consist in families, who owns a large house or apartment, can exchange it for microhouse, which is a modern modular house, fully equipped and fully use renewable energies.

Microhouse is offered by a developer, organization, local government or other entity.

The difference between the market price of an apartment and the price of a microhouse is an income for investor.

Modular houses are small and the costs of its maintenance are very low. Functional modularity (3mx3m) allowing for multiple systems and connections corresponding to the individual needs of the user, the ability to easily adjust the location conditions.

The smallest houses allow to minimize the costs of its production and use them in aid programs of communes for vulnerable groups.

Use new solutions for achieving high energy efficiency such as: Structural and material structure allowing for maximum heat extraction from the environment by means of external partitions, The new hybrid structure of external partitions is a thermal barrier to the heat kept inside the building, The heat accumulator is constructed in the form of a box filled with stone"located under the building".

Stakeholder: The Agglomeration Opole Trust (AOT).

Access to the presentation of this good practice at the first POWERTY international seminar: here

3.1.12 Remote renewable energy power plants for prosumers

All details of the good practice: here

Access to the presentation of this good practice at the first POWERTY international seminar: here

Expert opinion of Polity Learning Plaftorm of Interreg Europe: *Decentralised energy generation will be essential for tackling our carbon*

emissions with widespread roll-out of renewable technologies at small scale and is being encouraged under the revised Renewable Energy Directive (RED II). National and regional governments will have to play an enabling roll to create frameworks to ensure rollout, and Lithuania's example is a strong one. This net-metering scheme enables decentralised generation where there is space and renewable resources, for consumption at another grid connected site at no-cost (except grid costs). It helps to overcome space limitations in cities, and particularly for blocks of flats where roof space is limited, and will undoubtedly also stimulate new business model development as companies rent/lease space and technologies and take advantage of the new provisions. The increase in prosumer rates already achieved is impressive.

3.1.13 Renewable energy platform for prosumers

All details of the good practice: here

Access to the presentation of this good practice at the first POWERTY international seminar: here

Expert opinion of Polity Learning Plaftorm of Interreg Europe: *With the change in Lithuania's national law to enable net-metering and prosumerism, this practice represents an innovative business model coming from the new enabling framework, enabling individuals to invest in renewables even if they do not have the space at home to have their own installation. It is a very interesting model for stimulating investment and triggering uptake of renewables, overseen by a state*

company which is able to make use of scale to bring good deals to consumers. In particular, many people living in cities, including renters, are an untapped market for renewables investment as they do not have space, capacity, permission or inclination to have own projects. The very high interest demonstrates this potential and it will be interesting to watch further development as the plants are built. The practice goes hand-in-hand with the law presented in the practice, 'Remote renewable energy power plants for prosumers'.

3.2 Topic 2: Financial mechanisms:

Spain	Inclusion of social criteria in incentive programmes for energy improvement in housing.
	Self-consumption and collective renewable: Ola Solar de Lebrija (OSL)
	Crowdlending financing for solar installation in local entity
	Photovoltaic installation for self-production in a building for 19 families in vulnerable situations
	QUANTICO rental. Financing model for solar self-consumption facilities
France	Production of renewable energies through collective investments of citizens in Voiron
	Air-wood fund
Bulgaria	Efficient heating systems for the vulnerable groups in Sofia Municipality for improved air quality
Poland	Municipalities against energy poverty - STOP SMOG program
	Clean Air program to increase the use of renewable energy by people suffering from energy poverty
Lithuania	Energy Efficiency and Renewable Energy Source investment platform
	Change of legislation to foster building renovation program which include vulnerable groups.
U.K.	Free solar installations for social housing in Manchester
	Shine Social Housing Project: Solar PV Installation in a Local Housing Association in Devon, UK
Other countries	Subsidising investment for renewable energy and energy saving measures in vulnerable homes in Cyprus
	Solar Savers Adelaide: Solar PVs for Low-Income Households

The information about each good practice are explain as follow:

