



LEGAL & REGULATORY FRAMEWORK ANALYSIS

WP2 - Set up and running of Citizen Investment Platforms

T2.3 - Legal & regulatory framework analysis

D2.10 - Legal & regulatory investment framework analysis report

Dr. Maximilian Wimmer & Fabian Pause - Stiftung Umweltenergierecht (SUER)

CitizEE

*Scaling up Public Energy Efficiency Investments via Standardising
Citizen Financing Schemes*

www.citizee.eu



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TECHNICAL REFERENCES

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PROJECT COORDINATOR	Pablo Alonso pablo.alonso@wip-munich.de Silvia Caneva silvia.caneva@wip-munich.de WIP Renewable Energies
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1. EXECUTIVE SUMMARY

This report is a compilation of the initial situation, the planned activities as well as the opportunities and difficulties of CitizEE's four pilot regions Portugal (GOPARITY), Belgium (VEB), Croatia (REGEA) and Lithuania (VIPA). The result is a comparing overview of the current state from a legal point of view. In order to achieve a detailed view on the cases the report was written in close cooperation with the partner countries as well as with ECN and ENERGINVEST. With the help of a questionnaire, follow-up questions and discussions it was possible to not only finalise a legal and regulatory analysis but to also get an impression what other relevant aspects for the pilot regions do exist.

At the end of the report, a table gives a comparing overview of the relevant legal and regulatory aspects in the four pilot regions. This table focusses on the barriers as these are the most relevant aspects that need to be solved in order to develop and implement working investment platforms in each of the countries. Simultaneously this barrier analysis is the groundwork for the legal and regulatory recommendations in work package 5 of the CitizEE project. Of course, quite some time will pass until work package 5 will be in the focus of CitizEE but nevertheless the barrier analysis in this report will form the initial point (reduced in some aspects, expanded in others).

The barriers that exist in the four pilot regions can be separated into two main categories: The **energy related** and the **investment related** barriers.

Energy related barriers that were identified are:

- The rules for public procurement of energy efficiency (EE) projects, in particular because those rules foresee mandatory tendering and may hinder the development of specific selection and awarding criteria,
- Lack of development and completion of national legislation, e.g. the Energy Strategy of the Republic of Croatia is still not finalised and the amendment for the Law on Energy from Renewable Sources in Lithuania, where primary general principles and operating conditions for energy communities are introduced, is not yet in force,
- The energy price and the energy of self-consumption for prosumers is too low so new business models are not stimulated.

Investment related barriers that were identified are:

- Several Investment limitations, both, for individuals that want to become investors as well as for the upscaling of campaigns,
- The Eurostat Regulation on ESA neutrality, which may be a problematic aspect when it comes to a very high level of ambition in Energy Performance Contracts,
- The law on Energy performance contracting (EPC) leads to problems, e.g. in Belgium EPC is seen as financial lease, which is prohibited,
- There is a lack of business cases for in depth renovations (with payback times that are 30 years or higher),
- Lack of development of the Law on Consumer Financing and the creation of a basic legal framework that facilitates crowdfunding models,
- High bank and card processing transaction fees and the high price of the loans in some pilot regions.
- Development of an investment platform according to European Union law will be challenging/problematic for some regions.

However, a barrier analysis, as important as it is, is not likely to draw the whole picture of the legal and regulatory point of view. For the development of investment platforms in the pilot regions and the success of CitizEE it is also crucial to look at the opportunities that exist but may not have been considered to this point. It is therefore necessary to give an overview of the relevant legal framework on European level to get an impression where there might be aspects that are worth to be analysed even closer. At this stage of development of the pilot cases a certain flexibility is present, which can be used to make steps in the most promising direction.



The most important aspects of the relevant European legal framework are:

- The Clean Energy Package, i.e. Energy Efficiency Directive, Energy Performance in Buildings Directive, provisions for energy communities and for individual or collective self-consumption,
- The Crowdfunding Service Providers Regulation,
- The upcoming InvestEU Programme.

Another aspect that has to be kept in mind while reading the following report is the existence of the two levels of legislation. There is the European and the national/regional level, which both interfere with each other through a dynamic interdependency.¹ That means, on the one hand, the national legislation can be seen as the initial point for each of the pilot regions, as this legislation is the more concrete and more specific set of rules that has to be considered while developing the investment platform. On the other hand, the European legislation affects the national legislation as it is on a superior level and therefore national legislation must not contradict European legislation. But then again, the European legislation (as long as it is not a Regulation, which is directly applicable in all Member States) has to be implemented by the Member States and therefore transformed into national law. Here, a certain discretion exists and each Member State is allowed to create its own legislation as long as it is in line with the European set of rules. The implementation is likely to follow the already existing national legislation as far as it is allowed by European legislation. Thus, if there are changes in one level it is most likely that the other level will change as well, which then again may affect the other level. The following figure illustrates this dynamic interdependency.

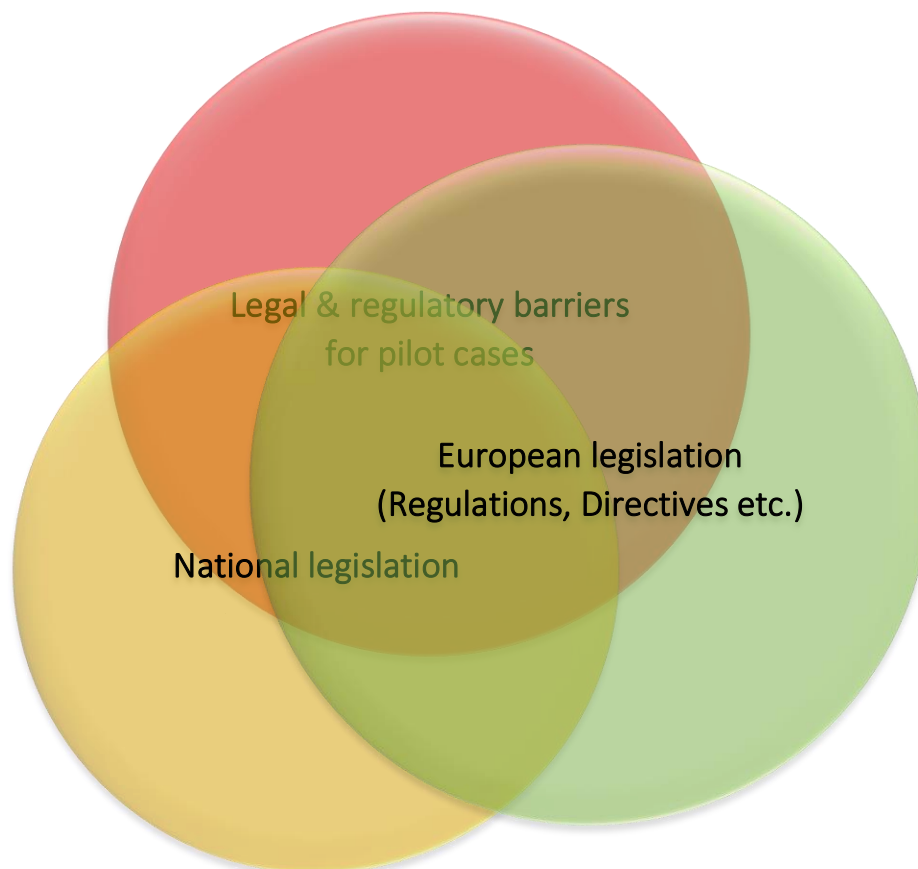


Figure 1: Dynamic interdependency of legislation levels

¹ See also: *Wimmer/Pause*, BestRES, Deliverables D5.2/D5.3, p. 8, available on: http://bestres.eu/wp-content/uploads/2019/03/BestRES-5.2_National-framework-for-RES-aggregationSUER.pdf and http://bestres.eu/wp-content/uploads/2019/03/BestRES_D5.3_European_framework-for-RES-aggregationSUER.pdf.

2. METHODOLOGY

2.1. Encountered problems

The methodology used to achieve the results in this report is built on five steps. Starting from the initial description by the pilot countries there are two general problems to overcome in order to develop an in depth legal and regulatory analysis.

- **Problem 1:** The separation between legal and regulatory aspects and other aspects that are nevertheless relevant for the pilot cases but cannot be solved on a legal or regulatory level and therefore are not within the scope of this report.
- **Problem 2:** After the identification of the legal and regulatory aspects it is important to categorize these aspects into energy related aspects (efficiency) and investment related aspects (e.g. financing, including crowdfunding). Both of these areas rely on a separate legal framework with its own development and own set of rules. Although the two areas may be connected and will overlap in several aspects it is important to analyse each of these areas for itself and to identify the relevant framework development.

2.2. The five-step approach

The five-step approach tries to solve these problems as far as possible and creates an overview of barriers and opportunities with the help from the partners in the pilot regions and the knowledge and experience of ECN and ENERGINVEST. The five steps are:

- **First step: Questionnaire to the partners**
Gather more detailed knowledge of the pilot cases, both, in general and specific legal and regulatory information.
- **Second step: Evaluation and categorization of answers → Creation of summaries and identification barriers**
With the feedback from the partners a summary of the pilot case in general and a first identification of barriers is possible.
- **Third step: Follow-up questions and evaluation**
Together with the partners a check consistency of the developed summaries is necessary and some follow-up questions help to get a few more legal and regulatory details of the situation.
- **Fourth step: Categorization**
With the achieved knowledge a categorization of the identified barriers into legal/non-legal aspects and energy/investment related aspects is possible.
- **Fifth step (Result): Overview of identified legal and regulatory barriers for pilot cases**
With a comparison of the situation in the partner countries and further discussion at the project meeting and with the help of ECN for crowdfunding related topics deliverable D2.10 will be finalised.



3. GENERAL RELEVANT LEGAL ASPECTS AND OPPORTUNITIES

3.1. The Clean Energy Package

3.1.1. In general

The “Clean Energy for all Europeans” Package is described as a comprehensive update of the EU’s energy policy framework to facilitate the transition away from fossil fuels towards cleaner energy and to deliver on the EU’s Paris Agreement commitments for reducing greenhouse gas emissions. The completion of this new energy rulebook marks a significant step towards the implementation of the energy union strategy, adopted in 2015. It consists of several legislative acts that will be in force by mid-2019 (EU countries have 1-2 years to transpose the new Directives into national law). The legislative acts, inter alia, concern the electricity market design in general, renewable energy, energy efficiency and energy performance in buildings.²

For CitizEE the amending Directive on energy efficiency³ (EED), in place since December 2018, and the energy performance in buildings Directive⁴ (EPBD) are of specific importance. The latter outlines specific measures for the building sector to tackle challenges, updating and amending many provisions from the 2010 EPBD.⁵ Furthermore there can be found relevant provisions regarding new market actors like energy communities and renewable energy in general in the Internal Electricity Market Regulation⁶ (IEM-Reg.), the Internal Electricity Market Directive⁷ (IEM-Dir.) and in the recast of the Renewable Energy Directive⁸ (RED II), which entered into force in December 2018.

3.1.2. The Energy Efficiency Directive

The new EED amends the already existing EED from 2012. It contains both, more general aspects as well as specific provisions, for the efficiency sector.

3.1.2.1. The energy efficiency first principle

One key objective in the Clean Energy Package and a general rule in the new Energy Efficiency Directive is putting energy efficiency first as energy savings are the easiest way of saving money for consumers and for reducing greenhouse gas emissions.⁹ This so called “energy efficiency first principle” applies to all policy-making and investment decisions.¹⁰ It shall ensure that energy saving solutions are not overlooked or undervalued, collect reliable data, which will allow to value the long-term economic, environmental and social costs and benefits of energy efficient solutions, remove barriers preventing energy efficiency improvements and develop and enforce concrete policies, which will prioritize investment in energy efficiency.¹¹

The EU has therefore set binding targets of at least 32.5% energy efficiency by 2030, relative to a “business as usual” scenario in Art. 1 EED. The existing Article 1 para. 1 No. 1 is now replaced by the following text:

² See the official website of the European Union: <https://ec.europa.eu/energy/en/topics/energy-strategy-and-energy-union/clean-energy-all-europeans>.

³ Directive (EU) 2018/2002 of the European Parliament and of the Council of 11 December 2018 amending Directive 2012/27/EU on energy efficiency.

⁴ Directive (EU) 2018/844 of the European Parliament and of the Council of 30 May 2018 amending Directive 2010/31/EU on the energy performance of buildings and Directive 2012/27/EU on energy efficiency.

⁵ <https://ec.europa.eu/energy/en/topics/energy-strategy-and-energy-union/clean-energy-all-europeans>.

⁶ Regulation (EU) 2019/943 of the European Parliament and of the Council of 5 June 2019 on the internal market for electricity.

⁷ Directive (EU) 2019/944 of the European Parliament and of the Council of 5 June 2019 on common rules for the internal market for electricity and amending Directive 2012/27/EU.

