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TOWARDS THE EU NET-ZERO: ENERGY PERFORMANCE CONTRACTING IN THE EUROPEAN UNION POLICY AND REGULATORY FRAMEWORK

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Abstract:
As part of the Fit for 55 legislative package, EU member states have committed to ambitious energy efficiency improvements, including a reduction in EU CO2 emissions of at least 55% by 2030, compared to 1990. The Fit for 55 package includes a holistic approach to all areas of economic life.
One area that undoubtedly requires intervention is outdated and energy-intensive public infrastructure. Improving energy efficiency requires both adequate legislative and organizational preparation and the provision of financing for specific projects in this area. One means of improving energy efficiency is Energy Performance Contracting (EPC) - which involves the financing, implementation and provision of specific services in multi-year energy savings projects by specialized companies, so-called ESCO (Energy Saving Companies).
The revision of the Energy Efficiency Directive of 2023 highlights the exemplary role of the public sector in the energy efficiency improvement process, particularly with regard to buildings and public procurement, as well as with regard to the promotion of Energy Performance Contracts.
The paper discusses both the EU policy and legal framework for the implementation of EPC projects, to support and promote the development of this form of implementation and financing of public tasks.

***Keywords**: Energy Performance Contracting, ESCO, Energy Transition, Net-Zero*

1. Introduction

The Euopean Union needs an **energy transition** to effectively reduce its greenhouse gas emissions and achieve climate neutrality. For this transition to happen, saving energy and reducing its consumption are as crucial as shifting to cleaner forms of energy[1]. Energy transition is one of the most important issues and challenges facing the European Union today. The climate policy that has been shaped for many years and the legislative initiatives undertaken have resulted in the creation of the Euorpean Green Deal and so-called "Fit for 55" package[2]. The Fit for 55 consists of a set of inter-connected proposals, which all drive towards the same goal of ensuring a fair, competitive and green transition by 2030 and put the EU to the path to achieve climate neutrality by 2050. It consists of several legislative and strategic proposals, introducing reforms to the existing EU legislation on climate and energy.

Among number of goals and targets, a strategic priority of the EU is energy efficiency. For this reason the EU adopted the principle "Energy Efficiency First", which is aimed at complementing other EU objectives, particularly in the areas of sustainability, climate neutrality and green growth and ensure that demand for energy is reduced and managed in cost-effective way, investments in stranded assets

[1] Retrieved from https://www.consilium.europa.eu/en/infographics/fit-for-55-how-the-eu-will-become-more-energy-efficient/.
[2] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, 'Fit for 55': delivering the EU's 2030 Climate Target on the way to climate neutrality, COM/2021/550 final.

are avoided and only energy really needed is produced. The principle was embedded in 2018[3], but only the revised Energy Efficiency Directive[4] ("EED") provided stronger basis for application of the principle, setting an obligation for EU countries to ensure that energy efficiency solutions are considered in planning, policy and investment decisions in both the energy and non-energy sectors[5].

One of the instruments that can be used to promote energy-efficient solutions is the energy performance contracting ("EPC"), seen as a mechanism for enhancing energy efficiency and decarbonising the building sector. That is why the EU has established both the policy and a comprehensive legislative framework to promote EPC. Especially the revised EED provides legal background and promotes energy performance contracting in developing, designing, building, and arranging financing for projects that save energy, reduce energy costs, and decrease operations and maintenance costs.

However, simply establishing a legal framework for the implementation of EPC projects is not sufficient to achieve the desired scale of use of this method of implementing energy-efficient projects. For this reason, additional incentives and tools for the promotion of EPCs are necessary.

The main purpose of this article is to discuss the policy and legal framework for implementing and promoting the EPC method as a public-private cooperation to achieve comprehensive legal, financial and technical solutions for energy efficiency in public infrastructure. The peculiarities of the public sector and the limited scope of the article, as well as its theoretical nature, mean that regulation of the private sector, including industry and commercial facilities, were presented in a limited way. The paper uses the formal (dogmatic) method of analyzing source materials and European Union law. Legal status of the text is as of april 30, 2025.