3.2.1 Inclusion of social criteria in incentive programmes for energy improvement in housing.

All details of the good practice: here

Andalucía es más
Programa para el Desarrollo Energético Sostenible de Andalucía
Andalucía se mueve con Europa
PREE
Programa de Rehabilitación Energética de Edificios

Expert opinion of Polity Learning Plaftorm of Interreg Europe: *The good practice at hand shows that ERDF resources can be accessed and used in a forward-looking and helpful way by local and regional policymakers to help alleviate energy poverty, which is now exacerbated by the economic and social effects of the Covid-19 pandemic, by increasing the amount of support that can be made publicly available to affected households. It also demonstrates that in light of the current crisis it is possible to revise and expand with success the scope of the social criteria that need to be used to determine the eligibility of households under ERDF-funded energy efficiency schemes. For these reasons it deserves to be considered for replication in other local and regional context. Further insight on measures to protect energy consumers and shield vulnerable groups from the impacts of the ongoing pandemic can be consulted on the website of the EU Energy Poverty Observatory (https://www.energypoverty.eu/).*

3.2.2 Self-consumption and collective renewable: Ola Solar de Lebrija (OSL)

All details of the good practice: here

Access to visit report in English: here

3.2.3 Crowdlending financing for solar installation in local entity

All details of the good practice: here

ESTADO: **PRÉSTAMO FORMALIZADO**

IMPORTE : **105.000€**

INTERÉS ANUAL:

CUOTAS SEMESTRALES: **10**

INVERSORES: **166**

100%

3.2.4 Photovoltaic installation for self-production in a building for 19 families in vulnerable situations

Summary: Som Energia has financed its first photovoltaic project in Lleida aimed at alleviating the effects of energy poverty. The project, called "Llars del Seminari", has been developed in collaboration with the Enre Tots i per al Bé de Tothom foundation, in a building of 19 houses in Lleida. This project allows 19 families in a situation of social or economic vulnerability living in this building to save around 30% in energy costs each year.

The project has been promoted by the initiative of the Lleida Local Group of Som Energia as a result of a power optimisation study carried out in these homes (Llars). The financing has been possible thanks to the voluntary contributions that can be made through the electricity bill. For an average use of a family (approximately 200 kWh / month), this represents a contribution of 2 euros per month (0.01 euros / kWh).

Stakeholder: Som Energia

3.2.5 QUANTICO rental. Financing model for solar self-consumption facilities

All details of the good practice: here

AAccess to the presentation of this good practice at the POWERTY international seminar: aquí

Expert opinion of Polity Learning Plaftorm of Interreg Europe: *A full energy transition means that all parts of society are taking part in it. This good practice recognises the reality that socially vulnerable groups cannot participate in the same way as more wealthy citizens. Self-consumption of RES for social housing tenants through a rental-model is an innovative way to address this problem. In Africa, the solar-rental model is much wider used than in Europe, and Andalucia is doing excellent work in introducing it in Spain.*

Access to the presentation of this good practice at the first POWERTY international seminar: here

3.2.6 Production of renewable energies through collective investments of citizens in Voiron

All details of the good practice: here

Expert opinion of Polity Learning Plaftorm of Interreg Europe: *Decentralised renewable energy installations will be essential for the low-carbon transition, and many innovative investment structures and business models are used across the continent to make the transition possible. This practice is a very interesting one for a number of aspects. 1) The investment being made by a group of citizens via a commonly owned limited company (SAS). The company itself represents a good practice for citizen investment. 2) The rental model in which roof space is rented by the SAS and use of the installed installation is rented by the real estate company, 3). That this model results in no additional costs for the inhabitants. The practice should be explored further by other community energy companies as the target audience is considerable.*

Access to the virtual study visit: here and **the report in English:** here

Access to the presentation of this good practice at the first POWERTY international seminar: here

