Report on legal and regulatory recommendations on European level – Designing an enabling framework to foster citizen financing for energy efficiency and renewables on EU level in line with the EU Green Deal

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CitizEE

Scaling up Public Energy Efficiency Investments via Standardising Citizen Financing Schemes

www.citizee.eu

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EXECUTIVE SUMMARY

For the development of investment platforms in the CitizEE pilot regions and the success of the CitizEE project it is crucial to closely observe the relevant legal and regulatory framework on European level to find out where there are chances that should be taken and what difficulties exist that have to be encountered. The European level has determining influence on the national legal & regulatory framework. In particular, the energy efficiency and renewables sector was reformed as part of the Clean Energy for all Europeans package[1]. In this context, the Energy Efficiency First principle was acknowledged. This development is now further concluded with the European Green Deal, which therefore is one of the main aspects of this report.

The aim of this report is twofold: on the one hand, it focusses on the development of recommendations regarding the upcoming European legal and regulatory framework with a view on the CitizEE pilot projects. On the other hand, Guidelines/best practice reports are examined as they can be useful tools to understand how the European level can assist the Member States in designing an innovative and citizen friendly financing framework.

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

- The implementation of the Clean energy for all Europeans package;
- The European Green Deal[2], and here in detail:
    - The Renovation Wave Strategy, which especially highlights the importance of the EED, the RED and the EPBD[3];
    - New opportunities and requirements in the field of sustainable finance, e.g. the Taxonomy Regulation[4];
    - State aid rules addressing remaining finance gaps to incentivize private financing in the CEEAG[5] and the GBER[6].
- The InvestEU Programme[7];
- The Crowdfunding Regulation[8].

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[1] https://energy.ec.europa.eu/topics/energy-strategy/clean-energy-all-europeans-package_en.
[2] https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en.
[3] COM/2020/662 final, A Renovation Wave for Europe - greening our buildings, creating jobs, improving lives, p. 18, https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A52020DC0662.
[4] Regulation (EU) 2020/852 of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088, OJ L 198, p. 13, https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32020R0852&from=EN.
[5] COM, Guidelines on State aid for climate, environmental protection and energy 2022, https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52022XC0218(03)&from=EN.
[6] Regulation (EU) 651/2014 of 17 June 2014, last amended by Regulation (EU) 2021/1237 of 23 July 2021, OJ EU No. L 270 of 23 July 2021, p. 39, a consolidated version can be found here: https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:02014R0651-20210801&from=EN.
[7] This aspect will not be part of this report as it was already discussed in a prior report: *Wimmer/Kamm,/Pause*, CitizEE, Deliverable D5.1 – Development and validation of template documents and contracts for the actors, p. 20 ff., https://www.citizee.eu/wp-content/uploads/2021/08/Report-on-development-and-validation-of-template-documents-and-contracts-for-the-actors.pdf.
[8] This aspect will not be part of this report as it was already discussed in a prior report: *Wimmer/Kamm,/Pause*, CitizEE, Deliverable D5.1 – Development and validation of template documents and contracts for the actors, p. 46 ff., https://www.citizee.eu/wp-content/uploads/2021/08/Report-on-development-and-validation-of-template-documents-and-contracts-for-the-actors.pdf.

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1.1. Recommendations

With a view on the current legal development regarding energy efficiency, renewables, buildings' renovation, and investment possibilities the following recommendations are concluded from the view on the European legal and regulatory framework and its connection to the CitizEE project:

- Recommendation 1: A binding regulatory framework and binding national targets regarding the long-term renovation strategies and national building renovation plans respectively could facilitate and emphasize the importance of the decarbonisation of the European building stock;
- Recommendation 2: To foster energy efficiency financing, more emphasis on and a robust framework for the (mandatory) use of Energy Performance Contracting and ESCOs as a key tool in the energy transition is crucial;
- Recommendation 3: Raising awareness for the importance of energy efficiency measures and financing is crucial for the energy transition;
- Recommendation 4: The establishment of a connection between building renovation and citizen participation via the specific consideration of local and regional levels and citizens' relation could reduce citizens' fear of energy poverty and maximize the role model function of the public sector;
- Recommendation 5: The effective transposition of the RED by the Member States is crucial in order to introduce principles and operating conditions for prosumers and renewable energy communities to unlock citizen participation;
- Recommendation 6: Regarding gap closing measures for Member States that fall short on their national contributions regarding the new energy efficiency target, the inclusion of actions promoting capacity building for citizen energy efficiency would foster citizen participation and financing;
- Recommendation 7: Create a level playing field for SMEs and citizen energy efficiency financing for buildings in the State aid framework and use new flexibilities for small actors;
- Recommendation 8: Establish more coherence between the European Green Deal and the harmonisation of the Capital Market Union: integrate and consider the relevance of citizens and SMEs from the outset in the further development of the Sustainable Finance Framework;
- Recommendation 9: Incentivise the combination of energy efficiency with renewable energy at every step of the framework.

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1.2. Interdependency of legislation levels

When looking at European legislation, it important to consider the existence of the two levels of legislation. There is the European and the national/regional level, which influence each other through a dynamic interdependency[9]. 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 transposed 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, most likely the other level will change as well, which then again may affect the other level.

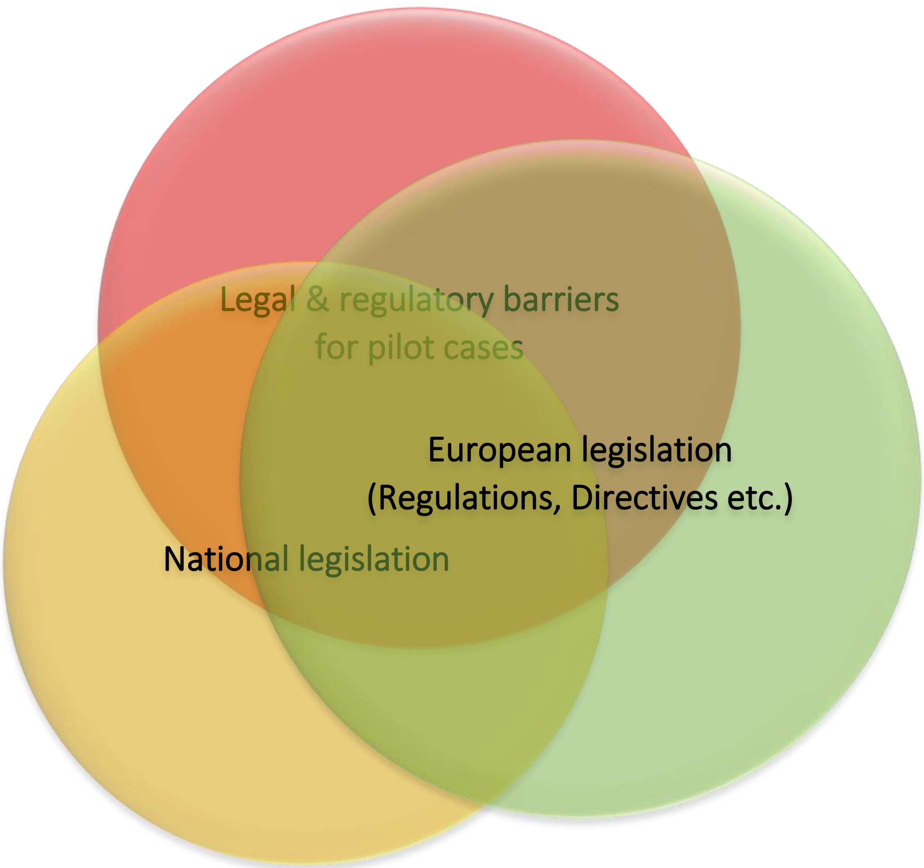

Figure 1 – Dynamic interdependency of legislation levels

[9] 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.

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1.3. Abbreviation list

CEEAG	Climate, Energy and Environmental State aid guidelines
COM	European Commission
EEAG	Energy and Environmental State aid guidelines
EED	Energy Efficiency Directive
EFSI	European Fund for Strategic Investments
EIB	European Investment Bank
EPBD	Energy Performance of Buildings Directive
ESCO	Energy Service Company
ETS	EU Emissions Trading System
GBER	General Block Exemption Regulation
Mtoe	Million tonnes of equivalent
RED	Renewable Energy Directive
SME	Small and Medium Enterprise/Small and Mid-sized Enterprise
TFEU	Treaty on the Functioning of the European Union

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1. BACKGROUND ASSESSMENT

In the following, the legal links from the European developments to each of the developed recommendations are explained in further detail. This background assessment shall give an overview of the reasoning and help to better sort the recommendations in this report.

1.1. Recommendation 1: A binding regulatory framework and binding national targets regarding the long-term renovation strategies and national building renovation plans respectively could facilitate and emphasize the importance of the decarbonisation of the European building stock.

Regarding the national building renovation plans (Art. 3 EPBD proposal; long term renovation strategies in Art. 2a current EPBD[10]) the COM plans to oblige the Member States to establish a national building renovation plan to ensure 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, with the objective to transform existing buildings into zero-emission buildings.

However, according to the wording (the COM proposes to delete the term "indicative") only the establishment of the plans that include the topics and aspects listed in Art. 3 para. 1 (a) to (d) EPBD proposal is binding, while, for example, the national targets the roadmap has to include according to Art. 3 para. 1 second subparagraph EPBD proposal are not.

Although Art. 9 EPBD contains mandatory minimum energy performance standards which are obligatory for the Member States, with a view on the ambitious targets for 2030, 2040 and 2050, it would be helpful to include such binding targets for the Member States already in Art. 3 EPBD proposal in order to emphasize the importance of the targets.

1.2. Recommendation 2: To foster energy efficiency financing, more emphasis on and a robust framework for the (mandatory) use of Energy Performance Contracting and ESCOs as a key tool in the energy transition is crucial.

Energy Performance Contracting is a mechanism for organising the energy efficiency financing involving an ESCO providing various services (finances, guaranteed energy savings etc.). Both are mostly found in the public sector[11]. Energy Performance Contracting is defined in Art. 2 (29) recast EED proposal[12] as 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 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.

There are several provisions in the EED (old and new) that concern Energy Performance Contracting. However, a robust framework with mandatory obligations regarding the use of Energy Performance Contracting is still missing.

Art. 7 para. 3 recast EED proposal obliges Member State to ensure that contracting authorities assess the feasibility of concluding long-term Energy Performance Contracts that provide long-term energy savings when procuring service contracts with significant energy content. However, it is not foreseen that some kind of justification is needed if no Energy Performance Contract is concluded although it would be feasible.

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[10] COM/2021/802 final, Proposal for a Directive of the European Parliament and of the Council on the energy performance of buildings (recast), https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52021PC0802&qid=1641802763889, Directive (EU) 2018/844 of 30 May 2018 amending Directive 2010/31/EU on the energy performance of buildings and Directive 2012/27/EU on energy efficiency, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52021PC0802&qid=1641802763889.
[11] https://ec.europa.eu/energy/content/energy-performance-contracting_de.
[12] COM/2021/558 final, Proposal for a Directive of the European Parliament and of the Council on energy efficiency (recast), https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52021PC0558.

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A similar situation can be seen for the public sector and its function as a role model. Art. 27 para. 4 recast EED proposal foresees an obligation for the Member States regarding Energy Performance Contracting, but the Member States are only obliged to encourage public bodies to use Energy Performance Contracting for renovations of large buildings and for renovations of large non-residential buildings with a useful floor area above 1000 m^2 and to assess the feasibility of using Energy Performance Contracting.

Art. 11 para. 7 recast EED proposal foresees exceptions from the obligations of energy management systems and energy audits (according to Art. 11 para. 1 and 2 recast EED proposal) for such enterprises that implement an Energy Performance Contract that complies with the requirements set out in Annex XIV recast EED proposal. Although this is likely to facilitate the implementation of Energy Performance Contracting, the provision does not introduce mandatory obligations.

In order to lay more emphasis on Energy Performance Contracting, both in the private and public sector, provisions with a more binding character or the obligation to use Energy Performance Contracting in given cases would be very helpful.

1.3. Recommendation 3: Raising awareness for the importance of energy efficiency measures and financing is crucial for the energy transition.

Raising awareness when it comes to energy efficiency measures is crucial in order to foster energy efficiency and to combine energy efficiency with citizen participation. There are several provisions in the EED, RED and EPBD that aim to raise awareness through facilitating digitalisation of and access to information regarding energy efficiency measures and financing.

Inter alia, the Recommendations and Guidelines for Energy Efficiency First[13] highlight that provision of information, guidance and assistance to relevant entities, in particular at local level, on how the Energy Efficiency First principle should be applied, is necessary. In this context, if there is no system in place ensuring application of the principle, the relevant national regulatory authority shall develop, provide and promote the application of a cost-benefit assessment methodology that would allow estimating energy savings co-benefits. The methodology should be adapted and applicable to energy related sectors, in particular energy generation, transformation, transmission and distribution (in line with Art. 15 EED), and energy using sectors, such as buildings, industry, transport, Information and Communications Technology (ICT) services and agriculture.

Further, Art. 21 recast EED proposal strengthens the availability and provision of information and especially the technical and financial advice or assistance offered. According to Art. 21 para. 1 recast EED proposal, information on available energy efficiency improvement measures, individual actions and financial and legal frameworks has to be transparent and widely disseminated to all relevant market actors, such as final customers, final users, consumer organisations, civil society representatives, renewable energy communities, citizen energy communities, local and regional authorities, energy agencies, social service providers, builders, architects, engineers, environmental and energy auditors, and installers of building elements. Art. 21 para. 2 to 4 recast EED proposal foresee the creation of one-stop shops, single points of contact and out-of-court mechanisms for the settlement of disputes to empower final customers, final users, vulnerable customers, people affected by energy poverty and people living in social housing.

It is now important to closely watch the (practical) implementation processes within the Member States regarding provisions and recommendations in order to change the situation when it comes to awareness and knowledge about energy efficiency.

[13] C/2021/7014, Commission Recommendation (EU) 2021/1749 of 28 September 2021 on Energy Efficiency First: from principles to practice — Guidelines and examples for its implementation in decision-making in the energy sector and beyond, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32021H1749, C(2021) 7014 final, Annex to the Commission Recommendation on Energy Efficiency First: from principles to practice. Guidelines and examples for its implementation in decision-making in the energy sector and beyond, https://ec.europa.eu/transparency/documents-register/detail?ref=C(2021)7014&lang=en.

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1.4. Recommendation 4: The establishment of a connection between building renovation and citizen participation via the specific consideration of local and regional levels and citizens' relation could reduce citizens' fear of energy poverty and maximize the role model function of the public sector.

An important aspect regarding energy efficiency measures and especially building renovation is the citizens' fear of energy poverty as this can hamper citizens' engagement and actions due to excessive demand. The importance of this aspect is taken into account by the EED and the EPBD due to concerning energy poverty as well as vulnerable households in several provision.

Especially Art. 22 recast EED proposal is dedicated to the empowerment and protection of people affected by energy poverty, vulnerable customers and, where applicable, people living in social housing. According to Art. 22 para. 1 to 3 recast EED proposal, appropriate measures have to be taken by the Member States to empower and protect those people and the Member States have to implement energy efficiency improvement measures and related consumer protection or information measures as a priority among those people, and support those people via several other measures. The Member States also have to establish a network of experts from various sectors such as the health sector, building sector and social sectors to develop strategies to support local and national decision makers in implementing energy efficiency improvement measures alleviating energy poverty, measures to generate robust long-term solutions to mitigate energy poverty and to develop appropriate technical assistance and financial tools, Art. 22 para. 4 recast EED proposal.

An additional approach to reduce the citizens' fear is the facilitation of citizens' participation in the energy efficiency/buildings renovation processes. A possible way could be the development of a connection between building renovation (especially in the public sector because of its role model function) and relevance for citizens/citizens' participation via the specific consideration of local and regional levels and citizens' relation when it comes to the renovation order of public buildings. Such an approach is likely to also maximize the role model function of the public sector. Also, a connection of buildings that are relevant for citizens and the buildings' order/categorisation regarding the mandatory energy performance standards in Art. 9 EPBD proposal is likely to strengthen the inclusion of citizens in the renovation process and therefore reduce their fear of energy poverty.

1.5. Recommendation 5: The effective transposition of the RED by the Member States is crucial in order to introduce principles and operating conditions for prosumers and renewable energy communities to unlock citizen participation.

As highlighted by the COM in the Renovation Wave Strategy[14], renewable energies will be relevant in several sections. It is planned to reach a higher share of energy from renewables in buildings and, inter alia, to exploit the potential of energy communities as active players in the energy system.

The already existing RED II[15] provides rules for renewable self-consumers (Art. 2 para. 2 (14), Art. 21), jointly acting renewables self-consumers (Art. 2 para. 2 (15)) and renewable energy communities (Art. 2 para. 2 (16), Art. 22), which have to be implemented by the Member States.

Regarding renewable energy communities, the COM in its Renovation Wave Strategy refers in particular to the already existing provisions that have to be implemented by the Member States[16]. According to Art. 2 para. 2 (16) RED II renewable energy community means a legal entity which is based on open and voluntary participation, is autonomous, and is effectively controlled by shareholders or members that are located in the proximity of the renewable energy projects that are owned and developed by that legal entity. The shareholders or members have

[14] COM/2020/662 final, A Renovation Wave for Europe - greening our buildings, creating jobs, improving lives, https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A52020DC0662.

[15] Directive (EU) 2018/2001 of 11 December 2018 on the promotion of the use of energy from renewable sources (recast), https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02018L2001-20181221.

[16] COM/2020/662 final, A Renovation Wave for Europe - greening our buildings, creating jobs, improving lives, p. 18.

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to be natural persons, SMEs or local authorities, including municipalities. Its primary purpose must be to provide environmental, economic or social community benefits rather than financial profits.

Art. 22 RED II regulates the renewable energy communities and foresees several obligations for the Member States. The obligations for the Member States are:

- They have to ensure that final customers are entitled to participate in a renewable energy community without being subject to unjustified or discriminatory conditions or procedures that would prevent their participation in a renewable energy community, Art. 22 para. 1 RED II;
- They have to ensure that renewable energy communities are entitled to produce, consume, store and sell renewable energy, including through renewables power purchase agreements, share, within the renewable energy community, renewable energy that is produced by the production units owned by that renewable energy community, and access all suitable energy markets both directly or through aggregation in a non-discriminatory manner, Art. 22 para. 2 RED II;
- They have to carry out an assessment of the existing barriers and potential of development of renewable energy communities and provide an enabling framework to promote and facilitate the development of renewable energy communities from which the main elements shall be part of the updated integrated National Energy and Climate Plans and Progress Reports, Art. 22 para. 3, 4, 5 RED II.

However, those provisions have not yet been fully transposed in all Member States. It is crucial to take all necessary steps to ensure its full implementation[17].

1.6. Recommendation 6: Regarding gap closing measures for Member States that fall short on their national contributions regarding the new energy efficiency target, the inclusion of actions promoting capacity building for citizen energy efficiency would foster citizen participation and financing.

Art. 4 recast EED proposal foresees that the Member States have to collectively ensure a reduction of the Union's energy consumption of at least 9% in 2030 compared to the projections of the 2020 Reference Scenario. This means that Art. 4 para. 1 recast EED proposal sets a binding Union target where each Member State has to make national energy efficiency contributions for final and primary energy consumption to collectively meet this target.

According to Art. 3 para. 2 recast EED proposal, the corresponding Member States' national contributions must be submitted to the COM together with an indicative national target path in the context of the updated National Energy and Climate Plans in accordance to Art. 14 Governance Regulation.

Connected to these Member States' contributions the COM proposes a kind of governance in the recast EED proposal that is connected to the already existing Governance Regulation. For countries that fall short on their national contributions. Art. 4 para. 3 recast EED proposal foresees new enhanced mechanisms to close the gaps complementing the mechanisms that were already proposed in the Governance Regulation[18].

These mechanisms can be explained in three steps:

- If Member States are above their exceeding indicative trajectory, they have to explain in their National Energy and Climate Progress Report how this gap will be covered to ensure reaching its national energy efficiency contributions, second subparagraph of Art. 4 para. 3 recast EED proposal.
- Member States that make insufficient progress towards meeting the energy efficiency contributions and are above their indicative trajectories have to ensure that additional measures are implemented in order to ensure getting back on track to reach their energy efficiency contributions, first subparagraph of Art. 4 para. 3 recast EED proposal.

[17] https://www.rescoop.eu/policy#transposition-tracker.
[18] COM/2021/558 final, Explanatory Memorandum, p.20.

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Those measures can be, inter alia:

- National measures delivering additional energy savings, including stronger project development assistance for the implementation of energy efficiency investment measures;
- Increasing the energy savings obligation set out in Art. 8 recast EED proposal;
- Adjusting the obligation for public sector;
- Making a voluntary financial contribution to the National Energy Efficiency Fund referred to in Art. 25 recast EED proposal or another financing instrument dedicated to energy efficiency, where the annual financial contributions shall be equal to the investments required to reach the indicative trajectory.

- If and where those national measures are deemed to be insufficient, the COM shall, as appropriate, propose measures and exercise its power at Union level in addition to those recommendations in order to ensure, in particular, the achievement of the Union's 2030 targets for energy efficiency, third subparagraph of Art. 4 para. 3 recast EED proposal.

Regarding the gap closing mechanism and explicitly the measures in Art. 4 para. 3 recast EED proposal it would facilitate citizen participation and financing if such measures existed/would be included that are connected to, inter alia, the promotion of capacity building for citizen energy efficiency etc. This could also be transferred on the measures the COM shall propose according to Art. 4 para. 3 recast EED proposal.

1.7. Recommendation 7: Create a level playing field for SMEs and citizen energy efficiency financing for buildings in the State aid framework and use new flexibilities for small actors

The State aid framework is an important part of creating a non-conflicting regulatory framework for citizens to join together in energy efficiency projects. The legislative will to create these opportunities stems, among other things, from the EED and must be consistently mirrored in the State aid framework. The facilitations and freedoms for renewable energy communities and SMEs, which were created in the recently reformed CEEAG[19] and the planned GBER amendment[20] as an implementation of the RED II, must also be established for efficiency projects for buildings.

Overarching over all specific chapters of the CEEAG, the COM notes that it will generally look favourably at measures' features proposed by Member States to facilitate the participation of SMEs and, where relevant, renewable energy communities in competitive bidding processes, provided that the positive effects of ensuring participation and acceptance outweigh the possible distortive effects (Point 75 CEEAG). More specifically, they make concrete examples for how that could work in practice in chapter 4.1 CEEAG, which outlines the criteria for aid for the reduction and removal of greenhouse gas emissions including through support for renewable energy and energy efficiency. Where bidding processes are foreseen, exceptions can be made for 100% SME-owned or renewable energy community projects up to 6 MW installed capacity or maximum demand, respectively for wind generation projects 100% owned by small and microenterprises or by renewable energy communities up to 18 MW installed capacity (Point 107 b) (iv) and (v) CEEAG). For energy efficiency measures that do not involve energy generation that benefit SMEs, exceptions from bidding processes can be made where beneficiaries receive less than EUR 300.000 per project (Point 107 (b) (vi) CEEAG).

The COM should thus clarify that flexibility provisions regarding bidding processes for SMEs and renewable energy communities as provided for non-building related efficiency measures and renewable energy generation (Chapter 4.1 Point 107 (b) (iv), (v) and (vi) CEEAG) also apply to building-related efficiency measures as outlined in Chapter 4.2 CEEAG.

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[19] COM, Guidelines on State aid for climate, environmental protection and energy 2022, https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52022XC0218(03)&from=EN.
[20] COM, Draft version amending Regulation (EU) 651/2014, 06.10.2021, https://ec.europa.eu/competition-policy/public-consultations/2021-gber_en.

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Additionally, the CEEAG do not yet show a systematic integration of the Energy Efficiency First principle beyond the introductory reference in Point 3 CEEAG. An analysis of the various specific criteria of the CEEAG shows that an approach in the sense of Energy Efficiency First can be found in many places. However, in the general compatibility criteria applicable to all measures, it only states that the selection criteria in a bidding process should as a general rule put the contribution to the main objectives of the measures in direct or indirect relation with the requested aid amount, which may be expressed in terms of aid per unit of environmental protection or aid per unit of energy. In bidding processes which do not have efficiency as the main objective, it could still be considered and account for up to 30% of the weighting of all the selection criteria (Point 50 CEEAG). Dogmatically and systematically, Energy Efficiency First should specifically be included in the general compatibility criteria because the status quo suggests that the consideration of Energy Efficiency First in these sections would be up to the Member States. The EED proposal contains provisions regarding Energy Efficiency First and is accompanied by Guidelines for Member States on how to operationalise the principle. For a truly holistic system approach, however, these considerations must be clearly reflected in the State aid framework – one of the main tools where Energy Efficiency First in public funding would apply in practice.

Regarding the consultation draft of the GBER amendment, the proposal inter alia contains the introduction of a "green bonus" (i.e. higher block-exempted aid intensities) for aid for improving the energy performance of buildings to incentivise ambitious building renovation projects which would apply where energy performance improvements lead to a significant reduction in primary energy demand. However, this is only specified for Art. 38 Draft GBER, which outlines the criteria for investments in energy efficiency measures without the use of financial instruments because those are subject to Art. 39 Draft GBER.

The reasoning behind the planned amendment to provide a green bonus for projects that result in a particularly effective reduction of primary energy demand is understandable. However, it remains unclear why this bonus was only introduced for projects that do not rely on the use of financial instruments. The incentive effect for more ambitious projects does not change whether a financial instrument is used or not.

On the other hand, it relies on Member States to make use of the new State aid framework as both the already revised CEEAG and the amendment of GBER[21] regarding InvestEU[22] provide more flexibility for public financing for CitizEE projects. The need for Member States to address this is reflected in the requirements of the EPBD proposal. Art. 9 para. 3 EPBD obliges Member States to inter alia design integrated financing schemes to support compliance with minimum energy performance standards. Further, Art. 15 EPBD proposal entails surprisingly detailed provisions for Member States to make the best cost-effective use of national financing and available financing established at Union level (e.g. the RRF and InvestEU) to mobilise investments and ensure that energy efficiency lending products for building renovations are offered widely and in a non-discriminatory manner by financial institutions.

1.8. Recommendation 8: Establish more coherence between the European Green Deal and the harmonisation of the Capital Market Union: integrate and consider the relevance of citizens and SMEs from the outset in the further development of the Sustainable Finance Framework.

As the COM itself notes in its renewed Sustainable Finance Strategy[23], citizens, whether they act as retail investors or consumers as well as SMEs, are key for the sustainability transition. A huge bulk of sustainable projects are small and are developed on the local level. This is of course the case when renovating buildings. The appeal of CitizEE is to combine this local element with a broader funding element that can potentially cross borders whilst still catering to citizens on the receiving and the funding side. However, even though the Sustainable Finance Strategy aims towards a rethinking, and establishes more and more provisions for sustainability, in many parts, especially regarding the

[21] Regulation (EU) 651/2014 of 17 June 2014, last amended by Regulation (EU) 2021/1237 of 23 July 2021, OJ EU No. L 270 of 23 July 2021, p. 39, a consolidated version can be found here: https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:02014R0651-20210801&from=EN.

[22] Regulation (EU) 2021/1237 of 23 July 2021 declaring certain categories of aid compatible with the internal market, OJ L 270, p. 39.

[23] COM/2021/390 final, Strategy for Financing the Transition to a Sustainable Economy, https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52021DC0390&from=EN.

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usage of those new initiatives for small actors, more coordination efforts in the legislative process between Capital Market Union legislators and European Green Deal legislators should be fruitful in order to both ensure the security and harmonisation of the financial market and facilitate citizen engagement in sustainable finance activities. The EU Taxonomy[24] as well as the accompanying legislative proposals illustrate that important building blocks of the Sustainable Finance Framework do not yet include citizen engagement to a satisfactory level. It is important to bear in mind that the EU Taxonomy, even though a regulatory effort, in practice only works as an investor-driven project. Only if its set of standards can be used by all relevant market participants to a sufficient level, it will have lasting relevance in private funding. As such, its usability and the surrounding framework needs to reflect market reality – in which small actors play a big role. Although it makes a lot of sense to differentiate between large and small actors in their disclosure obligations, this should not lead to a situation where decision-making processes are only aligned with the existing KPIs for certain actors while others are still being developed. Even though SMEs are included in the considerations of the Sustainable Finance Framework, synchronisation must be established because it is not advisable to regulate large and small actors at different speeds. These are so closely interconnected in economic life that otherwise negative side effects will occur. In the further development of the legal framework, care should therefore be taken to ensure that regulation for actors takes place at the same pace. Where this is not possible, at least some flexibilities or clarifications need to be created. This could be done, for example, by means of a Communication by the COM allowing banks to designate sustainable projects of smaller players, be it in the field of renewable energy or energy efficiency, as sustainable. Likewise, a temporary transitional option to adjust either the numerator or the denominator of the Green Asset Ratio (GAR)[25] in line with SMEs until the Banking Booking Taxonomy Alignment Ratio (BTAR) is established would be a conceivable approach.

1.9. Recommendation 9: Incentivise the combination of energy efficiency with renewable energy at every step of the framework

It is important to reflect the synergy effects of energy efficiency measures and the installation of renewable energies in the Sustainable Finance Framework. Especially in the area of renovation, it makes sense to combine these measures if the building is scaffolded anyway. This approach is followed in the new CEEAG when they present the combination possibilities with on-site installations of renewable energy. However, this synergy effect is not well reflected in the considerations of the Climate Delegated Act[26] of the Taxonomy Regulation. In order to be classified as a sustainable economic activity under the EU Taxonomy Climate Delegated Act, building renovation needs to either achieve 30% energy savings, comply with minimum energy performance requirements for major renovation or consist of specific individual measures classified as sustainable, the following criteria apply:

- The building renovation complies with the applicable requirements for major renovations in the sense of the EPBD.
- Alternatively, it leads to a reduction of primary energy demand of at least 30%. The initial primary energy demand and the estimated improvement must be based on a detailed building survey, an energy audit conducted by an accredited independent expert or any other transparent method, and validated through an Energy Performance Contract. The 30% improvement results in an actual reduction in primary energy demand, not taking into account improvements made by renewable energy sources, and can be achieved within a maximum of three years.