2. European Union policy and regulations on EPCs

2.1. Evolution of the EU policy

The EU energy policy has steadily elevated energy services and EPCs. Obligations for Member States to create energy efficiency services markets were introduced in the Energy Services Directive of 2006[6]. The directive defined energy performance contracting (EPC) as a contractual arrangement between the beneficiary and the provider (normally an ESCO) of an energy efficiency improvement measure, where investments in that measure are paid for in relation to a contractually agreed level of energy efficiency improvement; the energy service company (ESCO) was defined as a natural or legal person that delivers energy services and/or other energy efficiency improvement measures in a user's facility or premises, and accepts some degree of financial risk in sodoing. The payment for the services delivered is based (either wholly or in part) on the achievement of energy efficiency improvements and

[3] See: Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11 December 2018 on the Governance of the Energy Union and Climate Action, amending Regulations (EC) No 663/2009 and (EC) No 715/2009 of the European Parliament and of the Council, Directives 94/22/EC, 98/70/EC, 2009/31/EC, 2009/73/EC, 2010/31/EU, 2012/27/EU and 2013/30/EU of the European Parliament and of the Council, Council Directives 2009/119/EC and (EU) 2015/652 and repealing Regulation (EU) No 525/2013 of the European Parliament and of the Council (Text with EEA relevance.), *OJ L 328, 21.12.2018, p. 1–77;* Directive (EU) 2018/2002 of the European Parliament and of the Council of 11 December 2018 amending Directive 2012/27/EU on energy efficiency (Text with EEA relevance.), *OJ L 328, 21.12.2018, p. 210–230*.

[4] Directive (EU) 2023/1791 of the European Parliament and of the Council of 13 September 2023 on energy efficiency and amending Regulation (EU) 2023/955 (recast) (Text with EEA relevance), *OJ L 231, 20.9.2023, p. 1–111*.

[5] See: European Commission, Energy, Climate change, Environment. Retrieved from https://energy.ec.europa.eu/topics/energy-efficiency/energy-efficiency-targets-directive-and-rules/energy-efficiency-first-principle_en), accessed: 12.05.2025.

[6] Directive 2006/32/EC of the European Parliament and of the Council of 5 april 2006 on efficiency and energy services and repealing Council Directive 93/76/EEC (OJ L 114/64).

on the meeting of the other agreed performance criteria. EPC was seen as a financial instruments for energy savings, as usually one of the ESCO tasks (except of delivering the technical capabilities) is financing the investement costs.

Building upon the 2006 directive, the 2012 Energy Efficiency Directive[7] established a more comprehensive framework for energy efficiency. It introduced binding measures, such as the requirement for Member States to set indicative national energy efficiency targets and to ensure that public bodies renovate 3% of their buildings annually to meet minimum energy performance requirements. EPCs were recognized as a key instrument to facilitate these renovations and achieve energy savings.

An important legal basis for extensive climate protection activities, including energy efficiency, was the conclusion of an international agreement between 196 countries in 196 parties at the United Nations Climate Change Conference (COP21) in Paris, on 12 December 2015. The Paris Agrement[8] aims at holding the increase in the global average temperature to well below 2°C above pre-industrial levels and limiting the temperature increase to 1.5°C. Since 2020 countries have been submitting so-called nationaly determined contributions (NDCs) in order to communicate action they will take to reduce their greenhouse gas emmissions according to the goals of the Paris Agreement.

In terms of energy performance contracting it was the Energy Efficiency Directive (EU) 2018/2002 which for the first time codified specific measures on EPC and established a common framework of measures to promote energy efficiency within the EU in order to ensure that the EU's 2020 headline targets on energy efficiency of 20 % and its 2030 headline targets on energy efficiency of at least 32,5 % were met and paved the way for further energy efficiency improvements beyond those dates. Member States were required to achieve cumulative end-use energy savings for the entire obligation period 2021 to 2030, equivalent to new annual savings of at least 0,8 % of final energy consumption. In terms of EPC development the directive underlined measures such as the deep renovation of buildings with the long-term objective of facilitating the cost effective transformation of existing buildings into nearly-zero energy and zero-emmission buildings. According to the EED 2018/2022 reaching an ambitious energy efficiency target required barriers to be removed in order to facilitate investment in energy efficiency measures. One step in that direction was the clarification provided by Eurostat on how to record energy performance contracts in national accounts, which was aimed at removing uncertainties and facilitating the use of such contracts[9].