3.2.7 Air-wood fund

All details of the good practice: here

Expert opinion of Polity Learning Plaftorm of Interreg Europe: *Subsidies for technology uptake are well proven tools, widely used across a number of sectors, helping to overcome market imbalances and irregularities. Replacing heating systems may not be a top priority for home owners who do not recognise the benefits that come from new systems, do not consider the externalities of their actions (pollution, air particles), or simply do not have the resources available to them to invest in new equipment. Subsidies, with accompanying promotion schemes, can trigger investment by reducing perceived risks for investors in technologies that they may know little about. The additional focus on vulnerable households is an excellent feature, recognising where there is particular need for intervention.*

3.2.8 Efficient heating systems for the vulnerable groups in Sofia Municipality for improved air quality

All details of the good practice: here

Expert opinion of Polity Learning Plaftorm of Interreg Europe: *Due to a lack of financial resources and incentives, vulnerable households are in need of support in upgrading and modernising homes, aggravated by the fact that much of Europe's social and affordable housing is old and deeply inefficient. As well as carbon emissions, the impact of air quality and health from old heating systems*

is significant. Use of public funds as in this practice can have a huge impact therefore, not only in reducing emissions, but in reducing healthcare costs and improving quality of life. Vulnerable groups are a particular target of the current Renovation Wave initiative so measures like this one can be taken as a benchmark of the kind of action needed, though use of funds through financial instruments rather than grants should represent the new norm.

3.2.9 Municipalities against energy poverty - STOP SMOG program

All details of the good practice: here

Expert opinion of Polity Learning Plaftorm of Interreg Europe: *Domestic heating is a significant contributor to carbon emissions in Europe and one that is particularly difficult to change as it requires installing new, individual technologies in people's homes. In particular, Poland has struggled with the change, with many homes still using coal boilers, and many Polish cities have pool air quality as a result. This practice recognises the urgency of the transition, and also that poor households lack before the financial and knowledge resources to make that transition themselves. 100% subsidies are increasingly avoided in favour of a percentage of funding that could stimulate private investment, but the high costs can also result in very high impacts. Another good aspect is the minimisation of administrative burden for the homeowner, with the municipalities supporting these aspects.*

3.2.10 Clean Air program to increase the use of renewable energy by people suffering from energy poverty

All details of the good practice: here

AAccess to the presentation of this good practice at the POWERTY international seminar: aquí

Expert opinion of Polity Learning Plaftorm of Interreg Europe: *The heating system switch programme set up in Opole is a straightforward support for hosueholds to switch to a cleaner heating system. This type of scheme is of particular interest to those counties that still heavily rely of inefficienty and high-emissions fossil fuel heating systems.*
The link to energy poverty alleviation is less strong; single-family houses indicate a certain level of wealth, and the income level check was not fully explained.
It will be interesting to look at multi-family house heating systems, and also at multi-apartment-bloc buildings in the near future.
An excellent feature is the optionto combine the heating swith with another energy savings measure. This should be made compulsory or strongly recommended especially when moving on to tackling multi-apartment-blocs.

3.2.11 Energy Efficiency and Renewable Energy Source investment platform

All details of the good practice: here

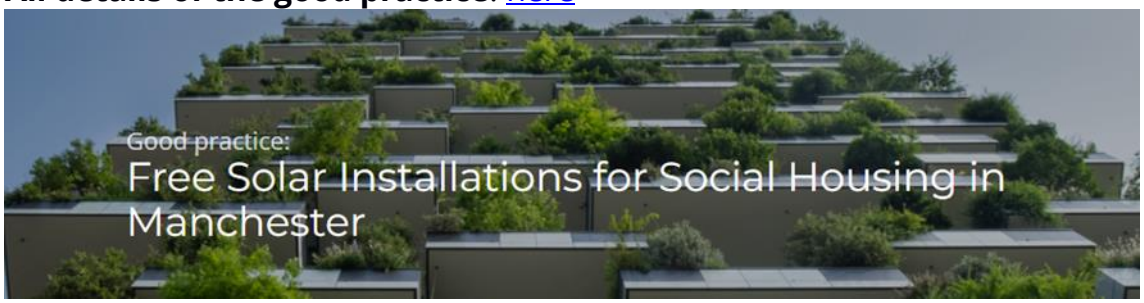
Expert opinion of Polity Learning Plaftorm of Interreg Europe: *Investment platforms help to finance small projects and bundle together a number of funds and different finance sources. Energy investments are still not fully understood by the financial sector and often viewed as risky or small, requiring state intervention to de-risk and bundle. IPs direct finance to key national or regional priorities and can combine EU funds, national finance and private investment, to invest through loans guarantees and equity in a diversified portfolio to spread risk. VIPA's platform is a strong example, pooling national funding (from VIPA) with private investment and European Investment Bank support. Such platforms could be created in other European countries, and indeed, even at regional level with either public or private actors in the lead.*