⁸ Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources.

⁹ <https://ec.europa.eu/energy/en/topics/energy-strategy-and-energy-union/clean-energy-all-europeans>.

¹⁰ The definition of the energy efficiency first principle can be found in Art. 2 (18) of the Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11 December 2018 on the Governance of the Energy Union and Climate Action.

¹¹ Explained on the CITYNVEST website: <http://citynvest.eu/content/what-energy-efficiency-first-principle> ; CITYNVEST is a Horizon 2020 project that focusses on energy efficiency.



“This Directive establishes a common framework of measures to promote energy efficiency within the Union in order to ensure that the Union's 2020 headline targets on energy efficiency of 20 % and its 2030 headline targets on energy efficiency of at least 32,5 % are met and paves the way for further energy efficiency improvements beyond those dates.

This Directive lays down rules designed to remove barriers in the energy market and overcome market failures that impede efficiency in the supply and use of energy, and provides for the establishment of indicative national energy efficiency targets and contributions for 2020 and 2030.

This Directive contributes to the implementation of the energy efficiency first principle.”

In a statement from the European Commission¹² the main achievements of the energy efficiency first principle are described. It shall:

- Extend the annual energy saving obligation beyond 2020, which will attract private investments and support the emergence of new market actors,
- Deliver real energy savings in the next period 2021-2030 and beyond, coming from new energy efficiency renovations or other measures undertaken in the next decade,
- Strengthen rules on individual metering and billing of thermal energy by giving consumers - especially those in multi-apartment building with collective heating systems – clearer rights to receive more frequent and more useful information on their energy consumption, enabling them to better understand and control their heating bills,
- Require Member States to have in place transparent, publicly available national rules on the allocation of the cost of heating, cooling and hot water consumption in multi-apartment and multipurpose buildings with collective systems for such services,
- Tackle existing market, behavioural and regulatory barriers in order to increase security of supply, competitiveness of EU industries, reduce energy bills of consumers and health costs for society, thereby also addressing energy poverty and exploiting the positive impacts on economic growth and employment.

Thus, the energy efficiency first principle is connected to the Juncker Plan, the Investment Plan for Europe that shall remove obstacles to investment, provide visibility and technical assistance to investment projects, and to make smarter use of financial resources.¹³ It therefore is a very important general rule for CitiZEE and should always be kept in mind when developing investment platforms that are connected to energy efficiency¹⁴.

3.1.2.2. Energy Performance Contracting (EPC)

The definition of energy performance contracting can be found in Art. 2 (27) EED It was not changed within the new EED and is still defined as follows:

“energy performance contracting’ means a contractual arrangement between the beneficiary and the provider of an energy efficiency improvement measure, verified and monitored during the whole term of the contract, where investments (work, supply or service) in that measure are paid for in relation to a contractually agreed level of energy efficiency improvement or other agreed energy performance criterion, such as financial savings;”

In Recital 4 of the new EED it is highlighted that reaching an ambitious energy efficiency target requires barriers to be removed in order to facilitate investment in energy efficiency measures. One step in that direction is the

¹² European Commission, STATEMENT/18/3997, 19 June 2108, https://ec.europa.eu/commission/presscorner/detail/en/STATEMENT_18_3997.

¹³ https://ec.europa.eu/commission/priorities/jobs-growth-and-investment/investment-plan-europe-juncker-plan/what-investment-plan-europe_en.

¹⁴ For more information on investment platforms see: ENERGINVEST, CitiZEE D2.1., Institutional, organisational and procedural report, p. 69 ff. https://www.citizee.eu/wp-content/uploads/2020/01/D2.1-Institutional-organisational-and-procedural-report_PU_compressed.pdf



clarification provided by Eurostat on 19 September 2017 on how to record energy performance contracts in national accounts, which removes uncertainties and facilitates the use of such contracts.

Connected to these aspects found in the EED there exists the European Code of Conduct for Energy Performance Contracting, which is a set of values and principles that are considered fundamental for the successful, professional and transparent implementation of EPC projects in European countries. The key message of the Code of Conduct is that EPC represents a fair energy service business model. It defines the principles of the behaviour primarily of the EPC providers and is an EPC quality indicator for clients on what they should expect and require from EPC providers and which principles they themselves should adhere to in order to achieve expected energy savings and related benefits. However, the EPC Code of Conduct is only a voluntary commitment and therefore is not legally binding. Furthermore, it is from the year 2014 and therefore not in line with the latest EU legislation on energy efficiency and energy performance in buildings.¹⁵

3.1.2.3. National Fund, Financing and Technical Support in Art. 20

Art. 20 EED concerns the maximisation of the benefits of multiple streams of financing through the establishment of financing facilities, or the use of existing ones, for energy efficiency improvement measures by the Member States. With the amendment of the EED the following new paragraphs were inserted:

“3a. In order to mobilise private financing for energy efficiency measures and energy renovation, in accordance with Directive 2010/31/EU¹⁶, the Commission shall conduct a dialogue with both public and private financial institutions in order to map out possible actions it can take.

3b. The actions referred to in paragraph 3a shall include the following:

(a) mobilising capital investment into energy efficiency by considering the wider impacts of energy savings for financial risk management;

(b) ensuring better energy and finance performance data by:

(i) examining further how energy efficiency investments improve underlying asset values;

(ii) supporting studies to assess the monetisation of the non-energy benefits of energy efficiency investments.

3c. For the purpose of mobilising private financing of energy efficiency measures and energy renovation, Member States shall, when implementing this Directive:

(a) consider ways to make better use of energy audits under Article 8 to influence decision-making;

(b) make optimal use of the possibilities and tools proposed in the smart finance for smart buildings initiative.

3d. By 1 January 2020, the Commission shall provide guidance for Member States on how to unlock private investment.”

Thus, it can be seen that regarding capital investment in energy efficiency especially the mobilisation of private financing of energy efficiency measures and energy renovation is an important aspect in the current EU legislation. This is another aspect that supports the idea of CitizEE to activate citizen investment for energy efficiency.

3.1.3. The Energy Performance in Buildings Directive (EPBD)

By improving the energy performance in buildings, the EU can more readily achieve its energy and climate goals. The EPBD outlines specific measures for the building sector to tackle challenges.¹⁷ The new EPBD amends not only the former EPBD but also contains several aspects originally regulated in the former EED. The EPBD is, together with the EED, the main legislative instrument to promote the energy performance in buildings and to boost renovation within the EU.¹⁸

¹⁵ European Code of Conduct for Energy Performance Contracting, 11 July 2014, <http://www.transparens.eu/eu/epc-code-of-conduct>.

¹⁶ Former version of the energy performance of buildings Directive.

¹⁷ <https://ec.europa.eu/energy/en/topics/energy-strategy-and-energy-union/clean-energy-all-europeans>.

¹⁸ <https://ec.europa.eu/energy/en/topics/energy-efficiency/energy-performance-of-buildings/energy-performance-buildings-Directive>.



Especially important for CitizEE and the long-term renovation of buildings (as planned in Belgium by VEB, for example) is the new Art. 2a EPBD. It describes the establishment of a long-term renovation strategy by the Member States and the obligations and steps that are necessary to achieve it. In the following the seven paragraphs are explained in detail.

In **paragraph 1** the Member States are obliged to establish a long-term renovation strategy and lists planning and reporting obligations for the Member States:

“1. Each Member State shall establish a long-term renovation strategy to support the renovation of the national stock of residential and non-residential buildings, both public and private, into a highly energy efficient and decarbonised building stock by 2050, facilitating the cost-effective transformation of existing buildings into nearly zero-energy buildings. Each long-term renovation strategy shall be submitted in accordance with the applicable planning and reporting obligations and shall encompass:

(a) an overview of the national building stock, based, as appropriate, on statistical sampling and expected share of renovated buildings in 2020;

(b) the identification of cost-effective approaches to renovation relevant to the building type and climatic zone, considering potential relevant trigger points, where applicable, in the life-cycle of the building;

(c) policies and actions to stimulate cost-effective deep renovation of buildings, including staged deep renovation, and to support targeted cost-effective measures and renovation for example by introducing an optional scheme for building renovation passports;

(d) an overview of policies and actions to target the worst performing segments of the national building stock, split incentive dilemmas and market failures, and an outline of relevant national actions that contribute to the alleviation of energy poverty;

(e) policies and actions to target all public buildings;

(f) an overview of national initiatives to promote smart technologies and well-connected buildings and communities, as well as skills and education in the construction and energy efficiency sectors; and

(g) an evidence-based estimate of expected energy savings and wider benefits, such as those related to health, safety and air quality.”

Paragraph 2 obliges the Member States to develop a roadmap that includes milestones for the years 2030, 2040 and 2050. These milestones have to contribute to the energy efficiency targets in the EED:

“2. In its long-term renovation strategy, each Member State shall set out a roadmap with measures and domestically established measurable progress indicators, with a view to the long-term 2050 goal of reducing greenhouse gas emissions in the Union by 80-95 % compared to 1990, in order to ensure a highly energy efficient and decarbonised national building stock and in order to facilitate the cost-effective transformation of existing buildings into nearly zero-energy buildings. The roadmap shall include indicative milestones for 2030, 2040 and 2050 and specify how they contribute to achieving the Union’s energy efficiency targets in accordance with Directive 2012/27/EU.”

Paragraph 3 particularly obliges the Member States to facilitate access to appropriate mechanisms for the mobilisation of investments. These are, inter alia, the aggregation of projects, including by investment platforms, the reduction of risk, the use of public funding, etc.:

“3. To support the mobilisation of investments into the renovation needed to achieve the goals referred to in paragraph 1, Member States shall facilitate access to appropriate mechanisms for:

(a) the aggregation of projects, including by investment platforms or groups, and by consortia of small and medium-sized enterprises, to enable investor access as well as packaged solutions for potential clients;



- (b) the reduction of the perceived risk of energy efficiency operations for investors and the private sector;*
- (c) the use of public funding to leverage additional private-sector investment or address specific market failures;*
- (d) guiding investments into an energy efficient public building stock, in line with Eurostat guidance; and*
- (e) accessible and transparent advisory tools, such as one-stop-shops for consumers and energy advisory services, on relevant energy efficiency renovations and financing instruments.”*

The **paragraphs 4 to 7** state a dissemination obligation for the Commission and obliges the Member States to carry out a public consultation on its long-term renovation strategy prior to submitting it to the Commission:

“4. The Commission shall collect and disseminate, at least to public authorities, best practices on successful public and private financing schemes for energy efficiency renovation as well as information on schemes for the aggregation of small-scale energy efficiency renovation projects. The Commission shall identify and disseminate best practices on financial incentives to renovate from a consumer perspective taking into account cost-efficiency differences between Member States.

5. To support the development of its long-term renovation strategy, each Member State shall carry out a public consultation on its long-term renovation strategy prior to submitting it to the Commission. Each Member State shall annex a summary of the results of its public consultation to its long-term renovation strategy. Each Member State shall establish the modalities for consultation in an inclusive way during the implementation of its long-term renovation strategy.

6. Each Member State shall annex the details of the implementation of its most recent long-term renovation strategy to its long-term renovation strategy, including on the planned policies and actions.

7. Each Member State may use its long-term renovation strategy to address fire safety and risks related to intense seismic activity affecting energy efficiency renovations and the lifetime of buildings.”

3.1.4. Energy communities

Energy communities are important market players in the Clean Energy Package in regard of the decentralisation of the energy market and the activation of smaller market actors like citizens. In the form of an energy community citizens that may not have entered the energy market on their own can unite and act together as one new actor with specific rights (but also obligations). In the context of CitizEE, energy communities, especially citizen energy communities, can be important market actors, which may act as catalysts for gathering citizens and activate them to invest together in energy efficiency projects.

Provisions for energy communities can be found in the IEM-Dir. and the RED II. There are two types of energy communities, the citizen energy community and the renewable energy community. Both of them join several of very similar rights and obligations but also differ in certain aspects. The citizen energy community is regulated in Art. 2 No. 11 and Art. 16 IEM-Dir., provisions that are relevant for the renewable energy community are Art. 2 para. 2 No. 16 and Art. 22 para. 2 RED II.

3.1.4.1. Definitions

According to Art. 2 No. 11 IEM-Dir. and Art. 2 para. 2 No. 16 RED II energy communities are legal entities that are based on open and voluntary participation, and that are effectively controlled by shareholders or members. In the case of renewable energy communities, shareholders or members can be natural persons, local authorities,



municipalities, or small enterprises. Further, the shareholders or members have to be located in the proximity of the renewable energy projects that are owned and developed by that legal entity.¹⁹

The primary purpose of every energy community is to provide environmental, economic, or social community benefits for its shareholders or members or for the local areas where it operates, rather than financial profits. The citizen energy community may engage in generation, including from renewable sources, distribution, supply, consumption, aggregation, energy storage, energy efficiency services or charging services for electric vehicles or provide other energy services to its members or shareholders.