The 2018 "Clean Energy for All Europeans" package[10] and the 2020 **Renovation Wave**[11] explicitly called for scaling up third-party financing for building renovation. In parallel, the 2019 **European Green Deal** set Europe on a path to net-zero greenhouse gas emissions, under which cost-effective efficiency measures like EPCs are essential. The goal set out in the European Green Deal for Europe to become climate-neutral by 2050 and reduce greenhouse gas emissions by at least 55% by 2030, was introduced by so-called European Climate Law in 202[12].

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[7] Directive 2012/27/EU of the European Parliament and of the Council 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 Text with EEA relevance (*OJ L 315, 14.11.2012, p. 1–56).*

[8] Retrieved from https://unfccc.int/sites/default/files/english_paris_agreement.pdf.

[9] Eurostat Guidance Note. (19 September 2017). The recording of energy performance contracts in government accounts. Retrieved from: https://ec.europa.eu/commission/presscorner/api/files/document/print/en/ip_17_3268/IP_17_3268_EN.pdf

[10] Retrieved from https://op.europa.eu/en/publication-detail/-/publication/b4e46873-7528-11e9-9f05-01aa75ed71a1/language-en.

[11] Retrieved from https://energy.ec.europa.eu/topics/energy-efficiency/energy-efficient-buildings/renovation-wave_en.

[12] Regulation (EU) 2021/1119 of the European Parliament and of the Council 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'), *OJ L 243, p. 1-17.*

The 2021–22 *Fit for 55* legislation (including the EED of 2023) further raised energy efficiency targets and cemented the Energy Efficiency First Principle. In response to the energy market disruptions caused by geopolitical events, the REPowerEU plan[13] was introduced to reduce the EU's dependence on fossil fuel imports. The plan emphasizes energy savings and efficiency, with EPCs identified as a key mechanism to accelerate building renovations and reduce energy consumption. This is supported with the Energy Performance of Buidlings Directive of 2010 and its revisions[14], which enhance energy performance standards and facilitate building renovations, with EPCs playing a crucial role in financing and implementing these improvements.

The European Commission's **2025 Action Plan for Affordable Energy**[15] recognized ESCOs role and it aims to *double the ESCO market to up to EUR 4–6 billion per year* and highlights that mass uptake of EPC can lower energy bills in building renovations (25-30%) and street lighting (70**–80%)**.

Actually, EU strategic documents promote EPCs as a way to mobilize private capital and meet the EU's 2030 and 2050 climate targets. For instance, EU Member States' Recovery and Resilience Plans (2021–2026) have allocated a significant share of funds to renovate buildings – often encouraging use of EPC-type schemes to leverage these public funds.

It should be noted, that at the level of Member States various types of energy transition strategies and plans are being implemented, with tools for their implementation, like EPCs. One of the more important, linking EU and national policies in this area are national energy and climate plans (NECPs), which were introduced by the Regulation on the governance of the energy union and climate action (EU) 2018/199, agreed as part of the Clean energy for all Europeans package adopted in 2019. The national plans outline how the EU countries intend to address the 5 dimensions of the energy union: decarbonization, energy efficiency, energy security, internal energy market, research, innovation and competitiveness. This approach requires a coordination of purpose across all government departments and it provides a level of planning that will ease public and private investment. Each country must submit a progress report every 2 years, according to the methodology set by the EU.

A detailed analysis of the NECPs for the EU-27 leads to the conclusion that in each of them EPCs/ESCOs are indicated as one of the tools for implementing energy efficiency policies. What becomes apparent, however, is the lack of a coherent vision for EPC implementation at the EU-wide level.

2.2. Main barriers to adoption the EPC policy

Despite strong policy support, ESCO/EPC markets face a number of important obstacles. Most of these are typical of all EPC/ESCO markets around the world. Based on available reports[16], the following are the most important barriers and organics associated with the development of the EPC formula.