3.2.12 Change of legislation to foster building renovation program which include vulnerable groups.

All details of the good practice: here

3.2.13 Free solar installations for social housing in Manchester

All details of the good practice: here



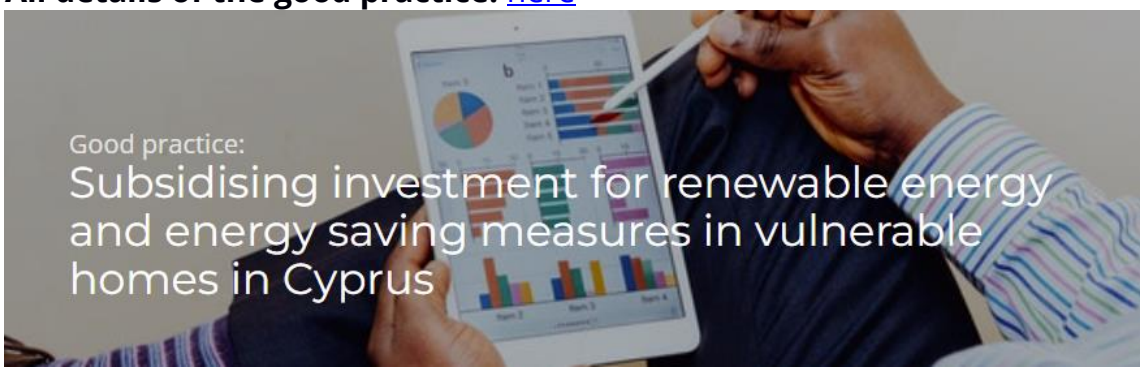
3.2.14 Shine Social Housing Project: Solar PV Installation in a Local Housing Association in Devon, UK

All details of the good practice: here

Expert opinion of Polity Learning Plaftorm of Interreg Europe: *This good practice shows that private investments to boost the uptake of renewable energy technologies can be successfully stimulated by public support mechanisms ('feed-in tariffs' - FIT) that enable a return of investment and that simultaneously have the effect of lowering energy prices for households. FIT and feed-in premiums (FIP) e.g. in the form of grants and bonuses were the main support schemes that drove the large-scale deployment of renewable technologies in the European electricity sector so far. Such measures were adopted by almost all EU countries and the results achieved in the UK as exemplified in the case at hand are remarkable: other local and regional policymakers may certainly take advantage of existing public support mechanisms for the uptake of renewables and be inspired by the use of community investment funds to finance the installation of solar PV panels with the purpose of addressing energy poverty in rural areas.*

3.2.15 Subsiding investment for renewable energy and energy saving measures in vulnerable homes in Cyprus

All details of the good practice: here



Expert opinion of Polity Learning Plaftorm of Interreg Europe: *The question is: who pays the electricity bill for vulnerable groups. If it is the vulnerable consumer in a low-income household or on social welfare, the monthly electricity bill is a recurring burden. If the kWh electricity is on top as expensive as in Cyprus and the electricity needs a high due to a hot climate with need for airconditioning, the burden can easily become a deep financial drain. In such settings, the promotion of PV for self-consumption is an excellent strategy as a one-time support will result in a very long-term benefit. What remains not fully convincing is the requirement for vulnerable groups to put up part of the upfront investment costs, probably about 50% of CAPEX: this will in itself be a barrier to the general deployment of such systems for vulnerable groups who rarely have extra money to put on the table at once. It would be worth the while looking into options to pay back the own financing contribution in monthly instalments as such a payment method is more compatible with the financial situation of the target group. On top, the beneficiaries would experience savings from their usual electricity bill that would free every month the capital to pay part of the CAPEX.*