3.1.4.2. Rights and obligations for energy communities

Art. 16 para. 3 IEM-Dir. provides that the Member States have to guarantee that **citizen energy communities** have, inter alia, the following rights:

- They are able to access all electricity markets, either directly or through aggregation, in a non-discriminatory manner;
- They are treated in a non-discriminatory and proportionate manner with regard to their activities, rights and obligations as final customers, producers, suppliers, distribution system operators or market participants engaged in aggregation;
- They are entitled to arrange within the citizen energy community the sharing of electricity that is produced by the production units owned by the community.

On the other hand, citizen energy communities are financially responsible for the imbalances they cause in the electricity system, i.e. they shall be balance responsible parties or shall delegate their balancing responsibility, Art. 16 para. 3 (c).

Regarding to Art. 22 RED II the Member States have to insure, inter alia, the following rights for **renewable energy communities**:

- They are entitled to produce, consume, store and sell renewable energy, including through renewables power purchase agreements, and access all suitable energy markets in a non-discriminatory manner;
- Unjustified regulatory and administrative barriers to renewable energy communities have to be removed;
- Renewable energy communities are subject to fair, proportionate and transparent procedures, including registration and licensing procedures, and cost-reflective network charges, as well as relevant charges, levies and taxes, ensuring that they contribute, in an adequate, fair and balanced way, to the overall cost sharing of the system in line with a transparent cost-benefit analysis of distributed energy sources developed by the national competent authorities;
- Tools to facilitate access to finance and information are available;
- Regulatory and capacity-building support is provided to public authorities in enabling and setting up renewable energy communities, and in helping authorities to participate directly.

Thus, it is quite clear that, regarding to the Clean Energy Package, energy communities are seen as relevant actors in the future energy market and will have several rights in order to enter the market on a level playing field. However, both, the IEM-Dir. and the RED II are European Directives, which means that the Member States have to incorporate the provisions into national law first. As the Member States have a certain space where they are allowed to make their own decisions and develop individual legislation the final results may vary from Member State to Member State.

¹⁹ Therefore, if an energy community is solely connected to EE projects it won't count as renewable energy community but as citizen energy community.



Member States are obliged to act and bring their legislation until 31 December 2020 in line with the IEM-Dir.²⁰ and until 30 June 2021 in line with the RED II.²¹

3.1.5. Renewable self-consumers

Renewable self-consumers are important market actors in the context of CitizEE as well because they are the prototype of the prosumer²² – they do not only consume energy but also produce it by themselves via solar panels etc. Renewable self-consumers are defined in Art. 2 lit. aa) RED II and further addressed in Art. 21 RED II.²³ The definition of renewable self-consumer is:

“renewable self-consumer means a final customer operating within its premises located within confined boundaries or where allowed by Member States, on other premises, who generates renewable electricity for its own consumption, and may store and sell self-generated renewable electricity, provided that, for non-household renewable self-consumers, those activities do not constitute their primary commercial or professional activity”

Regarding to Art. 21 RED II renewable self-consumers are entitled, individually or through aggregators, to generate renewable energy, including for their own consumption, store and sell their excess production of renewable electricity. This includes power purchase agreements, electricity suppliers and peer-to-peer trading arrangements.

- When it comes to electricity, they consume from or inject into the grid, they must not be subject to discriminatory or disproportionate procedures and charges and to network charges that are not cost-reflective.
- In relation to their self-generated renewable electricity, which remains within their premises, they even must not be subject to any charge or fee.
- Exceptions are foreseen in in Art. 21 para. 1bis lit. a) - c) RED II if the electricity produced is effectively supported by a support scheme, if the overall share of self-consumption installations exceeds 8% of a Member States total electricity capacity installed, or if the electricity is produced in installations above 30 kW.

Further, renewable self-consumers that are located in the same building, including multi-apartment blocks, are entitled to engage jointly in the aforementioned activities and are allowed to arrange sharing of renewable energy that is produced on their site or sites between themselves, without prejudice to applicable grid costs and other relevant charges, levies and taxes to each renewable self-consumer if applicable.

Renewable self-consumers receive a remuneration, including where applicable through support schemes, for the self-generated renewable electricity they feed into the grid. This remuneration has to reflect the market value and may take into account the long-term value of the electricity fed into the grid, the environment and society. Moreover, Member States shall put in place an enabling framework to promote and facilitate the development of renewable self-consumption.

3.2. The Crowdfunding Service Providers Regulation

The European Parliament describes²⁴ crowdfunding as an innovative funding opportunity that allows entrepreneurs to make an “open call” to the wider public for the collection of financial support for a specific business project, generally done through an internet-based platform. It therefore provides a much-needed alternative to bank lending because this type of bank lending currently available for entrepreneurs, start-ups and small enterprises is often

²⁰ Art. 71 para. 1 Electricity-Dir.

²¹ Art. 36 para. 1 RED II.

²² See also “active customer”, defined in Art. 2 (18) IEM-Dir.

²³ See also: *Wimmer/Pause*, BestRES, Deliverable D5.3, p. 19.

²⁴ <http://www.europarl.europa.eu/legislative-train/theme-deeper-and-fairer-internal-market-with-a-strengthened-industrial-base-financial-services/file-crowdfunding-service-providers-for-business>.



expensive or difficult to access due to the lack of credit history or a lack of tangible collateral. A further problem is seen in the diverging legislation across the EU as crowdfunding is mainly conducted on the basis of national legislation.

As a result of the broadening access to finance for innovative companies, start-ups and other unlisted firms as a key aspect of the Capital Markets Union Action Plan (CMU Action Plan)²⁵ alternative sources of finance such as crowd and peer-to-peer finance (“crowdfunding”) can be an important source of non-bank financing in support of innovative companies and start-ups provided that appropriate safeguards are in place.²⁶

Therefore, the Commission proposed the European Crowdfunding Service Providers (ECSP) for Business Regulation²⁷ on 8 March 2018. It introduces an optional EU regime that enables crowdfunding platforms to easily provide their services across the EU Single Market. Instead of having to comply with different regulatory regimes, platforms will have to comply with only one set of rules, both when operating in their home market and in other EU Member States. This is expected to widen the pool of investors and the number of projects to pick from, as well as provide legal certainty as regards the applicable investor protection rules.

The accompanying Directive amends the scope of Directive 2014/65/EU (MIFID II)²⁸ by adding crowdfunding service providers authorised under the proposed Regulation to the list of exempted entities to which the scope of the Directive does not apply.

The ECSP Regulation has the potential to make pan-European crowdfunding a reality. To date, the divergence in laws between Member States has made crowdfunding a largely national affair. This means that the vast potential for cross-border capital flows has not been tapped, leading to substantially less funding and fewer investment opportunities across the EU than would be available under a unified regime.

On 19 December 2019 a compromise was reached between the European Parliament and the Council of the European Union with regard to the Commission’s proposal on a new Regulation for crowdfunding (ECSP) concerning financial services and crowdfunding for business (lending and equity).

The details of the Regulation are still to be fine-tuned, technical work on the text is under way within the three institutions, but European crowdfunding platforms should consider that the framework has been agreed on and should be able to pass further legislative hurdles without significant delay. It is expected that the law will come into effect in 2021. The main aspects in a nutshell are:

- A single set of rules will apply to crowdfunding services in the EU, up to EUR 5 000 000,
- Strict rules to protect investors from financial losses,
- Member states responsible for authorising and supervising crowdfunding providers.

3.3. The InvestEU Programme

The upcoming InvestEU Programme will be the successor of the EFSI initiative which will soon reach the end of its timeframe. The deadline for approval of EFSI operations by the EFSI Investment Committee is the 31 December 2020. The scope and functioning of EFSI and EFSI-backed investment platforms as well as combination of EFSI and ESIF funding are broadly determined by the following key reference documents:²⁹

²⁵ On 30 September 2015, the Commission adopted an action plan setting out a list of key measures to achieve a true single market for capital in Europe: COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS Action Plan on Building a Capital Markets Union, COM/2015/0468 final.

²⁶ https://ec.europa.eu/info/law/better-Regulation/initiatives/ares-2017-5288649_en.

²⁷ Proposal for a Regulation of the European Parliament and of the Council on European Crowdfunding Service Providers (ECSP) for Business, COM/2018/0113 final - 2018/048 (COD).

²⁸ Directive 2014/65/EU of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and amending Directive 2002/92/EC and Directive 2011/61/EU Text with EEA relevance.

²⁹ ENERGINVEST, Citizee D2.1., Institutional, organisational and procedural report, p. 10. https://www.citizee.eu/wp-content/uploads/2020/01/D2.1-Institutional-organisational-and-procedural-report_PU_compressed.pdf



- The EFSI Regulation,³⁰
- EFSI Steering board documents i.e.: EFSI Strategic Orientation note³¹, Guidance document on rules applying to investment platforms³², Guidance document on complementarities between the EFSI and the European Structural and Investment Funds³³, Note on the EFSI Scoreboard of indicators for application of the EU Guarantee for the Infrastructure and Innovation Window³⁴, European Fund for Strategic Investments Fund Steering Board³⁵, European Fund for Strategic Investments Steering Board³⁶,
- European Commission documents i.e.: A guide to establishing investment platforms for public authorities and other stakeholders,³⁷
- ESIF documents i.e.: ESIF – Regulation for Financial Instruments³⁸, Guidance documents for Financial Instruments³⁹, Guidance manual for ex-ante Assessment of Financial Instruments⁴⁰.

Due to the timeframe of the EFSI programme, the CitizEE pilot regions will most likely not obtain an ESFI approval for their projects (Except for Lithuania which already succeeded to obtain approval for an EFSI-backed investment platform through the financing agreement with EIB signed on October 2019)⁴¹.

Thus, the pilot regions Belgium, Portugal and Croatia will most likely fall under the InvestEU Regulation.⁴² At the moment the Regulation is in the discussion phase. The proposal for the InvestEU Regulation by the European Commission⁴³ was made on 6 June 2018. In Art. 1 of the Commission’s proposal it is stated that the

“Regulation establishes the InvestEU Fund providing for an EU guarantee for financing and investment operations carried out by the implementing partners in support of the Union’s internal policies. (It) also establishes an advisory support mechanism to support the development of investable projects and access to financing and to provide related capacity building (‘InvestEU Advisory Hub’). It also establishes a database granting visibility to projects for which project promoters seek financing and which provides investors with information about investment

³⁰ Regulation (EU) 2015/1017 of the European Parliament and of the Council of 25 June 2015 on the European Fund for Strategic Investments, the European Investment Advisory Hub and the European Investment Project Portal; the amending Regulation (EFSI 2.0): Regulation (EU) 2017/2396 of the European Parliament and of the Council of 13 December 2017 amending Regulations (EU) No 1316/2013 and (EU) 2015/1017 as regards the extension of the duration of the European Fund for Strategic Investments.

³¹ European Fund for Strategic Investments Steering Board, EFSI Strategic Orientation, European Investment Bank, review of January 2019; this document further outlines the strategic orientation on sectorial/geographical diversification and concentrations limits, cooperation with National Promotional Banks and investment platforms as well as products and counterparts.

³² Rules applicable to operations with investment platforms and National Promotional Banks or Institutions – European Commission, European Investment Bank, 2016. The rules outline the main principles for setting up investment platforms under the EFSI and their possible structures. In addition, the paper provides a number of concrete structures of possible investment platforms.

³³ European Structural and Investment FUNDS (ESIF) and European Fund for Strategic Investments (EFSI) complementarities - Ensuring coordination, synergies and complementarity – European Commission, 2016.

³⁴ European Fund for Strategic Investments Fund Steering Board: EFSI Key Performance and Key Monitoring Indicators Methodology- – Update of December 2018.

³⁵ Operating policies and procedures necessary for the Functioning of EFSI.

³⁶ Investments in funds in line with EFSI Regulation.

³⁷ The European Investment Plan for Europe: how to set up an EFSI investment platform.

³⁸ Common Provisions Regulation (CPR) - EU1303/2013 – Part Two – Common Provisions applicable to ESI funds - Title IV – Financial Instruments.

³⁹ Overview of all guidance in relation to the European Structural and Investment Funds Regulations 2014-2020 framework – Section Financial Instruments.

⁴⁰ : Ex-ante assessment methodology for financial instruments in the 2014-2020 programming period. General methodology covering all thematic objectives, volume 1. FI-Compass. Version 1.2 – April 2014.

⁴¹ <https://www.eib.org/en/press/all/2019-261-eu-support-for-first-energy-efficiency-investment-platform-in-lithuania> ; https://ec.europa.eu/commission/strategy/priorities-2019-2024/jobs-growth-and-investment/investment-plan-europe-junker-plan/investment-plan-results/investment-plan-lithuania_en.