[24] Regulation (EU) 2020/852 of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088, OJ L 198/13, https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32020R0852&from=de.
[25] See Art. 7 para. 3 Delegated Regulation (EU) 2021/2178 of 6 July 2021 supplementing Regulation (EU) 2020/852 by specifying the content and presentation of information to be disclosed by undertakings subject to Articles 19a or 29a of Directive 2013/34/EU concerning environmentally sustainable economic activities, and specifying the methodology to comply with that disclosure obligation, OJ L 443/9, https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32021R2178&from=EN.
[26] Delegated Regulation (EU) 2021/2139 of 4 June 2021 supplementing Regulation (EU) 2020/852 by establishing the technical screening criteria for determining the conditions under which an economic activity qualifies as contributing substantially to climate change mitigation or climate change adaptation and for determining whether that economic activity causes no significant harm to any of the other environmental objectives, OJ L 442/1, https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32021R2139&from=EN.

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The installation of renewables is excluded when measuring the criteria by achieving at least 30% reduction of primary energy demand in order to be classified as sustainable and thus the only (indirect) link is the possibility that the building renovation complies with the applicable requirements for major renovations according to the EPBD. But this path encounters several difficulties as well.

According to Art. 2 (10) current EPBD and EPBD proposal major renovation means the renovation of a building where:

- Option (a): The total cost of the renovation relating to the building envelope or the technical building systems is higher than 25% of the value of the building, excluding the value of the land upon which the building is situated;
- Option (b): More than 25% of the surface of the building envelope undergoes renovation.

While technical building systems may include technical equipment for on-site electricity generation (in the current EPBD) or, or on-site renewable energy generation and storage (in the EPBD proposal) there are still two aspects that are likely to hinder the synergy effects of energy efficiency measures and the installation of renewable energies.

On the one hand, Member States may choose to apply option (a) or (b) when it comes to the definition of major renovation. Thus, it is possible that only a renovation where more than 25% of the surface of the building envelope undergoes renovation counts as major renovation (option (b)).

On the other hand, even if option (a) is a possibility for a renovation to count as major renovation, it is unclear if for example the installation of photovoltaic solar panels counts as renovation relating to the technical building systems as there is a new component built and not an already existing component renovated.

Thus, there is no coherent connection in the Taxonomy energy efficiency measures and the installation of renewable energies. The same measure could either meet the sustainability criteria of the delegated act or not, depending on the Member State in which it takes place and whether the Member State has chosen to only apply one of the options as a definition of a major renovation (and only if the installation of solar panels counts as a renovation relating to the technical buildings systems). Especially with regard to cross-border financial instruments, this would represent an arbitrary fragmentation of the sustainable finance framework.

Of course, it is important to ensure that feasible energy efficiency measures don't remain undone just because the label of sustainability can also be achieved through renewable energy generation installations. However, the positive effect of such a combination must nevertheless be taken into account. In the current state of the Climate Delegated Act, however, these activities are considered purely separate. It would for example be conceivable to create exceptions if certain renovation measures are not possible for constructional reasons or if there is already a high degree of efficiency, but further efficiency increases can still be made possible together with the installation of on-site renewable energy. Similarly, the possibility of achieving at least a certain part of the required 30% reduction in primary energy demand through the installation of on-site renewable energy could be created with the addition of increased justification obligations. At the very least, the Climate Delegated Act should make clear the both of the options for major renovation in the sense of the EPBD can be applied. Given that the Taxonomy Regulation, though primarily aimed at the private sector, also gains relevance in public funding (see 8.1.1.2), this consideration would be all the more important to make sure the logical link between renovation and renewable energy installation is reflected in funding design. Our research of the RRF plans, for example, shows that this is not yet the case[27].

[27] *Wimmer/Kamm/Pause*, CitizEE, Deliverable D5.2, Report on legal and regulatory recommendations for the target countries.

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2. THE EUROPEAN GREEN DEAL (OVERVIEW)

The European Green Deal is described as the plan, respectively the roadmap, to make the EU's economy sustainable[28]. It is the growth strategy aimed at transforming the Union into a modern, resource-efficient and competitive economy, where there are no net emissions of greenhouse gases by 2050, economic growth is decoupled from resource use, and no person and no place is left behind. It shall turn climate and environmental challenges into opportunities and make the transition just and inclusive for all.

The European Green Deal provides an action plan[29] to boost the efficient use of resources by moving to a clean, circular economy restore biodiversity and cut pollution. The plan further outlines investments needed and financing tools available. Further, the EU will provide financial support and technical assistance to help those that are most affected by the move towards the green economy. This is called the Just Transition Mechanism.

The COM states that to reach the EU aims to be climate neutral in 2050 action by all sectors of the economy is required. This includes:

- Investing in environmentally-friendly technologies;
- Supporting industry to innovate;
- Rolling out cleaner, cheaper and healthier forms of private and public transport;
- Decarbonising the energy sector;
- Ensuring buildings are more energy efficient;
- Working with international partners to improve global environmental standards.

As the initial European Green Deal concept was launched in December 2019, it did not include the impact of the coronavirus crisis. While some governments consider that ambitious programmes like the European Green Deal will hinder economic recovery after the crisis, the COM and others maintain that the European Green Deal is the growth strategy that can help Europe's economic recovery while at the same time addressing the global climate emergency[30]. Therefore, the coronavirus crisis recovery is seen as a chance to redesign a sustainable, inclusive economy, revitalizing industry, preserving vital biodiversity systems and tackling climate change. The response to the coronavirus crisis with large stimulus packages can be an opportunity to fast-track a fossil-free and competitive economy for Europe[31].

Furthermore, due to the latest developments regarding the invasion of Ukraine by Russia and the resulting Europe Energy crisis the COM proposed the REPowerEU process (Joint European Action for more affordable, secure and sustainable energy)[32] on 8 March 2022 to increase the resilience of the EU-wide energy system and to make Europe independent from Russian fossil fuels well before 2030.

The REPowerEU process is based on two pillars:

- Diversify gas supplies via higher LNG imports and pipeline imports from non-Russian suppliers, and higher levels of biomethane and hydrogen;

[28] https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en.

[29] COM/2019/640 final, Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions, The European Green Deal, https://eur-lex.europa.eu/resource.html?uri=cellar:b828d165-1c22-11ea-8c1f-01aa75ed71a1.0002.02/DOC_1&format=PDF.

[30] European Parliament, 14.04.2020, Impact of the coronavirus crisis on climate action and the European Green Deal: https://www.europarl.europa.eu/thinktank/en/document.html?reference=EPRS_BRI(2020)649370.

[31] https://www.weforum.org/agenda/2020/05/the-european-green-deal-must-be-at-the-heart-of-the-covid-19-recovery/.

[32] COM/2022/108 final, Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions REPowerEU: Joint European Action for more affordable, secure and sustainable energy, , https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM%3A2022%3A108%3AFIN.

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- Quicker reduction of the dependence on fossil fuels at the level of homes, buildings, industry and at the level of the power system by boosting energy efficiency gains, increasing the share of renewable and addressing infrastructure bottlenecks.

The REPowerEU process highlights even more the importance of prioritising and the fast facilitation of energy efficiency and renewables. Inter alia the Energy Efficiency First principle is more relevant than ever and should be applied across all sectors and policies. Further, it is highlighted that given the circumstances, the co-legislators might also want to consider to boost the Fit for 55 proposals with higher or earlier targets for renewable energy and energy efficiency. Additionally, more focus could be laid on immediate opportunities to stop energy waste.

Thus, the European Green Deal, as a combination of strategies, (revisions/recasts of and new) Regulations and Directives and financial instruments, inter alia, in the field of energy efficiency, building renovation, etc., outlines a comprehensive framework to reach the EU targets for 2030 and 2050.

2.1. Contents

The European Green Deal covers different fields of the EU policy regarding the transformation of the EU economy for a sustainable future, a European Climate Pact and the role of the EU as a global leader[33]. Those fields are:

- In general:
  - Mobilising research and fostering innovation.
- Policy topics:
  - Increasing the EU's Climate ambition for 2030 and 2050;
  - A zero-pollution ambition for a toxic free environment;
  - Supplying clean, affordable and secure energy;
  - Preserving and restoring ecosystems and biodiversity;
  - Mobilising industry for a clean and circular economy;
  - From "Farm to Fork": a fair, healthy and environmentally friendly food system;
  - Building and renovating in an energy and resource efficient way;
  - Accelerating the shift to sustainable and smart mobility.
- As financial pillar:
  - Financing the transition;
  - Leave no one behind (Just Transition).

[33] COM/2019/640 final, The European Green Deal, p.3.

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Figure 2 – The European Green Deal[34]

[34] COM/2019/640 final, The European Green Deal, p.3.

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2.2. Relevant areas for CitizEE

For CitizEE in particular the area "Building and renovating in an energy and resource efficient way" and the financial pillar are relevant. These pillars are especially targeted by:

- The Renovation Wave[35], which is a strategy to double annual energy renovation rates in the next ten years in order to reduce Europe's greenhouse gas emissions, to enhance the quality of life for people living in and using the buildings and to create additional green jobs in the construction sector[36];
- The European Green Deal Investment Plan (GDIP) – or also referred to as the Sustainable Europe Investment Plan – as the financial pillar of the European Green Deal, which is necessary to achieve the goals in the European Green Deal[37];
- Next Generation EU announced in June 2020[38] as complementary financing instrument to the GDIP to tackle the socio-economic consequences of the coronavirus crisis and thus also affects the investment plans/instruments of the European Green Deal[39].

2.3. Process

- On **11 December 2019** the European Green Deal was presented by the COM[40] and was followed on 14 January 2020 by the presentation of the European Green Deal Investment Plan and the Just Transition Mechanism[41];
- On **4 March 2020** a proposal by the COM for the European climate with a public consultation on the European Climate Pact bringing together regions, local communities, civil society, businesses and schools was presented[42];
- On **12 July 2020** the EU Taxonomy Regulation entered into force[43];
- Since **10 March 2021** the Sustainable Finance Disclosure Regulation (SFDR) is applicable[44];

[35] COM/2020/662 final, Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions, A Renovation Wave for Europe - greening our buildings, creating jobs, improving lives, https://ec.europa.eu/energy/sites/ener/files/eu_renovation_wave_strategy.pdf.
[36] https://ec.europa.eu/energy/topics/energy-efficiency/energy-efficient-buildings/renovation-wave_en.
[37] COM/2020/662 final, A Renovation Wave for Europe.
[38] COM/2020/456 final, Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions, Europe's moment: Repair and Prepare for the Next Generation, https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020DC0456&from=EN.
[39] European Parliament, 12/2020, Economic and Monetary Affairs – ECON: Multiannual financial framework - InvestEU programme 2021–2027 p. 2, https://www.europarl.europa.eu/legislative-train/theme-economic-and-monetary-affairs-econ/file-mff-investeu; https://ec.europa.eu/info/strategy/recovery-plan-europe_en#nextgenerationeu, Next Generation EU is a EUR 750 billion temporary recovery instrument to help repair the immediate economic and social damage brought about by the coronavirus pandemic.
[40] COM - Press release, 11.12.2019, https://ec.europa.eu/commission/presscorner/detail/en/ip_19_6691.
[41] COM - Press release, 14.01.2020, https://ec.europa.eu/commission/presscorner/detail/en/ip_20_17, https://ec.europa.eu/commission/presscorner/detail/en/ip_20_.
[42] COM - Press release, 04.03.2020, https://ec.europa.eu/commission/presscorner/detail/en/ip_20_335.
[43] Regulation (EU) 2020/852 of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088, OJ L 198/13, https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32020R0852&from=de.
[44] The SFDR lays down harmonised rules for financial market participants (i.e. asset managers, institutional investors, insurance companies, pension funds, all entities offering financial products where they manage clients' money) and financial advisers on transparency with regard to the integration of sustainability risks and the consideration of adverse sustainability impacts in their processes and the provision of sustainability-related information with respect to financial products; Regulation (EU) 2019/2088 of 27 November 2019 on sustainability-related disclosures in the financial services sector, OJ L 317/1, https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32019R2088&from=EN#d1e507-1-1.

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- Until **July 2020** the European Industrial Strategy, a Circular Economy Action Plan, the "Farm to fork strategy", the EU Biodiversity Strategy for 2030 and the EU strategies for energy system integration and hydrogen were presented[45];
- On **17 September 2020** the 2030 Climate Target Plan was presented[46];
- On **21 April 2021** the Commission published a proposal for a Corporate Sustainability Reporting Directive[47].
- **From October 2020 to May 2021** several strategies were introduced:
- Renovation Wave Strategy, Methane Strategy, Chemicals Strategy for sustainability, Offshore renewable energy boosting, European Climate Pact, European Battery Alliance, New European Bauhaus initiative, Sustainable blue economy, Zero pollution Action Plan, Organic Action Plan, New EU strategy on adaptation to climate change[48];
- On **6 July 2021** the COM published their Renewed Sustainable Finance Strategy[49]
- On **14 July 2021** the "Fit for 55" legislative package was proposed by the COM (with inter alia its proposals for the RED III and recast EED)[50];
- On **23 July 2021,** the GBER was extended to inter alia apply to InvestEU funding[51];
- On **6 October 2021,** a draft proposal for an European Green Deal aligned amendment of the GBER was published by the COM[52];
- On **10 December 2021,** a delegated act supplementing Art. 8 Taxonomy (Disclosures Delegated Act) was adopted and is applicable since January 2022[53];On **15 December 2021,** the COM presented the second part of the "Fit for 55" package (with inter alia its proposal for the EPBD revision)[54];

[45] COM - Press release, 10.03.2020, 11.03.2020, 20.05.2020, 08.07.2020, https://ec.europa.eu/commission/presscorner/detail/en/ip_20_416, https://ec.europa.eu/commission/presscorner/detail/en/ip_20_420, https://ec.europa.eu/commission/presscorner/detail/en/ip_20_884, https://ec.europa.eu/commission/presscorner/detail/en/ip_20_1259.
[46] COM - Press release, 17.09.2020, https://ec.europa.eu/commission/presscorner/detail/en/ip_20_1599.
[47] The proposal builds on and revises the sustainability reporting requirements set out in the NFRD, in order to make sustainability reporting requirements more consistent with the broader sustainable finance legal framework, including the SFDR and the Taxonomy Regulation, and to tie in with the objectives of the European Green Deal: Proposal for a Directive of the European Parliament and of the Council amending Directive 2013/34/EU, Directive 2004/109/EC, Directive 2006/43/EC and Regulation (EU) 537/2014, as regards corporate sustainability reporting, 21 April 2021, COM/2021/189 final, https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52021PC0189&from=EN.
[48] https://ec.europa.eu/info/strategy/priorities-2019-2024/european-green-deal_en#timeline.
[49] COM/2021/390 final, 06.07.2021, Strategy for Financing the Transition to a Sustainable Economy, p. 2, https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52021DC0390&from=EN.
[50] COM - Press release, 14.07.2021, https://ec.europa.eu/commission/presscorner/detail/en/IP_21_3541.
[51] Regulation (EU) 2021/1237 of 23 July 2021 amending Regulation (EU) 651/2014 declaring certain categories of aid compatible with the internal market in application of Articles 107 and 108 of the Treaty, OJ L 270, p. 39.
[52] COM, Draft version amending Regulation (EU) 651/2014, 06.10.2021, https://ec.europa.eu/competition-policy/public-consultations/2021-gber_en.
[53] Art. 8 para. 1 Taxonomy Regulation states that certain large undertakings within the scope of the NFRD (and, if the CSRD enters into force as proposed, additional companies as well) have to disclose information to the public on how and to what extent their activities are associated with environmentally sustainable economic activities in the sense of the Taxonomy legislation; Delegated Regulation (EU) 2021/2178 of 6 July 2021 supplementing Regulation (EU) 2020/852 by specifying the content and presentation of information to be disclosed by undertakings subject to Art. 19a or 29a of Directive 2013/34/EU concerning environmentally sustainable economic activities, and specifying the methodology to comply with that disclosure obligation, OJ L 443/9, https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32021R2178&from=EN.
[54] COM Press Release, 15.12.2021, European Green Deal: Commission proposes to boost renovation and decarbonisation of buildings, https://ec.europa.eu/commission/presscorner/detail/en/ip_21_6683, and COM Press Release, 15.12.2021, Commission proposes new EU framework to decarbonise gas markets, promote hydrogen and reduce methane emissions, https://ec.europa.eu/commission/presscorner/detail/en/ip_21_6682.

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- On **21 December 2021,** the COM endorsed the new Guidelines on State aid for climate, environmental protection and energy (CEEAG)[55];
- Since **1 January 2022**, the Climate Delegated Act under the EU Taxonomy applies, specifying the technical screening criteria under which an economic activity qualifies as contributing substantially to climate change mitigation or climate change adaptation[56];
- On **8 March 2022** the COM proposed the REPowerEU process(Joint European Action for more affordable, secure and sustainable energy.

[55] COM - Press release, 21.12.2021, State aid: Commission endorses the new Guidelines on State aid for Climate, Environmental protection and Energy, https://ec.europa.eu/commission/presscorner/api/files/document/print/en/ip_21_6982/IP_21_6982_EN.pdf.
[56] COM Delegated Regulation (EU) 2021/2139 of 4 June 2021 supplementing Regulation (EU) 2020/852 by establishing the technical screening criteria for determining the conditions under which an economic activity qualifies as contributing substantially to climate change mitigation or climate change adaptation and for determining whether that economic activity causes no significant harm to any of the other environmental objectives, OJ L 442/1, https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32021R2139&from=EN.

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3. RENOVATION WAVE STRATEGY

As already mentioned above, the Renovation Wave Strategy was published on 14 October by the COM[57]. It aims to improve the energy performance of buildings, to at least double renovation rates until 2030 and make sure renovations lead to higher energy and resource efficiency. The COM states that this development will enhance the quality of life for people living in and using the buildings, reduce Europe's greenhouse gas emissions, foster digitalisation and improve the reuse and recycling of materials. It is planned that by 2030, 35 million buildings will be renovated and up to 160,000 additional green jobs created in the construction sector[58].

Similar to the European Green Deal itself, the Renovation Wave is not a single legislative act but a strategy that contains several legislative acts (e.g. the recasts and revisions of existing Directives as the EED, the RED and the EPBD). Therefore, to get a better understanding of the upcoming changes planned for the building sector, it is necessary to have a closer look on this strategy and the contents it inherits.

3.1. Recap: The Clean Energy for all Europeans package

The Clean Energy for all Europeans package of 2018 and 2019 already upgraded the regulatory framework and a set of funding instruments to promote energy efficiency, building renovation and renewables deployment at building, neighbourhood and district level, creating a solid basis for energy market integration, renewables deployment and energy efficiency promotion. Thus, on the one hand, its provisions need to be fully implemented as a matter of utmost priority by all Member States and stakeholders. On the other hand, renovation is held back by barriers at different points throughout the value chain – from the initial decision to engage in renovation, to financing and completion of the project. In particular renovating can be costly, difficult to organise and lengthy to carry out. Especially the difficulty of mobilising financing at local and regional level needs to be addressed. Public funds are frequently scarce and difficult to blend due to regulatory obstacles and lacking capacity in public administrations. To kick-start a large-scale, sustainable deployment of renovation all over Europe, it is necessary to break the key barriers at every point of the supply chain[59].

3.2. Key principles of the Renovation Wave Strategy

The overarching objective of the Renovation Wave is to at least double the annual energy renovation rate of residential and non-residential buildings by 2030 and to foster deep energy renovations with 35 million building units to be renovated by 2030. However, to finally achieve EU-wide climate neutrality by 2050 the increased rate and depth of renovation will have to be maintained also post- 2030[60]. As a basis of these developments the Renovation Wave provides seven so called key principles that are in the focus of the upcoming changes[61]. These key principles are:

- **Energy efficiency first:** This is the horizontal guiding principle of European climate and energy governance and beyond. This principle shall make sure that only the energy that is really needed is produced[62];
- **Affordability:** Energy-performing and sustainable buildings shall be made widely available, in particular for medium and lower-income households and vulnerable people and areas;
- **Decarbonisation and integration of renewables (from renewable sources produced on-site or nearby):** The building renovation shall foster the integration of renewables in particular from local sources. Further, the broader use of waste heat shall be promoted. It should integrate energy systems at local and regional levels helping to decarbonise transport as well as heating and cooling;

[57] COM/2020/662 final, A Renovation Wave for Europe - greening our buildings, creating jobs, improving lives.
[58] COM - Press release, 14.10.2020, https://ec.europa.eu/commission/presscorner/detail/en/ip_20_1835.
[59] COM/2020/662 final, A Renovation Wave for Europe - greening our buildings, creating jobs, improving lives, p. 4.
[60] COM/2020/662 final, A Renovation Wave for Europe - greening our buildings, creating jobs, improving lives, p. 3.
[61] COM/2020/662 final, A Renovation Wave for Europe - greening our buildings, creating jobs, improving lives, p. 3 f.
[62] This was outlined in the European Green Deal and the EU strategy on Energy System Integration.

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- **Life-cycle thinking and circularity:** Minimising the footprint of buildings requires resource efficiency and circularity combined with turning parts of the construction sector into a carbon sink, for example through the promotion of green infrastructure and the use of organic building materials that can store carbon, such as sustainably-sourced wood;
- **High health and environmental standards:** Ensuring high air quality, good water management, disaster prevention and protection against climate-related hazards, removal of and protection against harmful substances such as asbestos and radon, fire and seismic safety. Furthermore, accessibility should be ensured to achieve equal access for Europe's population, including persons with disabilities and senior citizens;
- **Tackling the twin challenges of the green and digital transitions together:** Smart buildings can enable efficient production and use of renewables at house, district or city level. Combined with smart energy distribution systems, they will enable highly efficient and zero-emission buildings;
- **Respect for aesthetics and architectural quality:** Renovation must respect design, craftsmanship, heritage and public space conservation principles.

3.3. Important areas for increasing renovation rates

The COM highlights three areas that shall deserve specific attention in regard of policy and financing as these areas offer huge potential for increasing renovation rates, while delivering large energy savings and healthier and more comfortable buildings for citizens[63]. The three areas are:

- Tackling energy poverty and worst-performing buildings[64]:
    - The EED recast[65] shall expand the use of ESCOs and Energy Performance Contracts to make renovation affordable for all households[66].
    - Grants, subsidised renovation measures or the use of energy savings for repayment shall be deployed alongside micro-credits backed by a guarantee fund to promote fair cost-sharing between owners and tenants, on-bill financing schemes and on-tax financing schemes.
    - Offering blended loans and guarantees from public and private sources through one-stop shops may nurture trust in renovation and ensure certain quality requirements are met. In accordance with the Clean Energy for all Europeans package, Member States must use their National Energy and Climate Plans and Long-Term Renovation Strategies to identify dwellings of people at risk of energy poverty and develop effective strategies for renovating these as a matter of priority[67].
- Renovating public buildings, such as administrative, educational and healthcare facilities[68]:
    - Given the limited scope of existing legislative requirements for renovation of public buildings the EED recast shall extend the scope of the requirements to all public administration levels and to

[63] COM/2020/662 final, A Renovation Wave for Europe - greening our buildings, creating jobs, improving lives, p. 20 ff.
[64] COM/2020/662 final, A Renovation Wave for Europe - greening our buildings, creating jobs, improving lives, p. 20 ff.
[65] COM/2021/558 final, Proposal for a Directive of the European Parliament and of the Council on energy efficiency (recast), https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52021PC0558.
[66] See the Energy companies in the EU status report of the Joint Research Centre, https://publications.jrc.ec.europa.eu/repository/bitstream/JRC106624/kjna28716enn.pdf.
[67] Eg.: Estonia's KredEx Revolving Fund that supports combining loans, loan guarantees and grants. The National Revolving Fund for Energy Saving in the Netherlands works in combination with the total rental housing stock expected to reach and average Energy Performance Certificate class B by 2021; In Denmark, the 2018 energy agreement allocates DKK 200 million per year from 2021-2024 to energy savings in buildings. The grant will be awarded to building owners who can demonstrate the highest energy saving potential to ensure grants target the least energy efficient segments of the national building stock; BE, Flemish Region. Vulnerable groups qualify for a free energy scan of their homes; over 20,000 such scans are being carried out every year; The EU Building Stock Observatory, the EU Energy Poverty Observatory, the Horizon Europe Mission on Cities and the EU Covenant of Mayors Office can further assist Member States in taking stock and identifying segments in need, and in linking renovation strategies to social indicators and policies to address energy poverty.
[68] COM/2020/662 final, A Renovation Wave for Europe - greening our buildings, creating jobs, improving lives, p. 23.

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increase the annual renovation obligation. This will be done in conjunction with the phased introduction of minimum energy performance standards in the context of the revision of the EPBD;

  - The COM also plans to develop comprehensive guidance on sustainable public investments through procurement;
  - The COM issued a guidance on the Energy Efficiency First principle to help public authorities properly take into account all costs and wider benefits of the investments in the built environment, which could be practically applied in public procurement;
  - By June 2022, the COM will look into the possibility to develop green public procurement criteria for public buildings and will issue, based on the upcoming assessment of the Long-Term Renovation Strategies, indicative milestones for the renovation of public and private service buildings for 2030 and 2040 with a view to decarbonising the building stock by 2050.

- Decarbonising heating and cooling[69]:
  - Art. 15 para. 7 RED II and Art. 14 EED already oblige Member States to provide the COM with their assessment of how to decarbonise their heating and cooling systems using their potential for efficiency, renewables and waste heat and include this in the comprehensive assessment due by December 2020;
  - The recast and revision of the EED and the RED II will strengthen the existing renewable heating and cooling target and the capacities of public authorities to prepare, finance and implement comprehensive heating and cooling planning in coordination with renovation projects.

3.4. Lead actions relevant for CitizEE

Based on its analysis and a public consultation, the COM identifies several lead actions critical to enable a step-change in the depth and scale of renovations. Lead actions that are relevant for CitizEE are[70]:

- Strengthening information, legal certainty and incentives for public and private owners and tenants to undertake renovations;
- Ensuring adequate and well-targeted funding;
- Increasing the capacity to prepare and implement projects;
- Promoting the decarbonisation of heating and cooling;
- An integrated participatory and neighbourhood-based approach.

The planned actions and legal changes in these areas are described more in detail in the following sections.

3.4.1. Strengthening information, legal certainty and incentives

Strengthening information, legal certainty and incentives for public and private owners and tenants is important because insufficient information on the current energy and resource profile of buildings and the potential benefits of renovation, lack of trust in the actual energy savings and split incentives between owners and tenants are among the strongest barriers regarding sustainable renovation.

A regulatory push can help to draw clear lines for decision-making in multi-owner buildings, reflecting energy performance in the value of a building, and remedying general low awareness of the benefits of renovation. Specific requirements like introducing minimum performance levels by a specified compliance deadline or at certain

[69] COM/2020/662 final, A Renovation Wave for Europe - greening our buildings, creating jobs, improving lives, p. 23 ff.
[70] COM/2020/662 final, A Renovation Wave for Europe - greening our buildings, creating jobs, improving lives, p. 5 ff.

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moments in the lifetime of a building provide an anchor for investors and business expectations and work best in combination with reliable Energy Performance Certificates and funding.

To address these barriers on European level, the EED and the EPBD will be revised. The recast and revision are planned for 2021/2022. Inter alia, the introduction of a stronger obligation to have Energy Performance Certificates alongside a phased introduction of minimum energy performance standards for existing buildings is planned. It will also propose to extend the requirements for building renovation to all public administration levels. The impact assessments accompanying these legislative recast and revision will consider different options in terms of the level, scope and timing of these requirements[71]. Deep renovation shall be fostered by creating better conditions for staged renovation. With the introduction of Digital Building Logbooks to integrate all building related data provided by the upcoming Building Renovation Passport, Smart Readiness Indicators, Level(s) and Energy Performance Certificates compatibility and integration of data throughout the renovation journey shall be ensured. The COM will explore with Member States, stakeholders, market players and data providers whether it is possible for the European Building Stock Observatory to become a central European repository for reliable data on the building stock and its energy performance and support the design of incentives in this domain[72].

Some Member States already adopted such measures in their Long-Term Renovation Strategies. France introduced a ban on rent increase in the case of poorly performing buildings as from 2021, a ban on renting these as from 2023 and an obligation to renovate all worst performing buildings as from 2028. In the Netherlands, all office buildings will have to be Energy Performance Certificate class C by 2023 and Energy Performance Certificate class A by 2030. Belgium-Flanders is also considering policy proposals for minimum Energy Performance Certificate level for non-residential buildings from 2030 and minimum Energy Performance Certificate level for residential rentals[73].

3.4.2. Ensuring adequate and well-targeted funding

In regard of funding, the COM estimates that to achieve the 55% climate target by 2030, there are around EUR 275 billion of additional investments needed every year as building renovation is one of the sectors facing the largest investment gap.

The COM highlights barriers in the residential as well as in the non-residential building sector.

- The barriers in the residential sector are the lack of attractive and easily accessible public incentives for renovation (shortage of information and low awareness of available funding, cumbersome procedures or regulatory constraints) and the lack of mainstream financing products.
- In the non-residential sector, the lack of funding for publicly-owned buildings and the lack of suitable financial incentives for commercial buildings are two of the most relevant obstacles. Some remaining financing gaps have been addressed through the proposed revisions of the State aid framework, especially through provisions for the public sector and the incorporation of investments under Union shared management funds such as InvestEU in the GBER (see below 7.5.2.).

To overcome these barriers, a better use of EU funds and national public funds shall be fostered and greater share of private funds shall be mobilised. In order to more effectively target funds and to better channel them to the end-users blending of various sources of financing shall be made easier[74].

3.4.2.1. ***EU funding***

The EU funding that drives investment for renovation is based on several policy aspects, programmes and institutions. Those are the Recovery & Resilience Plans and the European Flagships as part of the 2021-2027 Multiannual Financial Framework and Next Generation EU, the Cohesion Policy, the InvestEU Programme, the EIB,

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[71] COM/2020/662 final, A Renovation Wave for Europe - greening our buildings, creating jobs, improving lives, p. 5.
[72] COM/2020/662 final, A Renovation Wave for Europe - greening our buildings, creating jobs, improving lives, p. 8.
[73] COM/2020/662 final, A Renovation Wave for Europe - greening our buildings, creating jobs, improving lives, p. 7.
[74] COM/2020/662 final, A Renovation Wave for Europe - greening our buildings, creating jobs, improving lives, p. 9.