3.2.16 Solar Savers Adelaide: Solar PVs for low income households

All details of the good practice: here

Expert opinion of Polity Learning Plaftorm of Interreg Europe: *Similar in context to the Cyprus support scheme for PV in low-income homes, this good practice from Australia has on top the benefit of allowing the payback of the non-subsidised part of the CAPEX of new PV systems over a 10-year period in quarterly payments made by the low-income housholds which they can afford due to the savings compared to their electricity bill before the new PV systems were installed. This is a very plausible financing model in line with the capabilities of the target group. It is also financially sustainable funding from the municipality as it comes as a long-term loan that is eventually being repaid.*

3.3 Topic 3: Normative:

Spain	Decarbonising thanks to the renewable self-consumption guide for Andalusian local municipal entities
	Regulatory changes for the promotion of collective self-consumption in Spain
	National Strategy against Energy Poverty 2019-2024 in Spain (ENPE)
	Strategic plan to alleviate energy poverty in the elderly in Andalusia
	CONFIA project to improve management of vulnerable citizens with blockchain
France	The zero-rated eco-loan scheme to encourage renewable energy (ECO-PTZ)
	The energy voucher, an automatic aid for vulnerable households
	Target energy saving certificates quotas (CEEs) fees to vulnerable households
	"Habiter Mieux sérénité" to accompany households on their way out of fuel poverty
Poland	Programme LIFE
Lithuania	Bureaucratic nightmare solution for development of renewable energies

The information about each good practice are explain as follow:

3.3.1 Decarbonising thanks to the renewable self-consumption guide for Andalusian local municipal entities

All details of the good practice: here

3.3.2 Regulatory changes for the promotion of collective self-consumption in Spain

All details of the good practice: here

3.3.3 National Strategy of Energy Poverty National Strategy against Energy Poverty 2019-2024 in Spain (ENPE)

All details of the good practice: here

3.3.4 Strategic plan to alleviate energy poverty in the elderly in Andalusia

All details of the good practice: here

AAccess to the presentation of this good practice at the POWERTY international seminar: aquí

3.3.5 CONFIA project to improve management of vulnerable citizens with blockchain

All details of the good practice: here

CONFÍA

Expert opinion of Polity Learning Plaftorm of Interreg Europe: *Blockchain is revolutionising many sectors, enabling secure and streamlined data sharing without a centralised managing entity, cutting out the intermediary and making up-to-date information available to many actors all at once. This project is an excellent example of its application to tackle a societal challenge, that of energy poverty, allowing faster responsiveness than the existing system.*

3.3.6 The zero-rated eco-loan scheme to encourage renewable energy (ECO-PTZ)

All details of the good practice: here

Éco-prêt 0 %
Pour la rénovation énergétique de l'habitat

AAccess to the presentation of this good practice at the POWERTY international seminar: aquí

Expert opinion of Polity Learning Plaftorm of Interreg Europe: Rolling out the low-carbon transition will require rapid mobilisation of finance, including movement by financial institutions and investors who often see energy efficiency as a risky investment as they do not always understand the market or potential return on investment. Correcting such market failures is a typical goal for state involvement in setting up financial instruments such as preferential loans (as in the ECO-PTZ). This loan incentivises homeowners to invest by reducing the cost of the loan (to zero) and also incentivises banks to loan by placing conditions on what technologies can be used, installed only by accredited installers, to ensure the soundness of projects. Enabling collective applications by co-owners of property is a very interesting approach not widely seen in similar instruments.