⁴² For more information on InvestEU see: ENERGINVEST, CitizEE D2.1., Institutional, organisational and procedural report, p. 78 ff. https://www.citizee.eu/wp-content/uploads/2020/01/D2.1-Institutional-organisational-and-procedural-report_PU_compressed.pdf

⁴³ Proposal for a Regulation of the European Parliament and of the Council establishing the InvestEU Programme, COM/2018/439 final - 2018/0229 (COD).



opportunities ('InvestEU Portal'). It lays down the objectives of the InvestEU Programme, the budget and the amount of the EU guarantee for the period 2021 to 2027, the forms of Union funding and the rules for providing such funding."

The proposal was in the European Parliament's first reading⁴⁴ on 18 April 2019 and was discussed by the Council and its preparation bodies⁴⁵ on 24 May 2019.⁴⁶ The ongoing process of the development of the Regulation's final version has to be followed closely during the CitizEE project as this Regulation is of vital significance for the development of investment platforms.⁴⁷

The investment platform is likely to stay a key figure in the InvestEU Programme. E.g. Art. 13 para 1 of the current proposal for the InvestEU Regulation⁴⁸ foresees that the EU guarantee may be used towards risk coverage for the following types of financing provided by the implementing partners, which are, inter alia, investment platforms or other vehicles to be channelled to final recipients.⁴⁹ However, for some of the pilot regions it still has to be seen (especially for Portugal and Croatia) whether the requirements will be fulfilled in order to develop an investment platform according to European Union law. The current definition of investment platforms can be found in the Art. 2 (4) of the EFSI Regulation:

"investment platforms' means special purpose vehicles, managed accounts, contract-based co-financing or risk-sharing arrangements or arrangements established by any other means by which entities channel a financial contribution in order to finance a number of investment projects, and which may include:

- (a) national or sub-national platforms that group together several investment projects on the territory of a given Member State;*
- (b) multi-country or regional platforms that group together partners from several Member States or third countries interested in projects in a given geographic area;*
- (c) thematic platforms that group together investment projects in a given sector;"*

While the European Commission's proposal of the InvestEU Regulation does not foresee a definition of investment platforms the proposals by the Council and the Parliament integrate it in Art. 2 (10 b) and only changes (b) to "cross-border, multi-country, regional or macro-regional platforms that group together partners from several Member States, regions or third countries interested in projects in a given geographic area".

According to the European Commission, investment platforms are investment facilities, which pool smaller and/or higher-risk projects by geographic location or sector in order to better share risk, make it easier to attract private investors and eventually unlock financing for individual projects. A platform can combine EU funds, national support and financing from private investors. The platform itself can then provide loans and/or equity financing to the underlying projects depending on their specific needs. The Commission further states that an investment platforms are set up by sponsors or project promoters, which may be public authorities or National Promotional Banks and

⁴⁴ European Parliament legislative resolution of 18 April 2019 on the proposal for a Regulation of the European Parliament and of the Council establishing the InvestEU Programme (COM (2018)0439 – C8-0257/2018 – 2018/0229(COD)).

⁴⁵ Proposal for a Regulation of the European Parliament and of the Council establishing the InvestEU Programme - Outcome of the European Parliament's first reading (Strasbourg, 15 to 18 April 2019).

⁴⁶ <https://eur-lex.europa.eu/legal-content/EN/HIS/?uri=COM:2018:439:FIN>.

⁴⁷ Further documents that are relevant in the context of the development of the InvestEU Programme are the Commission staff working documents "Impact Assessment" (COMMISSION STAFF WORKING DOCUMENT IMPACT ASSESSMENT Accompanying the document Proposal for a Regulation of the European Parliament and of the Council establishing the InvestEU Programme SWD/2018/314 final) and "Evaluation" (COMMISSION STAFF WORKING DOCUMENT EVALUATION of the European Fund for Strategic Investments, of the European Investment Advisory Hub, and of the European Investment Project Portal Accompanying the document Proposal for a Regulation of the European Parliament and of the Council establishing the InvestEU Programme SWD/2018/316 final).

⁴⁸ See also Art. 10 and 20 of the proposal for the InvestEU Regulation, which also highlight the establishment and the potential of investment platforms.

⁴⁹ It also lists loans, guarantees, counter-guarantees, capital market instruments, any other form of funding or credit enhancement, including subordinated debt, or equity or quasi-equity participations, provided directly or indirectly through financial intermediaries, funds.



Institutions, social sector players or private stakeholders.⁵⁰ However, If the development of investment platforms will become a serious barrier for the pilot regions has to be observed during the CitizEE project and will depend on outcome of the InvestEU Programme and the final InvestEU Regulation.

⁵⁰ Investment platform factsheet, https://ec.europa.eu/commission/sites/beta-political/files/investment_platforms_factsheet_en.pdf ; the Commission and the EIB can provide advice on the setting up of platforms, in particular through the European Investment Advisory Hub. EFSI investment platforms and the EFSI-guaranteed financing provided for such initiatives need to be approved by the EFSI Investment Committee. The European Investment Advisory Hub offers dedicated support for the set-up of investment platforms by assessing the rationale and potential to develop an investment platform, raising awareness of investment platform opportunities structuring the combinations of EU funds (EFSI, ESIF, CEF or other), and supporting the development of underlying projects; for more information on investment platforms see also: ENERGINVEST, CitizEE D2.1., Institutional, organisational and procedural report, p. 13 ff. https://www.citizee.eu/wp-content/uploads/2020/01/D2.1-Institutional-organisational-and-procedural-report_PU_compressed.pdf



4. INITIAL SITUATION/QUESTIONNAIRE

In order to gather more concrete and relevant information from the partner countries a questionnaire was created and sent out to each of the four pilot case leaders. The questionnaire contains three general topics:

- General questions
- Framework related questions
- Questions related to the encountered barriers

General questions were asked in order to get a more detailed view on how the pilot cases work at the moment and how the partners are planning to develop their activities in the future. In this context it is important to know what the target groups as investors are and how one can become an investor. Further the nature of the provided funding models (donation and reward, crowdlending, crowdfunding) is relevant and if there are plans to expand or change these models. It was also asked what the average duration of the projects is and how much money is needed in average to finance one project. Furthermore, risk related aspects are important, i.e. what are the risks for the investors to take part in such a project and what happens if the necessary amount of money is not collected and a project cannot be financed.

The framework related questions were asked to get more information about the current relevant legal situation in each of the partner countries. Especially a summary of the recent developments regarding EE Projects and the relevant Regulation, in particular those relevant to community energy projects and citizen participation, is relevant to get an idea of the legal context in the respective country.

For the categorization of the relevant legal and regulatory barriers and the development of barrier groups, it is important to know which problems were encountered by the partner countries up to the current state of the project. It was important to find out which local barriers hinder the deployment of EE Projects in the context of CitizEE are and what legal and regulatory barriers are known that are likely to hinder the implementation of the pilot cases. It was also asked if specific questions from potential investors/citizens that were interested to invest in the project came up or if there any insecurities that came across the potential investors.

Based on the answers to these questions the following overviews and the identification of relevant (legal and regulatory) barriers of each of the four pilot cases were developed.



5. PORTUGUESE CASE (GOPARITY): FINANCING SCHEME IMPLEMENTATION TO FOSTER THE INVESTMENT IN COMMUNITY USED INFRASTRUCTURE

5.1. Initial description and output

POWER PARITY (GOPARITY) is a pioneer in citizen investments in sustainable energy investments in Portugal. The first crowdfunded project was launched in 2017, a 16 kWp solar project in Tavira and since then more than 1,7 M€ of citizen investment have been raised for sustainable energy projects and others, through more than 5.000 registered users at GOPARITY platform (www.goparity.com). The founders of GOPARITY have previously created in 2013, alongside other citizens (>1400 members currently), Coopérnico (www.coopernico.org), the first Portuguese RESCOOP, responsible for more than 1,6 M€ of investment in sustainable energy.

GOPARITY has extensive experience in funding solar power (both feed-in tariffs and self-consumption) that can be transferred to forms of EE, eventually combining more than one measure. Projects have gone from renting the rooftops of charities to funding self-consumption or LED lighting in SMEs or schools. Significant work has also been done in the Public Sector: two solar projects installed in Municipal buildings (Mangualde) and funded by citizens and a pilot project for an energy community under development with the Lisbon Municipality. Currently GOPARTIY works with 13 municipalities to identify possible investment opportunities in EE that can be funded via citizen investment, alone or combined with other funding mechanisms.

Within CitizEE, GOPARITY will work with the Portuguese Energy Agencies Network (RNAE) to identify and develop viable solutions that will streamline citizen investing in EE in the public sector enabling the development of a pipeline of EE investments. The goal is to foster the investment in community used infrastructure such as sports pavilions, public libraries or municipal swimming pools, in order to reduce their energy consumption, through the implementation of measures such as PV self-consumption, LED lighting implementation, equipment replacement or heat recovery systems. GO PARITY has initially identified more than 2,5M€ in PV self-consumption and 3,2M€ in EE investment in the referred 13 municipalities.

Depending on the ownership and bankability of the facility owners, a specific funding solution will be adopted: direct loan (peer to peer lending or crowdlending) or off-balance sheet (cooperative or crowdlending for an ESCO type company).

5.2. Current state of the pilot case

5.2.1. General aspects

GOPARITY has already finished projects and new ones on the pipeline to be funded. The majority of the funded projects are on the EE segment (PV solar and LED lightning, sole or combined).⁵¹ The duration of the projects is between 6 months and the longest 10 years, typically projects with maturities between 3 and 8 years are being funded. The average project on GOPARITY is 75k €. As potential investors, the main target are individuals (citizens) looking for return with impact (investors with environmental and social concerns). From the promotor side GOPARITY is a funding solution with competitive conditions and with the plus off being an opportunity for the organization to gain visibility or evolving the community.

As a potential investor (citizen or company), you have to go to goparity.com, register with email and password and verify your email. Then you complete your profile with fiscal details and do KYC procedure (ID, in case of citizens). At this point you have a wallet and can back it up with funds with credit card or bank wire, choose the project you would like to invest in and how much, accept the loan agreement and IFIFC (document with all info about the investment that the local regulator requires to be read by the investor). Once the project gets to 100% you receive your loan contract by email and one month later (not necessarily) you start receiving interest and part of capital. If you need the money invested earlier than expected you can place an offer at the marketplace. The marketplace was created

⁵¹ They can be found under <https://goparity.com/en/projects>.



for position assignment between investors as investors prefer to invest in short term projects, mainly because of the liquidity risk. If you don't want to manually invest you can setup the Auto Investing tool.

Regarding the direct loan and the off-balance sheet system, from the crowdlending platform perspective the funding model is the same. That is, a direct loan to a SME or other kind of organization by their community of investors. The off-balance sheet model applies between the ESCO and the final SME or organization, meaning that the ESCO is funded in GOPARITY with a direct loan and then makes the investment in the final host and this last one pays for the investment via a services agreement with the ESCO. In this last model, from GOPARITY perspective (crowdlending), the ESCO is the client. From the cooperative perspective, they are the ESCO (owners of the equipment and service providers of the final client).