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the revision of the GBER and the State aid guidelines, and the EU Emissions Trading System (ETS). The following gives a short overview of these aspects, programmes and institutions[75]:

- Recovery & Resilience Plans/European Flagships

In regard of investment possibilities, the COM highlights the 2021-2027 Multiannual Financial Framework and Next Generation EU as an unprecedented opportunity to set off the Renovation Wave by EU funding. The Recovery and Resilience Facility[76] is described as the centrepiece of Next Generation EU that can support energy efficiency-related reforms and renovation investments undertaken by Member States. The Recovery and Resilience Facility can also be combined with support from other EU programmes such as InvestEU, the Connecting Europe Facility, LIFE and Horizon Europe as well as national funds[77].

The Annual Sustainable Growth Strategy 2021[78] by the COM foresees the creation of so-called European Flagships that address issues that are common to all Member States. The COM proposes that Member States shall include in their national recovery and resilience plans investment and reforms in specific areas like Renovate and Power Up.[79] The COM will complement the Guidance to Member States on the preparation of Recovery and Resiliency Plans with tailor-made guidance to each Member State in the context of the individual assessment of National Energy and Climate Plans and Long-term Renovation Strategies. The Recovery and Resilience Task Force (RECOVER) that was established on 16 August 2020[80] gives practical guidance to Member States by an example of possible components of a Recovery and Resilience Plan on building renovation, energy and resource efficiency. A dedicated thematic focus on the Renovate Flagship strengthens the existing Concerted Actions on the EPBD[81], the EED[82] and the RED[83] and helps Member States exchange good practices and monitor implementation over time.

- The role of the EU Taxonomy in public funding

If funding is sought at the EU level, the rules of the relevant funds such as the Recovery and Resilience Facility and InvestEU must be taken into account. Here, the Taxonomy Regulation[84], which classifies economic activities according to their sustainability, begins to play a bigger role and gain traction. The EU Taxonomy is primarily a classification system that does not trigger commitments to sustainable action, but to disclose about the sustainability of the action. As such, it increases transparency and gives a common reference frame of what "sustainability" means in practice. In abstract terms, according to Art. 3 Taxonomy Regulation, an activity is sustainable if:

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[75] COM/2020/662 final, A Renovation Wave for Europe - greening our buildings, creating jobs, improving lives, p. 9 ff.
[76] The European Council agreed to endow with EUR 672.5 billion, 37% of which would be targeted to climate-related expenditure, COM/2020/662 final, A Renovation Wave for Europe - greening our buildings, creating jobs, improving lives, p. 9.
[77] COM/2020/662 final, A Renovation Wave for Europe - greening our buildings, creating jobs, improving lives, p. 9; https://ec.europa.eu/digital-single-market/en/2021-2027-multiannual-financial-framework-digital-shines-through-eus-long-term-budget; https://ec.europa.eu/info/strategy/recovery-plan-europe_en#nextgenerationeu.
[78] COM/2020/575 final, Communication from the Commission to the European Parliament, the European Council, the Council, the European Central Bank, the European Economic and Social Committee, the Committee of the Regions and the European Investment Bank, Annual Sustainable Growth Strategy 2021, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020DC0575.
[79] COM/2020/575 final, Annual Sustainable Growth Strategy 2021, p. 9, Renovate means: "Improving the energy and resource efficiency of public and private buildings will substantially contribute to achieving the EU's climate objectives, create a large number of local jobs throughout the Member States and foster digital development through smart living and metering. By 2025, it will contribute to the doubling of the renovation rate and the fostering of deep renovation", Power up means: "Future-proof clean technologies should be frontloaded and the development and use of renewables should be accelerated as well as their integration through modernised networks and enhanced interconnectivity. The flagship will lay the foundation for hydrogen lead markets in Europe and the related infrastructure. It aims to support the building and sector integration of almost 40% of the 500 GW of renewable power generation needed by 2030, support the instalment of 6 GW of electrolyser capacity and the production and transportation of 1 million tonnes of renewable hydrogen across the EU by 2025".
[80] https://ec.europa.eu/info/departments/recovery-and-resilience-task-force.
[81] https://epbd-ca.eu.
[82] https://www.ca-eed.eu/Homepage.
[83] https://www.ca-res.eu/.
[84] Regulation (EU) 2020/852 of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088, OJ L 198, p. 13, https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32020R0852&from=EN.

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- It makes a significant contribution to one of the environmental objectives listed in Art. 9 Taxonomy Regulation;
- It does not cause significant harm ("do no significant harm" principle) to any of the other environmental objectives;
- It is carried out in compliance with the minimum safeguards laid down in Art. 18 Taxonomy Regulation; and
- It complies with technical screening criteria that have been established by the COM.

Those technical screening criteria are part of the ongoing implementation of the EU Taxonomy. They give detailed criteria for the respective economic activities, for example in the buildings sector. The aim here is to direct private capital towards sustainable investments in energy renovation, relying on Energy Performance Certificates and nearly zero-energy building standards. In this context, it should also be mentioned that the overall credibility of the classification according to the EU Taxonomy is currently the subject of heated discussion, inter alia due to a planned amendment of the Climate Delegated Act[85].

The Taxonomy Regulation is primarily aimed at the financial sector and in this context of course also has relevance with regard to the mobilisation of private funds. However, its criteria should also have a considerable effect on the expenditure of public funds through references in the EU financial instruments, in the "Fit for 55" package and the CEEAG.

The RRF references the Taxonomy Regulation, stating that Member States have to explain that no measure in their RRF plans does significant harm to environmental objectives within the meaning of Art. 17 Taxonomy Regulation (Art. 18 para. 4 (d) RRF) and that the COM assesses those plans accordingly (Art. 19 para. 3 (d) RRF). This means that for the purpose of being included in the RRF, the measure does not have to significantly contribute to an environmental objective and comply with the technical screening criteria. However, given that the RRF also states that 37% of the RRF plans have to contribute to the climate target (Art. 18 para. 4 (e) RRF), the recourse to the Taxonomy Regulation can be a practical approach, even if there is no explicit normative need. This is underlined by the technical guidance of the COM on how the "do no significant harm" principle is applied under the RRF, stating that Member States have the option of relying upon the technical screening criteria in the delegated acts under the Taxonomy Regulation. They can also refer to the draft version of the delegated acts[86].

A more intensive link between the EU Taxonomy and State aid is established in the CEEAG. When weighing the positive and negative effects of an aid measure in a balancing exercise and therefore deciding whether the aid can be approved, the COM will pay particular attention to Art. 3 Taxonomy Regulation (Point 72 CEEAG). It is yet unclear how this "particular attention" of the EU Taxonomy will play out in practice. It seems plausible that this could be done at the level of the burden of proof, i.e. that Member States have less need to justify if the measure is taxonomy compliant and higher if it is not. This would also be in line with Fn. 50 of the CEEAG, which states that measures which are identical to measures within RRF Plans as approved by the Council, their compliance with the "do no significant harm" principle is considered fulfilled as this has already been verified.

The EU Taxonomy criteria are also named in some of the recitals of the other legislative proposals of the "Fit for 55" package, showing the criteria (cf. Recital 26 EPBD) and definitions (e.g. Art. 2 No. 36 EPBD) for climate measures have at least in part been based on or aligned with the Taxonomy Regulation.

- Cohesion policy

In 2014-2020, around EUR 17 billion in cohesion funds were dedicated to building renovation, thus, Cohesion policy has represented a main source of EU public funding for direct investment in improving buildings' energy efficiency and will maintain this role over the 2021-2027 period. It complements the Recovery and Resilience Facility and

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[85] COM - Press release, 2 February 2022, EU Taxonomy: Commission presents Complementary Climate Delegated Act to accelerate decarbonisation, https://ec.europa.eu/commission/presscorner/detail/en/ip_22_711 (accessed 12 February 2022). The draft was approved in principle by the COM on 2 February 2022 and it will be formally adopted when all the language versions are available.

[86] COM Notice, 18.02.2021, Technical guidance on the application of "do no significant harm" under the Recovery and Resilience Facility Regulation, Chapter 2.5, OJ C 58/1, https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52021XC0218(01)&from=EN.

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provides integrated support to building renovation, including for tailor-made renovation programmes at local and regional levels.

The COM highlights that Member States should complement EU co-funded programmes with additional support schemes, e.g. to mobilise private financing the European Regional Development Fund (ERDF)[87], and in rural areas, the European Agricultural Fund for Rural Development (EAFRD) can be used to enhance energy efficiency and the production of renewable energy. The National Energy and Climate Plans and the Long-Term Renovation Strategies are part of the required enabling conditions to access Cohesion Funds from 2021 onwards. Thus, renovation priorities drawn from the National Energy and Climate Plans and Long-Term Renovation Strategies should be set out and Member States that have not yet presented the Long-Term Renovation Strategies are invited to do so.

- InvestEU

The InvestEU programme as a follow up to the EFSI[88] and complementing other EU funding sources, is a single EU-level investment support programme to provide technical assistance and financing backed by an EU budget guarantee to unlock private investments. Financial products for energy renovation of buildings will target the residential sector and focus on social and affordable housing, public buildings, schools and hospitals, SMEs and support for ESCOs to mainstream Energy Performance Contracting. InvestEU is drawing on the experience gained with the Private Finance for Energy Efficiency[89] and the Smart Finance for Smart Buildings initiatives[90] and intends to facilitate needs-driven solutions which are easily accessible for project promoters and use a single set of rules.

This means that a Member State will be able to transfer part of the funding available under cohesion policy to the Member State compartment of InvestEU. The InvestEU programme will also enable linking financial products backed by the InvestEU guarantee with dedicated technical assistance to banks and intermediaries, to local authorities and final beneficiaries. The simplified rules also allow to combine loans with grants and reward best-performing projects with a higher grant rate.

- EIB

The EIB will increase the support for the aggregation into portfolios of building renovation projects and the provision of tailored financial support, ranging from traditional long-term loans to guarantees, equity or receivables financing with its Initiative for Building Renovation. Further the COM states that the EIB should be able to more easily combine technical assistance, project development assistance, loans and grants as a single package in order to scale up the volume and impact of lending for energy efficiency of buildings. The COM will work in cooperation with the Member States, the EIB and market participants to facilitate the implementation of rules for combining EU programmes and instruments, national funds and private funds for renovation projects.

- GBER and State aid

The creation of simpler, clearer and easier-to-apply State aid rules for building renovation, in particular in the residential and social sectors, and clarify the scope of State aid for renewable energy installations for self-consumption is part of the ongoing revision of the GBER[91] and the recently reformed Energy and Environmental Aid Guidelines. On 7 June 2021, the COM published a proposal to revise the Energy and Environmental State aid guidelines (EEAG)[92], which will now be known as the Climate, Energy and Environmental State aid guidelines

[87] Croatia has funded the renovation of 250 000 m^2 and 69 public buildings, such as hospitals and nursery schools with expected annual savings of 70GWh.
[88] https://www.eib.org/de/publications/efsi-the-legacy.htm.
[89] https://www.eib.org/en/products/mandates-partnerships/pf4ee/index.htm.
[90] https://ec.europa.eu/info/news/smart-finance-smart-buildings-investing-energy-efficiency-buildings-2018-feb-07_en.
[91] Regulation (EU) 651/2014 of 17 June 2014, last amended by Regulation (EU) 2021/1237 of 23 July 2021, OJ EU No. L 270/39 of 23 July 2021, p. 39, a consolidated version can be found here: https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:02014R0651-20210801&from=EN.
[92] COM, Guidelines on State aid for environmental protection and energy 2014-2020, OJ C 200, 28.6.2014, p. 1.

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(CEEAG)[93]. The COM applies the new guidelines since 27 January 2022 for all notifiable aid in its compatibility assessment (Point 466 CEEAG).

The GBER has already been revised in some sections. Especially in the area of (co-)financing with InvestEU, significant facilitations have been inserted. Furthermore, the COM has published a draft amendment to the GBER regarding an adaptation to the CEEAG and put it out for consultation[94].

- ETS

Finally, the COM stands ready to advise Member States that are considering using revenues from the ETS and funding opportunities under the ETS Modernisation Fund as a source of funding for building renovation programmes, in particular for lower-income households.

3.4.2.2. *Private investments*

The final report on correlation analysis between energy efficiency and risk by the Energy efficiency Data Protocol and Portal (EeDaPP) found that higher energy efficiency is seen to be correlating with lower mortgage default rates and with increasing asset value[95]. Thus, offering private financing jointly with innovative services for renovation will be an increasingly attractive business proposition that shall be fostered with several initiatives and policy instruments. To achieve the planned improvement the EU, the Member States as well as actors like ESCOs, utilities or banks have to be included[96]:

- The EU

Standardisation of contracts and financial instruments at national and European level, by using existing forums to help replicate and scale up best practices and innovative approaches can help to reduce transaction costs. The COM plans to support these ways of activating private-sector investments through the Energy Efficiency Financial Institutions Group (EEFIG) and the Sustainable Energy Investment (SEI) Forums. As part of the Renewed Sustainable Finance Strategy[97], ongoing efforts are made regarding the three main goals:

- Reorienting capital flows towards a more sustainable economy;
- Mainstreaming sustainability into risk management;
- Fostering transparency and long-termism, i.e. through strengthening sustainability disclosure and accounting rule-making.

Regarding the reorientation of capital flow, the COM is developing the EU Taxonomy[98], with technical screening criteria[99] for the buildings sector, to direct private capital towards sustainable investments in energy renovation, relying on Energy Performance Certificates and nearly zero-energy building standards.

Additionally, the development of green loan, mortgage financing and green bonds shall be inter alia fostered through an upgraded system of Energy Performance Certificates. This system, by demonstrating efficiency gains, will allow banks and other financial institutions to offer credit and mortgage financing to green their portfolios and to pool buildings as a collateral for the issuance of covered bonds. The COM is creating standards and labels for sustainable financial products, such as green mortgages, green loans and green bonds in order to increase the market potential

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93 COM, Guidelines on State aid for climate, environmental protection and energy 2022, https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52022XC0218(03)&from=EN.
94 COM, Draft version amending Regulation (EU) 651/2014, 06.10.2021, https://ec.europa.eu/competition-policy/public-consultations/2021-gber_en.
95 https://eedapp.energyefficientmortgages.eu/wp-content/uploads/2020/08/EeDaPP_D57_27Aug20-1.pdf.
96 COM/2020/662 final, A Renovation Wave for Europe - greening our buildings, creating jobs, improving lives, p. 11 ff.
97 https://ec.europa.eu/info/publications/sustainable-finance-renewed-strategy_en.
98 Regulation (EU) 2020/852 of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088, https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32020R0852&from=de.
99 An overview of the delegated acts based on the Taxonomy Regulation regarding both the technical screening criteria and other acts, e.g. regarding disclosure obligations, can be found here: https://ec.europa.eu/info/law/sustainable-finance-taxonomy-regulation-eu-2020-852/amending-and-supplementary-acts/implementing-and-delegated-acts_en.

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and visibility of efficiency lending products. Additionally, the revision of the Consumer Credit Directive[100] is supposed to create opportunities to adequately reflect a possible lower credit risk of sustainable financial products.

Further, the COM proposes to include the term "deep renovation" in the revised EPBD. This new standard is planned to enable anchoring significant private financing to transparent, measurable and genuinely "green" investments[101].

- Member States

Member States can reduce risk perception and scale up market incentives such as energy-saving tariffs, pay-per-performance public support schemes and energy-saving tenders to attract private intermediaries and aggregators. Member States should also explore innovative financing solutions to generate economic incentives to finance building renovation. Those can be on-tax and on-bill schemes, property-linked finance or taxation tools, such as tax incentives and credits in the context of direct taxation (e.g. income and corporate taxation) and environmental taxation (carbon taxes), property taxation favouring better buildings, earmarking tax revenues for renovation, tax depreciation favouring renovation investments, VAT rates for construction services and sustainable materials in line with the VAT Directive (Annex III), as well as regional and local taxes and fees[102].

Further, the existing energy efficiency obligation schemes under Art. 7 EED (Art. 8 in the COM's proposal for the EED recast) can be effectively used for all types of buildings to engage new intermediaries like utilities, deliver technical expertise and offer aggregated services to reduce transaction and administrative costs. They contribute to delivering on the energy savings obligation under this provision.

- Other actors

Actors like ESCOs, utilities or banks can offer property owners much-needed support in terms of ideas and financing in all phases of a renovation process. They can promote the aggregation of small projects, offer favourable conditions for complex projects with long payback times and unite the various actors involved in taking buildings renovation decisions. ESCOs can be involved through public-private partnerships to attract investment, pool together small-scale and scattered investments, reduce upfront costs and reward the energy savings. Coupling Energy Performance Contracts with resilience contracting by insurers can help the market manage investment risk because insurers have expertise on assessing and offering protection against environmental, climate and other risks.

3.4.3. Increasing the capacity to prepare and implement projects

To help individuals and small local authorities prepare good renovation projects and thus to increase rates and quality of renovation the EU plans to play a stronger role in the assistance of these target groups and in the assistance of the Member States, with the following strategies and instruments:

- The COM will simplify and reinforce technical assistance and together with the EIB will help Member States to design national or local programmes.[103] It is planned to replicate the ELENA model in these programmes and to reward fast implementation and high energy performance by using three financing streams: cohesion policy funds (as a stand-alone support or as a part of a financial instrument operation), the Member State compartment of InvestEU, or the Recovery and Resilience Facility;
- To accompany homeowners or SMEs throughout the preparation and implementation of their projects the COM and the EIB will support the setting up of standardised one-stop shops at national, regional or local

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[100] COM(2021) 347 final, Proposal for a Directive of the European Parliament and of the Council on consumer credits of 30 June 2021, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2021:347:FIN, for an overview see EP Briefing on EU Legislation in Process of October 2021, p. 3-7: https://www.europarl.europa.eu/RegData/etudes/BRIE/2021/698054/EPRS_BRI(2021)698054_EN.pdf.

[101] COM/2020/662 final, A Renovation Wave for Europe - greening our buildings, creating jobs, improving lives, p. 13.

[102] See also: *Bertoldi/Economidou/Palermo/Boza-Kiss/Todeschi,* How to finance energy renovation of residential buildings: Review of current and emerging financing instruments in the EU, WIREs Energy Environ, 2020, https://doi.org/10.1002/wene.384.

[103] This will be based on lessons learnt from the ELENA facility, Private Financing for Energy Efficiency (PF4EE), cohesion policy, JASPERS programme and the Horizon 2020 Project Development Assistance (PDA) facility. Strengthened financing for the ELENA facility has been proposed to come from the InvestEU advisory hub and possibly from other European programmes, COM/2020/662 final, A Renovation Wave for Europe - greening our buildings, creating jobs, improving lives, p. 13 f.

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levels for delivering tailored advice and financing solutions. Local actors can build on this platform to create competence centres for various types of advice on sustainable renovation;

- Also, there will be a new Technical Support Instrument of the Recovery Plan, the EU City Facility and the Project Development Assistance Facility under LIFE, and the administrative capacity building and technical assistance under the post-2020 cohesion policy funds;
- Furthermore, there is the European Smart Cities Marketplace[104] with the Smart Cities Information System that is a knowledge platform to exchange data, experience and know-how and to collaborate on the creation of smart cities, providing high quality of life in a clean, energy efficient and climate friendly urban environment. The Smart Cities Information System brings together project developers, cities, research institutions, industry, experts and citizens from across Europe.[105] The Smart Cities Marketplace builds on the experiences and outcomes of 17 large-scale cross-border cooperative city demonstration projects, known as "Lighthouse projects". These lighthouse projects gather 120 cities, based on more than EUR 400 million funding through Horizon2020 that has leveraged much higher amounts of investments.[106]

3.4.4. Promoting the decarbonisation of heating and cooling;

The heating and cooling sector is highly relevant for buildings' renovation because heating and cooling is responsible for 80% of energy consumed in residential buildings. Thus, the COM plans the application and further development of eco-design and labelling measures, as well as support to district approaches progress reports[107].

The promotion of the decarbonisation of heating and cooling is closely connected to the recast and revision of the EED and the RED. The COM plans to include updated definitions and criteria regarding the heating and cooling sector as well as new Member States' obligations.

3.4.5. Integrated participatory and neighbourhood-based approach

The active participation of citizens as prosumers is crucial to fully reap the potential of a renovation wave in terms of co-benefits. Aside from pure efficiency measures this includes equipping apartment buildings with photovoltaic solar panels on the roofs, thermal storage and heat pumps[108]. In order to facilitate this development, the COM[109]:

- Ensures to fully implement and enforce the EPBD measures[110] by 2025 and a consider whether they need strengthening;
- Presents the implementing and delegated acts on the EU Smart Readiness Indicator[111], as a tool to measure the smart readiness of buildings and raise the awareness of building owners and occupants;
- Will map challenges for products which integrate renewable energy, such as from photovoltaics, on the single market and identified barriers will be removed, including via mutual recognition. In this context, district renovation projects could also be included in the national recovery plans;

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104 Included in the cohesion policy legislative proposal as an European Urban Initiative to strengthen integrated and participatory approach to sustainable urban development for national, regional or local authorities interested in deploying building renovation investments as part of urban renewal, COM/2020/662 final, A Renovation Wave for Europe - greening our buildings, creating jobs, improving lives, p. 14.
105 https://smartcities-infosystem.eu/content/about-smart-cities-information-system-scis.
106 COM/2020/662 final, A Renovation Wave for Europe - greening our buildings, creating jobs, improving lives, p. 14; https://smartcities-infosystem.eu/scc-lighthouse-projects.
107 COM/2020/662 final, A Renovation Wave for Europe - greening our buildings, creating jobs, improving lives, p. 6.
108 COM/2020/662 final, A Renovation Wave for Europe - greening our buildings, creating jobs, improving lives, p. 17.
109 COM/2020/662 final, A Renovation Wave for Europe - greening our buildings, creating jobs, improving lives, p. 6, 18 f.
110 The EPBD already provides for measures to promote smart infrastructure and the roll-out of charging points for e-mobility.
111 COM Delegated Regulation C(2020) 6930, supplementing Directive (EU) 2010/31/EU by establishing an optional common European Union scheme for rating the smart readiness of buildings, and Implementing Regulation C(2020) 6929, detailing the technical modalities for the effective implementation of an optional common Union scheme for rating the smart readiness of buildings.

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- Will exploit the potential of energy communities as active players in the energy system and therefore monitor the implementation of the Electricity Market Directive[112] and the RED, support their progressive creation and diffusion across Member States, and foster their promotion and disseminate good practices including lessons learnt from EU-funded projects.

Further fostering instruments at local level, are the Covenant of Mayors as a new coalition of willing cities ready to commit to ambitious pledges on building renovation which could feed into the future updates of Long-Term Renovation Strategies, and the Big Buyers for Climate and Environment project that fosters collaboration between big public buyers such as cities, regions, hospitals, central purchasing bodies, utilities, towards piloting and up taking new technologies in areas such as zero emission construction sites.

[112] Directive (EU) 2019/944 of 5 June 2019 on common rules for the internal market for electricity and amending Directive 2012/27/EU, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32019L0944.

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4. ENERGY EFFICIENCY DIRECTIVE

The original EED from 2012[113] established a set of binding measures to help the EU reach its 20% energy efficiency target by 2020. Under the Directive, all EU countries were required to use energy more efficiently at all stages of the energy chain, including energy generation, transmission, distribution and end-use consumption[114].

The original EED was already amended in 2018[115], as part of the Clean Energy for all Europeans package, and was agreed to update the policy framework to 2030 and beyond[116]. The key element of the amended Directive (current EED) is a headline energy efficiency target for 2030 of at least 32.5%. The target, to be achieved collectively across the EU, is set relative to the 2007 modelling projections for 2030. In absolute terms, this means that EU energy consumption should be no more than 1.273 Mtoe of primary energy and/or no more than 956 Mtoe of final energy[117].

Taking account of the withdrawal of the UK, the COM has taken a decision that the equivalent target after the UK no longer applies. EU law should be no more than 1128 Mtoe of primary energy and no more than 846 Mtoe of final energy[118].

Other elements in the amended Directive include:

- stronger rules on metering and billing of thermal energy by giving consumers clearer rights to receive more frequent and more useful information on their energy consumption;
- requiring 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 multi-purpose buildings;
- monitoring efficiency levels in new energy generation capacities;
- updated primary energy factor (PEF) for electricity generation of 2.1 (down from the current 2.5);
- a general review of the EED (required by 2024).

The Directive entered into force in December 2018 and should be transposed into national law by Member States by 25 June 2020. Under the Governance Regulation[119] Member States are required to draw up integrated 10-year National Energy and Climate Plans outlining how they intend to meet the energy efficiency and other targets for 2030.

As explained above, in line with the “Fit for 55” package, and especially the Renovation Wave, the EED will be revised and changed in several aspects. The legislative process and relevant possible changes will be discussed in the following.

The current proposal by the COM contains changes regarding several topics. Especially the new energy efficiency targets, both for the Member States and the European Union, the emphasis on the Energy Efficiency First principle, new rules for the public and heating and cooling sector shall be further explained in the following. As the legislative process is still ongoing, it is not clear what provisions will find their way in the revised EED. However, an analysis of

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113 https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1399375464230&uri=CELEX:32012L0027.

114 Directive 2012/27/EU of 25 October 2012 on energy efficiency, amending Directives 2009/125/EC and 2010/30/EU and repealing Directives 2004/8/EC and 2006/32/EC, https://ec.europa.eu/energy/topics/energy-efficiency/targets-directive-and-rules/energy-efficiency-directive_en#the-2012-energy-efficiency-directive-.

115 Directive (EU) 2018/2002 of 11 December 2018 amending Directive 2012/27/EU on energy efficiency, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.L_.2018.328.01.0210.01.ENG.

116 https://ec.europa.eu/energy/topics/energy-efficiency/targets-directive-and-rules/energy-efficiency-directive_en#content-heading-0.

117 Final energy is energy consumed by end users, primary energy also includes energy consumption for the production and supply of energy.

118 Decision (EU) 2019/504 of 19 March 2019 on amending Directive 2012/27/EU on energy efficiency and Regulation (EU) 2018/1999 on the Governance of the Energy Union and Climate Action, by reason of the withdrawal of the United Kingdom of Great Britain and Northern Ireland from the Union, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32019D0504.

119 Regulation (EU) 2018/1999 of 11 December 2018 on the Governance of the Energy Union and Climate Action, amending Regulations (EC) No 663/2009 and (EC) 715/2009, Directives 94/22/EC, 98/70/EC, 2009/31/EC, 2009/73/EC, 2010/31/EU, 2012/27/EU and 2013/30/EU, Council Directives 2009/119/EC and (EU) 2015/652 and repealing Regulation (EU) 525/2013.

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the current proposal by the COM offers the possibility to get an impression of the general direction the recast is heading and to make objections or recommendations to influence the discussion and possibly the outcome of the final revised EED.

4.1. Current legislative process

- 15/07/2021: The proposal by the COM for the recast of the EED was published[120];
- 22/02/2022: Draft of the rapporteur of the European Parliament[121];
- It is currently discussed within the Council of the European Union[122].

4.2. New targets and obligations

Art. 4 para. 1 and 2 recast EED proposal concern the energy efficiency targets. It is foreseen that the Member States have to collectively ensure a reduction of the Union's energy consumption of at least 9% in 2030 compared to the projections of the 2020 Reference Scenario. This means that Art. 4 para. 1 recast EED proposal sets a binding Union target where each Member State has to make national energy efficiency contributions for final and primary energy consumption to collectively meet this target.

4.2.1. Updated binding Union target

As already mentioned, the EED was formerly realigned in 2018 through the Clean Energy for all Europeans package with an increase of the European energy efficiency target from 20% to 32.5% for 2030 (maximum final energy consumption of 846 Mtoe and maximum primary energy consumption of 1128 Mtoe).

However, the planning and commitment of the Member States, based on an analysis of their National Energy and Climate Plans, shows an ambition gap. The sum of national contributions would lead to a reduction of only 29.4% regarding the final energy consumption (and therefore leads to a gap of 3.1%) and 29.7% regarding the primary energy consumption (which corresponds to 1176 Mtoe final energy consumption in absolute numbers and leads to a gap of 2.8%) respectively[123].

To facilitate energy efficiency measures even more, Art. 4 para. 1 recast EED proposal foresees a new binding Union target which is even more ambitious in comparison to the current indicative target. Although the 9% are an inferior number in comparison to 32,5%, it corresponds to the climate target plan with regard to energy efficiency targets of 39% and 36% for primary and final energy consumption, respectively because in the climate target plan the baseline projections from 2007 were still used as the benchmark and the new binding Union target takes 2020 as an updated baseline scenario.

In absolute numbers, this means:

- The 32.5% target (Art. 3 para. 5 current EED):
    - Primary energy consumption: No more than 1.273 Mtoe;
    - Final energy consumption: No more than 956 Mtoe.
    - = Reduction of primary energy consumption by 26% and final energy consumption by 20% compared to 2005 (Recital 6 current EED).

[120] COM/2021/558 final, Proposal for a Directive of the European Parliament and of the Council on energy efficiency (recast), https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52021PC0558.
[121] https://oeil.secure.europarl.europa.eu/oeil/popups/ficheprocedure.do?reference=2021/0203(COD)&l=en.
[122] https://eur-lex.europa.eu/legal-content/EN/HIS/?uri=CELEX:52021PC0558.
[123] See Recital 8 recast EED proposal and COM(2020) 564 final, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, An EU-wide assessment of National Energy and Climate Plans, Driving forward the green transition and promoting economic recovery through integrated energy and climate planning, https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1600339518571&uri=COM%3A2020%3A564%3AFIN.

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- Without the United Kingdom these numbers were changed to:
    - Primary energy consumption: No more than 1128 Mtoe;
    - Final energy consumption: No more than 846 Mtoe.
- The new 9% target (Art. 4 para. 1, recast EED proposal):
    - Primary energy consumption: No more than 1023 Mtoe;
    - Final energy consumption: No more than 787 Mtoe.
    - = Reduction of primary energy consumption by 32% and final energy consumption by 23% compared to 2005 (Recital 24 recast EED proposal).

4.2.2. Member States' contributions

According to Art. 3 para. 2 recast EED proposal, the corresponding Member States' national contributions must be submitted to the COM together with an indicative national target path in the context of the updated National Energy and Climate Plans in accordance to Art. 14 Governance Regulation.