The main problem is financing. EPC/ESCO projects involve high upfront investment and long payback, which can make them financially unattractive without subsidies. In addition, financing institutions (banks) have little experience in financing EPC projects, which is a significant barrier to ESCO access to capital. Since many EPC projects are not attractive to banks due to their low investment, it is difficult to encourage the financial sector to take an active interest in such projects. Lack of

[13] Retrieved from https://ec.europa.eu/commission/presscorner/detail/en/ip_22_3131.

[14] Retrieved from https://energy.ec.europa.eu/topics/energy-efficiency/energy-efficient-buildings/energy-performance-buildings-directive_en.

[15] Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions Action Plan for Affordable Energy Unlocking the true value of our Energy Union to secure affordable, efficient and clean energy for all Europeans, COM/2025/79 final.

[16] Moles-Grueso, S., Bertoldi, P, Boza-Kiss, B. (2023). Energy Performance Contracting in the EU – 2020-2021, JRC SCIENCE FOR POLICY REPORT. Retrived from: https://publications.jrc.ec.europa.eu/repository/handle/JRC133984; Lütken, S.E., Canu, F.A, Pasquet, T. (2024), Regulatory Barriers for Energy Service Companies, UNEP Copenhagen Climate Centre. Retrieved from: https://c2e2.unepccc.org/kms_object/regulatory-barriers-for-energy-service-companies-2024-3rd-edition/; own author's research.

affordable, dedicated financing for ESCOs is a challenge especially for small and medium enerprises. In this regard, the creation of large EPC/ESCO programs by governments and creation of financing instruments would certainly be worth considering.

The second major barrier is the high competition from EU funds and domestic subsidies. Public entities tend to opt for simple solutions, such as traditional thermomodernization of buildings, with significant levels of grant funding.

Third, the public sector still has very little knowledge of the rules for implementing EPC projects, including risk sharing, financing mechanisms and ESCO responsibilities. Local authorities and staff are not prepared to implement such complex projects. Moreover, public representatives and building owners often lack confidence in EPC models. The "trust gap" deter uptake.

The lack (or limited availability) of sample contracts, a database of implemented projects and good practices, and other tools to facilitate understanding of the EPC model is also an obstacle.

Still, Eurostat's accounting treatment of EPCs is a recurring issue. Rigid criteria can limit inclusion of on-site renewables or require "off-balance" conditions that many projects fail. The current Eurostat guidance *limits the use of renewables* in off-balance EPC contracts, which can discourage integrative projects. Slow or incomplete transposition of EU rules adds uncertainty, resulting e.g. in delays in adopting the revised EED provisions on EPCs.

The application of procurement regulations is also a considerable problem. The public procurement laws, which are based on EU directives, is inflexible and very restrictive in this regard, which discourages both public entities and ESCOs[17].

Last but not least, subsidised energy prices and weak energy taxation in some states reduce the economic incentive for EPC. Many EPC markets were also stopped or limited due to COVID-19, huge inflation and Russia's aggression against Ukraine and the resulting crisis.

Some of the above barriers the European Union is trying to address in the revised EED regulations (about which see below). According to observations of markets of Member States and analyzed reports, policy frameworks are essential for enabling EPC/ESCO markets. Countries with strong mandates, incentives, and technical assistance programs have seen significantly more progress than countries which were limited to establishing a legal framework for the implementation of the EPC.

2.3. Energy Efficiency Directive (2023)

Energy Efficiency Directive is the most important source of EU law in the context of the EPC. EED underlines the exemplary role of the public sector through its obligation to achieve an annual reduction of its energy consumption by at least 1,9 %. Member States retain full flexibility regarding the choice of energy efficiency improvement measures to achieve a reduction of the final energy consumption. Purchasing policies Member States shall also regard the Energy Efficiency First Principle by making energy efficient decisions and apply the principle in public contracts or concessions, considering the whole life cycle performance.

EED defines "energy performance contracting" 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 the works, supply or service in that measure are paid for in relation to a contractually agreed level of energy efficiency improvement or another agreed energy performance criterion, such as financial savings. The EED does not propose specific solutions for EPC project implementation models, leaving this to the practice applied or developed in individual Member States. The ESCO definition provided in Energy Services Directive of 2006 has been withdrawn and replaced by the definition of "energy service provider" refering to a natural or legal person who delivers energy services or energy efficiency improvement measures in a final customer's facility or premises.