Further information (in French) is available here.

3.3.7 The energy voucher, an automatic aid for vulnerable households

All details of the good practice: here

Expert opinion of Polity Learning Plaftorm of Interreg Europe: *Measures to address energy poverty like bill support schemes adopted by EU Member are especially important in the present conjuncture, characterized by the need to take people and the economy out of the Covid-19 crisis and project them towards the 2050 climate neutrality goal enshrined in the European Climate Law. The 'chèque énergie' described here is the main instrument for alleviating energy poverty identified in the National Energy and Climate Plan (NECP) adopted by France to*

comply with the EU Energy and Climate Governance Regulation and map out the country's decarbonisation efforts in the 2021-2030 period. The automatic calculation and allocation of the voucher to energy poor households that are therefore spared from undertaking ant specific administrative steps to be able to receive such form of support is certainly the central element of this good practice. Even though the measure is applied at country level, European regions may be inspired by its innovative design for the purpose of conceiving and implementing measures in their territories adding up to national ones and offering further support to households affected by energy poverty. The fact that the voucher can also be used to pay for energy efficiency and renovation works besides paying energy bills is an element that is equally worth underlying.

3.3.8 Target energy saving certificates quotas (CEEs) fees to vulnerable households

All details of the good practice: here

Expert opinion of Polity Learning Plaftorm of Interreg Europe:
Vulnerable households face particular challenges in improving energy performance, but are also a group that could benefit most significantly from improvements, with corresponding bill reductions and diminished energy poverty. Expanding the CEE (white certificate) obligation to include measures for vulnerable users can be very effective, as the evidence of success suggests. Many other countries with white certificates could also replicate the approach.

3.3.9 "Habiter Mieux sérénité" to accompany households on their way out of fuel poverty

All details of the good practice: here

Expert opinion of Polity Learning Plaftorm of Interreg Europe: *Households in energy poverty will need focused support in renovation to improve energy performance and meet our carbon targets, but such renovations are also essential for improving quality of life. This practice acts like, to an extent, like a one-stop-shop – which have been advocated as best practice by the European Commission in the EPBD – providing auditing, technical, administrative and access to financial support. The differentiated funding rates and funding ceilings help to ensure efficient use of resources, and the take up rate suggests a good level of success. The global approach, from audit to implementation, should be standard for other regions looking to create support instruments.*

3.3.10 Programme LIFE

Summary: Before the need to increase public awareness of air quality issues by increasing the involvement of local governments, society, non-governmental organizations and local entities in taking remedial actions to support activities in the field of Air Protection Program (POP).

A methodology has been created to implement a uniform management system supporting the implementation of POP of local governments of Opolskie Voivodeship, at all its levels (municipality, district, voivodeship (province):

1) Preparation and maintenance of a partner cooperation platform.

- Main coordinating beneficiary: Opole Voivodeship
- Associated beneficiaries: 42 municipalities
- Associated beneficiary: Opole University of Technology

2) Preparation and implementation of an air quality management system.
3) Preparation of a regional air quality diagnostic system.
4) Database with inventory of low-emission sources.
5) IT system for monitoring, reporting and updating of POP.
6) Educational campaign.
7) Postgraduate studies.

Stakeholder: The Agglomeration Opole Trust (AOT)

AAccess to the presentation of this good practice at the POWERTY international seminar: here

3.3.11 Bureaucratic nightmare solution for development of renewable energies

All details of the good practice: here

Expert opinion of Polity Learning Plaftorm of Interreg Europe: *The transition to low-carbon energy will require not only new large-scale installations such as wind farms but also many small, decentralised contributions. However, most small-scale investors looking to own and operate their own installations do not have the full expertise required to navigate complex permitting requirements. Often requirements are outdated, lacking modern definitions and not reflecting advancements in technologies. Legislatures can work with stakeholders to identify these unnecessary bottle necks and barriers and propose suitable simplification*

processes, as, indeed, is encouraged by the revised Renewable Energy Directive (RED II) to enable decentralised energy generation. The specific measure taken here can be seen as good practice: clear definition of prosumers, faster approvals, and widening the definition of included technologies.