Although the current recast proposal by the COM foresees to delete the term "indicative", it seems that the Member States' contributions will be indicative anyhow (contrary to the Union target that is planned to be binding). Art. 4 para. 2 recast EED proposal itself foresees that the Member States shall notify their contributions together with an indicative trajectory for those contributions and Art. 1 para. 1 recast EED proposal states that the Directive provides for the establishment of indicative national energy efficiency contributions. This is in line with the COM's explanatory memorandum to the recast EED proposal, where it states that Art. 1 and 4 set indicative national energy efficiency contributions and that national contributions remain indicative given strong opposition by the majority of Member States towards binding national targets expressed in the public consultation and in other fora[124]. Furthermore, Annex I to the recast EED proposal states that the level of national contributions is calculated based on the indicative formula and in their Questions and Answers document the COM speaks of indicative contributions by the Member States as well[125].

The basis for the respective national contributions is a combination of criteria reflecting national circumstances of each country. These include energy intensity, GDP per capita, and energy savings potential[126], Art. 4 para. 2 (e) recast EED proposal. Further, the recast EED proposal foresees in Art. 4 para. 2 that all relevant factors affecting efficiency efforts must be considered, for example the collective level of ambition required to achieve climate targets, equitable distribution of effort across the Union, energy intensity of the economy and for other national circumstances affecting the energy consumption. The recast EED proposal now includes the consideration of developments in the energy mix and use of new sustainable fuels and the decarbonization of energy-intensive industries.

4.2.3. Governance mechanism

The COM proposes a kind of governance in the recast EED proposal that is connected to the already existing Governance Regulation. For countries that fall short on their national contributions, Art. 4 para. 3 recast EED proposal foresees new enhanced mechanisms to close the gaps complementing the mechanisms that were already proposed in the Governance Regulation[127].

These mechanisms can be explained in three steps:

- If Member States are above their exceeding indicative trajectory, they have to explain in their National Energy and Climate Progress Report how this gap will be covered to ensure reaching its national energy efficiency contributions, second subparagraph of Art. 4 para. 3 recast EED proposal.

[124] COM/2021/558 final, Explanatory Memorandum, p.20.
[125] COM - Press release, 14.07.2021, https://ec.europa.eu/commission/presscorner/detail/en/QANDA_21_3544.
[126] COM - Press release, 14.07.2021, https://ec.europa.eu/commission/presscorner/detail/en/QANDA_21_3544.
[127] COM/2021/558 final, Explanatory Memorandum, p.20.

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- Member States that make insufficient progress towards meeting the energy efficiency contributions and are above their indicative trajectories have to ensure that additional measures are implemented in order to ensure getting back on track to reach their energy efficiency contributions, first subparagraph of Art. 4 para. 3 recast EED proposal.

  Those measures can be, inter alia:

  - National measures delivering additional energy savings, including stronger project development assistance for the implementation of energy efficiency investment measures;
  - Increasing the energy savings obligation set out in Art. 8 recast EED proposal;
  - Adjusting the obligation for public sector;
  - Making a voluntary financial contribution to the National Energy Efficiency Fund referred to in Art. 25 recast EED proposal or another financing instrument dedicated to energy efficiency, where the annual financial contributions shall be equal to the investments required to reach the indicative trajectory.

- If and where those national measures are deemed to be insufficient, the COM shall, as appropriate, propose measures and exercise its power at Union level in addition to those recommendations in order to ensure, in particular, the achievement of the Union's 2030 targets for energy efficiency, third subparagraph of Art. 4 para. 3 recast EED proposal.

4.2.4. Other Member States' obligations

Art. 8 para. 1 recast EED proposal nearly doubles the individual Member States' annual energy savings obligation in addition to the savings they achieve through the implementation of EU legislation. This obligation is one of the main policy instruments to ensure that the European economy is more energy efficient. It is planned that Member States will be required to achieve new savings of final energy consumption of at least 1.5% each year from 2024 to 2030, up from current 0.8% in Art. 8 para. 1 (c) recast EED proposal as important instrument of the EED, helping to drive active energy savings in end-use sectors such as buildings, industry and transport[128].

To fulfil those obligations and to achieve the amount of savings the Member States shall designate, on the basis of objective and non-discriminatory criteria, obligated parties among transmission system operators, energy distributors, retail energy sales companies and transport fuel distributors or transport fuel retailers operating in their territory, Art. 9 para. 1, 2 recast EED proposal. According to Art. 9 para. 5 recast EED proposal the Member States are allowed to require obligated parties to work with local authorities or municipalities to promote energy efficiency improvement measures among people affected by energy poverty, vulnerable customers and, where applicable, people living in social housing. Further, to protect those people, the Member States shall encourage the obligated parties to carry out actions such as renovation of buildings, including social housing, replacement of appliances, financial support and incentives for energy efficiency improvement measures in conformity with national financing and support schemes, or energy audits.

Further, Art. 11 recast EED proposal foresees obligations for enterprises with high energy consumption which have to be ensured by the Member States. Therefore, Member States have to ensure that enterprises with an average annual consumption higher than 100TJ of energy over the previous three years and taking all energy carriers together, implement an energy management system, which is certified by an independent body according to the relevant European or International Standards. Regarding enterprises with an average annual consumption higher than 10TJ of energy over the previous three years and taking all energy carriers together that do not implement an energy management system, the Member States have to ensure that they are subject to an energy audit, which is carried out in an independent and cost-effective manner by qualified or accredited experts at least every four years.

[128] COM - Press release, 14.07.2021, https://ec.europa.eu/commission/presscorner/detail/en/QANDA_21_3544.

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4.3. The Energy Efficiency First principle

The recast EED proposal especially emphasises the Energy Efficiency First principle, a principle that was already recognised at the EU level as a leading principle for energy efficiency with the adoption of the Energy Union Communication in February 2015 and was embedded in the Governance Regulation and the EED from 2018[129]. It was firstly defined in Art. 2 (18) Governance Regulation:

"'energy efficiency first' means taking utmost account in energy planning, and in policy and investment decisions, of alternative cost-efficient energy efficiency measures to make energy demand and energy supply more efficient, in particular by means of cost-effective end-use energy savings, demand response initiatives and more efficient conversion, transmission and distribution of energy, whilst still achieving the objectives of those decisions;"

However, it was not really clear how it should be realised in practice by the Member States as there were no binding provisions but rather a just general definition of what efficiency first means[130].

4.3.1. In general

To tackle these challenges and to live up to the characterisation of Energy Efficiency First as a key principle of the Renovation Wave Strategy, a new Art. 3 is introduced in the recast EED proposal which is especially dedicated to the regulation of the Energy Efficiency First principle.

The implementation of the principle in this is foreseen in three steps:

- Consideration, Art. 3 para. 1 recast EED proposal;
- Verification, Art. 3 para. 2 recast EED proposal;
- Application, Art. 3 para. 3 recast EED proposal.

Consideration means that the Member States must consider energy efficiency solutions in planning, policy and major investment decisions in:

- the energy systems sector;
- the non-energy sectors when they impact energy consumption and energy efficiency.

Verification means that a review by relevant agencies is necessary in the fields of policy, planning, and investment decisions that are subject to permitting and monitoring requirements.

Application means Member States have to

- Promote and, where cost-benefit assessments are required, ensure the application of cost-benefit methodologies that allow proper assessment of wider benefits of energy efficiency solutions from the societal perspective;
- Identify an entity responsible for monitoring the application of the Energy Efficiency First principle and the impacts of planning, policy and investment decisions on energy consumption and energy efficiency;
- Report to the COM, as part of the National Energy and Climate Progress Reports in accordance with Art. 17 Governance Regulation on how the principle was taken into account in the national and regional planning, policy and major investment decisions related to the national and regional energy systems.

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[129] C(2021) 7014 final, Annex to the Commission Recommendation on Energy Efficiency First: from principles to practice. Guidelines and examples for its implementation in decision-making in the energy sector and beyond, p. 5, https://ec.europa.eu/transparency/documents-register/detail?ref=C(2021)7014&lang=en.

[130] Art. 2 (18) Governance Regulation defines Energy Efficiency First as taking utmost account in energy planning, and in policy and investment decisions, of alternative cost-efficient energy efficiency measures to make energy demand and energy supply more efficient, in particular by means of cost-effective end-use energy savings, demand response initiatives and more efficient conversion, transmission and distribution of energy, whilst still achieving the objectives of those decisions.

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Regarding the planning level, Art. 25 recast EED proposal addresses the national energy regulatory authorities and obliges them to apply the Energy Efficiency First principle in accordance with Art. 3 recast EED proposal when carrying out regulatory tasks regarding their decisions on the operation of the gas and electricity infrastructure, including their decisions on network tariffs.

4.3.2. Recommendation and Guidelines on Energy Efficiency First

To offer even more input on how to realise Energy Efficiency First in practice, i.e. to convert the concept from a principle into practice, the COM published the so called "Recommendation and Guidelines on Energy Efficiency First" on 28 September 2021[131].

To reduce energy poverty, pollution etc., the Energy Efficiency First principle has to be implied in all energy sectors. Therefore, making the principle more operational is a key aspect regarding energy efficiency. Here the Recommendation and guidelines on Energy Efficiency First set specific requirements on how the principle should be implied and that it is implied at all. However, although the Recommendation and Guidelines on Energy Efficiency First will facilitate the implementation of the principle, they are only the first step as another further important aspect is the following learning by doing phase.

The Recommendation and Guidelines on Energy Efficiency First consist of two documents. A main text with a reason for taking action and eight recommendations[132] and an annex[133] with guidelines for further explanation.

4.3.2.1. ***Recommendations***

In summary, the COM recommends that the Energy Efficiency First principle is applied and verified in policy, planning and investment decisions but is also treated as an overarching principle in a wider policy context to take a system approach. Therefore, the enabling framework conditions as well as information, guidance and assistance to relevant entities, in particular at local level, shall be provided, which includes that all statistics that relates to monitoring of the progress shall be made public and available. Further, the Member States shall follow and promote the guidelines provided in the Annex to the recommendations.

In detail, the COM recommends the Member States to:

- Ensure that the Energy Efficiency First principle is **applied in policy, planning and investment decisions** at various decision-making levels when energy demand or supply is affected. The principle needs to be applied in a proportional way depending on the context, objectives and impacts of the decision concerned. Existing modalities for applying the Energy Efficiency First principle should be given priority and should not be duplicated.
- Treat the Energy Efficiency First principle **as an overarching principle to be applied in a wider policy context, rather than an ultimate goal to reduce energy consumption**. The principle shall be applied in conjunction and compliance with other policy objectives. Even if other policy objectives prevail, it shall not be disqualified by default.
- **Take a system approach** when applying the Energy Efficiency First principle while paying attention to security of supply and the transition to climate neutrality. Assess cost-effectiveness and wider benefits of energy efficiency measures from a societal perspective when making strategic decisions, designing regulatory frameworks and planning future investment schemes. Demand side resources and flexibility shall be considered as part of energy efficiency solutions from a system efficiency perspective. At asset level the

[131] COM - News, 28.09.2021, https://ec.europa.eu/info/news/commission-publishes-recommendation-and-guidelines-energy-efficiency-first-principle-2021-sep-28_en; C/2021/7014, Commission Recommendation (EU) 2021/1749 of 28 September 2021 on Energy Efficiency First: from principles to practice — Guidelines and examples for its implementation in decision-making in the energy sector and beyond, https://eur-lex.europa.eu/eli/reco/2021/1749/oj.
[132] C/2021/7014, Commission Recommendation (EU) 2021/1749 of 28 September 2021 on Energy Efficiency First: from principles to practice — Guidelines and examples for its implementation in decision-making in the energy sector and beyond.
[133] C(2021) 7014 final, Annex to the Commission Recommendation on Energy Efficiency First: from principles to practice. Guidelines and examples for its implementation in decision-making in the energy sector and beyond.

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principle shall lead to the selection of energy-efficient solutions, whenever they also represent a cost-effective decarbonisation pathway.

- Ensure that the application of the Energy Efficiency First principle is **verified by the relevant entities** in those cases where policy, planning and investment decisions are subject to approval and monitoring requirements. Identify and define competences of these relevant entities and set modalities for monitoring the impacts of policy and investment decisions on energy consumption. If needed and without duplicating existing assessments, establish new additional verification procedures for projects that are likely to have significant impacts on energy demand or supply by virtue, in particular of their nature, size or location.
- **Provide the framework conditions that enable the application of the principle and remove barriers** to the Energy Efficiency First principle in all relevant policy areas and sectors. The application of the principle shall be accompanied by adequate incentives and measures addressing distributional impacts and ensuring that societal benefits are maximised.
- **Provide information, guidance and assistance to relevant entities, in particular at local level**, on how the Energy Efficiency First principle should be applied. In this context, if there is no system in place ensuring application of the principle, the relevant national regulatory authority shall develop, provide and promote the application of a **cost-benefit assessment methodology** that would allow estimating energy savings co-benefits. The methodology should be adapted and applicable to energy related sectors, in particular energy generation, transformation, transmission and distribution (in line with Art. 15 recast EED proposal), and energy using sectors, such as buildings, industry, transport, Information and Communications Technology (ICT) services and agriculture. The assessment should take into account the future impacts of climate change on the energy system, including on the energy efficiency solutions themselves. The methodology shall be made public and available to all relevant entities.
- Ensure sufficient resources are allocated for data collections, compilation of statistics and monitoring developments in energy efficiency. **All statistics that relate to monitoring of the progress of energy efficiency shall be made public and available to all relevant entities** with respect to principles of statistical confidentiality.
- **Follow and promote the guidelines provided in the Annex** to this Recommendation, when applying the Energy Efficiency First principle.

4.3.2.2. ***Enabling legal framework***

The Annex is even more detailed in offering Energy Efficiency First principle guidelines. After a description of the definition of the Energy Efficiency First principle and general aspects of the application at European level, it is highlighted that an appropriate enabling legal framework that, inter alia, addresses the barriers to energy-efficient solutions is necessary for the implementation of, both, the principle itself and energy-efficient measures[134].

In order to asses if the Energy Efficiency First principle is applicable in a specific case (be it a policy initiative, regulation or a project) an initial screening is developed. This screening consists of three questions groups (each of them consisting of several questions itself), which shall determine if energy efficiency is relevant in the given case[135]. The three groups are:

- Is energy efficiency an option?
    - In this question group it shall be asked if there is a scope for the application of the Energy Efficiency First principle, i.e. if energy consumption is affected or energy supply is expanded, if energy efficiency would be an adequate approach to reach the objectives in the given context and if an

[134] C(2021) 7014 final, Annex to the Commission Recommendation on Energy Efficiency First, p. 15.
[135] C(2021) 7014 final, Annex to the Commission Recommendation on Energy Efficiency First, p. 15 ff.

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energy efficient solution would be have a viable effect to reach given objectives. Only if all of these aspects are appropriate the next question group is relevant.

- Is energy efficiency option feasible to implement?
    - In this question group it shall be checked if it is certain that:
        - It possible to properly estimate direct and wider benefits of energy efficiency solutions at the energy system or individual appliances level;
        - Barriers exist that affect the possible energy efficiency solution;
        - Energy efficiency solutions are effective in reaching/contributing to the given objectives.
    - If this is not certain a further action in line with the Energy Efficiency First principle is needed; if it is certain, the Energy Efficiency First principle seems to be applicable; However, in either case, the third question group should be looked at.
- Can energy efficiency option be properly implemented?
    - Here it shall be checked if it is certain that the responsible entities for implementation know how to assess energy efficiency solutions, sufficient resources and information available to implement energy efficiency solutions exist and mechanisms are in place that allow enforcing and verification of the implementation;
    - If this is not certain, additional action is needed to ensure that the Energy Efficiency First principle could be followed-up with a proper choice of the best solutions, which does not necessarily mean that specific provisions need to be included in the legislation or in the rules as the issues can also be addressed outside the legal framework.

In case the first set of questions indicates that energy efficiency can be part of the solution, it is seen as important that the provisions are set in the right way and therefore, in particular[136]:

- Explicitly indicate that energy efficiency is a possible solution to be looked at and prioritised if it is cost-efficient and fit for purpose;
- Recognise the role of energy efficiency in addressing other objectives, such as reduction of greenhouse gas emissions, pollutants and use of non-energy resources, improvement of health and comfort, reduction of energy poverty;
- Make sure that the requirements allow for energy efficiency across energy supply, transmission, distribution and consumption, and in particular for the application of demand-side solutions. Technical specifications should not hamper energy integration or application of energy efficiency;
- Define the performance rather than a concrete solution to be achieved. Performance based regulation would enable energy efficiency on equal footing with other alternatives;
- Specify roles and obligations of various players in assessing and verifying energy efficiency solutions;
- Provide clear criteria and methodology for assessing costs and benefits of energy efficient solutions and impacts on energy consumption;
- Refer to information and data (to be) used for assessment of existing energy savings potential, costs and benefits of energy efficiency;
- Make sure energy efficiency is eligible, and even preferable, for public support and financing;

[136] C(2021) 7014 final, Annex to the Commission Recommendation on Energy Efficiency First, p. 17 f.

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- Include monitoring of impacts on energy consumption and verification of other impacts of energy-efficient solutions.

Furthermore, awareness raising about possible energy efficiency measures, their costs and benefits and ways of their optimal implementation is highlighted as a key factor linked to the rules and requirements[137].

In order to assess barriers, a catalogue of potential barriers that are needed to be looked at when defining the right policy framework is provided, inter alia containing regulatory and financial barriers. In this context it is highlighted that some of the barriers can be related to the resources devoted by public authorities to energy efficiency and that it is important to build the necessary administrative capacity and expertise in energy efficiency, and to ensure that sufficient financial resources are available to public bodies for assisting market entities and consumers in the implementation of energy-efficient solutions and for monitoring the policy impacts[138].

It is also highlighted that the form of relevant actions enabling the analysis and implementation of energy efficiency solutions will normally be defined in energy efficiency policy measures and as thus can take different legal forms, which go beyond the discussion of the Energy Efficiency First principle and are rather a part of energy policy development[139]. However, any binding target and prescriptive requirement to use energy-efficient solutions achieves the objectives of the Energy Efficiency First principle[140].

4.3.2.3. *Incentivising, funding, support*

Benefits from energy efficiency can have positive effects in different ways. The measures can concern decision-making of investors, apply more to society or benefit the final user. They can also have negative impacts on first sight, e.g. for utilities, because when consumers save energy, utilities sell less of their product. Therefore, the COM highlights the importance to change business models favouring higher energy sales to business models that reward energy services or the achievement of a certain level of comfort to incentivise energy efficiency. Regarding building renovations, especially the relatively high up-front costs combined with long pay back periods are seen as problematic. Therefore, incentives are needed, so that wider benefits of energy efficiency measures are considered and the choices of individuals are influenced[141].

Regarding funding and financial support, four aspects are mentioned by the COM[142]:

- Supporting implementation of a dedicated vehicle for energy efficiency;
    - Setting up a dedicated energy efficiency fund or scheme (especially combined with advisory support) may provide stronger incentives for energy efficiency investments because it can promote energy efficiency projects and provide clarity to investors on the financial support;
    - It can help creating an exemplary framework under which the Energy Efficiency First principle is fully applied.
- Applying the Energy Efficiency First principle to all relevant areas of EU funding instruments;
    - It is important to define eligibility criteria for financial support by setting energy efficiency targets and benchmarks in order to prioritise energy efficient projects. EU funds should establish energy consumption or efficiency improvement thresholds based on best available technologies;
    - The promotion of the Energy Efficiency First principle should be considered in the context of the Cohesion Policy Funds by the managing authorities by including the principle in the priorities and

[137] C(2021) 7014 final, Annex to the Commission Recommendation on Energy Efficiency First, p. 18.
[138] C(2021) 7014 final, Annex to the Commission Recommendation on Energy Efficiency First, p. 18.
[139] C(2021) 7014 final, Annex to the Commission Recommendation on Energy Efficiency First, p. 18 f.
[140] C(2021) 7014 final, Annex to the Commission Recommendation on Energy Efficiency First, p. 19.
[141] C(2021) 7014 final, Annex to the Commission Recommendation on Energy Efficiency First, p. 19.
[142] C(2021) 7014 final, Annex to the Commission Recommendation on Energy Efficiency First, p. 19 ff.

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objectives, and adequately reflect it in the eligibility grid. Interreg programmes should consider these actions in a cross-border or transnational context;

  - By setting specific selection criteria for measures or modulating the aid intensity energy efficiency projects could be prioritised or benefitted;
  - InvestEU invites Implementing Partners to include an energy efficiency section in their submission files, which would constitute a self-standing element of their due diligence when assessing projects;
  - Public authorities and Implementing Partners of EU Funds developing and implementing measures where energy efficiency is the primary objective are encouraged to provide a solid justification about how energy efficiency is central and how the risk of greenwashing is not applicable to them.
- Providing technical assistance to help fund managers and project promoters applying the Energy Efficiency First principle;
  - Risk perception, aggregation and assistance for project development should be promoted to applicants and fund managers;
  - The COM can offer advisory services to managing authorities, inter alia with the Regulation establishing a Technical Support Instrument[143] and is working on the development of specific advisory products (based on successful experiences from the EIB and other potential implementing partners) for financial institutions benefitting from EU programmes, to reflect the Energy Efficiency First principle during the assessment (due diligence) implementation (project development);
  - Project promoters willing to implement energy efficiency investments or to include the principle can receive ad hoc technical assistance from the EU advisory hub, ELENA, cohesion policy programmes and other project development assistance under the LIFE Clean Energy Transition programme. In some cases, energy audit costs may be (partly) eligible to EU support;
  - Technical assistance will help managing authorities, financial institutions and project promoters to use adequate indicators and methodologies measuring energy savings, and may cover part of the monitoring requirements such as energy audits for the considered assets.
- Reflecting the Energy Efficiency First principle in State aid guidelines;
  - Energy efficiency is addressed under the CEEAG and the GBER, both of which are currently under revision (see below 7.5.1. and 7.5.2.). State aid rules are relevant for national funding as well as funding under Unions shared management (see below 7.1.). In Point 3 CEEAG, the COM clearly commits to the Energy Efficiency First principle as well in the design of the CEEAG. However, regarding the criteria laid out in the CEEAG, the only other explicit mention is that the COM will assess whether compliance with the Energy Efficiency First principle might be an alternative, more appropriate policy instrument instead of State aid (Point 40 CEEAG). Clearly, this does not mean that Energy Efficiency First only has to be considered outside of State aid. A review of the various specific criteria of the CEEAG, depending on the area of application shows that an approach in the sense of Energy Efficiency First can be found in many places, starting with the inclusion of specific criteria for efficiency measures. For example, the aid intensity for building measures that lead to a more ambitious improvement can be higher than for other efficiency measures (Point 148 CEEAG). In the general compatibility criteria applicable to all measures, it only states that the selection criteria in a bidding process should as a general rule put the contribution to the main objectives of the measures in direct or indirect relation with the requested aid amount, which may be expressed in terms of aid per unit of environmental protection or aid per unit of energy. In bidding processes which do not have efficiency as the main objective, it could still be considered and account for up to 30% of the weighting of all the selection criteria (Point 50 CEEAG). Dogmatically and systematically, however,

[143] Regulation (EU) 2021/240 of 10 February 2021 establishing a Technical Support Instrument.

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Energy Efficiency First should specifically be included in the general compatibility criteria because the status quo suggests that the consideration of Energy Efficiency First would be up to the Member States.

Furthermore, as already mentioned above, the lack of awareness is an essential problem regarding Energy Efficiency First. The COM highlights several aspects on how to provide information[144]:

- It is necessary to make clear that energy efficiency will increase comfort, performance and quality and to know about potentials and wider impacts of energy efficiency, including a need to simplify the choice of investing in energy efficiency;
- The COM assumes that a lack of good available data and methodologies as well as limited financial, technical and skills capacity at local level prevents the design of robust heating and/or energy efficiency plans, and from taking energy efficiency into consideration for spatial and development planning. Thus, relevant data must be available and those who are to use it have to be able analyse it;
- As general aspects, the COM mentions that information on energy-efficient solutions needs to be relevant and adjusted to specific contexts and adapted to the target audience. Here it is important to present expected energy savings of a given action technology or solution together with the information;
- Regarding financing aspects, the COM highlights that financial institutions need to have knowledge of real risks and benefits of energy efficiency investments. One important tool in this regard is the De-risking Energy Efficiency Platform (DEEP) database[145] with energy and financial performance data from energy efficiency projects supported by EU, national and local public funding. The COM encourages public authorities, project promoters and financial institutions to fill in this database in order to further increase and expand the information on the energy efficiency potential in order to de-risk energy efficiency and up-scale energy efficiency investments;
- The COM also highlights that a compliance regime is necessary to verify that assets comply with the EPBD legislation as well as energy efficiency obligations. Financial institutions shall include energy audits and should increase their technical capacity to develop dedicated green financial instruments (green mortgages or loans). Further, financial institutions must ensure that their investment portfolios comply with energy efficiency standards over time and the use of Energy Performance Certificates is planned to be fostered by the COM[146].

4.3.2.4. *Leading role of the public sector*

Regarding the public sector its responsibility to lead by example is highlighted (as well as in the EED and EPBD itself). Here the main focus lies on the promotion of energy-efficient behaviour, products and services rather than an overall significant impact in absolute terms[147].

Three aspects to fulfil this leading role are described[148]:

- Objectives for public buildings in terms of energy performance or renovation rates regarding implementing various energy efficiency solutions to demonstrate their feasibility and benefits (e.g. exceed the mandatory nearly zero-energy buildings requirements set by Art. 9 EPBD proposal) and their presentation. Energy Performance Certificate classes shall be communicated to the public (Art. 13 EPBD proposal). Within Energy Performance Certificates, supplementary information that could promote energy efficiency solutions, e.g. expected wider benefits in terms of greenhouse gas emissions reductions should also be considered.

[144] C(2021) 7014 final, Annex to the Commission Recommendation on Energy Efficiency First, p. 21 f.
[145] https://deep.eefig.eu/.
[146] C(2021) 7014 final, Annex to the Commission Recommendation on Energy Efficiency First, p. 56.
[147] C(2021) 7014 final, Annex to the Commission Recommendation on Energy Efficiency First, p. 22.
[148] C(2021) 7014 final, Annex to the Commission Recommendation on Energy Efficiency First, p. 23.

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- Strengthening the procurement of energy-efficient products and services. Energy performance criteria should become widespread in public tenders and have substantial weight in the assessment and selection of offers as a central condition and/or award criteria in public tenders.
- Use, promote and communicate energy services and Energy Performance Contracting, energy audits, energy management systems.

4.3.2.5. *Cost-benefit analysis*

Another important aspect regards the analysis of policy impacts and alternatives. This analysis could be part of regulatory impact assessments or cost-benefit analysis. While conducting comprehensive impact assessments is normally requested by law, a cost-benefit analysis (stand-alone or as key component of an impact assessment) could be part of preparing investment or policy decisions with impact on energy consumption or energy supply. However, any cost-benefit analysis methodology should be based on the regulatory framework defined by the policymakers and consider conditions and constraints for applying energy efficiency solutions. The COM highlights that in the field of Energy Efficiency First such a cost-benefit analysis has to be done whenever possible from the societal perspective but also environmental and economic impacts need to be considered[149].

Regarding these three aspects, the COM further defines what should be included respectively[150]:

- Social impacts include especially health and well-being, and energy poverty;
- Environmental impacts include reductions in greenhouse gas emissions, reductions in emissions of local air pollutants and other greenhouse gases, impacts on ecosystems (including impacts on water consumption) and impacts on material consumption;
- Economic impacts include needed investments, capital costs and effects on public budgets.

4.3.2.6. *Buildings*

Regarding the buildings' sector, the COM highlights several aspects that shall be implemented to extent the already existing possibilities in the EED and the EPBD. Therefore, increase of the depth of renovations and make use of an economic and societal opportunity is important. Step-by-step approaches should be detailed from the beginning, for example by making use of a Building Renovation Passport, focusing on the potential to reduce whole life carbon emissions. Buildings can actively participate in demand response schemes in their capacity of heat and cold storage and time deferred use of certain appliances. And they are well disposed for decentralised renewable energy production and storage[151].

The COM further lists specific areas that have to be looked at and gives several examples of measures:

- Relevant areas are, inter alia, financing of building renovation programmes, public procurement rules and support tools, the full spectrum of buildings retrofit, local spatial planning and urbanistic permitting, administrative processes, building standards, local renewable production capacity and demand response capacity and synergies between energy efficiency measures and standalone small-scale renewable projects in buildings[152];
- The examples of measures contain, inter alia, inclusion of building renovations in the auctioning of renewable energy sources, innovative financing schemes for the renovation of buildings, including energy efficiency mortgages, linking financing to the implementation of the Smart Readiness Indicator and to post-ante audits[153], linking permitting of localisation of buildings to renewable energy potential and public transport

[149] C(2021) 7014 final, Annex to the Commission Recommendation on Energy Efficiency First, p. 23 ff.
[150] C(2021) 7014 final, Annex to the Commission Recommendation on Energy Efficiency First, p. 28 ff.
[151] C(2021) 7014 final, Annex to the Commission Recommendation on Energy Efficiency First, p. 46 f.
[152] C(2021) 7014 final, Annex to the Commission Recommendation on Energy Efficiency First, p. 48.
[153] To ensure the actions deployed had a significant impact on energy efficiency of buildings to link financial measures for energy efficiency improvements in the renovation of buildings to the targeted or achieved energy savings.

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networks, and using Energy Performance Contracts to ensure guaranteed, measurable and predictable energy efficiency gains[154].

4.4. Energy Performance Contracting/energy service providers

Energy Performance Contracting is a mechanism for organising the energy efficiency financing involving an ESCO providing various services (finances, guaranteed energy savings etc.). Both are mostly found in the public sector[155]. Energy Performance Contracting is defined in Art. 2 (29) recast EED proposal as 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 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.