[17] What might be interesting, public buildings are the most frequent target of ESCO projects globally, while sectors like commercial buildings, industry, and energy supply remain underutilized. This means that public procurement procedures, although a barrier to the implementation of EPC projects, are not the primary legal obstacle in this regard.

ESCOs surely are included in this definition, however its meaning is wider. The EED explains also the meaning of "energy savings" themselves, regarding them as means an amount of saved energy determined by measuring or estimating consumption, or both, before and after the implementation of an energy efficiency improvement measure, whilst ensuring normalisation for external conditions that affect energy consumption.

EED obliges Member States to ensure that contracting authorities and 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 and that the Member States shall establish the legal and regulatory provisions, as well as administrative practices, regarding public purchasing and annual budgeting and accounting, necessary 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. Therefore, a number of legislative and administrative obligations arise from the provisions of the EED in relation to the promotion of the EPC as an effective means of improving energy efficiency.

Despite the legal framework and the mentioned incentives for EPC projects, the EED provides "hard" provisions, mandating public entities to assess the feasibility of using EPC model for renovation non-residential buildings with the useful floor area above 750 m^2. Such a solution should increase the use of EPCs, or at least the interest in this model for implementing energy-efficient projects. Moreover, EPCs should be promoted by available model contracts, exchange of best practice and guidelines. Finally, Member States should continue supporting the public sector in the uptake of EPC by providing model contracts that take into account the Guide to the Statistical Treatment of Energy Performance Contracts[18].

Member States shall promote the energy services market by disseminating i.a information on available energy service contracts and clauses that should be included in such contracts to guarantee energy savings and final customers' rights; financial instruments, incentives, grants, revolving funds, guarantees, insurance schemes, and loans; available energy services providers, such as ESCOs, that are qualified or certified; available monitoring and verification methodologies and quality control schemes. In terms of proper functioning of the energy services market, Member States shall 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. The tools and programs funding the development of FTEs, mentioned later in the article, should help fulfill these tasks.

Despite the specifics of the national legislation, the EED stipulates that a minimum standard and scope must be included in any energy performance contracts or associated tender documentations[19].Among other obligatory provisions, these contracts must provide:

1) Findings and recommendations set out in analyses and energy audits carried out before the contract has been concluded that cover energy use of the building with a view to implementing energy efficiency improvement measures;
2) A clear and transparent list of the efficiency measures to be implemented or the efficiency results to be obtained;
3) Guaranteed savings to be achieved by implementing the measures of the contract;
4) The duration and milestones of the contract, terms and period of notice;
5) A clear and transparent list of the obligations of each contracting party;
6) Reference date(s) to establish achieved savings;
7) A clear and transparent list of steps to be performed to implement a measure or package of measures and, where relevant, associated costs;
8) An obligation to fully implement the measures in the contract and documentation of all changes made during the project;

[18] Eurostat and the European Investment Bank. (May, 2018). A Guide to the Statistical Treatment of Energy Performance Contracts. Retrived from https://www.eib.org/en/publications/guide-to-statistical-treatment-of-epc

[19] See: Annex XV of the EED.

9) Regulations specifying the inclusion of equivalent requirements in any subcontracting with third parties;

10) A clear and transparent display of the financial implications of the project and the distribution of the share of both parties in the monetary savings achieved, namely the remuneration of the service provider;

11) A clear and transparent provisions on measurement and verification of the guaranteed savings achieved, quality checks and guarantees;

12) Provisions clarifying the procedure to deal with changing framework conditions that affect the content and the outcome of the contract, namely changing energy prices and the use intensity of an installation;

13) Detailed information on the obligations of each contracting party and of the penalties for their breach.

The EED therefore mandates that the ESCO contract should specify in detail and precisely, *inter alia*, the efficiency measures or results, guaranteed savings (including the measurement and veritication methodology), share in monetary savings achieved and provisions of modifications of contractual provisions in case of changing energy prices and conditions. Due to the wide and flexible scope of the aforementioned minimum standard, it is possible to fit it into various EPC models, based on both guaranteed and shared energy savings. This solution is certainly justified, as it allows different and equally flexible concepts of EPC cooperation to be implemented in Member States' legislation.