3.4 Topic 4: Empowering:

Spain	An installing solar panels insertion company whose employees are people at risk of exclusion
	No home without energy
	Citizen participation as a tool to create the Local Energy Community (LEC) "ALUMBRA" in Andalusia
France	AEELA Program. Energy Saving Accelerator for the Housing of the low income farmers
	Autonomous Building for Citizens (ABC) with solar self-consumpltion for 62 social housing
Bulgaria	Sustainable reduction of energy consumption of low-income households through energy advice
	Empowering vulnerable citizens to save energy with the "Give Energy" campaign
Poland	WARM UP YOUR BUSINESS as an opportunity to find the RES technologies for vulnerable groups
U.K.	Heart-smart orkney (HSO): Using wasted renewable energy to heat homes experiencing fuel poverty

The information about each good practice are explain as follow:

3.4.1 An installing solar panels insertion company whose employees are people at risk of exclusión

All details of the good practice: here

AAccess to the presentation of this good practice at the POWERTY international seminar: here

Webinar where it was presented this good practice: here

Expert opinion of Polity Learning Plaftorm of Interreg Europe: *Skill development for the energy transition should be a topic of high importance to regions as it results in employment creation in support of structural change to a renewable, decentralised energy system.*

Renewables have a higher employment creation potential than fossil fuels, and the jobs are decentralised in the sense that every territory must have qualified installers, energy auditors, etc. The range of jobs includes both academic and blue collar jobs - with the majority of jobs at the level of technician and installer, specialised plummer, electrician, etc. for the different renewable energy forms. This is also the level that is suitable for the insertion of vulnerable groups into the employment market. This good practice should inspire regional policy makers in search of re-skilling programmes.

3.4.2 No home without energy

Summary: "No home without energy" is the ECODES´programme to promote energy efficiency among citizens (ODS 7), fight energy poverty (ODS 1) and contribute to climate action (ODS 13). This initiative offers information and tools to understand and reduce energy supply bills, learn responsible energy consumption habits and learn about energy efficiency measures to be implemented in their homes, as well as financial assistance or programmes to finance them provided by national, regional and local public administrations. The information is transmitted to the population, and

especially to the most vulnerable people, through different channels: web, on-line energy management tools, workshops, service points, home visits, publicity and dissemination, corporate and citizen volunteer programmes.

From its website, citizens can fill in the "I want to save" questionnaire with which they will receive recommendations on efficient energy consumption habits, energy efficiency and optimisation measures of their contract to reduce energy bills. All of this is done in a personalised way with respect to their family, work and economic situation and the state of their homes, equipment and private energy consumption. In addition, it allows them to know if they can benfit from (or not) the electrical social bond from the parameters stipulated in the legislation. If you do not have the bond, instructions are provided in order to obtain it, as well as the form from your reference marketer. In this sense, the “No home without energy” project has developed an online tool for the management of energy poverty (ENERSOC) with the objective of facilitating the diagnosis and attention to vulnerable people by social NGOs, city councils, consumer organisations and corporate volunteer programmes. Moreover, it allows the technicians to know additional information about the particular situation of the user that allows an exponential improvement in the treatment of other situations of vulnerability, either physical or material. This tool has received the support and collaboration of different companies, public administrations and non-governmental organisations.

“No home without energy” has been conceded the award as the Best Spanish Project of Social Innovation to Tackle Energy Poverty in the second edition of the Programme for Social Entrepreneurs "Social Innovation to Tackle Fuel Poverty" of Schneider Electric Foundation and Ashoka Foundation.