There are several provisions in the EED (old and new) that concern Energy Performance Contracting:

- Art. 7 para. 3 recast EED proposal obliges Member States to ensure that contracting authorities and contracting entities assess the feasibility of concluding long-term Energy Performance Contracts that provide long-term energy savings when procuring service contracts with significant energy content. However, it is not foreseen that some kind of justification is needed if no Energy Performance Contract is concluded although it would be feasible;
- In order to facilitate the implementation of Energy Performance Contracting, Art. 11 para. 7 recast EED proposal foresees exceptions from the obligations of energy management systems and energy audits (according to Art. 11 para. 1 and 2 recast EED proposal) for such enterprises that implement an Energy Performance Contract that complies with the requirements set out in Annex XIV recast EED proposal;
- Art. 18 current EED is an already existing legal tool to support refurbishments through ESCOs. Thus, the implementation of the already existing provision in the Member States is important to facilitate the use of ESCOs. In the recast EED proposal Art. 18 current EED can now be found under Art. 27 and provides some new obligations for the Member States:
    - Regarding the energy services market and access to it for SMEs, Art. 27 para. 1 (b) recast EED proposal foresees as a new rule that the Member States have to promote this also by revolving funds, guarantees and insurance schemes to support energy efficiency service projects as well as by available energy services providers that are qualified and/or certified and available monitoring and verification methodologies and quality control schemes;
    - Art. 27 para. 4 and 5 recast EED proposal addresses the public sector (and therefore also includes some aspects from Art. 6 current EED; Art. 6 para. 7 (c) current EED obliges Member States to encourage public bodies, including at regional and local level, and social housing bodies governed by public law, with due regard for their respective competences and administrative set-up, to use, where appropriate, ESCOs, and Energy Performance Contracting to finance renovations and implement plans to maintain or improve energy efficiency in the long term). Art. 27 para. 4 recast EED proposal obliges Member States to encourage public bodies to use Energy Performance Contracting for renovations of large buildings. For renovations of large non-residential buildings with a useful floor area above 1000 m^2, Member States shall ensure that public bodies assess the feasibility of using Energy Performance Contracting. Further, Member States may encourage public bodies to combine Energy Performance Contracting with expanded energy services including demand response and storage. The Member States also have to make publicly available a database of implemented and ongoing Energy Performance Contracting projects that includes the projected and achieved energy savings, Art. 27 para. 5 recast EED proposal.

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[154] C(2021) 7014 final, Annex to the Commission Recommendation on Energy Efficiency First, p. 48 f.
[155] https://ec.europa.eu/energy/content/energy-performance-contracting_de.

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- In order to support the proper functioning of the energy services market, Art. 27 para. 6 (c) recast EED proposal obliges the Member States to set up and promote the role of advisory bodies and independent market intermediaries including one-stop shops or similar support mechanisms to stimulate market development on the demand and supply sides. The information about those support mechanisms has to be made publicly available and accessible to market actors. Art. 27 para. 7 recast EED proposal further foresees that Member States may establish an individual mechanism or designate an ombudsperson to ensure the efficient handling of complaints and out-of-court settlement of disputes arising from energy service and Energy Performance Contracts.

- Art. 26 recast EED proposal foresees new rules regarding the qualification/certification of energy service providers. Member States now have to ensure the appropriate level of competences for energy efficiency professions that corresponds to the market needs. They also have to ensure that, in close cooperation with the social partners, certification and/or equivalent qualification schemes, including, where necessary, suitable training programmes, are available for energy efficiency professions including providers of energy services, providers of energy audits, energy managers, independent experts and installers of building elements, Art. 26 para. 1 recast EED proposal. The Member States have to assess by 31 December 2024 and every four years thereafter whether the schemes ensure the necessary level of competences for energy services providers, energy auditors, energy managers, independent experts and installers of building elements and shall make the assessment and recommendations thereof publicly available, Art. 26 para. 4 recast EED proposal.

4.5. Public sector

The recast EED proposal wants to make the public sector more energy efficient because it can serve as a model for businesses and citizens to follow, but also because of the high level of energy consumption in public buildings and services[156].

4.5.1. General obligations

The COM estimates that public sector activities (education, health and social services, public transport, water supply and treatment, and street lighting) together use about 50 Mtoe annually, which is 5% of EU final energy consumption. Therefore Art. 5 para. 1 recast EED proposal foresees an obligation for the Member States that the total final energy consumption of all public bodies combined has to be reduced by at least 1.7% each year. Furthermore, Member States have to ensure that regional and local authorities establish specific energy efficiency measures in their decarbonisation plans after consulting stakeholders and the public, including the particular groups at risk of energy poverty or more susceptible to its effects, Art. 5 para. 1 recast EED proposal. Also, according to Art. 5 para. 1 recast EED proposal, Member States shall support public bodies in the uptake of energy efficiency improvement measures, including at regional and local levels, by providing guidelines, promoting competence building and training opportunities and encouraging cooperation amongst public bodies.

As part of the exemplary role of public bodies' buildings Art. 6 para. 1 obliges the Member States that at least 3% of the total floor area of buildings owned by public bodies is renovated each year to at least be transformed into nearly zero-energy buildings. While previously only buildings owned by the central government with a floor space from 500 m² or more were included, the recast EED proposal now refers to buildings at all levels of public administration and includes buildings with a floor space of 250 m² or more. Further, renovation now means conversion into so-called nearly zero-energy buildings.

Art. 6 para. 3 recast EED obliges Member States to establish and make publicly available an inventory of heated and/or cooled public bodies' buildings with a total useful floor area of more than 250 m², which shall be updated at least once a year and contain at least the floor area and the Energy Performance Certificate of each building.

[156] COM - Press release, 14.07.2021, https://ec.europa.eu/commission/presscorner/detail/en/QANDA_21_3544.

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4.5.2. Public procurement

Art. 7 recast EED proposal (Art. 6 current EED) contains rules for public procurement:

- The COM proposes a new para. 2 in order to strengthen the Energy Efficiency First principle. Art. 7 para. 2 recast EED proposal obliges Member States to ensure that in concluding the public contracts and concessions with a specific value (regulated in Art. 7 para. 1 recast EED proposal with links to Directive 2014/23/EU, Directive 2014/24/EU and Directive 2014/25/EU) contracting authorities and contracting entities apply the Energy Efficiency First principle;
- The feasibility assessment in Art. 7 para. 3 recast EED proposal was already explained under (4.4.) .
- Art. 7 para. 5 recast EED proposal foresees the possibility to take into account wider sustainability, social, environmental and circular economy aspects in procurement practices with a view to achieving the Union's decarbonisation and zero pollution objectives, and to take into account Union green public procurement criteria. Further, specific information, inter alia on the energy efficiency impact of contracts, can be made publicly available to ensure transparency and Member States shall support contracting authorities and contracting entities in the uptake of energy efficiency requirements, including at regional and local level, by providing clear rules and guidelines including methodologies on the assessment of lifecycle costs and environment impacts and costs, set up competence support centres, encouraging cooperation amongst contracting authorities including across borders and using aggregated procurement and digital procurement where possible;
- According to Art. 7 para. 6 recast EED proposal, legal and regulatory provisions and administrative practices regarding public purchasing and annual budgeting and accounting have to be established to ensure that individual contracting authorities are not deterred from making investments in improving energy efficiency and from using Energy Performance Contracting and third-party financing mechanisms on a long-term contractual basis.

4.5.3. Energy Performance Contracting in the public sector

For relevant rules regarding Energy Performance Contracting in the public sector (especially Art. 27 para. 4 and 5 recast EED proposal) see above (4.4.)

4.6. Heating and cooling

For the heating and cooling sector Art. 24 para. 1 recast EED proposal provides the criteria an efficient heating and cooling system has to meet in different steps until 2050. Under this definition, an efficient heating and cooling system is:

- until 31 December 2025, a system using at least 50% renewable energy, 50% waste heat, 75% cogenerated heat or 50% of a combination of such energy and heat (= current definition in Art. 2 (41) of the EED);
- from 1 January 2026, a system using at least 50% renewable energy, 50% waste heat, 80% of high-efficiency cogenerated heat or at least a combination of such thermal energy going into the network where the share of renewable energy is at least 5% and the total share of renewable energy, waste heat or high-efficiency cogenerated heat is at least 50%;
- from 1 January 2035, a system using at least 50% renewable energy and waste heat, where the share of renewable energy is at least 20%;
- from 1 January 2045, a system using at least 75% renewable energy and waste heat, where the share of renewable energy is at least 40%;
- from 1 January 2050, a system using only renewable energy and waste heat, where the share of renewable energy is at least 60%.

Further, Art. 24 para. 2 to 5 recast EED proposal oblige Member States that where a district H&C system is built or substantially refurbished, the criteria applicable at such time when it starts or continues its operation after the

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refurbishment have to be met. Operators of all existing district heating and cooling systems with a total energy output exceeding 5 MW and which do not meet the criteria have to prepare a plan to increase primary energy efficiency and renewable energy (as from 1 January 2025, and every five years thereafter). Further, the obligation to carry out installation level cost-benefit analysis where certain installations are newly planned or substantially refurbished is introduced.

As already explained above for the general Member States' contributions to the binding Union target, governance related mechanisms are also proposed for the heating and cooling sector. Art. 23 recast EED proposal foresees a comprehensive heating and cooling assessment as part of the National Energy and Climate Plans and respective Progress Reports.

4.7. Awareness raising and vulnerable customers/energy poverty

To raise awareness when it comes to energy efficiency measures, the COM proposes several changes in Art. 21 recast EED proposal to strengthen the availability and provision of information and especially the technical and financial advice or assistance offered.

According to Art. 21 para. 1 recast EED proposal, information on available energy efficiency improvement measures, individual actions and financial and legal frameworks has to be transparent and widely disseminated to all relevant market actors, such as final customers, final users, consumer organisations, civil society representatives, renewable energy communities, citizen energy communities, local and regional authorities, energy agencies, social service providers, builders, architects, engineers, environmental and energy auditors, and installers of building elements.

Art. 21 para. 2 to 4 recast EED proposal foresee the creation of one-stop shops, single points of contact and out-of-court mechanisms for the settlement of disputes to empower final customers, final users, vulnerable customers, people affected by energy poverty and people living in social housing.

The empowerment and protection of vulnerable customers is another important aspect that is targeted with Art. 22 recast EED proposal. It wants to empower and protect people affected by energy poverty, vulnerable customers and, where applicable, people living in social housing.

According to Art. 22 para. 1 to 3 recast EED proposal appropriate measures have to be taken by the Member States to empower and protect those people. The Member States have to implement energy efficiency improvement measures and related consumer protection or information measures as a priority among those people, and support them via several other measures. The Member States also have to establish a network of experts from various sectors such as the health sector, building sector and social sectors to develop strategies to support local and national decision makers in implementing energy efficiency improvement measures alleviating energy poverty, measures to generate robust long-term solutions to mitigate energy poverty and to develop appropriate technical assistance and financial tools, Art. 22 para. 4 recast EED proposal.

4.8. Relevance for CitizEE

Art. 4 recast EED proposal foresees that the Member States have to collectively ensure a reduction of the Union's energy consumption of at least 9% in 2030 compared to the projections of the 2020 Reference Scenario. This means that Art. 4 para. 1 recast EED proposal sets a binding Union target where each Member State has to make national energy efficiency contributions for final and primary energy consumption to collectively meet this target. According to Art. 3 para. 2 recast EED proposal, the corresponding Member States' national contributions must be submitted to the COM together with an indicative national target path in the context of the updated National Energy and Climate Plans in accordance to Art. 14 Governance Regulation.

Connected to these Member States' contributions the COM proposes a kind of governance in the recast EED proposal that is connected to the already existing Governance Regulation. For countries that fall short on their national contributions, Art. 4 para. 3 recast EED proposal foresees new enhanced mechanisms to close the gaps complementing the mechanisms that were already proposed in the Governance Regulation.

Regarding the gap closing mechanism and explicitly the measures in Art. 4 para. 3 recast EED proposal, it would facilitate citizen participation and financing if such measures existed/would be included that are connected to, inter

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alia, the promotion of capacity building for citizen energy efficiency. This could also be transposed in the measures the COM shall propose according to Art. 4 para. 3 recast EED proposal.

Further, there are several provisions in the EED (old and new) that concern Energy Performance Contracting. However, a robust framework with mandatory obligations regarding the use of Energy Performance Contracting is still missing.

Energy Performance Contracting is defined in Art. 2 (29) recast EED proposal as 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 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. Art. 7 para. 3 recast EED proposal obliges Member States to ensure that contracting authorities and contracting entities assess the feasibility of concluding long-term Energy Performance Contracts that provide long-term energy savings when procuring service contracts with significant energy content. However, it is not foreseen that some kind of justification is needed if no Energy Performance Contract is concluded although it would be feasible.

A similar situation can be seen for the public sector and its function as a role model. Art. 27 para. 4 recast EED proposal foresees an obligation for the Member States regarding Energy Performance Contracting, but the Member States are only obliged to encourage public bodies to use Energy Performance Contracting for renovations of large buildings and for renovations of large non-residential buildings with a useful floor area above 1000 m^2 and to assess the feasibility of using Energy Performance Contracting.

Art. 11 para. 7 recast EED proposal foresees exceptions from the obligations of energy management systems and energy audits (according to Art. 11 para. 1 and 2 recast EED proposal) for such enterprises that implement an Energy Performance Contract that complies with the requirements set out in Annex XIV recast EED proposal. Although this is likely to facilitate the implementation of Energy Performance Contracting, the provision does not introduce mandatory obligations.

In order to put more emphasis on Energy Performance Contracting, both in the private and public sector, provisions with a more binding character or the obligation to use Energy Performance Contracting in given cases would be very helpful.

Another important aspect regarding energy efficiency measures and especially building renovation is the citizens' fear of energy poverty as this can hamper citizens' engagement and actions due to excessive demand. The importance of this aspect is taken into account by the EED by concerning energy poverty as well as vulnerable households in several provisions. Especially Art. 22 recast EED proposal is dedicated to the empowerment and protection of people affected by energy poverty, vulnerable customers and, where applicable, people living in social housing. According to Art. 22 para. 1 to 3 recast EED proposal, appropriate measures have to be taken by the Member States to empower and protect those people. The Member States have to implement energy efficiency improvement measures and related consumer protection or information measures as a priority among those groups, and support them via several other measures. The Member States also have to establish a network of experts from various sectors such as the health sector, building sector and social sectors to develop strategies to support local and national decision makers in implementing energy efficiency improvement measures alleviating energy poverty, measures to generate robust long-term solutions to mitigate energy poverty and to develop appropriate technical assistance and financial tools, Art. 22 para. 4 recast EED proposal.

Also, raising awareness is crucial in order to foster energy efficiency and to combine energy efficiency with citizen participation. There are several provisions in the EED that aim to raise awareness through facilitating digitalisation of and access to information regarding energy efficiency measures and financing.

Inter alia, the recommendations and guidelines for Energy Efficiency First highlight that provision of information, guidance and assistance to relevant entities, in particular at local level, on how the Energy Efficiency First principle should be applied is necessary. In this context, if there is no system in place ensuring application of the principle, the relevant national regulatory authority shall develop, provide and promote the application of a cost-benefit assessment methodology that would allow estimating energy savings co-benefits. The methodology should be adapted and applicable to energy related sectors, in particular energy generation, transformation, transmission and

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distribution (in line with Art. 15 EED), and energy using sectors, such as buildings, industry, transport, Information and Communications Technology (ICT) services and agriculture.

Further, Art. 21 recast EED proposal strengthens the availability and provision of information and especially the technical and financial advice or assistance offered. According to Art. 21 para. 1 recast EED proposal, information on available energy efficiency improvement measures, individual actions and financial and legal frameworks has to be transparent and widely disseminated to all relevant market actors, such as final customers, final users, consumer organisations, civil society representatives, renewable energy communities, citizen energy communities, local and regional authorities, energy agencies, social service providers, builders, architects, engineers, environmental and energy auditors, and installers of building elements. Art. 21 para. 2 to 4 recast EED proposal foresee the creation of one-stop shops, single points of contact and out-of-court mechanisms for the settlement of disputes to empower final customers, final users, vulnerable customers, people affected by energy poverty and people living in social housing.

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5. RENEWABLE ENERGY DIRECTIVE

In order to reduce greenhouse gas emissions by at least 55% in 2030, the targets and measures set in the RED III include raising the overall renewables target (proposed to be increased to 40%), but also strengthened measures for transport or heating and cooling[157]. As highlighted by the COM in the Renovation Wave Strategy, renewable energies will be relevant in several sections. It is planned to reach a higher share of energy from renewables in buildings and especially to strengthen the renewable heating and cooling target and the capacities of public authorities, and the potential of energy communities as active players in the energy system shall be exploited. In order to reach these goals, the RED III proposal contains several new provisions but also implementation already exiting RED II is important[158].

5.1. Current legislative process

- 15/07/2021: The proposal by the COM for the revision of the RED III was published[159];
- 24/02/2022: Draft of the rapporteur of the European Parliament[160];
- It is currently discussed within the Council of the European Union;
- The adoption is expected by the end of 2022[161].

5.2. Renewables in buildings

The RED III proposal introduces a new Art. 15a called "Mainstreaming renewable energy in buildings". Art. 15a para. 1 RED III proposal sets the objective to reach at least a 49% share of energy from renewable sources in the buildings sector in the Union's final consumption of energy in 2030. It is an indicative Union target that obliges the Member States to set corresponding indicative national targets for the share of renewables in their buildings sector in 2030. The Member States' targets as well as information on how they plan to achieve it has to be included in their updated integrated National Energy and Climate Plans.

The objective can be fulfilled by direct electrification (wind, solar or supplying heating and cooling via heat pumps), direct renewable heat (geothermal and ambient energy, solar thermal, etc.), or district heating and cooling. Art. 15a para. 2 second subparagraph RED III proposal obliges the Member States to require the use of minimum levels of energy from renewable sources in buildings. These minimum levels shall be included in the national building regulations and codes and, where applicable, in support schemes or by other means with equivalent effect[162].

Member States shall further use all appropriate measures, tools and incentives, including, among others, energy labels, Energy Performance Certificates pursuant or other appropriate certificates or standards developed at national or Union level, and shall ensure the provision of information, inter alia, on financial instruments and incentives available to promote an increased replacement rate of old heating systems and an increased switch to solutions based on renewable energy, Art. 15a para. 4 RED III proposal[163].

Art. 15a para. 3 RED III proposal highlights, as already seen in the recast EED proposal for energy efficiency, the exemplary role public buildings at national, regional and local level have to fulfil also in the regard of the share of

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[157] https://ec.europa.eu/energy/topics/renewable-energy/directive-targets-and-rules/renewable-energy-directive_de#2021-revision-of-the-directive-.
[158] COM/2020/662 final, A Renovation Wave for Europe - greening our buildings, creating jobs, improving lives, p. 23 f.
[159] https://ec.europa.eu/info/news/commission-presents-renewable-energy-directive-revision-2021-jul-14_en.
[160] https://oeil.secure.europarl.europa.eu/oeil/popups/ficheprocedure.do?reference=2021/0218(COD)&l=en.
[161] https://ec.europa.eu/energy/topics/renewable-energy/directive-targets-and-rules/renewable-energy-directive_de#2021-revision-of-the-directive-.
[162] COM - Press release, 14.07.2021, https://ec.europa.eu/commission/presscorner/detail/en/QANDA_21_3544.
[163] COM - Press release, 14.07.2021, https://ec.europa.eu/commission/presscorner/detail/en/QANDA_21_3544.

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renewable energy used. It is possible that this obligation is fulfilled by providing for the roofs of public or mixed private-public buildings to be used by third parties for installations that produce energy from renewable sources.

Furthermore, the RED III proposal also directly addresses the heating and cooling sector in Art. 22 ff. RED III proposal. Art. 23 para. 1 RED III proposal introduces a mandatory renewable heating and cooling target of a minimum annual 1.1 percentage point increase, with additional indicative national top-ups to guide lagging Member States.

Art. 23 para. 4 RED III proposal introduces measures to achieve the average annual increase, inter alia, highly efficient renewable heating and cooling systems in buildings, or use in industrial heating and cooling processes, planned replacement schemes of fossil heating systems/fossil phase-out schemes with milestones, and renewable heat planning, encompassing cooling, requirements at local and regional level.

According to the new Art. 23 para. 1a RED III proposal, Member States have to carry out an assessment, as part of the integrated National Energy and Climate Plans, of their potential of renewables and of waste heat/cold in the heating and cooling sector. This assessment shall set out milestones and measures to increase renewables in the heating and cooling sector and the use of waste heat/cold through district heating and cooling with a view of establishing a long-term national strategy to decarbonise heating and cooling.

Art. 24 RED III proposal regards the development of modern district heating and cooling systems and raises the indicative target for the annual increase in renewables used in district heating and cooling from 1.0 to 2.1 percentage points[164].

5.3. Renewable energy communities

Regarding renewable energy communities, the COM in its Renovation Wave Strategy refers in particular on the already existing provisions that have to be implemented by the Member States[165]. According to Art. 2 para. 2 (16) RED II renewable energy community means a legal entity which is based on open and voluntary participation, is autonomous, and is effectively controlled by shareholders or members that are located in the proximity of the renewable energy projects that are owned and developed by that legal entity. The shareholders or members have to be natural persons, SMEs or local authorities, including municipalities. The primary purpose has to be to provide environmental, economic or social community benefits rather than financial profits.

Art. 22 RED II regulates the renewable energy communities and foresees several obligations for the Member States. The obligations for the Member States are:

- They have to ensure that final customers are entitled to participate in a renewable energy community without being subject to unjustified or discriminatory conditions or procedures that would prevent their participation in a renewable energy community, Art. 22 para. 1 RED II;
- They have to ensure that renewable energy communities are entitled to produce, consume, store and sell renewable energy, including through renewables power purchase agreements, share, within the renewable energy community, renewable energy that is produced by the production units owned by that renewable energy community, and access all suitable energy markets both directly or through aggregation in a non-discriminatory manner, Art. 22 para. 2 RED II;
- They have to carry out an assessment of the existing barriers and potential of development of renewable energy communities and provide an enabling framework to promote and facilitate the development of renewable energy communities from which the main elements shall be part of the updated National Energy and Climate Plans and Progress Reports, Art. 22 para. 3, 4, 5 RED II.

The RED III proposal does not revise Art. 2 or Art. 22, but mentions renewable energy communities in Art. 7 and 15a:

Regarding the gross final consumption of electricity from renewable sources as part of the calculation of gross final consumption of energy from renewable sources in each Member State (Art. 7 para. 1 (a) RED II) the quantity of

[164] COM - Press release, 14.07.2021, https://ec.europa.eu/commission/presscorner/detail/en/QANDA_21_3544.
[165] COM/2020/662 final, A Renovation Wave for Europe - greening our buildings, creating jobs, improving lives, p. 18.

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renewable sources includes the production of electricity from renewables self-consumers and renewable energy communities, Art. 7 para. 2 first subparagraph RED III proposal.

Regarding the already mentioned mainstreaming renewable energy in buildings, Member States are obliged to introduce measures to increase the share of electricity and heating and cooling from renewable sources in the building stock, including national measures relating to substantial increases in renewables self-consumption, renewable energy communities and local energy storage, Art. 15a para. 2 RED III proposal.

5.4. Relevance for CitizEE

As highlighted by the COM in the Renovation Wave Strategy, renewable energies will be relevant in several sections. It is planned to reach a higher share of energy from renewables in buildings and, inter alia, to exploit the potential of energy communities as active players in the energy system. The already existing RED II provides rules for renewable self-consumers (Art. 2 para. 2 (14), Art. 21), jointly acting renewables self-consumers (Art. 2 para. 2 (15)) and renewable energy communities (Art. 2 para. 2 (16), Art. 22), which have to be implemented by the Member States.

Regarding renewable energy communities, the COM in its Renovation Wave Strategy refers in particular to the already existing provisions that have to be implemented by the Member States. According to Art. 2 para. 2 (16) RED II renewable energy community means a legal entity which is based on open and voluntary participation, is autonomous, and is effectively controlled by shareholders or members that are located in the proximity of the renewable energy projects that are owned and developed by that legal entity. The shareholders or members have to be natural persons, SMEs or local authorities, including municipalities. Its primary purpose has to be to provide environmental, economic or social community benefits rather than financial profits. Art. 22 RED II regulates the renewable energy communities and foresees several obligations for the Member States.

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6. ENERGY PERFORMANCE OF BUILDINGS DIRECTIVE

The first version of the EPBD was published in 2002 (Dir. 2002/91/EC) with a recast in 2010 (Dir. 2010/31/EU). In order to strengthen the Energy Performance of Buildings standards, the Clean Energy for all Europeans package introduced updated measures relating to national long-term renovation strategies in the revised version of the EPBD published in 2018 (Dir. 2018/844/EU)[166].

As buildings are one of the largest sources of energy consumption in Europe and thus the energy efficiency of buildings is one of the main aspects to reach the targets foreseen in the Renovation Wave Strategy. The proposal for the revision of the EPBD[167] is essential as it aims to upgrade the existing regulatory framework to reflect higher ambitions and more pressing needs in climate and social action while providing Member States with the flexibility needed to take into account the differences in the building stock across Europe. It further wants to set out how Europe can achieve a zero-emission and fully decarbonised building stock by 2050[168].

Through facilitation of more targeted financing to investments in the building sector, supporting vulnerable consumers and fighting energy poverty, the EPBD proposal by the COM wants to increase the rate of renovation, particularly for the worst-performing buildings, modernize the building stock, making it more resilient and accessible, support better air quality, the digitalisation of energy systems for buildings and the roll-out of infrastructure for sustainable mobility, To reach these goals it contains[169]:

- The introduction of EU–wide minimum energy performance standards for worst performing buildings;
- A definition of zero-emission buildings, deep renovations and mortgage portfolio standards;
- The introduction of “Renovation passports”;
- The facilitation of the use of new performance metrics including final energy consumed and lifecycle carbon emissions;
- Reliable building information tools;
- The encounter of other non-economic barriers to energy renovations.

In order to enable consumers and businesses to make more informed choices to save energy and money and thus to facilitate investments in building renovation[170], the transparency of the performance of the building stock through an easily accessible database is necessary[171]. Therefore, the EPBD proposal foresees:

- Updated/new terms & definitions;
- An updated Energy Performance Certificates framework;
- The introduction of minimum energy performance standards;
- The introduction of renovation passports.

To improve the quality of the information available and facilitate the work of public authorities and financial institutions, the Member State have to set up a national and publicly accessible database for energy performance of buildings which inter alia allows data to be gathered related to Energy Performance Certificates, inspections, the

[166] Directive (EU) 2018/844 of 30 May 2018 amending Directive 2010/31/EU on the energy performance of buildings and Directive 2012/27/EU on energy efficiency; https://ec.europa.eu/energy/topics/energy-efficiency/energy-efficient-buildings/energy-performance-buildings-directive_en#directive-amendments; https://epb.center/epb-standards/energy-performance-buildings-directive-epbd/.
[167] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52021PC0802&qid=1641802763889.
[168] COM - Press release, 15.12.2021, https://ec.europa.eu/commission/presscorner/detail/en/QANDA_21_6686.
[169] COM - Press release, 15.12.2021, https://ec.europa.eu/commission/presscorner/detail/en/QANDA_21_6686.
[170] https://ec.europa.eu/energy/topics/energy-efficiency/energy-efficient-buildings/energy-performance-buildings-directive_en.
[171] COM/2020/662 final, A Renovation Wave for Europe - greening our buildings, creating jobs, improving lives, p. 7 f.

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building renovation passport, the smart readiness indicator and the calculated or metered energy consumption of the buildings covered, Art. 19 EPBD proposal[172].

Furthermore, the EPBD proposal introduces the so-called digital building logbooks in Art. 2 (37) EPBD proposal, which are a common repository for all relevant building data, including data related to energy performance such as Energy Performance Certificates, renovation passports and smart readiness indicators, which facilitates informed decision making and information sharing within the construction sector, among building owners and occupants, financial institutions and public authorities.

6.1. Current legislative process

- 15/12/2021: The proposal by the COM for the revision of the EPBD was published[173];
- It is currently discussed within the European Parliament and the Council of the European Union[174].

6.2. Updated/new terms & definitions

The EPBD proposal contains several new terms and definitions as well as some updates/changes that are relevant for projects like CitizEE an thus are described in the following.

6.2.1. Nearly zero-energy buildings and zero-emission buildings

Nearly zero-energy buildings are an already known term in the current EPBD. The definition was changed in some aspects in the EPBD proposal and now defines a nearly zero-energy building in Art. 2 (3) as a building with a very high energy performance, as determined in accordance with Annex I, which cannot be lower than the 2023 cost-optimal level reported by Member States in accordance with Art. 6 para. 2 and where the nearly zero or very low amount of energy required is covered to a very significant extent by energy from renewable sources, including energy from renewable sources produced on-site or nearby.

In addition, the EPBD proposal introduces the new term "zero-emission buildings" which are defined in Art. 2 (2) EPBD proposal as a building with a very high energy performance, as determined in accordance with Annex I, where the very low amount of energy still required is fully covered by energy from renewable sources generated on-site, from a renewable energy community within the meaning of Directive (EU) 2018/2001 [amended RED] or from a district heating and cooling system, in accordance with the requirements set out in Annex III.

6.2.2. Deep renovation

Regarding specific types of renovation, the EPBD proposal introduces the terms "deep renovation" and "staged deep renovation" in Art. 2. According to Art. 2 (19) EPBD proposal, deep renovation is a renovation which transforms a building or building unit either:

- before 1 January 2030, into a nearly zero-energy building;
- as of 1 January 2030, into a zero-emission building.

Deep renovation as one of the goals of the Renovation Wave Strategy is seen as a way to achieve the long-term vision for buildings with the purpose of increasing their energy performance. It is a prime opportunity to address other aspects such as living conditions of vulnerable households, increasing climate resilience, resilience against disaster risks including seismic resilience, fire safety, the removal of hazardous substances including asbestos, and accessibility for persons with disabilities. Thus, enhanced financial and administrative support should be allocated to deep renovation (see Art. 15 EPBD proposal)[175].

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[172] COM - Press release, 15.12.2021, https://ec.europa.eu/commission/presscorner/detail/en/QANDA_21_6686.
[173] COM - Press release, 15.12.2021, https://ec.europa.eu/commission/presscorner/detail/en/QANDA_21_6686.
[174] https://eur-lex.europa.eu/legal-content/EN/HIS/?uri=CELEX:52021PC0802.
[175] Recitals 33, 34 EPBD proposal.

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The term staged deep renovation is introduced in the EPBD proposal to ease the delivery of deep renovation though carrying it out in several steps and thus to address issues of high upfront costs and hassle for the inhabitants. To avoid that one renovation step precludes necessary subsequent steps, staged deep renovation has to be carefully planned[176]. Therefore, the definition in Art. 2 (20) EPBD proposal as a deep renovation carried out in several steps, following the steps set out in a renovation passport in accordance with Art. 10 EPBD proposal.