The transposition of the EPC provisions of the EED should be carried out by Member States by 11 October 2025. Tools and initiatives to support the development of EPC/ESCO, as discussed below, are helpful in this regard.

2.4. EU mechanisms and initiatives supporting EPC development

In addition to the development of EPC policy and legislation, the European Union has established several financial mechanisms to support development and reduce barriers to EPC/ESCO development. Among them, the following are worth mentioning:

1) **ELENA:** the European Investment Bank (EIB) is a core supporter of EPC markets. Its **ELENA facility** gives technical-assistance grants (up to 90% of preparation costs) for large energy-efficiency programs. Since 2009 ELENA has mobilised over €11.2 billion of investments. The EIB also provides EPC loans (and more recently climate bonds) at favourable rates, and via the InvestEU/Green Deal Investment Plan it can take first-loss positions to de-risk EPC funds. EIB/EBRD guidelines (2017/2018) clarified how EPC projects can achieve off-balance treatment, which many Member States have used to design public-sector EPC programmes[20];

2) **Cohesion Policy and European Structural Funds:** Cohesion Fund and European Regional Development Fund, through various grants and financial instruments have co-financed EPC projects, especially in Central and Eastern Europe. For example, a fi-compass report on Poland shows regional ERDF funds combining grants with revolving loans to renovate public buildings via EPC[21]. The EU has allocated billions to energy efficiency – for example in 2014-2020 perspective almost €21.8 billions[22], which supported also EPCs in public buildings and street lighting. The UE encourages Member States to use structural funds for performance contracting, to avoid “crowding out” EPC with sole grants[23];

[20] See more: https://www.eib.org/en/products/advisory-services/elena/index#:~:text=The%20ELENA%20facility%20provides%20technical,investments%20and%20innovative%20urban%20transport, accessed: 14.05.2025.

[21] Retrieved from https://www.fi-compass.eu/sites/default/files/publications/EPC_ERDF_Factsheet_RTW.pdf#:~:text=In%20the%20case%20of%20deep,reducing%20the%20cost%20of%20financing.

[22] Retrieved from https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52025DC0079&qid=1741780110418.

[23] Retrieved from: publications.jrc.ec.europa.eupublications.jrc.ec.europa.eu.

3) **Recovery and Resilience Facility:** NextGenerationEU funds (2021–27)[24] for building renovation and ESCO-type schemes, which can be implemented in various forms of aid, including state aid; to date, it has not been possible to map all aid schemes across the EU, although attempts have been made to identify many schemes[25]. Morover, financing to on-site efficiency and renewables for industry decarbonisation, which ESCOs can implement, could be provided through Modernisation Fund and Innovation Fund;

4) **Horizon and LIFE programmes**[26]**:** EU R&D and demonstration programmes have funded research on EPC business models, standardisation and best practices. For example, under Horizon 2020/EURO-FITHorizon, projects developed new EPC frameworks, multi-energy contracting, and capacity-building tools. Horizon Europe (2021–27) includes calls for *"Finance & Investment for Energy Performance Contracting"*. The LIFE Clean Energy Transition sub-programme also supports pilot EPC aggregates in buildings and industry. Moreover, the Commission's *Sustainable Energy Investment Forums* (an H2020/CINEA project) conducts webinars and training (e.g. on ESCO financing to connect banks with EPC projects.

Beyond funding, the EU fosters EPC through policy platforms and networks. The **European Federation of Intelligent Energy Efficiency Services (EFIEES)**[27] represents ESCO industry interests in Brussels and lobbies for supportive policies. The **Energy Efficiency Financial Institutions Group (EEFIG)**[28] provided recommendations on blending public/private finance. The **Sustainable Energy Investment Forums (SEI Forum)** conducts workshops and webinars[29] to share banking best practices. The **European Committee of the Regions (CoR)** and **Groningen Alliance** also promote local EPC rollout.