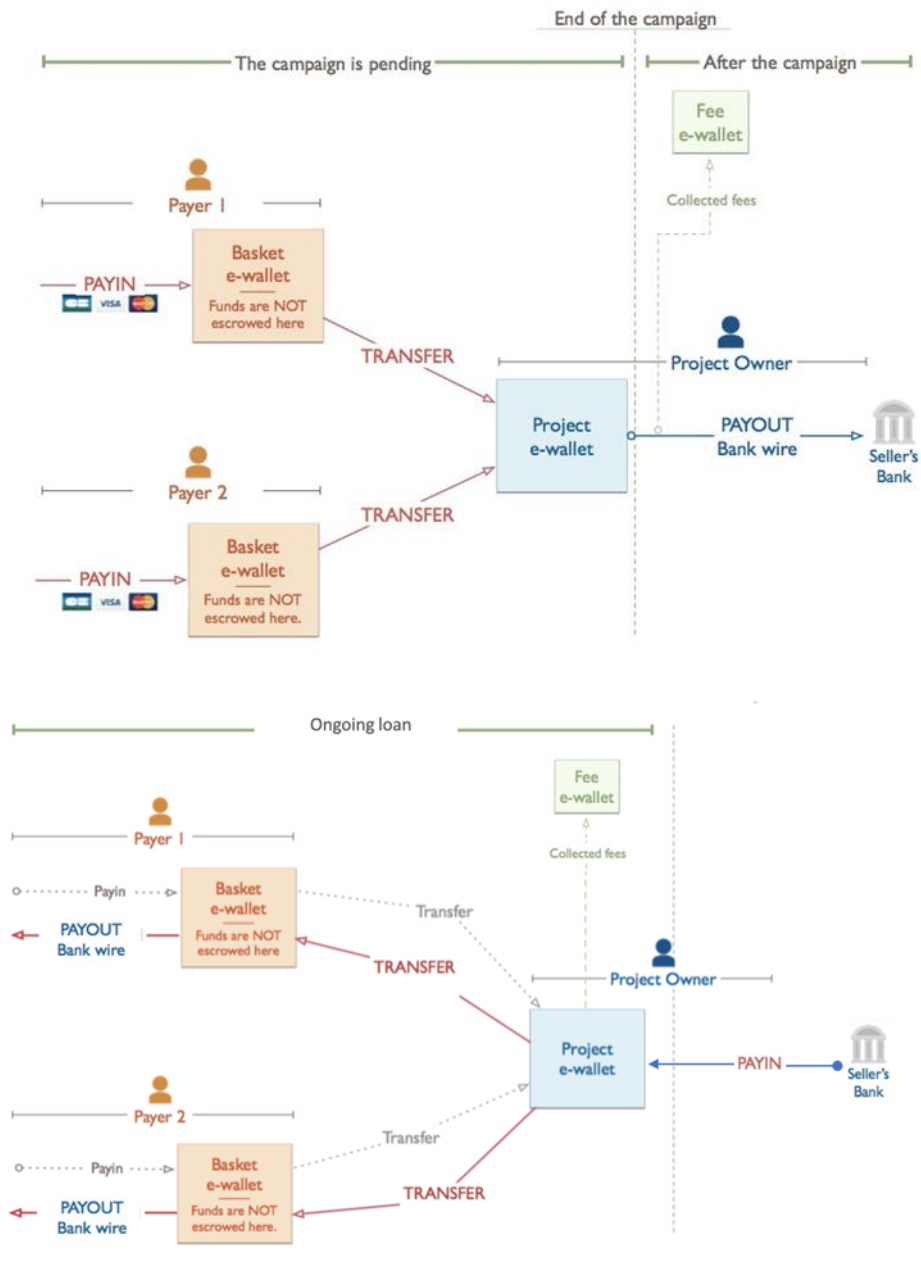


Figure 2: Example for crowdlending platform (GOPARITY)



5.2.2. Outlook

Currently GOPARITY is working on bringing institutional partners to co-invest in specific projects aligned with their mission and is also trying to create a guarantee mechanism supported also by institutional partners with the idea of lowering the risk of the projects.

5.2.3. Risks

If the needed amount is not collected and the project cannot be financed by other means, the capital is paid back to the investors. Until the amount in campaign is not successfully reached, the funds are kept in a project wallet segregated from the promoter. There's the risk of the loan stops performing and eventually the investor will lose part or the total amount of the investment in the event the project doesn't perform and the owner entity starts having difficulties in perform the service debt or even goes bankrupt.

Institutional partners as co-investors in specific projects aligned with their mission and a guarantee mechanism supported by institutional partners could lower the risk of the projects.

Investors prefer to invest in short term projects, mainly because of the liquidity risk. To mitigate that a marketplace for position assignment between investors was created. Other insecurity are the guarantees, so investors feel more comfortable when the project has a pledge or a personal guarantee.

5.2.4. Relevant legal aspects

The latest development regarding EE Projects is the decree-law 162/2019 that approves the communities of energy, mainly directed to solar. Main novelties are:

- Easier to turn on Self-Consumption facilities

To date all installations up to 1500 watts (1.5 kW) were subject to prior notification to the Directorate General for Energy and Geology (DGEG). Above 1.5 kW it was mandatory to register and obtain the respective operating certificate. With the new law, prior notice to DGEG is extended to 30 kW and only installations above 100 kW will require a pronouncement from the network operator. In practice, the new law aims to facilitate the creation of larger facilities and to streamline the licensing process.

- Creation of the collective self-consumption modality

With this change, self-consumption will no longer limit the production of an installation to a single point of consumption, and the installation of solar panels and associated production may be spread over a set of consumers.

Advantages: If two or three families want to, they can jointly invest in a larger photovoltaic installation and share the investment.

- Creation of the Renewable Energy Communities Scheme (REC)

This regime allows a legal entity that owns and develops renewable energy projects, constituted based on the open and voluntary adhesion of its members, partners or shareholders, located in the vicinity of said projects, whose main purpose is to provide the members or the locations where The community operates environmental, economic and social benefits rather than financial profits. The new regime was created from the perspective of complementarity with the National Electric System.

5.2.5. Barriers

There are four barriers that could be identified for GOPARITY:

- In the public segment the rules with public procurement are tighter and bureaucratic. Regarding the deployment of EE for the private sector, access to affordable finance is a problem.

The problematic provisions are national law, but part of them are transposition of European rules to national law. Decree-law 18/2008 and subsequent laws are the backbone of Regulation in this area. Some bureaucratic limitations are that if it has to be funded by loan, it has to go to Municipal Assembly for approval (for example, if in ESCO model it is not necessary, as doesn't counts as debt for the municipality – recent



development); For the public sector, public tendering is a pain for projects above 75k€ investment. i.e. mandatory public tendering for investment amounts above 75k€, so for projects above this amount and up to 1M€ municipalities don't make an effort because of the bureaucracy of launching a public tendering.

- Limitations to investment in crowdlending projects is a problem: by Portuguese law individuals with annual net worth below 70k€ can't invest more than 3k € per project or more than 10k € in accumulated investments in crowdlending platforms in the last 12 months (Article 12^o of the Regulation 1/2016 of CMVM (Portuguese Securities commission)). These limitations represent crucial barriers for crowdfunding platforms, however strict rules to protect investors from financial losses are one of the key requirements for the Regulation of crowdfunding.

Article 12^o of the Regulation 1/2016 of CMVM

"1 - Investors in collaborative financing may not exceed the following investment limits, when applicable:

(a) EUR 3,000 per offer;

(b) EUR 10,000 in their total investments through the 12 months collaborative financing.

2 - The investment limits provided for in the preceding paragraph shall not apply:

(a) legal persons;

(b) natural persons who have an annual income EUR 70,000 or more;

(c) investors qualified in accordance with points (a) to (k) Article 30 of the Securities Code.

3 - In order to ensure compliance with the limit set out in paragraph 1 (b), investors shall indicate, in accordance with article 17, paragraph 2, the overall amount already invested in offers on collaborative financing platforms in the last 12 months.

4 - Where the investor limits provided for in paragraph 1 of this article do not apply to the investor, the investor shall make a statement attesting to the fulfilment of the relevant requirements provided for in paragraphs 2 (a), (b) or (c) through the document provided Article 17 (2).

5 - The declarations referred to in the preceding paragraphs shall be kept for a minimum of 5 years."

- Also, it depends on the type of EE projects how problematic the procedures are: for public lightning the implementation of ESCO models in municipalities is well developed, but public buildings are lagging behind. Also, implementation of EE in public buildings are in many cases pending on major retrofitting of the building itself. In the public sector, European funds are the main source of funding in this area (bureaucracy is also high here)
- When it comes to up-scaling the basic crowdfunding model to an EE-crowdfunding model in general there are no specific limitations in crowdfunding rules by the fact of being an EE project. But when upscaling there are limitations with the size of the campaign. It can't surpass 1M€ over a 12-month period by entity promoting the campaign if it is directed to retail investors, or 5M€ if it is directed for qualified investors.



5.3. Legal & regulatory barriers

For GOPARITY there are **four main legal & regulatory** barriers that were identified:

- 1) In the public segment the rules regarding public procurement for EE projects are tight and bureaucratic which leads to some limitations for GOPARITY. Especially for projects above 75k € investment is problematic, because for investments above 75k € public tendering is mandatory. This leads to the result that for projects that are in this investment range (up to 1M €) the responsible municipalities won't make an effort because of the overwhelming bureaucracy of launching public tendering.
- 2) Limitations to investment in crowdlending project is a problem: by Portuguese law individuals with annual net worth below 70k€ can't invest more than 3k € per project or more than 10k € in accumulated investments in crowdlending platforms in the last 12 months (Article 12^o of the Regulation 1/2016 of CMVM (Portuguese Securites commission)).
- 3) For public lightning the implementation of ESCO models in municipalities is well developed, but public buildings are lagging behind. Also, implementation of EE in public buildings are in many cases pending on major retrofitting of the building itself.
- 4) When upscaling there are limitations with the size of the campaign. It can't surpass 1M€ over a 12-month period by entity promoting the campaign if it is directed to retail investors, or 5M€ if it is directed for qualified investors.

Table 1: Legal & regulatory barriers for GOPARITY

GOPARITY	
Energy related	Rules for public procurement foresee mandatory tendering
Investment related	Investment limitations for individuals Upscaling limitations due to a campaign specific amounts
Other	Development of public buildings is lagging behind



6. BELGIAN CASE (VEB): DEVELOPMENT OF A REGIONAL FINANCING SCHEME TO CO-FINANCE A LARGE-SCALE PUBLIC INVESTMENT PROGRAM ON SCHOOL'S ENERGY EFFICIENCY UPGRADES THROUGH EPC CONTRACTING

6.1. Initial description and output

Over the last decade, the cooperative model has been widely developed within the region to support the growth of renewable energy deployment. The Flemish region can build upon a large and well-structured network of energy cooperatives that search today new opportunities to deploy their activities as the renewable energy market progressively reaches its maturity. The local crowdfunding market is also growing in maturity with the existence of numerous and well-developed platforms that search to cover all the market segments, including the energy sector, and with some of them (e.g. Ecco Nova) formed to serve exclusively this market. The Flemish public authorities already developed interesting initiatives in structuring the Citizen Financing Schemes for Energy Efficiency projects (CFs4EE) market that could be replicated to other pilot countries. The public owned regional energy company, Vlaams EnergieBedrijf (VEB), has been charged by the regional authorities to benchmark, learn and build expertise on the local citizen financing sector in order to establish large-scale renewable energy and EE public investment programs integrating citizen funding. The company has a framework contract on the implementation of deploying solar PV projects through public tendering of Energy Supply Contracts (ESC) including citizen financing (mainly via RESCoops: Renewable Energy Source cooperatives). The VEB is also participating in another pilot project aiming at financing street lighting retrofit projects with the support of existing energy cooperatives.

The pilot project within CitizEE will be to develop a financing scheme based on the cooperative model to co-finance school EE upgrades through EPC contracting. A first school network (KITOS vzw, see letter of support) has been engaged in the program as a demonstrator for 14 school buildings. During the CitizEE project, other school networks will be invited to participate.

6.2. Current state of the pilot case

6.2.1. General aspects

VEB gained experience in public procurement of projects with citizen financing by creating the right awarding criteria, based on three pillars:

- Assessment of the **amount of crowdfunding** on the basis of the percentage in relation to the total investment cost,
- Assessment of the **methodology** of civic participation based on the protection and involvement of citizens in the project. The better the protection and involvement, the higher the points. This involvement is measured by means of a participation ladder, which defines different forms of participation on the basis of the citizen's involvement. The higher this involvement, the higher the form on the participation ladder and the better the assessment,
- Assessment of the **communication** plan that aims to inform and involve citizens in the project and the achievement of the climate objectives based on the following parameters.

Given the favourable lending environment, most public authorities have no difficulty in finding the necessary funding for their energy-saving measures. In addition to the financial aspect of citizen financing, there is therefore a strong emphasis on the involvement of citizens and the communication about citizen participation (e.g. for grandparents and parents):

- Increasing support for climate and energy policy by e.g. delivering a pedagogical package for teachers to inform pupils and students about EE,
- Increasing citizens' responsibility to contribute to public affairs like climate change,
- Improving the image of the school,



- Improving cooperation with external parties,
- Project profits return to the school community, e.g. parents, grandparents and teachers.

VEB's experience in public procurement of RES projects results from the two projects:

- Mechelen Zonneklaar: within this project VEB developed awarding criteria on citizen financing for solar PPAs. Currently the first feasibility studies on this project have been executed,
- Framework Contract Power Purchase Agreement: within this framework agreement the awarding criteria on citizen financing from Mechelen Zonneklaar were adapted to further promote citizen involvement in the project. The contract is on the verge of being awarded and first projects are planned to start in January '20.

During the CitizEE Project VEB will develop a financing scheme based on the cooperative model to co-finance school EE upgrades through EPC contracting. The EPC involves an Energy Service Company (ESCO) which provides various services, such as finances and guaranteed energy savings. Hence it is the ESCO who needs to collect the financial investment of citizens. The contractor can be one ESCO or a consortium of a traditional ESCO's and a third party specifically responsible for the citizen participation. Currently renewable energy cooperatives are exploring new business models in energy services, calling themselves ESCOOPs or Energy Service COOPERations. The focus of VEB is to develop the right set of selection- and awarding criteria to achieve the desired impact of the citizen financing. Furthermore, VEB wants to combine the citizen funding with existing public financial instruments such as the regular school funding or European funding sources. VEB believes that the EPC contract model has to combine ESCOOP funding (for the part with a payback time within the EPC contract duration) and extra funding (e.g. via the investment platform and injected by European sources (InvestEU/EFRO)). The impact has to go beyond the purely financial to achieve the full potential of a financing scheme. Further development of these criteria and the role of the different stakeholders is needed during the stakeholder meetings.