6.2.3. Major renovation

Another relevant term that must not be confused with a deep renovation and already exists in Art. 2 (10) current EPBD is the major renovation. It means the renovation of a building where:

- the total cost of the renovation relating to the building envelope or the technical building systems is higher than 25% of the value of the building, excluding the value of the land upon which the building is situated; or
- more than 25% of the surface of the building envelope undergoes renovation.

Member States may choose to apply option (a) or (b).

While there is no change foreseen for this definition (except it is Art. 2 (21) EPBD proposal), the COM proposes a change for the connected term "'technical building system" (Art. 2 (6) EPBD proposal. In the current EPBD (Art. 2 (3) current EPBD) technical building system is defined as technical equipment for space heating, space cooling, ventilation, domestic hot water, built-in lighting, building automation and control, on-site electricity generation, or a combination thereof, including those systems using energy from renewable sources, of a building or building unit. The EPBD proposal foresees to change electricity to renewable energy and to add the storage of such energy.

Thus, the new EPBD according to the COM defines technical building system as technical equipment for space heating, space cooling, ventilation, domestic hot water, built-in lighting, building automation and control, on-site renewable energy generation and storage, or a combination thereof, including those systems using energy from renewable sources, of a building or building unit.

6.3. National building renovation plans

The COM proposes to change the long-term renovation strategies in Art. 2a current EPBD to national building renovation plans (Art. 3 EPBD proposal). According to Art. 3 para. 1 EPBD proposal, the Member States have to establish a national building renovation plan to ensure 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, with the objective to transform existing buildings into zero-emission buildings.

Recital 46 EPBD proposal states that financial mechanisms, incentives and the mobilisation of financial institutions for energy renovations in buildings should play a central role in national building renovation plans and be actively promoted by Member States. Such measures should include encouraging energy efficient mortgages for certified energy efficient building renovations, promoting investments for public authorities in an energy efficient building stock, for example by public-private partnerships or Energy Performance Contracts or reducing the perceived risk of the investments.

Art. 3 para. 1 (a) to (d) EPBD proposal also regulates what topics and aspects the Member States have to include in their national building renovation plans, inter alia, a roadmap with nationally established targets and measurable progress indicators, with a view to the 2050 climate neutrality goal, in order to ensure a highly energy efficient and decarbonised national building stock and the transformation of existing buildings into zero-emission buildings by 2050, Art. 3 para. 1 (b) EPBD proposal.

Art. 3 para. 1 second subparagraph EPBD proposal regulates the contents of this roadmap. It has to include:

[176] Explanatory memorandum p. 12 EPBD proposal, Recital 32 EPBD proposal.

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- National targets for 2030, 2040 and 2050 as regards the annual energy renovation rate, the primary and final energy consumption of the national building stock and its operational greenhouse gas emission reductions;
- Specific timelines for buildings to achieve higher energy performance classes than those pursuant to Art. 9 para. 1 EPBD proposal, by 2040 and 2050, in line with the pathway for transforming the national building stock into zero-emission buildings;
- An evidence-based estimate of expected energy savings and wider benefits;
- Estimations for the contribution of the building renovation plan to achieving the Member State's binding national target for greenhouse gas emissions pursuant to the revised Effort Sharing Regulation, the Union's energy efficiency targets in accordance with the recast EED proposal, the Union's renewable energy targets, including the indicative target for the share of energy from renewable sources in the building sector in accordance with the RED II and the Union's 2030 climate target and 2050 climate neutrality goal in accordance with the European Climate Law Regulation[177].

6.4. Energy Performance Certificates

Energy Performance Certificates were first introduced in 2002 but were fraught with issues regarding the quality of procedures and, particularly, the perceived lack of consistency. However, the quality and reliability has been steadily improving and eventually the new EPBD proposal includes measures to make Energy Performance Certificates much clearer, more reliable, more visible (quality, reliability and affordability of Energy Performance Certificates has to be ensured by the Member States, Art. 16 para. 3 EPBD proposal). Energy Performance Certificates are planned to provide information on energy performance and other key characteristics that is easy to understand and therefore benefits building owners, financial investors and public authorities[178].

Art. 16 para. 1 EPBD proposal obliges Member States to lay down the necessary measures to establish a system of certification of the energy performance of buildings and defines its necessary components. An Energy Performance Certificate includes the energy performance of a building expressed by a numeric indicator of primary energy use in kWh/m^2 per year, and reference values such as minimum energy performance requirements, minimum energy performance standards, nearly zero-energy building requirements and zero-emission building requirements. The goal is to make it possible for owners or tenants of the building or building unit to compare and assess its energy performance. Energy performance of a building means the calculated or metered amount of energy needed to meet the energy demand associated with a typical use of the building, which includes, inter alia, energy used for heating, cooling, ventilation, hot water and lighting, Art. 2 (8) EPBD proposal.

According to Art. 16 para. 2 EPBD proposal, Energy Performance Certificates specify the energy performance class of the building, on a closed scale using only letters from A to G, inter alia, to facilitate the understanding of Energy Performance Certificates also across borders[179]. The ratings are distributed in the following way[180]:

- The G rating corresponds to the 15% worst performing buildings in each country.
- The other buildings are distributed proportionately among the other classes between G and A.
- Class A corresponds to zero-emission buildings.

According to Art. 17 para. 1 EPBD proposal digital Energy Performance Certificates have to be issued for

- Buildings or building units which are constructed, have undergone a major renovation, are sold or rented out to a new tenant or for which a rental contract is renewed;

[177] Regulation (EU) 2021/1119 of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999 ('European Climate Law'), https://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX%3A32021R1119.
[178] COM - Press release, 15.12.2021, https://ec.europa.eu/commission/presscorner/detail/en/QANDA_21_6686.
[179] COM - Press release, 15.12.2021, https://ec.europa.eu/commission/presscorner/detail/en/QANDA_21_6686.
[180] COM - Press release, 15.12.2021, https://ec.europa.eu/commission/presscorner/detail/en/QANDA_21_6686.

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- All buildings owned or occupied by public bodies.

Regarding buildings or buildings units offered for sale or for rent, the energy performance indicator and class of the Energy Performance Certificate has to be stated in the advertisements, Art. 17 para. 4 EPBD.

By 31 December 2025 at the latest, Energy Performance Certificates shall comply with the template in Annex V EPBD proposal, Art. 16 para. 2 EPBD proposal. According to the template there are obligatory elements an Energy Performance Certificate has to contain but also several voluntary indicators it may contain.

The obligatory elements that have to be displayed on its front page are:

- Energy performance class;
- Calculated annual primary energy use in kWh/(m^2 year);
- Calculated annual primary energy consumption in kWh or MWh;
- Calculated annual final energy use in kWh/(m^2 year);
- Calculated annual final energy consumption in kWh or MWh;
- Renewable energy production in kWh or MWh;
- Renewable energy in% of energy use;
- Operational greenhouse gas emissions (kg $CO2$/(m^2 year));
- Greenhouse gas emission class (if applicable).

The additional voluntary indicators are:

- Energy use, peak load, size of generator or system, main energy carrier and main type of element for each of the uses: heating, cooling, domestic hot water, ventilation and in-built lighting;
- Renewable energy produced on site, main energy carrier and type of renewable energy source;
- A yes/no indication whether a calculation of the Global Warming Potential has been carried out for the building;
- Value of the life-cycle Global Warming Potential (if available);
- Information on carbon removals associated to the temporary storage of carbon in or on buildings;
- A yes/no indication whether a renovation passport is available for the building;
- Average U-value for the opaque elements of the building envelope;
- Average U-value for the transparent elements of the building envelope;
- Type of most common transparent element (e.g. double glazed window);
- Results of the analysis on overheating risk (if available);
- The presence of fixed sensors that monitor the levels of indoor air quality;
- The presence of fixed controls that respond to the levels of indoor air quality;
- Number and type of charging points for electric vehicles;
- Presence, type and size of energy storage systems;
- Feasibility of adapting the heating system to operate at more efficient temperature settings;
- Feasibility of adapting the air-conditioning system to operate at more efficient temperature settings;
- Metered energy consumption;
- Operational fine particulate matter (PM2.5) emissions;

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- A yes/no indication whether a smart readiness assessment has been carried out for the building;
- Value of the smart readiness assessment (if available);
- A yes/no indication whether a Digital Building Logbook is available for the building.

6.5. Minimum energy performance standards

To facilitate linking specific national, regional and local incentives and support compliance[181] minimum energy performance standards (MEPS) are introduced with the new Art. 9 EPBD proposal. They are described in Recital 22 EPBD proposal as "the essential regulatory tool to trigger renovation of existing buildings on a large scale, as they tackle the key barriers to renovation such as split incentives and co-ownership structures, which cannot be overcome by economic incentives. The introduction of minimum energy performance standards should lead to a gradual phase-out of the worst-performing buildings and a continuous improvement of the national building stock, contributing to the long-term goal of a decarbonised building stock by 2050". They are planned to set a floor for the minimum energy performance of existing buildings and to ensure that renovation of inefficient buildings takes place, minimum energy performance requirements for existing buildings and building elements ensure the necessary depth of renovation when a renovation takes place[182].

Art. 2 (4) EPBD proposal defines MEPS as rules that require existing buildings to meet an energy performance requirement as part of a wide renovation plan for a building stock or at a trigger point on the market (sale or rent), in a period of time or by a specific date, thereby triggering renovation of existing buildings.

Thus, MEPS are a system to require the renovation of the worst performing buildings, i.e. they focus on the buildings with the highest potential in terms of decarbonisation, energy poverty alleviation and extended social and economic benefits, which need to be renovated as a priority[183].

The MEPS are connected to the Energy Performance Certificates, in particular to the certificates with classes F and G. Art. 9 para. 1 EPBD proposal separates between three types of buildings/building units and foresees specific obligations for the Member States:

- Those owned by public bodies, Art. 9 para. 1 (a) EPBD proposal:
  - have to be changed at least from class G to F after 1 January 2027 and from class F to E after 1 January 2030.
- Non-residential not owned by public bodies, Art. 9 para. 1 (b) EPBD proposal:
  - also have to be changed at least from class G to F after 1 January 2027 and from class F to E after 1 January 2030.
- Residential, Art. 9 para. 1 (c) EPBD proposal:
  - have to be changed at least from class G to F after 1 January 2030 and from class F to E and after 1 January 2033.

Further, according to Art.9 para. 3 EPBD proposal the Member States are obliged to support compliance with minimum energy performance standards by all the following measures:

- Providing appropriate financial measures, in particular those targeting vulnerable households, people affected by energy poverty or living in social housing;
- Providing technical assistance, including through one-stop-shops;
- Designing integrated financing schemes;

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[181] COM/2020/662 final, A Renovation Wave for Europe - greening our buildings, creating jobs, improving lives, p. 7.
[182] Recital 28 EPBD proposal.
[183] Recital 23 EPBD proposal; COM - Press release, 15.12.2021, https://ec.europa.eu/commission/presscorner/detail/en/QANDA_21_6686.

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- Removing non-economic barriers, including split incentives;
- Monitoring social impacts, in particular on the most vulnerable.

Exemptions from the Member States' obligations are foreseen in Art. 9 para. 5 EPBD proposal. Member States may decide not to apply the minimum energy performance standards to the following categories of buildings:

- Buildings that are subject to special protection:
  - Buildings officially protected as part of a designated environment or because of their special architectural or historical merit, in so far as compliance with the standards would unacceptably alter their character or appearance;
  - Buildings used as places of worship and for religious activities;
- Buildings that are used temporary or limited only:
  - Temporary buildings with a time of use of two years or less, industrial sites, workshops and non-residential agricultural buildings with low energy demand and non-residential agricultural buildings which are used by a sector covered by a national sectoral agreement on energy performance;
  - Residential buildings which are used or intended to be used for either less than four months of the year or, alternatively, for a limited annual time of use and with an expected energy consumption of less than 25% of what would be the result of all-year use;
- Small buildings:
  - Stand-alone buildings with a total useful floor area of less than 50 m^2.

6.6. Renovation passports

The renovation passport is introduced in Art. 2 (18) EPBD proposal as a document that provides a tailored roadmap for the renovation of a specific building in several steps that will significantly improve its energy performance. In Art. 10 EPBD proposal further details are provided.

According to Art. 10 para. 3 EPBD proposal a renovation passport has to comply with four requirements:

- It shall be issued by a qualified and certified expert, following an on-site visit;
- It shall comprise a renovation roadmap indicating a sequence of renovation steps building upon each other, with the objective to transform the building into a zero-emission building by 2050 at the latest;
- It shall indicate the expected benefits in terms of energy savings, savings on energy bills and operational greenhouse emission reductions as well as wider benefits related to health and comfort and the improved adaptive capacity of the building to climate change;
- It shall contain information about potential financial and technical support.

Art. 10 para. 1, 2 EPBD proposal oblige the COM to adopt delegated acts by 31 December 2023 by establishing a common European framework for renovation passports and Member States to introduce a scheme of renovation passports based on this framework by 31 December 2024.

6.7. Financial incentives and market barriers

Art. 15 EPBD proposal foresees several new obligations for the Member States regarding financing and investments, Art. 15 para. 1 to 7, 11 to 13 EPBD proposal. The new obligations are:

- Provide appropriate financing, support measures and other instruments able to address market barriers and stimulate the necessary investments in energy renovations;
- Take appropriate regulatory measures to remove non-economic barriers to building renovation;

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- Make best cost-effective use of national financing and financing available established at Union level, in particular the Recovery and Resilience Facility, the Social Climate Fund, cohesion policy funds, InvestEU, auctioning revenues from emission trading and other public funding sources;
- Support the mobilisation of investments: Member States shall promote the roll-out of enabling funding and financial tools, such as energy efficiency loans and mortgages for building renovation, Energy Performance Contracting, fiscal incentives, on-tax schemes, on-bill schemes, guarantee funds, funds targeting deep renovations, funds targeting renovations with a significant minimum threshold of targeted energy savings and mortgage portfolio standards. They shall guide investments into an energy efficient public building stock, in line with Eurostat guidance on the recording of Energy Performance Contracts in government accounts;
- Facilitate the aggregation of projects to enable investor access as well as packaged solutions for potential clients;
- Adopt measures to ensure that energy efficiency lending products for building renovations are offered widely and in a non-discriminatory manner by financial institutions and are visible and accessible to consumers;
- Ensure that banks and other financial institutions and investors receive information on opportunities to participate in the financing of the improvement of energy performance of buildings;
- Ensure the establishment of technical assistance facilities, including through one-stop-shops, targeting all actors involved in building renovations, including home owners and administrative, financial and economic actors, including SMEs;
- Put in place measures and financing to promote education and training to ensure that there is a sufficient workforce with the appropriate level of skills;
- Incentivise deep renovation and sizeable programmes that address a high number of buildings and result in an overall reduction of at least 30% of primary energy demand with higher financial, fiscal, administrative and technical support;
- Ensure that a staged deep renovation which receives public financial incentives follows the steps set out in a renovation passport;
- Financial incentives shall target as a priority vulnerable households, people affected by energy poverty and people living in social housing;
- When providing financial incentives to owners of buildings or building units for the renovation of rented buildings or building units, Member States shall ensure that the financial incentives benefit both the owners and the tenants, in particular by providing rent support or by imposing caps on rent increases.

6.8. Relevance for CitizEE

Regarding the national building renovation plans (Art. 3 EPBD proposal; long term renovation strategies in Art. 2a current EPBD), the COM plans to oblige the Member States to establish a national building renovation plan to ensure 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, with the objective to transform existing buildings into zero-emission buildings. However, according to the wording (also the COM proposes to delete the term "indicative") only the establishment of the plans that include the topics and aspects listed in Art. 3 para. 1 (a) to (d) EPBD proposal is binding, while, for example, the national targets the roadmap has to include according to Art. 3 para. 1 second subparagraph EPBD proposal are not.

Although Art. 9 EPBD contains mandatory minimum energy performance standards which are obligatory for the Member States, with a view on the ambitious targets for 2030, 2040 and 2050, it would be helpful to include such binding targets for the Member States already in Art. 3 EPBD proposal in order to emphasize the importance of the targets.

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Another important aspect regarding energy efficiency measures and especially building renovation is the citizens' fear of energy poverty as this can hamper citizens' engagement and actions due to excessive demand. The importance of this aspect is taken into account by the EPBD due to concerning energy poverty as well as vulnerable households in several provision.

The facilitation of citizens' participation in the energy efficiency/buildings renovation processes is likely to reduce citizens' fear of energy poverty. A possible way could be the development of a connection between building renovation (especially in the public sector because of its role model function) and relevance for citizens/citizens' participation via the specific consideration of local and regional levels and citizens' relation when it comes to the renovation order of public buildings. Such an approach is likely to also maximize the role model function of the public sector. Also, a connection of buildings that are relevant for citizens and the buildings' order/categorisation regarding the mandatory energy performance standards in Art. 9 EPBD proposal is likely to strengthen the inclusion of citizens in the renovation process and therefore reduce their fear of energy poverty.

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7. DEVELOPMENT OF STATE AID FRAMEWORK

Regarding public funding on the national level, the rules for State aid apply. The subsidising of energy efficiency measures in general has gained significant traction over the last 6 years, as the overview in a report from the COM on energy subsidies in the EU[184] illustrates:

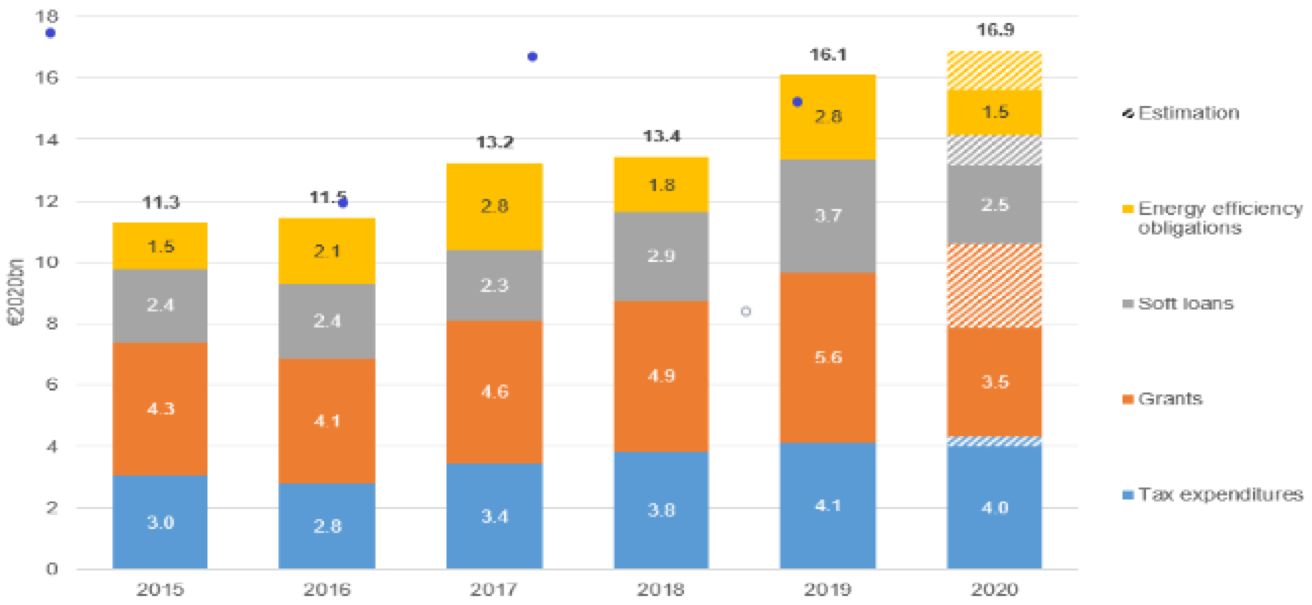

Figure 3 – Energy Efficiency subsidies in the EU[185]

For any kind of financing to be considered State aid, it has to fulfil the definition laid down in Art. 107 para. 1 TFEU[186]. State aid is defined as any advantage conferred by public authorities to undertakings on a selective basis. To be considered State aid and therefore fall under the scope of State aid legislation, a measure needs to have all of the following features:

- There is an undertaking (excluding private individuals who do not engage in economic activity);
- Which is granted an advantage meaning any type of economic benefit which an undertaking could not have obtained under normal market conditions (e. g. grants, interest and tax reliefs, guarantees, preferential terms for the provision of goods and services etc.);
- Through a measure imputable to the State (meaning by the State or through State resources)
- gives the beneficiary the advantage on a selective basis (certain groups of undertakings, sectors or regions);
- has the potential to distort competition (strengthening the position of an undertaking compared to competing undertakings);
- and is likely to affect trade between Member States[187].

The definition is thus conceivably broad and would apply to a variety of economic activities within the scope of CitizEE projects. Both the actual energy efficiency measures of projects and the provision of services in the form of financing

[184] COM/2021/950 final, 26.10.2021, Annex to the 2021 report on the State of the Energy Union – Contribution to the European Green Deal and the Union's recovery.
[185] COM/2021/950 final, 26.10.2021, Annex to the 2021 report on the State of the Energy Union – Contribution to the European Green Deal and the Union's recovery, p. 7.
[186] Treaty on the Functioning of the European Union, OJ EU Nr. C 326 v. 26.10.2012 p. 1.
[187] For more detailed criteria on the COMs understanding of what constitutes State aid, see C 2016/C 262/1, Notice on the notion of State ais as referred to in Art. 107 para. 1 of the Treaty on the Functioning of the European Union, 19.07.2016.

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through the investment platforms in most cases would be considered an undertaking in the definition of the State aid law. Exceptions for energy efficiency measures might apply for private houseowners. However, even in such a case they could still be considered an undertaking when the underlying financing of the measure is gained through an active participation in the financial market. The concrete design of public financing may equally lead to an exclusion of the element of aid if the financing is not based on a selective measure. This must be examined on a case-by-case basis and cannot be answered here in general terms. Nevertheless, considering the broad definition of the term "state aid" and the equally broad interpretation in the COM's decision-making practice[188], as a rule of thumb it can be assumed that state aid law must be observed for a large part of the possible public financing components of CitizEE.

Therefore, in the following, both the status quo and the further development of state aid law will be examined for possibilities as well as possible barriers with regard to the conditions for public financing of CitizEE projects.

7.1. State aid framework (General overview)

According to EU state aid law, aid granted by the state or through state resources which favours certain undertakings or the production of certain goods is in principle incompatible with the internal market insofar as it affects trade between Member States (Art. 107 para. 1 TFEU)[189]. However, there are exceptions to this principle. For example, aid in the energy sector may be declared compatible with the internal market by the COM as aid to facilitate the development of certain economic activities or of certain economic areas (Art. 107 para. 3 (c) TFEU). To concretise this compatibility assessment in the area of environmental and energy aid, the COM has issued Guidelines as self-binding internal law.

Public funding that fulfils the conditions of State aid as defined in Art 107 para. 1 TFEU must normally be notified to the COM and approved before it is put into effect. Aside from that, under the GBER[190] and the so-called "de minimis" Regulation[191], certain types of aid are exempt from notification to the COM.

7.2. Reform of the framework

The Guidelines on State aid for environmental protection and energy (EEAG)[192] were reformed recently. On 7 June 2021, the COM published a proposal to revise the EEAG, which will now be known as the Guidelines on State aid for climate, environmental protection and energy (CEEAG)[193]. The COM applies the new guidelines since 27 January 2022 for all notifiable aid in its compatibility assessment (Point 466 CEEAG). Funding programmes approved under the old guidelines can still continue. However, the COM proposes that Member States should adapt their funding programmes to the CEEAG until 31 December 2023 (Point 468 a) CEEAG). The GBER provides the conditions under which Member States may grant State aid without prior notification and COM approval. The GBER and the State aid guidelines are complementary: the GBER defines ex ante compatibility conditions whereas the CEEAG lay down rules for assessment that do not fulfil those ex-ante conditions. Therefore, the reform of the CEEAG also logically leads to an adjustment of the GBER.

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188 See for example the Court Decisions contradicting the COMs opinion on whether some German support mechanisms for renewable electricity constitute State Aid: CJEU, Judgement of 08.03.2016 – C-379/98 – PreussenElektra as well as CJEU, Judgment of 28.03.2019 - C-405/16 P – Germany/Commission.

189 Treaty on the Functioning of the European Union, OJ EU Nr. C 326 v. 26.10.2012 S. 1.

190 Regulation (EU) 651/2014 of 17 June 2014, last amended by Regulation (EU) 2021/1237 of 23 July 2021, OJ EU No. L 270 of 23 July 2021, p. 39, a consolidated version can be found here: https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:02014R0651-20210801&from=EN.

191 Regulation (EU) 1407/2013 of 18 December 2013, last amended by Regulation (EU) 2020/927 of 2 July 2020, OJ EU No. L 215 of 7 July 2020, p. 3.

192 COM, Guidelines on State aid for environmental protection and energy 2014-2020, OJ C 200, 28.6.2014, p. 1.

193 COM, Guidelines on State aid for climate, environmental protection and energy 2022, https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52022XC0218(03)&from=EN.

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The GBER has already been revised in some sections[194]. Especially in the area of (co-)financing with InvestEU, significant facilitations have been inserted. Furthermore, the COM has published a draft amendment to the GBER regarding an adaptation to the CEEAG and put it out for consultation[195].

7.3. State aid assessment of energy efficiency measures within the scope of CEEAG

State aid Guidelines (for example the CEEAG) outline the compatibility criteria of State aid for certain sectors. They are a so-called soft law instrument because they don't get adopted in a legislative procedure, but are merely published by the COM. However, their practical relevance must not be underestimated as the COM itself is bound to adhere to the Guidelines (self-imposed law). Consequently, Member States need to take the criteria outlined in the Guidelines into consideration when designing national measures in order to avoid a negative decision, an infringement procedure or an order to recover illegal State aid. Aid for energy efficiency measures falls within the scope of the CEEAG (see. 16 (a), (b) CEEAG).

7.3.1. New criteria and more flexibility for small actors

One of the main alignments relevant for CitizEE would be the new dedicated section in the CEEAG outlining specific criteria for energy and environmental performance of buildings. The rationale for aid measures is based on the fact that the benefits of such measures typically have an asymmetrical cost/use effect between owners and tenants. This section outlines the criteria for any measures improving the energy efficiency of buildings, which may be combined with aid for any other investment that improve the energy or environmental performance of buildings, such as the installation of on-site renewable energy installations, energy storage, accompanying digitalisation measures and the construction of recharging infrastructure (Point 127 CEEAG). Aside from measures specific to energy efficiency of buildings, the CEEAG also outline general criteria for energy efficiency measures in other areas such as production processes or in district heating and cooling (Point 138 CEEAG).

Aid for the improvement of the energy performance of buildings may also be granted to SMEs and small mid-caps that are providers of energy performance improvement measures for the facilitation of Energy Performance Contracting within the meaning of Art. 2 (27), current EED (Point 140 CEEAG).

Another main aspect is that the CEEAG now have specific criteria providing more flexibility for renewable energy communities and other small actors. Overarching over all specific chapters, the COM notes that it will generally look favourably at measures' features proposed by Member States to facilitate the participation of SMEs and, where relevant, renewable energy communities in competitive bidding processes, provided that the positive effects of ensuring participation and acceptance outweigh the possible distortive effects (Point 75 CEEAG). More specifically, they make concrete examples for how that could work in practice in chapter 4.1 CEEAG, which outlines the criteria for aid for the reduction and removal of greenhouse gas emissions including through support for renewable energy and energy efficiency. Where bidding processes are foreseen, exceptions can be made for 100% SME-owned or renewable energy community projects up to 6 MW installed capacity or maximum demand, respectively for wind generation projects 100% owned by small and microenterprises or by renewable energy communities up to 18 MW installed capacity (Point 107 b) (iv) and (v) CEEAG). For energy efficiency measures that do not involve energy generation that benefit SMEs, exceptions from bidding processes can be made where beneficiaries receive less than EUR 300.000 per project (Point 107 (b) (vi) CEEAG). If the Member States choose to have a bidding process regardless, they can grant more flexibility regarding pre-qualification requirements for projects developed and 100% owned by SMEs or by renewable energy communities to facilitate participation (Point 120 CEEAG).

7.3.2. Criteria for State aid for energy efficiency for buildings in the CEEAG

As explained, the aid can be combined with all sorts of measures also aimed at reducing the primary energy demand of the building. However, the effectiveness of the measure is a criterion. Here, a differentiation is made between

[194] Regulation (EU) 2021/1237 of 23 July 2021 declaring certain categories of aid compatible with the internal market, OJ L 270, p. 39.
[195] COM, Draft version amending Regulation (EU) 651/2014, https://ec.europa.eu/competition-policy/public-consultations/2021-gber_en.

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measures as well as new construction and renovation. Such measures must induce at least the following improvement level (Point 139 CEEAG):

- **Renovation of existing buildings**: energy performance improvements leading to a reduction in primary energy demand of at least 20% compared to the situation prior to the investment or, where the improvements are part of a staged renovation, a reduction in primary energy demand of at least 30% compared to the situation prior to the investment, over a period of 5 years;
- **Individual renovation measures**[196]**:** Reduction of primary energy demand by at least 10%, provided that the Member State proves that the programme as a whole results in a significant reduction of primary energy demand**;**
- **New buildings:** energy performance improvements leading to a reduction in primary energy demand of at least 10% compared to the threshold set for the nearly zero-energy building requirements in national measures implementing the current EPBD.

Where Union law imposes on undertakings minimum energy performance standards qualifying as Union standards, aid for all the necessary investments to comply with those standards will be considered to have an incentive effect if the aid is granted before the requirement becomes mandatory for the recipient and the measure leads to compliance with those standards (Point 143 CEEAG).

7.3.3. Possible forms and amount of the aid

As a rule, the contribution is to be determined by means of a call for tenders (Point 152 CEEAG). Without a bidding process, the aid intensity is differentiated according to the measure, the degree of efficiency and the recipient (Point 147-151 CEEAG). However, aid granted in the form of financial instruments is not subject to those maximum aid intensities. Instead, Point 152 specifies the following:

- **Guarantees:** Where the aid is granted in the form of a guarantee, the guarantee should not exceed 80% of the underlying loan;
- **Loans:** Where the aid is granted in the form of a loan, the repayment by the owner(s) of the building to the energy efficiency fund or renewable energy fund or other financial intermediary must at least equal the nominal value of the loan.