Other initiatives and tools are also worth mentioning. For example, the European Code of Conduct for Energy Performance Contracting outlines fundamental principles for the successful implementation of EPC projects, promoting transparency and professionalism among stakeholders[30]. Important source of knowledge on the status and potential of EPCs, identifying barriers and proposing recommendations to enhance their uptake, are provided by Joint Research Centre (JRC) Reports[31]. In 2024, the European Climate, Infrastructure and Environment Executive Agency implemented so-called "Smart EPC" project that provided standardised contract and tender documentation to facilitate EPC implementation[32].

Moreover, the European Investment Project Portal (EIPP) includes aggregated listings of EPC-ready projects seeking co-financing. The EU's Sustainable Energy Week (EUSEW) annually spotlights award-winning ESCO schemes. Lastly, the EU is piloting an EPC certification scheme at EU level, and the upcoming Smart Finance for Smart Buildings platform (under the Renovation Wave) will guide authorities in designing EPC-friendly tenders.

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[24] Retrieved from https://next-generation-eu.europa.eu/index_en.

[25] Retrieved from https://houseful.eu/wp-content/uploads/2023/12/D4.8-Report-on-financial-schemes-and-funding-opportunities-PUBLIC-VERSION.pdf.

[26] Retrieved from https://energy.ec.europa.eu/events/esco-project-financing-solutions-bridge-between-energy-efficiency-projects-and-finance-providers-2023-07-06_en#:~:text=Recent%20developments%20within%20the%20energy,vehicles%20or%20dedicated%20financial%20instruments.

[27] Retrieved from https://www.efiees.eu.

[28] Retrieved from https://openresearch.amsterdam/nl/page/79636/the-energy-efficiency-financial-institutions-group-eefig.

[29] Retrieved from https://energy.ec.europa.eu/events/esco-project-financing-solutions-bridge-between-energy-efficiency-projects-and-finance-providers-2023-07-06_en#:~:text=Recent%20developments%20within%20the%20energy,vehicles%20or%20dedicated%20financial%20instruments.

[30] Retrieved from https://euesco.org/european-code-of-conduct-for-epc/.

[31] Retrieved from https://op.europa.eu/en/publication-detail/-/publication/706630fc-879e-11eb-ac4c-01aa75ed71a1?utm.

[32] Retrieved from https://managenergy.ec.europa.eu/publications/smart-epc-standardised-contract-and-tender-documentation_en?utm.

It is also noteworthy, that according to Article 30 of the EED, Member States are required to facilitate the establishment of financing facilities and maximise blending between multiple streams of financing not only at national, but also at regional or local level. With detailed knowledge of the building stock and local occupants, regional and local financing facilities are closer to citizens and local businesses. Member States have to ensure that financing facilities offer a combination of different financing streams and project development assistance, and maximise the use of EU funds support to establish national and regional financing facilities. Moreover, the EED encourages Member States to set one-stop-shops in order to offer a combination of technical and financial support for energy efficiency measures. One-stop-shops may directly provide financing for a project and/or act as an intermediary, linking customers with public or private financers[33].

3. Summary

The EU has progressively built a comprehensive framework for EPC and ESCO development: from binding efficiency directives and incentives, through transposition into national laws, to dedicated finance mechanisms, programmes and knowledge networks. These measures – reinforced under the European Green Deal and Fit for 55 – recognize EPC as a key enabler of deep renovations and climate goals. Through legislative measures, supporting tools, and national implementations, EPCs are poised to play an increasingly significant role in the EU's energy transition. Continued action is focusing on removing the remaining barriers (knowledge, finance, accounting) so that EPCs can fully **unlock private investment** and double the energy service market as envisaged by EU policy.

The new EED obligations themselves address many challenges: requiring Member States to remove the administrative barriers, publish EPC project databases, set up financing mechanisms and point-of-contact entities (one-stop-shops). Member States are encouraged to provide **model EPC contracts** that comply with Eurostat rules, and to expand public-energy audits into guaranteed EPCs.

For the success of the development of the EPC formula, the "exemplary" role of the public sector will be particularly important, which should implement a number of legal solutions and tools to support the development of the EPC. However, there is very little time left for the full transposition of the EED, and the mere establishment of regulations is obviously not sufficient for the spread of EPC formula for the implementation of energy-efficient investments.

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