A standard EPC procedure consists of several phases:

First the client receives a feasibility study, which gives an indication whether an EPC is possible or not. Within this study, various options are mapped out depending on **(1)** the amount of potential energy savings that could be realised, **(2)** the ambition level of the school in relation to the climate targets, **(3)** or its own financial resources and technical capacities. The client is informed about the options of citizen financing and cooperation with ESCOOPs. In the next phases the scope of the project is further detailed and the (technical, legal and financial) preparation of the tender documentation takes place. Overall, the process of procuring an EPC will take between 12-14 months. During the tender procedure, in the case of a citizen-financed EPC, the additional selection and award criteria are determined to enhance the financial investments and engagement of citizens. Then the ESCO carries out the energy-saving and the citizen investment will also be raised by the ESCO. The energy savings guaranteed by the ESCO are monitored and verified following the IPMVP protocol. The remuneration of the ESCO depends on the achievement of the guaranteed savings

Thus, the EPC procedure can be separated into the following six phases, whereby phase 2, 4 and 5 are relevant for the citizen investments.

- Feasibility study: The aim of the feasibility study is to provide the client with a clear advice on the feasibility of an EPC. Depending on the availability of data and studies concerning the patrimony of the Customer (e.g. energy scans, previously performed studies), additional study work will be executed.
- Definition of scope: During this phase, the various aspects of the EPC are mapped out, such as the selected buildings, the measures to be taken and the financing model. By combining the data collected during this phase, the level of ambition of the Client is also evaluated and he will determine whether he wants to invest a part extra in measures that do not pay for themselves during the term of the contract. In this phase the client can be informed about the possibilities of citizen funding so he can make a decision about the desired impacts of the citizen funding (collected amount, communication, method, involvement of citizens).
- Detailed study: During this phase, all aspects of the previous phase are mapped out in detail for the EPC. To this end, the Client makes all necessary additional information available to the Contractor for each building. If necessary, the Contractor will also collect additional technical data in the buildings or related technical



installations of the Site. The result of the inventory is a technical file that serves as a basis for the technical specification of the tender. One of the main deliverables of this phase is the development of the baseline model (to predict future energy consumption) and the measurement and verification plan to assess the performance guarantees on a yearly basis.

- **Procurement:** During this phase, the tender procedure is started. In the case of a citizen-financed EPC, the additional selection and award criteria are determined to enhance the financial investments and engagement of citizens. The applications will be assessed on the pre-set criteria of citizen investment (e.g. the criteria set out in the question below).
- **Implementation:** During this phase, the ESCO carries out the energy-saving measures (installations, works, arrangements, contract management, etc.). In addition, the citizen investment will also be raised by the ESCO.
- **Guarantee:** During this phase, the energy savings guaranteed by the ESCO are monitored. The remuneration of the ESCO depends on the achievement of the guaranteed savings. The ESCO stays involved in the measurement and verification process for the energy savings in this phase.

The average duration of a project can be structured as follows:

- *Feasibility study:* 4 months
- *Facilitation:* 1 year
- *Implementation:* 1 year
- *Guarantee:* 10 to 20 years

The prices of an EPC vary highly and depend on different criteria as the overall all energy costs and saving potential. Based on VEBs insights, the following cost for projects like the demo Kitos are expected:

- *Feasibility study:* 10.000 to 30.000 EUR
- *Facilitation:* 10 % of implementation cost: 165.000 EUR
- *Implementation:* 1.650.000 EUR

6.2.2. Outlook

As the ESCO who is implementing the saving measures is responsible for the financing model, currently most ESCO's can get bank loans at favourable rates. Other ESCO use their own equity to finance the investments. CitizEE gives the opportunity to research how the current funding of ESCO's can be linked to other public financing instruments to enhance a more profound renovation.

6.2.3. Risks

In general risks are low for the citizen and the beneficiary – but nonetheless there are still risks and thresholds for the ESCO to start with crowdfunding. The citizen becomes a shareholder of the cooperation so she/he is subjected to the general risks of shareholder, but the liability of the cooperatives are limited. ESCO and cooperative have to make binding agreements with the school in case the program of the building changes (for example when the school is being demolished, the number of pupils increases or decreases). The cooperation spreads the risks over several projects. The investment of the citizen is not linked to one particular project, i.e. when one project has failed, the investment of the citizens is not lost because the investment of the citizen is not linked to one particular project.

By outsourcing the citizen investments it is the ESCO which is responsible for collecting the money. It is expected that the existing ESCO will form a temporary consortium with cooperatives to participate in the tender. In case the expected level of citizen investment is not raised, most ESCOs can get bank loans at favourable rates, or they use their own equity to finance the investments. In previous tenders with citizen investments VEB specified service level agreements with fines when the executor has not been able to collect the necessary means were defined. It is expected that citizen financing will be more expensive than the current rates.



6.2.4. Relevant legal aspects

The regulatory **framework for EPC's** is based on the EED (2012/27/EU) that has been amended by Directive 2018/2002, (See above: 3.1.2.2.)

The **crowdfunding law**, which has been operational since 1 February 2017, introduces a licensing requirement for crowdfunding platforms. All companies providing alternative financing services have to comply with a number of rules. These include verifying that investors have sufficient knowledge and experience to invest in the investment vehicles on offer. If this is not the case, they must warn them. However, since cooperations don't offer their shares via crowdfunding platforms. This Regulation seems not relevant for our case.

On 1 May 2019, the new **Company Code** entered into force. The number of company forms has been reduced from 17 to 4 basic forms. One of the forms which has been remained and updated is the cooperative society (CV), which has a full-fledged book in which the cooperative identity and values (economic participation, democratic control, transparency, etc.) are now firmly anchored. The cooperative society (CV) is reserved for companies that subscribe to the specific cooperative values. Both existing and new cooperatives will have to implement the new legislation in their statutes. Previously, many companies used the CV structure because of its flexibility. These will now have to take a different form. For citizens, it is therefore becoming clearer that the legal entity of the cooperatives is reserved for ethical companies such as the REScoops.

Last October, the new Flemish government has been launched and published the government agreement, which has no legal value. Several paragraphs can be interesting for the CitizEE project, but they are mostly a translation of the EU Clean Energy Package

- The government agreement installs a binding EE target of 2,09% a year for municipalities and provinces. Some schools are under the authority of the municipality or the province. It is still unclear whether the patrimony of the schools also has to reach this efficiency targets. It remains to be seen to what extent the objective will therefore have an effect on the energy saving measures and the need for EPCs in schools.
- In order to reduce the climate footprint of non-energy-efficient tertiary buildings, they must be thoroughly renovated in terms of energy consumption by 2021 at the latest five years after a notary transfer in full ownership.
- The government buildings on Flemish territory need to comply with a minimum energy performance label in 2028.
- The government will work on a regulatory framework for the development of local energy communities so citizens, local authorities and businesses can play an active role in the energy transition.
- The Flemish government will increase the awareness of the various governments for producing renewable energy on their real estate and for opening up these projects to participation where possible.

6.2.5. Barriers

For VEB five relevant barriers were identified:

- How can adequate selection- and awarding criteria be developed in response to the demands of stakeholders which are in accordance with the law on public procurement? Especially, to which extent can a 'cooperative model' be set as a selection criteria?

For example if an EPC contract for the school is tendered, could it be defined such that the consortium needs to consist of at least one cooperation?

Most renewable energy cooperatives (REScoops) follow the ICA guidelines. Can they be set as an awarding criteria or should one rephrase the principles?

- The Eurostat Regulation on ESA neutrality is not compatible with a high level of ambition within the OEPC (Maintenance and Energy Performance Contract (MEPC) or 'Onderhouds- en Energieprestatiecontract' (OEPC) in Dutch), because the costs over the term of the contracts are greater than the energy savings, as all of VEB's Energy Performance Contracts (EPC) also contain an obligation for the ESCO to maintain the



technical infrastructure. In general, the term EPC is both used for regular EPC as well as MEPC's. The maintenance contract is obliged for all the measures (energy savings measures and non-energy saving measures) executed by the ESCO and optional for other already existing technical installations of the client.

The European Stability and Growth Pact (SGP) imposes a set of budgetary standards on all Member States of the European Union and is enforced by Eurostat. Due to the size of the Belgian public debt, alternative forms of financing for public infrastructure projects such as EPCs are increasingly being used. When considering the implementation of EPC contracts each time the question is raised whose balance sheet (the ESCO or the public institution) should carry the EPC assets (energy saving measures). At first sight, public schools (or the state school system) need to comply with the SGP Regulation, as opposed to non-state or "free" subsidised education which stems from private initiative. With the latter the need for budget neutrality is based on a lack of available funding. Currently the 'VEB CitizEE case' focuses on Kitos vzw, which is a subsidised private school. However, to map the full potential of energy savings in schools within the CitizEE project, VEB also wants to investigate the possibilities within the public sector. Here the Eurostat Regulation on ESA becomes relevant because it is of great influence in achieving energy saving in the public sector.

In September 2017, Eurostat issued a new Guidance note on the recording of EPCs in Government accounts, which opened the door to a Government balance-neutral or off-balance sheet solution for EPC investments in public buildings when certain conditions are met. It was not until May 2018 that this note was explained in a comprehensive guide "EPC- A guide to the Statistical Treatment of Energy Performance Contracts", commonly known as the "Eurostat EPC-Guide". Below some of the conditions which can form a barrier to deep renovation can be found. However, the guide includes a very extensive set of rules and conditions to be followed in order to be able to record an EPC contract off-balance in the Government accounts.⁵²

As the example below shows, the EPC, in application of the rules under Theme 4.1. of the Eurostat EPC Guide, will be considered as on balance when the total of the periodic operational payments and other governmental financing over the term of the contract exceeds the guaranteed savings.

Furthermore, the Eurostat EPC guide foresees, under Theme 14. Financing arrangements, that Government financing can influence the statistical treatment of the EPC contract depending on the level of government commitment to financing of an EPC (e.g. milestone payments, loans, equity, financing guarantees, incentives, Government grants, co-financing to match EU grants, etc.). For instance, any Government financing of more than 50% of the capital expenditure to be incurred in the construction and/or installation of the EPC assets would automatically result in the on-balance recording of the EPC contract in the Government accounts. However, in some EPC cases, the building owner could opt for partial co-investment, far below the 50% threshold as referenced in the EPC Guide, to obtain a higher ambition level in terms of energy savings within the EPC contract. Within CitizEE VEB plans to investigate the possibilities of combined ESCOOP financing with other European sources of funding (such as EFSI and ESIF), because, according to the Eurostat guidance note, the European funding sources (equity, grants, loans) are not defined as government financing.

⁵² Guidelines Eurostat: <https://ec.europa.eu/eurostat/documents/1015035/7959867/Eurostat-Guidance-Note-Recording-Energy-Performance-Contracts-Gov-Accounts.pdf>; further explained in the Guide to the Statistical Treatment of Energy Performance Contracts: https://www.eib.org/attachments/pj/guide_to_statistical_treatment_of_epcs_en.pdf.



Table 2: Eurostat EPC balance

Gegarandeerde besparing	Totale periodieke vergoeding	Overheidsfinanciering	Evaluatie
150.000 EUR/j 1,5 mio over duur contract	130.000 EUR/j 1,3 mio over duur contract	geen	VOLDAAN (1,5 mio > 1,3 mio)
150.000 EUR/j 1,5 mio over duur contract	130.000 EUR/j 1,3 mio over duur contract	300.000 EUR subsidies over duur contract	ON BALANCE (1,5 mio < 1,3 mio+300K)

guaranteed savings	Total periodic reimbursement	government financing	Evaluation
150.000EUR/year 1,5 mio over contract duration	130.000EUR/year 1,3 mio over contract duration	nothing	MET (1,5 mio > 1,3 mio)
150.000EUR/year 1,5 mio over contract duration	130.000EUR/year 1,3 mio over contract duration	300.000 EUR grants over contract duration	ON BALANCE (1,5 mio < 1,3 mio+300K)

- For public schools it is problematic that no loan shall be granted without a prior loan authorisation entered in the expenditure budget regarding to the law on loans for public institutions of 16th of March 1954. This ruling is also applied to an EPC contract since the schools are the legal owner of the measures taken, which leads to the conclusion that EPC contracting for public schools is seen as a financial lease which is prohibited.
- The lack of business cases for in depth renovation connected to co-investment is a problem for VEB, as they are trying to achieve these long-term renovations (with payback times that are 30 years or even higher).
- When it comes to up-scaling the basic citizen funding model to an EE-citizen funding model barriers to implement EPCs are mostly market related such as access to the market by new players. The public sector can play a role as market facilitator by designing the desired contract awarding criteria in order to create innovation within the market as would be EPC implementation with citizen financing participation.