7.3.4. Avoidance of undue negative effects on competition and trade and balancing

Where the aid is granted in the form of an endowment, equity, a guarantee or a loan to an energy efficiency fund or renewable energy fund or other financial intermediary, the COM verifies that conditions are in place to ensure the funds or intermediaries do not receive any undue advantages and that commercially sound investment strategies are applied (Point 157 CEEAG). This entails in particular the following conditions:

- Financial intermediaries or fund managers must be selected through an open, transparent and non-discriminatory process which is made in accordance with applicable Union and national laws;
- Conditions are in place to ensure that the financial intermediaries are managed on a commercial basis and will ensure profit-driven financing decisions;
- The managers pass the advantage on to the largest extent possible to the final beneficiaries (owner or tenants of the respective building) in the form of higher volumes of financing, lower collateral requirements, lower guarantee premiums or lower interest rates.

[196] This covers measures within the meaning of Art. 2 point 9 of Directive 2010/31/EU (EPBD): "building element" means a technical building system or an element of the building envelope' and entails measures such as window replacement or wall insulation.

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7.4. General Block Exemption Regulation

The GBER declares specific categories of State aid compatible with Art. 107 TFEU if they are below a certain threshold in volume and fulfil certain conditions. The relevant thresholds are laid down in Art. 4 GBER, the criteria a specific measure has to fulfil in the following chapters. If that is the case, the aid does not need to be notified and approved by the COM before being awarded. This reduces the administrative burden for public authorities and speeds up delivery of public support. Particularly on the regional level, the public sector likes to make use of the GBER provisions when designing funding programmes.

7.4.1. Amendment related to InvestEU and energy efficiency

The GBER was amended on 23 July 2021[197], extending the GBER to national funds and co-managed funds, in the following three areas:

- Financing and investment operations supported by InvestEU;
- Certain Research, Development and Innovation (RD&I) projects in connection with Horizon2020 or Horizon Europe;
- European Territorial Cooperation projects (ETC, also known as Interreg).

Financial products supported by the InvestEU Fund may use funds controlled by Member States, including Union shared management funds, contributions from the Recovery and Resilience Facility or other contributions from Member States to increase leverage and support additional investments in the Union. For example, Member States can contribute part of the funds from the Union shared management funds or the Recovery and Resilience Facility to the Member States' compartment of the EU guarantee under the InvestEU Fund. In addition, Member States could finance the financial products supported by InvestEU through their own funds or national promotional banks[198].

With the amendment, such measures can now be directly implemented by Member States without having to be notified to the COM and instead solely has to be informed ex-post (Art. 11 GBER). The aim of this amendment was to improve the interplay between EU funding rules and EU State aid rules[199]. The reasoning is that there already various competition safeguards incorporated in InvestEU which limit any potential negative effects on competition[200]. Further, some additional options for Member States were introduced by amending existing block exemptions, inter alia for aid for energy efficiency in buildings. The amendment is therefore highly relevant for CitizEE because it contains new regulations both thematically and in terms of financing.

The amendment also entailed a simplification of the rules for State aid for energy efficiency measures in buildings by:

- Simplifying the way of calculating the eligible costs for certain categories of buildings, including residential buildings;
- Including a new possibility of combining aid for energy efficiency measures in those buildings with aid for on-site renewable energy installations, storage facilities for the renewable energy produced, equipment and infrastructures for the recharging of electric vehicles and investments in the digitalisation of the building;
- Including a new possibility allowing for the aid measures to also relate to the facilitation of Energy Performance Contracts.

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[197] Regulation (EU) 2021/1237 of 23 July 2021 amending Regulation (EU) 651/2014 declaring certain categories of aid compatible with the internal market in application of Articles 107 and 108 of the Treaty, https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32021R1237&from=EN.

[198] Recital 16 of Regulation (EU) 2021/1237 of 23 July 2021.

[199] See also Q&A, 23 July 2021, https://ec.europa.eu/commission/presscorner/api/files/document/print/en/qanda_21_3805/QANDA_21_3805_EN.pdf.

[200] Recital 18 of Regulation (EU) 2021/1237 of 23 July 2021.

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Under the GBER, Member States can now design State aid (and therefore provide public financing) to CitizEE projects under the following provisions:

- For projects that are not supported by InvestEU, Art. 39 GBER is applicable, laying out the rule for Investment aid for energy efficiency projects in building in the form of financial instruments in general. The aid granted by the energy efficiency fund or other financial intermediary to the eligible energy efficiency projects may take the form of loans or guarantees. The nominal value of the loan or the amount guaranteed shall not exceed EUR 15 million per project at the level of the final beneficiaries, except in the case of combined investments referred to in the new paragraph 2a, where it shall not exceed EUR 30 million. The guarantee shall not exceed 80% of the underlying loan.
- Additionally, for aid involved in financial products supported by the InvestEU Fund, the new Section 16 was introduced. If the aid complies with all applicable condition of the InvestEU Regulation and the InvestEU Guidelines (Art. 56d para. 3 GBER), aid under the thresholds specified in Art. 56d para. 4 GBER does not need to be notified ex-ante. Of particular relevance for CitizEE projects are the conditions for measures as described in Art. 56e para. 8 point (b) and (e) GBER.

Regarding the improvement of the energy efficiency of residential or public sector buildings[201] or mixed-use buildings where at least 35% of the internal floor area is used for residential or public sector purposes, aid may be granted for measures that simultaneously improve the energy efficiency of those buildings and integrate any or all of the following investments:

- Integrated installations for on-site renewable energy generation and storage;
- Equipment and related infrastructure incorporated to the building for the recharging of electric vehicles of the building's users;
- Investments for the digitalisation of the buildings, in particular to increase its smart readiness.

The final beneficiary of the aid may be either building owner(s) or tenant(s), depending on who obtains the financing. The nominal amount of total financing provided per project shall not exceed EUR 50 million per final beneficiary and building (Art. 56e para. 8 point (d) GBER). According to Art. 56e para. 8 point (e) GBER, those measures may also relate to the facilitation of Energy Performance Contracts subject to the following conditions:

- The support takes the form of a loan or guarantee to the provider of energy efficiency measures und an Energy Performance Contract or consists in a financial product aimed to refinance the provider (e.g. factoring, forfeiting);
- The nominal amount of total financing provided under InvestEU does not exceed EUR 30 million;
- The support is provided to SMEs or small mid-caps;
- The support is provided for Energy Performance Contracting within the meaning of Art. 2 (27) EED[202];
- The Energy Performance Contracting relates to a building referred to in paragraph 8, point (b), meaning public sector related or residential.

It is important to note that aid shall not be granted in the form of refinancing of or guarantees on existing portfolios of financial intermediaries (Art. 56d para. 5 GBER).

The new Art. 56f GBER provides conditions for aid involved in intermediated commercially-driven financial products supported by the InvestEU Fund. Commercial financial intermediaries shall be selected in an open, transparent and

[201] Meaning buildings either dedicated to the provision of education or social services or to activities related to justice, police or fire-fighting services as well as buildings dedicated to activities related to public administration, Art. 56e para. 8 point (b) GBER.

[202] According to Art. 2 (27) EED, 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.

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non-discriminatory way based on objective criteria. The commercial financial intermediary shall retain a minimum risk exposure of 20% of each financing transaction and the nominal amount of total financing provided to each final beneficiary through the commercial financial intermediary shall not exceed EUR 7,5 million.

7.4.2. Planned amendment to align with CEEAG reform

Additionally, the COM has published a consultation draft of a further amendment of the GBER (Draft GBER in the following) to align it with the European Green Deal and the CEEAG on 6 October 2021[203]. The feedback received in the open consultation is currently being evaluated by the COM before an revised version is discussed with the Member States. The adoption of the revised GBER is planned for the first half of 2022[204]. The proposal inter alia contains the introduction of a "green bonus" (i.e. higher block-exempted aid intensities) for aid for improving the energy performance of buildings to incentivise ambitious building renovation projects which would apply where energy performance improvements lead to a significant reduction in primary energy demand. However, this is only specified for Art. 38 Draft GBER which outlines the criteria for investments in energy efficiency measures without the use of financial instruments because those are subject to Art. 39 Draft GBER.

Likewise, the general threshold in Art. 39 para. 5 GBER would be increased from EUR 15 million to EUR 20 million. Additionally, the currently applicable ban in Art. 39 (10) GBER to not grant aid under GBER rules for investments undertaken to comply with Union standards would be softened. Aid could then be granted under this Article for investments undertaken to comply with Union standards that have been adopted but are not yet in force, provided that the investment is implemented and finalised at least 18 months before the standard enters into force. Aid for such measures is currently possible as well, but have to be notified beforehand (see Chapter 7.4.2 CEEAG).

For buildings with a mixed use, both, for the public sector or residential purposes and other purposes, the criteria would now foresee that at least 50% of the internal floor plan have to be used for residential or public sector purposes (Art. 39 (2a) Draft GBER). Regarding the criteria for the respective energy efficiency measure, Art. 39 (11) Draft GBER specifies that aid may also be granted for the improvement of the energy efficiency of the heating or cooling equipment inside the building. Aid for the installation of oil-fired, coal-fired or gas-fired energy equipment shall not be exempted under this Article from the notification requirement of Art. 108 para. 3 TFEU. Aid may be granted for the installation of more energy-efficient gas-fired energy equipment provided that it replaces oil-fired or coal-fired heating equipment and that it is ensured that the gas-fired energy equipment is replaced by equipment using renewable fuels by 2050 at the latest. Similar amendments regarding 50% floor plan in case of a mixed use of the building are also planned regarding aid with the support of InvestEU (Art. 56e para. 8 point (b) Draft GBER).

7.5. Relevance for CitizEE

For CitizEE projects, the State aid framework will mostly have indirect implications as State aid law does not lead to Member States automatically providing financial support to energy efficiency projects. It does, however, provide the scope, types and conditions of support if Member States wish to support energy efficiency projects. Even though state aid control only applies to state resources of the Member States and not to support that comes exclusively from the Union budget, the relevant scope of application for the support of citizen-funded energy efficiency projects is conceivably broad. This is because co-financed support programmes, such as the Structural Funds or, if Member State resources are used in Union programmes (as is, for example, an option in InvestEU), must also comply with the requirements of State aid law when Member States have discretion on the use of the funding. The EU contribution, in such cases is also subject to State aid control because the Member States have control of the resources. State aid law must therefore be considered for public financing whenever national funds are involved and the measure constitutes State aid in the definition of the law.

[203] Targeted review of the General Block Exemption Regulation (State aid): revised rules for State aid promoting the green and digital transition, the consultation draft can be accessed here: https://ec.europa.eu/competition-policy/public-consultations/2021-gber_en.
[204] Press release of 6 October 2021, https://ec.europa.eu/commission/presscorner/detail/en/ip_21_5027.

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7.5.1. CEEAG

In general, the CEEAG criteria for State aid spell out more financing opportunities regarding energy efficiency with more possible beneficiaries and more incentive for projects. This does not mean that such projects were necessarily ineligible before the State Aid reform. But, at the very least, the clearer criteria give Member States planning security when designing funding programmes. In particular with regard to the involvement of financial intermediaries, the CEEAG now provide guidance on what needs to be taken into account. However, it should be borne in mind that the criteria are not conclusively formulated. It therefore remains to be seen in the decision-making process whether and which other criteria the COM will include in the individual case assessment or which parameters it will use, for example, to examine the proof of "commercially sound investment strategies" (Point 157 CEEAG).

Given the heightened ambition level under the European Green Deal and the fact that State aid to fulfil with Union standards is in principle considered incompatible with the internal market (Point 32 CEEAG), the exemption that building measures to comply with energy efficient union standards for buildings if taken on early (Point 143 CEEAG) can provide a major incentive for early action and makes more renovation measures eligible for CitizEE projects.

However, the specific flexibility rules for SMEs/RES communities are not part of the criteria for energy efficient building measures, but only in the more general chapter 4.1 CEEAG, which inter alia applies to renewable energy generation and energy efficiency measures outside of buildings. Whether those specific flexibility exemptions, for example regarding bidding procedures, could also be applied for building measures, remains unclear.

7.5.2. GBER

In general, both the already implemented amendment and the planned amendment of the GBER provide more flexibility for public financing for CitizEE projects. Particularly the introduction of new criteria for Energy Performance Certificates is to be welcomed. Likewise, the criteria Energy Performance Certificates have to adhere to are more clearly specified in the GBER than in the CEEAG, which gives both the actors and the potential funding authorities more planning security. In itself, this is normal, as the GBER must provide practical criteria that Member States can apply without having to consult the COM as would be the case in a notification procedure. The increased thresholds for notification should in practice also lead to the GBER being the more relevant immediate framework for CitizEE projects.

The extension to co-shared funds, particularly InvestEU, is a sound improvement. The justification for its inclusion, namely that there already various competition safeguards incorporated in InvestEU which limits any potential negative effects on competition, could and should be applied in other areas as well to create a truly holistic approach to the legal framework for CitizEE projects. This rationale was also part of our recommendations at national level . Although Member States have their own competence to act here, the legislative justification and implementation of corresponding Regulations for co-managed funds is logical from a factual point of view and might also be fruitful for Member States when considering adjustments to their national legislation.

The reasoning behind the planned amendment to provide a green bonus for projects that result in a particularly effective reduction of primary energy demand is understandable. However, it remains unclear why this bonus was only introduced for projects that do not rely on the use of financial instruments. The incentive effect for more ambitious projects does not change whether a financial instrument is used or not.

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8. DEVELOPMENT OF SUSTAINABLE FINANCE

The development of a sustainable finance system has been an ongoing process over the last number of years in the EU. In 2018, the COM published an Action Plan on financing sustainable growth based on the recommendations of the High-level expert group on sustainable finance.[205] Three main building blocks were identified for a sustainable financial framework:

- A classification system of sustainable activities (EU Taxonomy);
- A disclosure framework for non-financial and financial companies;
- Investment tools, including benchmarks, standards and labels[206].

Their interaction can be illustrated as follows:

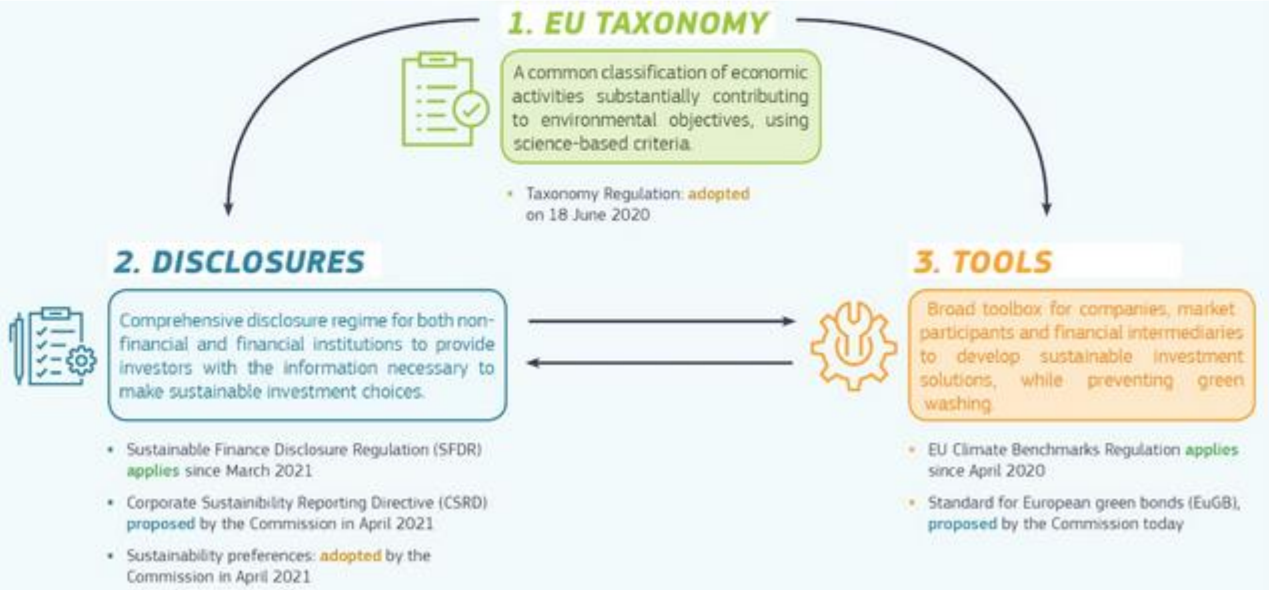

Figure 4 – 2018: The foundations of the EU Sustainable Finance Framework[207]

On 6 July 2021, the COM published their Renewed Sustainable Finance Strategy[208]. Under the heightened ambition of the European Green Deal and the plan for a sustainable recovery from the COVID pandemic (Next Generation EU) the strategy identified four main areas with need for additional action:

- Financing the transition to sustainability to reach climate goals;
- Include the needs of and provide opportunities for individuals and SMEs to have greater access to sustainable finance;
- Defining how the financial sector can contribute to meet the European Green Deal targets, become more resilient and combat greenwashing;
- Promoting an international consensus for an ambitious global sustainable finance agenda.

Regarding the inclusion of SMEs the following action points were provided:

[205] COM/2018/97 final, 08.03.2018, Action Plan: Financing Sustainable Growth.
[206] Commission staff working document accompanying the strategy for the details of implementation of the 2018 action plan on financing sustainable growth, SWD(180) final, 6.7.2021
[207] COM/2021/390 final, 06.07.2021, Strategy for Financing the Transition to a Sustainable Economy, p. 2, https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52021DC0390&from=EN.
[208] COM/2021/390 final, 06.07.2021, Strategy for Financing the Transition to a Sustainable Economy, https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52021DC0390&from=EN.

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- Asking EBA for an opinion on the definition of and support for green loans and mortgages, explore options to facilitate their uptake by 2022; and increase access of citizens and SMEs to sustainable financial advisory services[209];
- Integrate sustainable finance related data in the data spaces under the European Data Strategy and reflect, together with the Digital Finance Platform, on possible further actions to enable and encourage innovative solutions using digital technologies to support SMEs and retail investors; and
- Identify insurance protection gaps through EIOPA's natural disaster dashboard and initiate a Climate Resilience Dialogue with all relevant stakeholders (2022);
- Publish a report on social taxonomy by the end of 2021;
- Strengthen tracking methodologies for climate and biodiversity spending and support Member States who want to redirect their national budget to green priorities and organise an inaugural annual Sustainable Investment Summit ahead of COP26[210].

For these action points to take effect, they have to be translated into the legal framework, either by amending existing acts or introducing new acts. Many of these action points are either still in development or are outside of the scope of CitizEE projects. Particularly the action points regarding opportunities for citizens and SMEs have, even though CitizEE is a showcase for linking sustainable finance and citizen participation, only very limited reference points and relevance for CitizEE. However, regarding tangible legal framework, significant developments have been made, e.g. regarding the implementation of the EU taxonomy as well as clarifying and extending sustainability reporting duties. Their potential effect on CitizEE projects and whether there are opportunities or barriers in the envisaged inclusion of individuals and SMEs in the framework will be examined hereinafter.

8.1. The EU Taxonomy as a common classification system on sustainable economic activities

As the ambition to tackle climate change rose, so did the efforts in creating a transparent sustainable finance framework enabling investors and companies to identify environmentally sustainable investments. The Taxonomy Regulation aims to provide a robust, science-based classifications system on the sustainability of economic activities. It does not provide any obligation to act sustainable, but solely wants to classify all economic activities on whether they are sustainable. However, this process, by its very nature, is a cross-sectional effort between defining clear criteria on what constitutes environmentally sustainable behaviour in various fields such as energy efficiency on the one hand, and implementing requirements to use these criteria in the financial sector on the other hand (see 8.3). At the activity level, the EU Taxonomy differentiates between environmentally sustainable activities (Art. 3 EU Taxonomy Regulation), enabling activities (Art. 16 Taxonomy Regulation) and transitional activities (Art. 10 para. 2 Taxonomy Regulation) that are temporarily required.

In abstract terms, according to Art. 3 Taxonomy Regulation, an activity is sustainable if all of the following criteria are fulfilled:

- It makes a significant contribution to one of the environmental objectives listed in Art. 9 Taxonomy Regulation;
- It does not cause significant harm ("do no significant harm" principle) to any of the other environmental objectives;
- I is carried out in compliance with the minimum safeguards laid down in Art. 18 Taxonomy Regulation;

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[209] An opinion on green loans and mortgages has not yet been published. On March 1, 2021, the European Banking Authority (EBA) published more generally advice to the COM on the disclosure requirement on environmentally sustainable activities in accordance with Art. 8 of the Taxonomy Regulation, https://www.eba.europa.eu/sites/default/documents/files/document_library/About%20Us/Missions%20and%20tasks/Call%20for%20Advice/2021/CfA%20on%20KPIs%20and%20methodology%20for%20disclosures%20under%20Article%208%20of%20the%20Taxonomy%20Regulation/963616/Report%20-%20Advice%20to%20COM_Disclosure%20Article%208%20Taxonomy.pdf.

[210] COM/2021/390 final, 06.07.2021, Strategy for Financing the Transition to a Sustainable Economy, p. 11, https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52021DC0390&from=EN.

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- It complies with technical screening criteria that have been established by the COM.

Those technical screening criteria are part of the ongoing implementation of the EU Taxonomy. They give detailed criteria for the respective economic activities, for example in the buildings sector. The aim here is to direct private capital towards sustainable investments in energy renovation, relying on Energy Performance Certificates and nearly zero-energy building standards. The Climate Delegated Act applies since 1 January 2022 (Art. 27 para. 2 (a) Taxonomy Regulation)[211]. In this context, it should also be mentioned that the overall credibility of the classification according to the EU Taxonomy is currently the subject of heated discussion, inter alia due to a planned amendment of the Climate Delegated Act[212]. The delegated acts for the other environmental objectives are planned for 2022 and they shall apply from 1 January 2023 onwards (Art. 27 para. 2 (b) Taxonomy Regulation). As the EU Taxonomy is intended to function as a dynamically updated catalogue, the delegated acts containing the technical screening criteria are regularly revised to reflect the current state of science and technology, but indirectly also the references of the current legal framework (Art. 19 para. 5 Taxonomy Regulation).

8.1.1. Scope of application

It is important to evaluate whether the EU Taxonomy is (or can be) directly applicable to CitizEE projects; meaning whether the Investment Platforms are financial market participants that make available financial products or whether they or the financed projects could be undertakings subject to publishing obligations. In a second step, it is important to evaluate whether the Taxonomy Regulation is directly applicable to other stakeholders involved, because indirect obligations may also arise in this case through business relationships or public funding obligations.

8.1.1.1. ***Direct application***

The EU Taxonomy, as a Regulation, is binding in its entirety and applicable in all Member States (Art. 288 TFEU). Art. 1 para. 2 Taxonomy Regulation specifies that it applies to

- Measures adopted by Member States or by the Union that set out requirements for financial market participants or issuers in respect of financial products or corporate bonds that are made available as environmentally sustainable;
- Financial market participants that make available financial products;
- Undertakings which are subject to the obligation to publish a non-financial statement or a consolidated non-financial statement pursuant to Art. 19a or Art. 29a of Directive 2013/34/EU[213].

The Directive 2013/34/EU (Accounting Directive) was amended by the Directive 2014/95/EU (Non-financial Reporting Directive (NFRD)). It lays down the rules on disclosure of non-financial and diversity information by certain large companies. Such financial market participants and issuers include financial market participants that make available environmentally sustainable financial products and non-financial companies that issue environmentally sustainable corporate bonds. According to Art. 2 para. 2 Taxonomy Regulation, for the definition of financial market participants the catalogue in Art. 2 para. 1 of the Sustainable Finance Disclosure Regulation (SFDR)[214] applies, meaning inter alia investment firms or credit institutions providing portfolio management, manufacturers of pension

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[211] Delegated Regulation (EU) 2021/2139 of 4 June 2021 supplementing Regulation (EU) 2020/852 by establishing the technical screening criteria for determining the conditions under which an economic activity qualifies as contributing substantially to climate change mitigation or climate change adaptation and for determining whether that economic activity causes no significant harm to any of the other environmental objectives, OJ L 442/1, https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32021R2139&from=EN.

[212] COM Press Release 2 February 2022, EU Taxonomy: Commission presents Complementary Climate Delegated Act to accelerate decarbonisation, https://ec.europa.eu/commission/presscorner/detail/en/ip_22_711. The draft was approved in principle by the COM on 2 February 2022 and it will be formally adopted when all the language versions are available.

[213] Directive 2013/34/EU of 26 June 2013 on the annual financial statements, consolidated financial statements and related reports of certain types of undertakings, amending Directive 2006/43/EC and repealing Council Directives 78/660/EEC and 83/349/EEC, OJ L 182, p. 19, a consolidated version can be found here: https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:02013L0034-20211221&from=EN.

[214] Regulation (EU) 2019/2088 of 27 November 2019 on sustainability-related disclosures in the financial services sector, OJ L 317/1, https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32019R2088&from=EN#d1e507-1-1.

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products and alternative investment fund managers. Financial products are catalogued in Art. 2 (12) SFDR and include inter alia managed portfolios and alternative investment funds. Special consideration should be put into this if the business model entails financial products by financial market participants in the above-mentioned sense.

Undertakings subject to the obligation to publish non-financial statements are large undertakings which are public-interest entities exceeding on their balance sheet dates the criterion of the average number of 500 employees during the financial year or parent undertakings. This would not apply directly to CitizEE, but can become relevant through business cooperation. For example, banks that lend SMEs money might ask for sustainability information, which the banks itself need to disclose in its sustainability report. Likewise, it is important to monitor national legislation as Member States Member States and the Union shall apply the criteria set out in Art. 3 to determine whether an economic activity qualifies as environmentally sustainable for the purposes of any measure setting out requirements for financial market participants or issuers in respect of financial products or corporate bonds that are made available as environmentally sustainable (Art. 4 Taxonomy).

Although, depending on the concrete design and set-up, the EU Taxonomy very likely will not be mandatory for CitizEE projects at the moment, it is possible for smaller undertakings to voluntarily report in accordance with the Taxonomy. Furthermore, the application scope of sustainability disclosure requirements will be expanded in the future (see 8.2.2) The ability to report in line with the technical screening criteria – and, in the case of energy efficiency projects, very likely prove a high share of taxonomy alignment might be rewarded both from a regulatory and business perspective. This of course increases administrative burden, even though especially when the project entails a single activity, likely not as much. The advantages and disadvantages of voluntary reporting will have to be weighed on a case-by-case basis. Accordingly, the Q&A of the Taxonomy state:

"SMEs whose business models are focused on one green activity covered by the EU Taxonomy will have only one set of criteria applicable to their business model. For example, a small manufacturer of energy-efficient windows could check relatively easily what share of its turnover, capital expenditure or operating expenditure is related to the sale of windows that comply with the Taxonomy criteria."[215]

8.1.1.2. *Cross-sectional relevance through reference to Taxonomy in other legal acts*

As described, the EU Taxonomy is primarily aimed at the financial sector and in this context of course also has relevance with regard to the mobilisation of private funds. However, its criteria should also have a considerable effect on the expenditure of public funds through references in the EU financial instruments, in the "Fit for 55" package and the CEEAG.

The RRF references the EU Taxonomy, stating that Member States have to explain that no measure in their RRF plans does significant harm to environmental objectives within the meaning of Art. 17 Taxonomy Regulation (Art. 18 para. 4 (d) RRF) and that the COM assesses those plans accordingly (Art. 19 para. 3 (d) RRF). This means that for the purpose of being included in the RRF, the measure does not have to significantly contribute to an environmental objective and comply with the technical screening criteria. However, given that the RRF also states that 37% of the RRF plans have to contribute to the climate target (Art. 18 para. 4 (e) RRF), the recourse to the EU Taxonomy can be a practical approach, even if there is no explicit normative need. This is underlined by the technical guidance of the COM on how the "do no significant harm" principle is applied under the RRF, stating that Member States have the option of relying upon the technical screening criteria in the delegated acts under the Taxonomy Regulation. They can also refer to the draft version of the delegated acts.

A more intensive link between the EU Taxonomy and State aid is established in the CEEAG. When weighing the positive and negative effects of an aid measure in a balancing exercise and therefore deciding whether the aid can be approved, the COM will pay particular attention to Art. 3 of the Taxonomy Regulation (Point 72 CEEAG). It is yet unclear how this "particular attention" of the EU Taxonomy will play out in practice. It seems plausible that this could be done at the level of the burden of proof, i.e., that Member States have less need to justify if the measure is

[215] COM, FAQ: What is the Taxonomy and how will it work in practice?, p. 12, https://ec.europa.eu/info/sites/default/files/business_economy_euro/banking_and_finance/documents/sustainable-finance-taxonomy-faq_en.pdf.

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taxonomy compliant and higher if it is not. This would also be in line with Fn. 50 of the CEEAG, which states that measures which are identical to measures within RRF Plans as approved by the Council, their compliance with the "do no significant harm" principle is considered fulfilled as this has already been verified.

The EU Taxonomy criteria are also named in some of the recitals of the other legislative proposals of the "Fit for 55" package, showing the criteria (cf. Recital 26 EPBD) and definitions (e.g. Art. 2 (36) EPBD) for climate measures have at least in part been based on or aligned with the Taxonomy Regulation.

8.1.2. Sustainability criteria for energy efficiency

The main content of the Climate Delegated Act lies in Annex I, which lists the criteria an activity has to comply with in order to be classified as substantially contributing to climate change mitigation, and Annex II, which lists the criteria an activity has to comply with in order to be classified as substantially contributing to climate change adaptation. In order to be classified as sustainable, it only has to substantially contribute to one environmental objective as long as it does not significantly harm another environmental objective. As such, it is enough to fulfil the criteria either in Annex I or II, although naturally, as the criteria are both climate change orientated, there is a strong overlap and the criteria for climate change mitigation at the very least lead to the activity being considered as "do no significant harm" principle towards climate change adaptation and vice versa. The criteria of the technical screening criteria are very granular, so that a complete list is not given here but rather an overview on the main building related examples to illustrate how the classification works. For instance, Annexes I and II contain

- Criteria for renewable energies, differentiated by generation source and whether they are used for the generation of electricity, heat or both (Annexes I and II, Chapter 4 respectively);
- Criteria for new buildings (Annexes I and II, Chapter 7.1 respectively);
- Criteria regarding renovations (Annexes I and II, Chapter 7.2 respectively) as well as
- Criteria for the installation, maintenance and repair of energy efficiency equipment, charging stations, energy performance devices and renewable energy technologies (Annexes I and II, Chapter 7.3-7.6 respectively) and
- The acquisition and ownership of buildings (Annexes I and II, Chapter 7.7 respectively).