Stakeholder: ECODES

3.4.3 Citizen participation as a tool to create the Local Energy Community (LEC) "ALUMBRA" in Andalusia

All details of the good practice: here

AAccess to the presentation of this good practice at the POWERTY international seminar: here

Expert opinion of Polity Learning Plaftorm of Interreg Europe: *Local energy communities are powerful tool to enrol large fringes of the population in the energy transition. especially in rural areas they are also a tool for integration amongst people of different backgrounds and capabilties to participate in the energy transition. The public contribution to foster such communities can be small as in this case: providing office spaces and dedicated some person hours, the real work being done be the volunteers themselves.*

3.4.4 AEELA Program. Energy Saving Accelerator for the Housing of the low income farmers

All details of the good practice: here

AAccess to the presentation of this good practice at the POWERTY international seminar: here

Expert opinion of Polity Learning Plaftorm of Interreg Europe: *This is an excellent practice, in many ways, for engaging with a low-income group to improve energy performance. It has a number of particularly strong aspects within its design, including using a trusted intermediary group to connect with the target audience, wide communication and in-depth territorial analysis. Identifying those in need is one of the major challenges in tackling energy poverty and the project's territorial analysis is an approach that could be replicated. The other good aspect is that no public money was needed. To explain Energy Savings Certificates further (as not all countries use them): all energy suppliers are obliged to make energy savings related to their share of supply and either implement efficiency projects or purchase certificates from others in order to meet their obligations. Effectively, they create a market mechanism for energy savings – similar systems have been set up in Italy, Denmark and the UK.*

3.4.5 Autonomous Building for Citizens (ABC) with solar self-consumpltion for 62 social housing

All details of the good practice: here

AAccess to the presentation of this good practice at the POWERTY international seminar: here

Expert opinion of Polity Learning Plaftorm of Interreg Europe: *This good practice demonstrates the benefits of integrating different technologies into social housing, integrating renewables, sustainable construction materials, energy efficient equipment, and greywater treatment. Such buildings will be needed across Europe to meet the requirements of the EPBD and to tackle energy poverty and its resulting health impacts. The 70% energy self-sufficiency is particularly impressive for social housing and should be interesting for other regions that are also trying to tackle energy poverty.*

3.4.6 Sustainable reduction of energy consumption of low-income households through energy advice

All details of the good practice: here

AAccess to the presentation of this good practice at the POWERTY international seminar: here

Expert opinion of Polity Learning Plaftorm of Interreg Europe: *There are many ways for providing energy advice. Strategies and structures to rely on for this purpose vary greatly according to the peculiarities of the local and regional context. Recurring to students enrolled in technical courses offered by VET institutions and conduct energy advice campaigns supported by major companies producing electricity can be an effective way to reach energy poor households and give them information and tools to improve energy efficiency and their living conditions. What is signaled here as one of the difficulties encountered, namely the fact that support of charity organisations like Caritas and the Red Cross was needed to win some resistances can actually be seen as a plus, given that synergies and public/private partnerships also involving actors of this kind may be explored by policymakers to reach multiple societal goals at the same time. In any case, the next step for this good practice would be to continue and systematize the training programme for energy advisors with the view to keep their numbers growing and their skills constantly improving. Further insights in this regard can be found in this policy brief: https://bit.ly/3gvetT8*

3.4.7 Empowering vulnerable citizens to save energy with the "Give Energy" campaign

All details of the good practice: here

AAccess to the presentation of this good practice at the POWERTY international seminar: here

3.4.8 WARM UP YOUR BUSINESS as an opportunity to find the RES technologies for vulnerable groups

All details of the good practice: here

3.4.9 Heart-smart orkney (HSO): Using wasted renewable energy to heat homes experiencing fuel poverty

All details of the good practice: here

Expert opinion of Polity Learning Plaftorm of Interreg Europe: *This good practice may certainly inspire local and regional policymakers in remote areas with a geographically dispersed population affected by energy poverty and with wind turbines on their territories. Implementing systems to avoid loosing the electricity that could still be generated by such turbines when the grid is overloaded and divert it to local households for heating purposes is indeed a great way to optimise energy production from renewables, address energy poverty and reduce the consumption of fossil fuels which is harmful for the climate, the environment and public health.*