6.3. Legal & regulatory barriers

For VEB there are **three main legal & regulatory** barriers that were identified:

- 1) Development of adequate selection and awarding criteria in accordance with the law on public procurement.
- 2) Incompatibility of the Eurostat Regulation on ESA neutrality with a high level of ambition within the OEPC.
- 3) Public schools are not allowed to borrow money and EPC is seen as a financial lease which is prohibited.

Table 3: Legal & regulatory barriers for VEB

VEB	
Energy related	Selection and awarding criteria need to be in accordance with law on public procurement
Investment related	Incompatibility of the Eurostat Regulation on ESA neutrality with a high level of ambition within the OEPC
	Public schools are not allowed to borrow money and EPC is seen as a financial lease which is prohibited



7. CROATIAN CASE (REGEA): DEVELOPMENT OF A REGIONAL FINANCING SCHEME TO CO-FINANCE OR FINANCE EPC CONTRACTS AND/OR EPC PORTFOLIOS

7.1. Initial description and output

REGEA has already implemented a crowdfunding platform (<http://croenergy.eu/>). This platform aims to provide various types of funding models without charging additional fees to project developers. The implementation strategy starts with a donation-and-reward based funding model and develops by gradually adding crowdlending and crowdinvesting models. Campaigns are pre-selected, fundraisers' background and the feasibility of the investment are checked by REGEA. After the evaluation, applicants are provided with guidance on how to develop promotional materials necessary to the presentation on the platform. The platform acts as a match-maker for lending funds to avoid potential financial risks. With a very few projects funded to date, this platform has not yet reached its full potential, having only conducted one EE project due to local barriers that still remain on the Croatian market.

REGEA will considerably expand the existing crowdfunding platform in order to facilitate implementation of sustainable energy projects through various forms of crowdinvesting. The main focus will be on PV installations on roofs of buildings (mostly public), but also energy retrofitting of buildings through combination of crowdinvesting and other models such as EPC and thus strengthen the local ESCO market's capacity to grow in size and number of projects.

7.2. Current state of the pilot case

7.2.1. General aspects

Croenergy.eu is a donation and reward based crowdfunding platform with the future intention of upgrading it and making it available for other investment models ('croenergy.eu 2.0' will include crowdlending model where citizens will be able to financially participate in various RES and EE projects- P2P lending and in return- will receive their investment plus additional amount of money through previously defined interest rate; other part of croenergy.eu upgrade will be a match-making part where initiators (project owners) can nominate their projects for private financing through ESC, leasing or other if applicable. In that case, no financial transaction will be made on the Platform; citizens are primary target group for croenergy.eu 2.0. Secondary target groups are ESC/EPC companies and other private companies).

The process of becoming an investor is relatively simple and it's similar to other online platforms focused on reward and donation campaigns. Potential investors must register online and after the registration mail is confirmed they can start to invest into campaigns. Potential project developers have to register with the information about the projects which is later evaluated and the platform operator decides if the project has enough potential to be financed through the platform.

The average duration of the projects is 4-6 months (based on nine campaigns from croenergy.eu). In average 19k€ are needed (based on nine campaigns from croenergy.eu) for one project.

7.2.2. Outlook

In addition to the donation and reward models- 'croenergy.eu 2.0' will include crowdlending model where citizens will be able to financially participate in various RES and EE projects- P2P lending. The Citizens will have the opportunity to invest a certain amount of money in the project and in return- they will receive their investment plus additional amount of money through previously defined interest rate (during certain time period). Other part of croenergy.eu upgrade will be a match-making part where initiators (project owners) can nominate their projects for private financing through ESC (energy supply contracting), leasing or other if applicable. In that case, no financial transaction will be made on the Platform. Public tender documentation and general contract will be the added value of the Platform where project initiators (public authorities, in the case where public buildings are the subject of campaign) can get a tender and contract documentation for their project.



The primary target group for croenergy.eu 2.0 are citizens. Secondary target groups are ESC/EPC companies and other private companies.

7.2.3. Risks

The risks will be the same as for other crowdfunding platforms where lending models are involved (primary involved with the loss of their investments). That same risks can be minimized (for citizens) in a way of fixing the interest rates for campaigns (example of Green energy cooperative ZEZ and fixed interest rate at 4,5 %) and transfer all the risk to campaign initiator and/or platform.

If the necessary amount of money is not collected and a project cannot be financed both options, pay back of the money or not, will be taken into concern, depending on the project financing structure. Combination of various financial mechanisms will be possible, i.e. part of financing can be suggested through lending, part through subsidies, part through own resources.

7.2.4. Relevant legal aspects

Besides the Regulations already introduced above (see 3.) and related to crowdfunding models and possibilities, the relevant legal framework connected with possible additional subsidies and financing is intertwined with following laws/Regulations:

- Law on State subsidies (Official Gazette Nr. 47/14, 69/17),
- Law on Investment Promotion (Official Gazette Nr. 102/15, 25/18, 114/18),
- Regulation on the submission of proposals of state subsidies, data on state subsidies and small subsidies and a register of state subsidies and small subsidies (Official Gazette Nr. 125/17).

If we take into consideration subsidies related to RES and EE then the Law on Renewable Energy Sources and High Efficiency Cogeneration (Official Gazette Nr. 100/15, 123/16, 131/17, 111/18) is in order.

7.2.5. Barriers

There are four main barriers that were identified for REGEA

- High bank and card processing transaction fees that could eat up a significant share of the profits can be seen as main obstacles for the croenergy.eu P2P lending model.
- The characteristic of all crowdfunding models (therefore community energy projects with citizen participation as well) is a non-existence of basic legal framework that could support its further development.⁵³ Each crowdfunding model (donation, reward, lending and equity model) has to tackle with different parts of Croatian legislation. Numerous acts are regulating legal framework for crowdfunding investments: Value Added Tax Act, Local and Regional Government Financing Act, Income Tax Act, Companies Act, Profit Tax Act and Act on Contributions.

There are no legal obstacles with regard to **donating and sponsoring models**, but such funding models have limited potentials for up-scaling of EE/RES projects because Investors cannot receive any kind of financial return with these investments meaning that the motivation for support is usually of philanthropic nature.

Crowdlending is strictly regulated by the Law on Obligations and Law on Capital Markets. Funds paid through crowdlending platforms are not secured by the national deposit insurance system run by the State Agency for Deposit Insurance and Bank Resolution under Deposit Insurance Act meaning that investors' capital is at constant risk. Furthermore, if the project initiator is a city/municipality crowdlending is not possible because according to Croatian law public bodies must not be in debt with private persons.

⁵³ Up until today the exact details of the new Regulation are not very clear. However, harmonization will bring a common set of rules that have to be considered by the member states. Anyway, at the moment the exact impact of ECSP on the Croatian barriers cannot be assessed.



In general crowdfunding platforms have not been recognized by the current legislation as either kind of a financial institution. All current Croatian crowdfunding platforms are acting as an intermediary between campaign initiators and backers/investors and therefore, are not treated as a credit institution that would require approval from Croatian National Bank according to article 56 of the Credit Institutions Act. If any P2P lending platform decides to receive deposits or other returnable funds from the public and approve credits from these funds, for its own account, it will be classified as a credit institution.

- National institutions in charge of the legal framework are not quite educated and informed about crowdfunding which causes major difficulties for crowdfunding platforms and investors and the Croatian market is quite small, i.e. awareness of citizens about crowdfunding opportunities is at a very low level (less than 1% know what crowdfunding exactly is).
- From the moment Croatia joined the European Union a much bigger emphasis was put on development of long-term energy policies and programmes than before. However, the most important strategic document – the Energy Strategy of the Republic of Croatia, which will define priorities and key directions for the development of the domestic energy market until 2030 is still not finished. Current national energy strategy (for period until 2020) did little to support development of sustainable energy projects with its unambitious energy savings/targets for production from renewable sources and without a clear strategy for financing of their implementation. Therefore, one could argue that currently, the biggest barrier to EE investment through innovative/market instruments is the lack of main national strategic document which would set the course for development of the whole energy market. National programmes for support of energy renovation of buildings in all sectors (public, commercial, multi-apartment and households) did foresee gradual introduction of innovative financing mechanisms but until 2019 little was done in this regard and traditional instruments (grants) were still predominantly used for EE projects.

7.3. Legal & regulatory barriers

For REGEA there are **three main legal & regulatory** barriers that were identified:

- 1) High bank and card processing transaction fees could eat up a significant share of the profits.
- 2) Lack of basic legal framework that could support the further development of crowdfunding models.
- 3) The Energy Strategy of the Republic of Croatia, which will define priorities and key directions for the development of the domestic energy market until 2030 is still not finished.

Table 4: Legal & regulatory barriers for REGEA

REGEA		
Energy related	Energy Strategy of the Republic of Croatia is still not finished	
Investment related	High bank and card processing transaction fees	Lack of basic legal framework for development of crowdfunding models



8. LITHUANIAN CASE (VIPA): DEVELOPMENT OF A REGIONAL FINANCING SCHEME TO CO-FINANCE OR FINANCE ENERGY EFFICIENCY PROJECTS (IN CONDOMINIUM) AND RENEWABLE ENERGY PROJECTS (SOLAR PV PROGRAM)

8.1. Initial description and output

VIPA has already established an investment platform for EE project financing, aimed at raising funding from various private financing resources and distribute investments to support EE project implementation. The platform is operated by VIPA with the investors acting as limited partners (currently one investor that already committed to 10 million euros investments). In addition, the Platform is going to attract various private resources to leverage the investor's contribution to the Platform. In July 2018, the EIB has approved the loan for the Platform and the financial agreement between VIPA and EIB was signed on October 2019. In the long term, VIPA seeks to increase the investors' contribution and to achieve 1:5 leverage ratio.

The investment strategy of the Platform is to provide financing for EE projects. The Platform seeks to achieve energy savings and reductions of CO₂ emissions by financing financially viable projects (payback period less than 10 years). VIPA is planning to execute the investment strategy of the Platform by launching products for separate EE sub-sectors in stages. The EE sub-sectors that fall into the scope of the investment strategy are: prosumers (product launched 2018); EE for industry (product launched 2019); multi-apartments modernization (product launched at the end of 2019); EE in transport sector (planned product launch 2020 or later).

Nowadays, through the platform VIPA is developing a first financial product for prosumers including for remote prosumers. VIPA's long term goal is to finance 35 million euros of investments to support prosumers market development (3000 prosumers). However, since the product is not yet tested in the market, VIPA recognizes that the actual demand for the product might be lower. Till the end of 2019, VIPA secured 22,5 million euros through the Platform that is available for prosumers financing and other EE products (additional 12,5 million euros financing is under negotiation). VIPA expects that citizen financing will be raised to co-finance and leverage Platform's funding as a result of CitizEE project.

The expected outcome of the CitizEE project is to leverage the existing platform towards a Citizen Investment Platform that supports the implementation of adequate Financing Schemes to attract citizen funding for EE through. Considering this VIPA expects to finance 35 million euros of investments in the prosumers market (approx. 3000 prosumers) and part of this financing shall be raised from citizen financing.

8.2. Current state of the pilot case

8.2.1. General aspects

VIPA has already launched three investments strategies – prosumers, including remote prosumers, EE for industry and shallow renovation. At the moment, there are six applications for the total amount up to 870000€. All of them are under EE for industry investment strategy which is dedicated for financing of the companies which seeks to implement EE projects or to build solar panels. EE for transport has not yet been designed and launched since the priority has been to develop the pipeline for prosumers and EE for industry.

The investment platform is established as limited partnership under the Law of Limited partnership of Lithuania. The platform is operated by VIPA – the general partner. There is the sole investor acting as a limited partner – the national energy (electricity and gas distribution) company. This sole investor of the investment platform has committed 10 million euros for investments in EE projects. In October 2019 the financial agreement with EIB was signed (12,5 million euros) in order to leverage equity of the investment platform. There is a possibility that in the future VIPA will try to attract more investors to join as limited partners, but it will depend on the potential project pipeline.

There are a few possible financing schemes that are relevant for CitizEE:



- VIPA and/or the investment platform can provide loans directly to final beneficiaries for EE or RES projects,
- VIPA and/or the investment platform can select a financial intermediary, such as a commercial bank or a specialized bank or any other financial institution, to provide financing for final beneficiaries. There can be different options for risk sharing and combination of funds (e.g. 40 percent VIPA/investment platform funds and 60 percent financial intermediary's funds),
- VIPA and/or investment platform might enter into partnership agreement with a crowdfunding platform to provide joint financing for EE or RES projects. This can be done at either project level (e.g. VIPA and/or investment platform gives partial funding for each project) or the financial measure level (e.g. VIPA and/or investment platform commits 10 million euros for RES projects and asks the crowdfunding platform to raise additional 15 million euros to finance RES projects).