Depending on the scope of the project, a CitizEE project could thus classify under more than one category. As the classification according to NACE codes[216] is also mentioned in the description of the activities, this can also help with orientation. For each category, this follows a three-step approach:

- Description of the activity;
- Criteria of the activity in order to be classified as substantially contributing to the environmental objective (climate change mitigation or climate change adaptation);
- Criteria of the activity to not do significant harm to any of the other environmental objectives (this criterion will probably become more detailed as soon as the delegated acts of the other environmental objectives are adapted).

Outside of reading the annexes of the delegated acts which entail the classification of activities, a more user-friendly approach is made by establishing the EU Taxonomy Compass[217]. Here, users can check which activities are included in the EU Taxonomy and what criteria they have to meet. Aside from transparency purposes, the Compass also aims to make it easier to integrate the criteria into business databases and other IT systems. In the following, for

[216] NACE Codes means the statistical classification of economic activities established by Regulation (EC) No 1893/2006 of 20 December 2006 establishing the statistical classification of economic activities NACE Revision 2 and amending Council Regulation (EEC) No 3037/90 as well as certain EC Regulations on specific statistical domains, last amended by Regulation (EU) 2019/1243 of 20 June 2019, a consolidated version can be found here: https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:02006R1893-20190726&from=EN.

[217] Both an on- and an offline version of the Taxonomy can be found here: https://ec.europa.eu/sustainable-finance-taxonomy/index.htm.

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illustration purposes, two categories that are particularly relevant for CitizEE are presented as examples with the criteria for new buildings and renovation.

8.1.2.1. ***New buildings (Chapter 7.1)***

The construction of new buildings in the sense of the EU Taxonomy means the development of building projects for residential and non-residential buildings by bringing together financial, technical and physical means to realise the building projects for later sale as well as the construction of complete residential or non-residential buildings, on own account for sale or on a fee or contract basis. In order to significantly contribute to climate change mitigation, the buildings need to fulfil the following criteria:

- Primary energy demand[218] is at least 10% lower than the threshold set for the nearly zero-energy building requirements in national measures implementing the EPBD. The energy performance is certified using an as built Energy Performance Certificate.
- For buildings larger than 5.000 m^2, upon completion, the building resulting from the construction undergoes testing for air-tightness and thermal integrity, and any deviation in the levels of performance set at the design stage or defects in the building envelope are disclosed to investors and clients. As an alternative; where robust and traceable quality control processes are in place during the construction process this is acceptable as an alternative to thermal integrity testing.
- For buildings larger than 5.000 m^2, the life-cycle Global Warming Potential (GWP)[219] of the building resulting from the construction has been calculated for each stage in the life cycle and is disclosed to investors and clients on demand.

Further criteria regarding the "do no significant harm" principle towards other environmental objectives, e.g. the installed water units in order to not significantly harm the environmental objective of sustainable use and protection of water and marine resources, are given.

8.1.2.2. ***Renovations (Chapter 7.2)***

In order to be classified as a sustainable economic activity under the EU Taxonomy Climate Delegated Act, building renovation needs to either achieve 30% energy savings, comply with minimum energy performance requirements for major renovation or consist of specific individual measures classified as sustainable, the following criteria apply:

- The building renovation complies with the applicable requirements for major renovations[220].
- Alternatively, it leads to a reduction of primary energy demand of at least 30%. The initial primary energy demand and the estimated improvement must be based on a detailed building survey, an energy audit conducted by an accredited independent expert or any other transparent method, and validated through an Energy Performance Contract. The 30% improvement results in an actual reduction in primary energy

[218] The calculated amount of energy needed to meet the energy demand associated with the typical uses of a building expressed by a numeric indicator of total primary energy use in kWh/m^2 per year and based on the relevant national calculation methodology and as displayed on the Energy Performance Certificate.

[219] The GWP is communicated as a numeric indicator for each life cycle stage expressed as kgCO2e/m^2 (of useful internal floor area) averaged for one year of a reference study period of 50 years. The data selection, scenario definition and calculations are carried out in accordance with EN 15978 (BS EN 15978:2011. Sustainability of construction works. Assessment of environmental performance of buildings. Calculation method). The scope of building elements and technical equipment is as defined in the Level(s) common EU framework for indicator 1.2. Where a national calculation tool exists, or is required for making disclosures or for obtaining building permits, the respective tool may be used to provide the required disclosure. Other calculation tools may be used if they fulfil the minimum criteria laid down by the Level(s) common EU framework (version of 4.6.2021: https://susproc.jrc.ec.europa.eu/product-bureau/product-groups/412/documents), see indicator 1.2 user manual.

[220] As set in the applicable national and regional building regulations for "major renovation" implementing Directive 2010/31/EU. The energy performance of the building or the renovated part that is upgraded meets cost-optimal minimum energy performance requirements in accordance with the respective Directive; see for a further explanation under (6.2.3.).

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demand, not taking into account improvements made by renewable energy sources, and can be achieved within a maximum of three years.

Further criteria regarding the "do no significant harm" principle towards other environmental objectives, e.g. the installed water units in order to not significantly harm the environmental objective of sustainable use and protection of water and marine resources or regarding the need to recycle building materials, are given.

It is important to note that the renovation of buildings is classified as a transition activity (Art. 10 para. 2 Taxonomy Regulation), which means the classification has to be re-evaluated at least every three years (Art. 19 para. 5 Taxonomy Regulation).

8.2. Increasing disclosure obligations to facilitate sustainable investment choices

Additionally, regarding the establishment of a comprehensive disclosure regime for both non-financial and financial institutions, main legislative initiatives have evolved. Up until 2019, only the requirements of the NFRD, which, as a Directive, has to be implemented by the Member States, have been specified at the European level with regard to sustainability reporting. The NFRD, adopted in 2014, applies to large public-interest entities with an average number of employees over 500 and to public-interest entities that are parent companies of a large group with an average number of employees in excess of 500 on a consolidated basis[221]. As such, the scope and potential impact of sustainability reporting was rather limited.

The NFRD, as reviewed by the CSRD, the Regulation on sustainability-related disclosures in the financial services sector (i.e. Regulation (EU) 2019/2088, the "SFDR")[222], and the disclosures required under the Taxonomy Regulation set out in a delegated act based on Art. 8 Taxonomy Regulation (Disclosure Delegated Act)[223], are the central elements of the sustainability reporting regime that underpins the EU's renewed sustainable finance strategy. The purpose of this legal framework is to create a consistent and coherent flow of sustainability information throughout the financial value chain.

8.2.1. Sustainable Finance Disclosure Regulation (SFDR)

The SFDR lays down harmonised rules for financial market participants (i.e. asset managers, institutional investors, insurance companies, pension funds, all entities offering financial products where they manage clients' money) and financial advisers on transparency with regard to the integration of sustainability risks and the consideration of adverse sustainability impacts in their processes and the provision of sustainability-related information with respect to financial products (Art. 1 SFDR). It does so in relation to the integration of sustainability risks in all investment processes and for financial products that pursue the objective of sustainable investment. In addition, it entails added disclosure obligations for adverse impacts on sustainability matters both at entity and financial product levels.

The EU Taxonomy clarifies and extends several disclosure requirements in the Sustainable Finance Disclosure Regulation (SFDR)[224], applicable since 10 March 2021. To enhance transparency and to provide an objective point of comparison by financial market participants to end investors on the proportion of investments that fund environmentally sustainable economic activities, the EU Taxonomy supplements the rules on transparency in pre-contractual disclosures and in periodic reports laid down in the SFDR. The definition of "sustainable investment" in the SFDR includes investments in economic activities that contribute to an environmental objective which, amongst

[221] Public-interest entities are companies with securities listed in EU regulated markets, banks (whether listed or not), insurance companies (whether listed or not) and any other companies designated by Member States (Art. 2 (1) Accounting Directive).

[222] Regulation (EU) 2019/2088 of 27 November 2019 on sustainability-related disclosures in the financial services sector, OJ L 317/1, https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32019R2088&from=EN#d1e507-1-1.

[223] Delegated Regulation (EU) 2021/2178 of 6 July 2021 supplementing Regulation (EU) 2020/852 by specifying the content and presentation of information to be disclosed by undertakings subject to Articles 19a or 29a of Directive 2013/34/EU concerning environmentally sustainable economic activities, and specifying the methodology to comply with that disclosure obligation, OJ L 443/9, https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32021R2178&from=EN.

[224] Regulation (EU) 2019/2088 of 27 November 2019 on sustainability-related disclosures in the financial services sector, OJ L 317/1, a consolidated version can be found here: https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:02019R2088-20200712&from=EN.

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others, should include investments into "environmentally sustainable economic activities" within the meaning of the EU Taxonomy (Art. 2 (17) SFDR). Moreover, the SFDR only considers an investment to be a sustainable investment if it does not significantly harm any environmental or social objective as set out in the Taxonomy (Recital 19 Taxonomy Regulation). The definition of sustainability in terms of the SFDR in general is therefore broader than in the Taxonomy Regulation. However, it obligates financial market participants to certain transparency obligations (Art. 3-11 SFDR), for example the disclosure on the promotion of environmental or social characteristics and of sustainable investments on websites (Art. 10 para. 1 SFDR).

8.2.2. Corporate Sustainability Reporting Directive (CSRD)

On 21 April 2021, the Commission published a proposal for a Corporate Sustainability Reporting Directive[225]. The proposal builds on and revises the sustainability reporting requirements set out in the NFRD, in order to make sustainability reporting requirements more consistent with the broader sustainable finance legal framework, including the SFDR and the Taxonomy Regulation, and to tie in with the objectives of the European Green Deal. The status quo under the NFRD is that that public-interest companies with more than 500 employees have to publish information related to sustainability, inter alia environmental matters (Art. 19a and 29a NFRD). Following the review of the NFRD by the Corporate Sustainability Reporting Directive ('CSRD'), the scope of undertakings covered by Art. 8 Taxonomy Regulation would be enlarged. The main amendments of the existing reporting requirements of the NFRD through the CSRD would be the following:

- Immediate Extension of the scope to all large companies and all companies listed on regulated markets (Except listed micro-enterprises) and, from 1 January 2026 onwards, extension to small and medium-sized undertakings (Art. 19a (para. 1 CSRD);
- Requirement of an audit of the reported information;
- Introduction of more detailed reporting requirements and a requirement to report according to mandatory EU sustainability reporting standards.

The EU sustainability reporting standards are developed by the European Financial Reporting Advisory Group (EFRAG)[226]. The proposal does not put any new reporting requirements on small companies except for SMEs with securities listed on regulated markets. SMEs listed on regulated markets should, however, be provided with sufficient time to prepare for the application of the requirement to report sustainability information, due to their smaller size and more limited resources, and taking account of the difficult economic circumstances created by the COVID pandemic. They should also be given the possibility to report according to standards that are proportionate to the capacities and resources of SMEs. Non-listed SMEs may decide to use the sustainability reporting standards that the Commission will adopt as delegated acts for reporting by listed SMEs on a voluntary basis (Recital 18 CSRD). On a national level, the CSRD invites Member States to consider introducing measures to support SMEs in applying the voluntary simplified reporting standards (Recital 71 CSRD). By 31 October 2023, the Commission shall adopt delegated acts to provide for sustainability reporting standards proportionate to the capacities and characteristics of SMEs (Art. 19c CSRD). Those sustainability reporting standards shall specify which information referred to in Art. 19a and 29a small and medium-sized undertakings shall report.

[225] COM/2021/189 final, Proposal for a Directive of the European Parliament and of the Council amending Directive 2013/34/EU, Directive 2004/109/EC, Directive 2006/43/EC and Regulation (EU) 537/2014, as regards corporate sustainability reporting, 21 April 2021, https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52021PC0189&from=EN.

[226] See Status Report of the project task force on European sustainability reporting standards (PTF-ESRS) of 15 November 2021, https://www.efrag.org/Assets/Download?assetUrl=%2fsites%2fwebpublishing%2fSiteAssets%2f20211015%2520PTF-ESRS%2520status%2520report%2520(final).pdf.

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8.2.3. Transparency of undertakings in non-financial statements (Art. 8 Taxonomy Regulation)

Furthermore, a delegated act supplementing Art. 8 Taxonomy (Disclosures Delegated Act) was adopted on 10 December 2021 and is applicable since January 2022[227]. Art. 8 para. 1 Taxonomy Regulation states that certain large undertakings within the scope of the NFRD (and, if the CSRD enters into force as proposed, additional companies as well) have to disclose information to the public on how and to what extent their activities are associated with environmentally sustainable economic activities in the sense of the Taxonomy legislation. Art. 8 para. 2 Taxonomy Regulation specifies that the disclosure requirement in particular concerns the key performance indicators related to turnover, capital expenditure and operational expenditure. Companies will have to report these indicators alongside other sustainability information mandated by the proposed CSRD. The reporting standards to be developed under the CSRD would fully take into account these indicators and build on the 'substantial contribution' and "do-no-significant-harm" criteria of the Taxonomy Regulation[228]. However, it does not specify equivalent indicators for financial undertakings, mainly large banks, asset managers, investment firms, insurance and reinsurance undertakings, which is why the Commission laid down specific rules and indicators for financial undertakings in a delegated act based on Art. 8 para. 4 Taxonomy Regulation[229]. Its purpose is to translate the technical screening criteria of the Climate Delegated Act (and the following Delegated Act regarding the other environmental objectives) into quantitative economic performance indicators (KPIs) which will have to be disclosed by companies covered by the NFRD. A major component of the Disclosure Delegated Act covers how credit institutions must calculate their Green Asset Ratio (GAR) for large companies subject to reporting requirements. The aim of these KPIs is a comparability of the sustainability values of different actors. The GAR is calculated in such a way that no SMEs are listed in the numerator, but are recorded in the denominator, which could therefore lead to a distortion (Art. 7 para. 3 Disclosure Delegated Act). The reasoning of the Commission to not include SMEs is to not heighten their administrative burden. Loans to small enterprises that are taxonomy-compliant can also be reported[230]. However, credit institutions cannot include SME projects in their GAR, but can only disclose it separately. As such, if the GAR would become the main KPI regarding the disclosure of sustainability, this would have detrimental effects on small projects because financial actors could not disclose lending to them as sustainable activity in the sense of the GAR even if they are sustainable within the definition of the Taxonomy Regulation.

However, the GAR is only one of many KPIs that companies or banks have to report, which so far does not take precedence over other KPIs. Other KPIs that also cover SMEs are under development. The KPI "Banking Book Taxonomy Alignment Ratio" (BTAR), based on Art. 449a Capital Requirements Regulation[231], is likely to be particularly relevant. The EBA published the final draft version of mandatory standards for this on 24 January 2022, which are to take into account, among other things, the extent to which the GAR has a distorting effect on small projects[232]. At the moment, only disclosure on the GAR is applicable as the BTAR is not yet in effect, which could at the very least have short-term implications until the disclosure framework is implemented fully and also long-term effects if one

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[227] Delegated Regulation (EU) 2021/2178 of 6 July 2021 supplementing Regulation (EU) 2020/852 by specifying the content and presentation of information to be disclosed by undertakings subject to Articles 19a or 29a of Directive 2013/34/EU concerning environmentally sustainable economic activities, and specifying the methodology to comply with that disclosure obligation, OJ L 443/9, https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32021R2178&from=EN.

[228] COM, Q&A: Corporate Sustainability Reporting Directive proposal, 21 April 2021, https://ec.europa.eu/commission/presscorner/detail/en/qanda_21_1806.

[229] Delegated Regulation (EU) 2021/2178 of 6 July 2021 supplementing Regulation (EU) 2020/852 by specifying the content and presentation of information to be disclosed by undertakings subject to Articles 19a or 29a of Directive 2013/34/EU concerning environmentally sustainable economic activities, and specifying the methodology to comply with that disclosure obligation, OJ L 443/9, https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32021R2178&from=EN#d1e204-9-1.

[230] See Platform on Sustainable Finance, Platform considerations on voluntary information as part of Taxonomy-eligibility reporting, Appendix 1, https://ec.europa.eu/info/sites/default/files/business_economy_euro/banking_and_finance/documents/sustainable-finance-taxonomy-eligibility-reporting-voluntary-information_en.pdf.

[231] Regulation (EU) 575/2013 of 26 June 2013 on prudential requirements for credit institutions and amending Regulation (EU) 648/2012, OJ L 176 27.6.2013, p. 1, last amended by Commission Implementing Regulation (EU) 2021/1043 of 24 June 2021, a consolidated version can be found here: https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:02013R0575-20210930&from=EN.

[232] EBA, Final Report: Final draft implementing technical standards on prudential disclosures on ESG risks in accordance with Article 449a CCR, https://www.eba.europa.eu/sites/default/documents/files/document_library/Publications/Draft%20Technical%20Standards/2022/1026171/EBA%20draft%20ITS%20on%20Pillar%203%20disclosures%20on%20ESG%20risks.pdf.

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of the KPIs becomes the predominant determinator in practice application. The effect on the availability of funding for small sustainable projects will have to be closely monitored in order to prevent any unwanted disadvantages for projects which are sustainable, but whose funding model has not yet been incorporated in the sustainable finance framework.

8.3. Relevance for CitizEE

In general, the developments in the framework for sustainable finance pose an arising opportunity for individual sustainable financing. As private investors gain more knowledge about their investments, easier investments aligned with sustainability preferences in investment behaviour can be facilitated. This could on the one hand change investor behaviour as well as attract citizens who might, due to lack of transparency, have not invested before. CitizEE projects, which are a prime candidate regarding the material requirements regarding sustainability, could gain traction an attraction such investments because, if the disclosure framework is implemented correctly, the competition regarding "sustainable investments" would be less distorted by greenwashing.

Regarding the material requirements of the EU Taxonomy, particularly the Climate Delegated Act (see 8.1.2), CitizEE projects likely fulfil the requirements of the technical screening criteria regarding renovation. However, it is important to make sure that the fulfilment of the criteria will be reflected in the disclosure framework as well to ensure that the Sustainable Finance Framework reflects all relevant actors. The EU Green Deal can only be achieved through a level playing field where the steering effect towards sustainable measures doesn't put citizens and other small actors at a disadvantage. It remains to be seen whether this can be accomplished through BTAR.

A problematic aspect for CitizEE is the synergy effects of energy efficiency measures and the installation of renewable energies in the Sustainable Finance Framework. Especially in the area of renovation, it makes sense to combine these measures if the building is scaffolded anyway. This approach is followed in the new CEEAG when they present the combination possibilities with on-site installations of renewable energy (see 7.3.1).

However, this synergy effect is not well reflected in the considerations of the Climate Delegated Act of the Taxonomy Regulation. The installation of renewables is excluded when measuring the criteria by achieving at least 30% reduction of primary energy demand in order to be classified as sustainable and thus the only (indirect) link is the possibility that the building renovation complies with the applicable requirements for major renovations according to the EPBD. But this path encounters several difficulties as well.

As described under 6.2.3. according to Art. 2 (10) current EPBD and EPBD proposal major renovation means the renovation of a building where:

- Option (a): The total cost of the renovation relating to the building envelope or the technical building systems is higher than 25% of the value of the building, excluding the value of the land upon which the building is situated;
- Option (b): More than 25% of the surface of the building envelope undergoes renovation.

While technical building system may include technical equipment for on-site electricity generation (in the current EPBD) or, or on-site renewable energy generation and storage (in the EPBD proposal) there are still two aspects that are likely to hinder the synergy effects of energy efficiency measures and the installation of renewable energies.

On the one hand, Member States may choose to apply option (a) or (b) when it comes to the definition of major renovation. Thus, it is possible that only a renovation where more than 25% of the surface of the building envelope undergoes renovation counts as major renovation (option (b)).

On the other hand, even if option (a) is a possibility for a renovation to count as major renovation, it is unclear if e.g. the installation of photovoltaic solar panels counts as renovation relating to the technical building systems as there is a new component built and not an already existing component renovated.

Thus, there is no coherent connection in the Taxonomy energy efficiency measures and the installation of renewable energies. The same measure could either meet the sustainability criteria of the delegated act or not, depending on the Member State in which it takes place and whether the Member State has chosen to only apply one of the options as a definition of a major renovation (and only if the installation of solar panels counts as a renovation relating to the

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technical buildings systems). Especially with regard to cross-border financial instruments, this would represent an arbitrary fragmentation of the sustainable finance framework.

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9. REFERENCES

The main sources used are:

Regulation (EU) 2021/1237 of 23 July 2021 amending Regulation (EU) 651/2014 declaring certain categories of aid compatible with the internal market in application of Articles 107 and 108 of the Treaty, https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32021R1237&from=ENRegulation (EU) 2021/1119 of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999 ('European Climate Law'), https://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX%3A32021R1119;

Regulation (EU) 2021/240 of 10 February 2021 establishing a Technical Support Instrument, https://eur-lex.europa.eu/eli/reg/2021/240.

Regulation (EU) 2020/852 of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088, OJ L 198, https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32020R0852&from=EN;

Regulation (EU) 2019/2088 of 27 November 2019 on sustainability-related disclosures in the financial services sector, OJ L 317/1, https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32019R2088&from=EN#d1e507-1-1;

Regulation (EU) 2018/1999 of 11 December 2018 on the Governance of the Energy Union and Climate Action, amending Regulations (EC) No 663/2009 and (EC) 715/2009, Directives 94/22/EC, 98/70/EC, 2009/31/EC, 2009/73/EC, 2010/31/EU, 2012/27/EU and 2013/30/EU, Council Directives 2009/119/EC and (EU) 2015/652 and repealing Regulation (EU) 525/2013, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02018R1999-20210729.

Regulation (EU) 651/2014 of 17 June 2014, last amended by Regulation (EU) 2021/1237 of 23 July 2021, OJ EU No. L 270 of 23 July 2021, https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:02014R0651-20210801&from=EN;

Regulation (EU) 1407/2013 of 18 December 2013, last amended by Regulation (EU) 2020/927 of 2 July 2020, OJ EU No. L 215 of 7 July 2020, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02013R1407-20200727;

Regulation (EU) 575/2013 of 26 June 2013 on prudential requirements for credit institutions and amending Regulation (EU) 648/2012, OJ L 176 27.6.2013, last amended by Commission Implementing Regulation (EU) 2021/1043 of 24 June 2021, https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:02013R0575-20210930&from=EN;

Delegated Regulation (EU) 2021/2178 of 6 July 2021 supplementing Regulation (EU) 2020/852 by specifying the content and presentation of information to be disclosed by undertakings subject to Articles 19a or 29a of Directive 2013/34/EU concerning environmentally sustainable economic activities, and specifying the methodology to comply with that disclosure obligation, OJ L 443/9, https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32021R2178&from=EN;

Delegated Regulation (EU) 2021/2139 of 4 June 2021 supplementing Regulation (EU) 2020/852 by establishing the technical screening criteria for determining the conditions under which an economic activity qualifies as contributing substantially to climate change mitigation or climate change adaptation and for determining whether that economic activity causes no significant harm to any of the other environmental objectives, OJ L 442/1, https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32021R2139&from=EN;

COM, Draft version amending Regulation (EU) 651/2014, 06.10.2021, https://ec.europa.eu/competition-policy/public-consultations/2021-gber_en;

Directive (EU) 2019/944 of 5 June 2019 on common rules for the internal market for electricity and amending Directive 2012/27/EU, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32019L0944.

Directive (EU) 2018/2002 of 11 December 2018 amending Directive 2012/27/EU on energy efficiency, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.L_.2018.328.01.0210.01.ENG;

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement Nº 847147

Directive (EU) 2018/2001 of 11 December 2018 on the promotion of the use of energy from renewable sources (recast), https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02018L2001-20181221;

Directive (EU) 2018/844 of 30 May 2018 amending Directive 2010/31/EU on the energy performance of buildings and Directive 2012/27/EU on energy efficiency, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52021PC0802&qid=1641802763889;

Directive 2013/34/EU of 26 June 2013 on the annual financial statements, consolidated financial statements and related reports of certain types of undertakings, amending Directive 2006/43/EC and repealing Council Directives 78/660/EEC and 83/349/EEC, OJ L 182, p. 19, a consolidated version can be found here: https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:02013L0034-20211221&from=EN;

Directive 2012/27/EU of 25 October 2012 on energy efficiency, amending Directives 2009/125/EC and 2010/30/EU and repealing Directives 2004/8/EC and 2006/32/EC, https://ec.europa.eu/energy/topics/energy-efficiency/targets-directive-and-rules/energy-efficiency-directive_en#the-2012-energy-efficiency-directive-;

COM, Guidelines on State aid for climate, environmental protection and energy 2022, https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52022XC0218(03)&from=EN;

C/2021/7014, Commission Recommendation (EU) 2021/1749 of 28 September 2021 on Energy Efficiency First: from principles to practice — Guidelines and examples for its implementation in decision-making in the energy sector and beyond, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32021H1749;

C(2021) 7014 final, Annex to the Commission Recommendation on Energy Efficiency First: from principles to practice. Guidelines and examples for its implementation in decision-making in the energy sector and beyond, https://ec.europa.eu/transparency/documents-register/detail?ref=C(2021)7014&lang=en;

Decision (EU) 2019/504 of 19 March 2019 on amending Directive 2012/27/EU on energy efficiency and Regulation (EU) 2018/1999 on the Governance of the Energy Union and Climate Action, by reason of the withdrawal of the United Kingdom of Great Britain and Northern Ireland from the Union, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32019D0504;

COM Notice, 18.02.2021, Technical guidance on the application of “do no significant harm” under the Recovery and Resilience Facility Regulation, OJ C 58/1, https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52021XC0218(01)&from=EN;

COM, FAQ: What is the Taxonomy and how will it work in practice?, https://ec.europa.eu/info/sites/default/files/business_economy_euro/banking_and_finance/documents/sustainable-finance-taxonomy-faq_en.pdf;

COM, Q&A: Corporate Sustainability Reporting Directive proposal, 21 April 2021, https://ec.europa.eu/commission/presscorner/detail/en/qanda_21_1806;

COM/2022/108 final, Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions REPowerEU: Joint European Action for more affordable, secure and sustainable energy, , https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM%3A2022%3A108%3AFIN;

COM/2021/802 final, Proposal for a Directive of the European Parliament and of the Council on the energy performance of buildings (recast), https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52021PC0802&qid=1641802763889.

COM/2021/558 final, Proposal for a Directive of the European Parliament and of the Council on energy efficiency (recast), https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52021PC0558;

COM/2021/557 final, Proposal for a Directive of the European Parliament and of the Council amending Directive (EU) 2018/2001 of the European Parliament and of the Council, Regulation (EU) 2018/1999 of the European Parliament and of the Council and Directive 98/70/EC of the European Parliament and of the Council as regards the promotion of energy from renewable sources, and repealing Council Directive (EU) 2015/652, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52021PC0557;

This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement Nº 847147

COM/2021/390 final, Strategy for Financing the Transition to a Sustainable Economy, https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52021DC0390&from=EN;

COM/2021/347 final, Proposal for a Directive of the European Parliament and of the Council on consumer credits of 30 June 2021, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM:2021:347:FIN;

COM/2021/189 final, Proposal for a Directive of the European Parliament and of the Council amending Directive 2013/34/EU, Directive 2004/109/EC, Directive 2006/43/EC and Regulation (EU) 537/2014, as regards corporate sustainability reporting, 21 April 2021, https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52021PC0189&from=EN;

COM/2020/662 final, Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions, A Renovation Wave for Europe - greening our buildings, creating jobs, improving lives, https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A52020DC0662;

COM/2020/575 final, Communication from the Commission to the European Parliament, the European Council, the Council, the European Central Bank, the European Economic and Social Committee, the Committee of the Regions and the European Investment Bank, Annual Sustainable Growth Strategy 2021, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020DC0575;

COM/2020/456 final, Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions, Europe's moment: Repair and Prepare for the Next Generation, https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020DC0456&from=EN;

COM/2019/640 final, Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions, The European Green Deal, https://eur-lex.europa.eu/resource.html?uri=cellar:b828d165-1c22-11ea-8c1f-01aa75ed71a1.0002.02/DOC_1&format=PDF;

European Parliament, 12/2020, Economic and Monetary Affairs – ECON: Multiannual financial framework - InvestEU programme 2021–2027 https://www.europarl.europa.eu/legislative-train/theme-economic-and-monetary-affairs-econ/file-mff-investeu;

European Parliament, 14.04.2020, Impact of the coronavirus crisis on climate action and the European Green Deal: https://www.europarl.europa.eu/thinktank/en/document.html?reference=EPRS_BRI(2020)649370;

Bertoldi/Economidou/Palermo/Boza-Kiss/Todeschi, How to finance energy renovation of residential buildings: Review of current and emerging financing instruments in the EU, WIREs Energy Environ, 2020, https://doi.org/10.1002/wene.384;

Wimmer/Kamm/Pause, CitizEE, Deliverable D5.2, Report on legal and regulatory recommendations for the target countries;

Wimmer/Pause, BestRES, Deliverables D5.2/D5.3, http://bestres.eu/wp-content/uploads/2019/03/BestRES-5.2_National-framework-for-RES-aggregationSUER.pdf, http://bestres.eu/wp-content/uploads/2019/03/BestRES_D5.3_European_framework-for-RES-aggregationSUER.pdf;

Project task force on European sustainability reporting standards (PTF-ESRS), Status Report of 15 November 2021, https://www.efrag.org/Assets/Download?assetUrl=%2fsites%2fwebpublishing%2fSiteAssets%2f20211015%2520PTF-ESRS%2520status%2520report%2520(final).pdf;

Joint Research Centre, Energy companies in the EU status report, https://publications.jrc.ec.europa.eu/repository/bitstream/JRC106624/kjna28716enn.pdf;

EBA, Final Report: Final draft implementing technical standards on prudential disclosures on ESG risks in accordance with Article 449a CCR, https://www.eba.europa.eu/sites/default/documents/files/document_library/Publications/Draft%20Technical%20Standards/2022/1026171/EBA%20draft%20ITS%20on%20Pillar%203%20disclosures%20on%20ESG%20risks.pdf.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement № 847147