At the moment, there are no specialised crowdfunding platforms for EE projects in Lithuania. The majority part of the loan portfolio of the existing crowdfunding platforms consists of the working capital needed for the operational activity of beneficiaries. This is because crowdfunding is at the development stage in Lithuania, the first crowdfunding platform was established in 2014 but it was mainly for the P2P lending and the Law on Crowdfunding came into force only at the end of 2016.

In general, the online registration into the crowdfunding platform is rather simple and requires only identification of person. For the investments to be raised through crowdfunding platforms, the investors target group is still to be explored because the crowdfunding market is in a very early development stage. However, for potential investors/citizens there are various fields of information to cover, before they decide to invest, e.g.:

- Expected investments condition (duration, interest rate, min. – max. size, repayment method, fees etc.),
- Project selection (project selection criteria, risk assessment etc.),
- Technical issues (equipment and service guarantees, lifetime of PV installation, amount of generated electricity per year etc.).

The investment platform provides funding for up to 10 years. The minimum maturity of the loan is 2 years. The average duration of the project is around 5 years.

Household prosumers need for 1 kW installed photovoltaics capacity 1.000 € investments. Well to mention, that now existing state supporting scheme, which provides 323 EUR subsidy for 1 kW, so 677 EUR per 1 kW is needed for own prosumer financing. Most of the prosumers are going to be households with expected average photovoltaics installation capacity of 5 kW, so the average project financing demand is 3.385 EUR.

Industry's (companies) prosumers have no support scheme (no grant). The average installation capacity is expected to be 50 kW. One project needs 50k€.

8.2.2. Outlook

VIPA signed the financing agreement with the EIB in October 2019. It is a triparty financing agreement between the EIB, VIPA and the investment platform (which has a legal form of limited partnership), the term of the loan is 10 years. The EIB will provide up to 12.5 million euros for EE (including prosumers) projects, the additional 12.5 million is under negotiation with the EBRD (due diligence is in process). Part of the EIB's financing agreement is the Side letter where all the details are specified about which projects can be financed. Under this Side letter:

- Only SMEs and MidCaps located in Lithuania are eligible final beneficiaries,
- The projects shall be economically, environmentally, technically and financially sound,
- The main eligible cost categories are purchase, renovation or extension of tangible assets, including the development and planning during the construction phase; financing costs during the construction phase for up to 10% of the total Sub-Project cost; financing of land purchase which is technically essential for the investments for up to 10% of total Sub-Project cost; purchase of assets other than real estate (e.g. construction equipment), with the purpose of renting them to third parties,



- Medium- and long-term financing can be provided for projects (minimum 2 years),
- Provision of consumer finance is not eligible (which is important because if a natural person wants to become a prosumer and needs to borrow for such project, it is classified as consumer finance. This means we could finance the development of prosumers only via ESCOs or from the EBRD's part of financing of the investment platform),
- Financial advantage resulting from EIB's funding shall be communicated to the final beneficiaries.

8.2.3. Risks

Possible risks for investors and citizens are:

- *Borrower/End* – User does not perform its obligation under agreement. The general risk management is performed for the project financing under internal VIPA risk policy. Internal risk policy consists of 3 parts:
 - 1) Risk management of issued credits.
 - 2) Quality management, which supervises credit risks management procedures.
 - 3) Internal audit, which reviews and evaluates credit risks process and internal controls to manage risks.
- *Technological risk* – installed equipment does not reach the planned energy savings and therefore a mismatch in project payback period and loan repayment period occurs.
- *Project implementation risk* – incl. management procedures, general project risk management, project model risk etc.

If the necessary amount of money is not collected and a project cannot be financed the further procedure depends on the possible financing schemes – **1)** direct loan for final beneficiaries or **2)** financing through selected financial intermediary (bank/ specialized bank) or **3)** financing under partnership agreement with crowdfunding platform different instrument for project financing collection might be chosen. In case the citizens financing part would be insufficient for necessary amount of money for project, VIPA already established an investment platform that could cover the lacking amount with a loan.

8.2.4. Relevant legal aspects

The requirements for investors depend on the legal status of the investment platform. As it was mentioned above, VIPA's investment platform is established under **the Law on limited partnership of the Republic of Lithuania**. In this kind of investment platform only informed investors could invest. In accordance with the law and the Limited Partnership Agreement liability of the limited partner is limited up to his investment amount whereas liability of the general partner is unlimited. Limited partners are not involved in investment process. Only informed investors can be limited partners in such kind of investment platform.

The Law on Crowdfunding determines that a person who intends to invest into particular projects through a crowdfunding platform must provide information about his knowledges regarding investments to the operator of crowdfunding platform. This is a very soft investor protection rule, currently it is solved with ticking boxes or downloading an agreement. Strict investor protection rules will also be part of the harmonized Regulations (ECSP). Details are not clear, but the current key points of investor protection across Europe may remain:

- "Know your customer" rules: conduct a suitability/appropriateness test as to reach investors with the appropriate offering,
- Disclosure requirements on issuers: at EU level, prospectus to be issued after reaching 5 min but there might be lower "national" threshold,
- Information and risk-warning requirements imposed on platforms, both in regard to the risks of crowdfunding offerings and on the platform itself,
- Obligations for platforms to perform due diligence: platform's role regarding the offering and the need to conduct some due diligence on the offerings in terms of mandatory review, disclosure and reporting,



- Limits on maximum investable amounts: different forms and range from fixed maximum ceilings to variable shares of personal income, wealth or financial assets. These ceilings can be calculated per each offering or on the basis of total investment in a given timeframe (for example one year). Typically the ceilings vary on the basis of the categorisation of investors.

It is important to mention that there is different legal Regulation for the crowdfunding and P2P platforms in Lithuania. Crowdfunding platforms are under Regulation of the Law on Crowdfunding and P2P platforms – under **the Law on Consumer Financing**.

The EU Directive 2018/2001 of 11 December 2018 on the promotion of the use of energy from renewable sources aims to develop clear guidelines for renewable energy communities and to unlock citizen participation in it. In accordance with the Directive, all member states should ensure that renewable energy communities can participate in available support schemes with large participants. These communities should be allowed to be remunerated through direct support with requirements of small installations or through tailored and community- focused bidding support schemes. Also, there must be reduction for administrative requirements and for permission complexity. Energy community empowers EE at household level and helps fight energy poverty through reduced consumption and lower supply tariffs.

The Ministry of Energy of the Republic of Lithuania drafted the amendment for the Law on Energy from Renewable Sources, where primary general principles and operating conditions for energy communities are introduced. However, the amendment is not yet in force and the timeline for its adoption as well as final principles and conditions for energy communities is unknown.

On October the 1st, 2019 Laws on Renewable Energy and on Electricity were changed and opened opportunities for residents of apartment buildings to become remote electricity producing consumers. Lithuania is among the pioneers in Europe to implement the small green energy development model, when electricity can be generated and consumed in different locations. Until October prosumers had only one option of installing RES plants on the roof. After the amendment of the laws, residents willing to become electricity generating consumers will not necessarily have to build their own power plants – residents of private house or block of flats will be able to buy electricity capacity satisfying their needs from renewable energy projects developers. Additionally, the restrictions on capacity of power plants were removed – prosumers will be allowed to build renewable power plants up to 500 kilowatts (kW) power. Until October prosumers (natural persons) could install power plants of maximum 10 kW and legal entities – 100 kW. Total permitted power of power plants built by prosumers was also increased from 100 megawatts (MW) up to 200 MW by distributing 100 MW to household and non- household electricity consumers each.

In addition, in the beginning of July the installation procedures for small power plans (up to 30 kW) were simplified by removing some permits and differentiating fees for power plant connection to the grid. Until July simplified conditions were applied to 5 kW power plants.

8.2.5. Barriers

For VIPA there are five main barriers that could be identified

- The main legal barrier is The Law on Consumer Financing. VIPA as a general partner of the investment platform doesn't have a right to issue loans for the consumers therefore cannot provide financing for prosumers. In accordance with the Law on Consumer Financing, only institutions which are included in the List of Consumer Credit providers can issue loans for the consumers. The List of Consumer Credit providers is formed and supervised by the Bank of Lithuania therefore this creates additional responsibilities and obligations for these institutions. Also, it should be noted that administration of the consumer credits is difficult process required relevant IT system and capabilities.

Therefore, VIPA doesn't seek to be included in the List of Consumer Credit providers but sees a possibility to reach prosumers through P2P platforms. But in accordance with the Law on Consumer Financing the loan providers in the P2P platforms can only be natural persons. The operators of P2P platforms have initiated amendment of the Law on Consumer Financing which would create a possibility for the legal entities, institutional investors, fund managers etc. to become investors in P2P platforms but this amendment hasn't



been accepted by the parliament of Lithuania yet. However, this problem could be reduced on EU level through the new Regulation on crowdfunding.

- The price of the loans due to the required ROI⁵⁴ of limited partner is slightly too high comparing to the market price however VIPA does not require collateral (risk mitigating measures may vary) and can issue loans with longer maturity term.
- The substantial insecurity for investors is related to reputation of crowdfunding, administrator's ability to estimate projects risks and to ensure risk management measures because the whole crowdfunding market in Lithuania is still in development stage and lacks experience and track record. Therefore, most of investors might choose other investment opportunities and strategies. Thus, every crowdfunding platform should have strong marketing and PR strategy to reach and attract potential investors. The success of raising funds mostly depends on advertisements efficiency and reach on social media. Another reason why crowdfunding does not attract enough investment is that there are better investment opportunities in the market in terms of conditions such as IRR, duration, repayment method etc.
- The main barriers which hinder the deployment of EE are:
Lack of awareness; lack of social responsibility; Companies are used to receiving EU grants for implementation of EE projects and don't want to invest own resources; Own resources are primarily used for business development projects; **low energy price and low energy self-consumption for prosumers**; relatively high construction cost – long payback period; limited number of service providers, who are capable to install and finance EE projects,
- The amendment for the Law on Energy from Renewable Sources, where primary general principles and operating conditions for energy communities are introduced is not yet in force and the timeline for its adoption as well as final principles and conditions for energy communities is unknown.

⁵⁴ Return on investment.



8.3. Legal & regulatory barriers

For VIPA there are **four main legal & regulatory** barriers that were identified:

- 1) The main legal barrier is The Law on Consumer Financing. VIPA as a general partner of the investment platform doesn't have a right to issue loans for the consumers therefore cannot provide financing for prosumers.
- 2) The price of the loans due to the required ROI of limited partner is slightly too high comparing to the market price however VIPA does not require collateral and can issue loans with longer maturity term.
- 3) Inter alia the low energy price and the low energy self-consumption for prosumers hinders the deployment of EE.
- 4) The amendment for the Law on Energy from Renewable Sources, where primary general principles and operating conditions for energy communities are introduced is not yet in force and the timeline for its adoption as well as final principles and conditions for energy communities is unknown.

Table 5: Legal & regulatory barriers for VIPA

VIPA		
Energy related	Inter alia low energy price and low energy self-consumption for prosumers	The amendment for the Law on Energy from Renewable Sources is not yet in force
Investment related	The Law on Consumer Financing grants no right for VIPA to issue loans for the consumers	The price of the loans due to the required ROI of limited partner is slightly too high



9. Overview

Table 6: Comparison of legal & regulatory barriers

Barriers\Cases	GOPARITY	VEB	REGEA	VIPA
Energy related	Rules for public procurement foresee mandatory tendering	Selection and awarding criteria need to be in accordance with law on public procurement	Energy Strategy of the Republic of Croatia is still not finished	Inter alia low energy price and low energy self-consumption for prosumers
				The amendment for the Law on Energy from Renewable Sources is not yet in force
Investment related	Investment limitations for individuals	Incompatibility of the Eurostat Regulation on ESA neutrality with a high level of ambition within the OEPC	High bank and card processing transaction fees	The Law on Consumer Financing grants no right for VIPA to issue loans for the consumers
	Upscaling limitations due to a campaign specific amounts	Public schools are not allowed to borrow money and EPC is seen as a financial lease which is prohibited	Lack of basic legal framework for development of crowdfunding models	The price of the loans due to the required ROI of limited partner is slightly too high
Other	Development of public buildings is lagging behind			

To conclude it can be stated that although every pilot region has its own initial situation and its own legal and regulatory characteristics there are several aspects that will be important for all regions or at least for more than one region. Especially the law on public procurement – on European and on national level – has to be observed during the development of the investment platforms and their specifics. Another important aspect is the development of ongoing process regarding the Eurostat Regulation on ESA which is likely to have a rather big impact on the pilot cases. On European level especially the change of the law on crowdfunding is likely to offer new opportunities and to solve some of the existing barriers in the future. However, it has to be highlighted that the date and extent of the national implementation of the relevant European legislation (especially the Clean Energy Package) depends on the level of effort of the respective Member State. Therefore, it is very important to encourage and accelerate these processes with the help of the CitizEE project.

