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Subject: State Aid SA.105880 (2023/N) – Italy – Renewable Energy Scheme 2024 (FER II)

Excellency,

1. PROCEDURE

- (1) On 7 February 2023, Italy notified a support scheme for electricity produced from renewable energy sources (“RES”) for the period 2024-2028 (the “scheme” or the “measure”), pursuant to Article 108(3) of the Treaty on the Functioning of the European Union (TFEU). The Commission requested additional information, which Italy submitted on 23 May 2023, 28 July 2023, 26 January 2024, 20 and 29 February 2024, 21 March 2024, 30 April 2024, and 30 May 2024.
- (2) Italy exceptionally agrees to waive its right deriving from Article 342 TFEU, in conjunction with Article 3 of Regulation 1/1958 ⁽¹⁾ and to have this Decision adopted and notified in English.

2. DESCRIPTION OF THE MEASURE

- (3) The scheme provides aid for the production of electricity from renewable technologies that are innovative or not yet fully mature (namely traditional geothermal energy with innovations, zero-emission geothermal energy, offshore

⁽¹⁾ Regulation No 1 determining the languages to be used by the European Economic Community (OJ 17, 6.10.1958, p. 385).

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wind power (floating or fixed), thermodynamic solar, floating solar (offshore or on inland waters) and tidal, wave and other marine energy), as well as from biogas and biomass. The aid takes the form of a two-way contract for difference (“two-way CfD”) applied to the production of electricity fed into the network and will be granted until 31 December 2028.

2.1. Background and objective

- (4) The EU has set an ambitious climate protection target of reducing greenhouse gas emissions by at least 55% by 2030, with a view to becoming climate neutral by 2050 ⁽²⁾. Italy has a national target set in its National Energy and Climate Plan submitted to the European Commission on 31 December 2019 (Piano Nazionale Integrato per l’Energia e il Clima, or “PNIEC”) of 30% of gross final electricity consumption from RES by 2030. To achieve these targets, Italy needs to drastically increase the use and production of RES.
- (5) The objective of the measure is to increase the share of energy from renewable sources in the total energy consumption through the development of renewable energy technologies. The measure aims to support non-mature renewable technologies, which present elements of technological and environmental innovation or electricity generation from biogas and biomass. A previous measure to support electricity from renewable sources ⁽³⁾ was in place in Italy from 2019 to 2021 (the “previous scheme”). The previous scheme targeted mature technologies, such as onshore wind, solar photovoltaic, hydroelectric and sewage gases. The Italian authorities intend to adopt a new scheme in the future for mature technologies, but such new scheme does not fall within the scope of the present decision. Therefore, Italy noted that there are currently no measures supporting the technologies eligible under the scheme.
- (6) Italy explains that the adoption of the measure is necessary to reach the 2030 EU targets on renewable energy. Italy further explains that to achieve the 2030 objectives but also to reach the climate target for 2050, it is necessary to deploy all possible technological solutions, even the most innovative ones and currently farthest from becoming competitive (see recital (3)). Italy considers that it is necessary to promote the development of all technologies that can contribute to the EU and national targets, and not only the more traditional ones. Furthermore, the Italian authorities have explained that support under the scheme to biomass and biogas technologies is necessary as these technologies have a positive effect on network stability due to their dispatchable nature.
- (7) Italy further explains that the measure is crucial to reduce the negative environmental impact linked to electricity production in terms of greenhouse gas emissions, as well as to reduce the Union’s dependency on energy imports ⁽⁴⁾. For

⁽²⁾ 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, 9.7.2021, p. 1.

⁽³⁾ Commission Decision of 14 June 2019 in SA.53347 (2019/N) – Italy – Support to electricity from renewable sources 2019-2021 (OJ C 303, 6.9.2019, p.4).

⁽⁴⁾ https://mc-cd8320d4-36a1-40ac-83cc-3389-cdn-endpoint.azureedge.net/-/media/Files/IRENA/Agency/Publication/2023/Aug/IRENA_Renewable_power_generation_costs_in_2022.pdf?rev=cccb713bf8294cc5bec3f870e1fa15c2

example, tidal, wave and other marine energy technologies can make a substantial contribution to providing clean and reliable energy in the future, as acknowledged by the Commission in its Communication on Blue Energy ⁽⁵⁾. Similarly, Italy notes that floating solar could allow to exploit solar energy also in locations where land is relatively scarce and expensive, thus allowing for land and costs saving ⁽⁶⁾.

- (8) Italy however explains that, in view of the current features of the energy market, the production of electricity from the renewable technologies eligible under the scheme is not sufficiently profitable to cover their investment and operating costs (see Section 2.3.3). It is therefore necessary to support those technologies to promote their development.
- (9) Under the scheme, Italy intends to support a total of around 4 590 MW of new capacity from the renewable technologies mentioned in recital (3). The additional annual supply of electricity from RES brought about by the measure is estimated at 15 TWh, to be reached once and if all the supported installations become fully operational.
- (10) Italy also explains that the scheme will help reach the milestone set out in the Italian National Recovery and Resilience Plan (“NRRP”) as part of Reform 1 ‘Simplification of authorization procedures for renewable onshore and offshore plants and new legal framework to sustain the production from renewable sources and time and eligibility extension of the current support schemes’ under Mission 2, Component 2 (‘Energy transition and sustainable mobility’).

2.2. National legal framework

- (11) The legal basis of the measure is the Legislative Decree n. 199 of 8 November 2021 (the “National Legislative Decree”) transposing Directive (EU) 2018/2001 (the “Renewable Energy Directive”) ⁽⁷⁾ and the draft Ministerial Decree containing the implementing regulation for the scheme (the “Implementing Decree”). Italy will adopt the Implementing Decree after the notification to Italy of the Commission decision approving the scheme.
- (12) The granting authority is the Ministry of the Environment and Energy Security (the “Ministry”), and the delegated implementing authority is the Gestore dei Servizi Energetici (“GSE”) ⁽⁸⁾.

⁽⁵⁾ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on a new approach for a sustainable blue economy in the EU transforming the EU's blue economy for a sustainable future (COM(2021) 240 final).

⁽⁶⁾ <https://openknowledge.worldbank.org/server/api/core/bitstreams/42f25d0e-edb3-5db1-abad-f8e67986693f/content>.

⁽⁷⁾ Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources (OJ L 328, 21.12.2018, p.82).

⁽⁸⁾ The GSE is a joint-stock company, 100% owned by the Ministry of Economic Affairs and Finance and controlled by the Ministry for Environment and Energy Security. The GSE is the Italian public body responsible for the promotion of renewable energy and energy efficiency in Italy. It is also responsible for the monitoring of the development of renewable energies, from a statistical, technical, economic, and environmental point of view.

2.3. Eligibility

- (13) Beneficiaries are undertakings that produce renewable electricity with installations eligible under the scheme, as described in recitals (14) to (24).
- (14) The following technologies are eligible under the scheme: traditional geothermal energy with innovations ⁽⁹⁾, zero-emission geothermal energy, offshore wind power (floating or fixed), biomass and biogas, thermodynamic solar, floating solar (offshore or on inland waters) and tidal, wave and other marine energy.
- (15) For some technologies, specific size or construction requirements apply and only the following installations are eligible to apply for support under the scheme:
 - (a) Biogas installations with a nominal capacity up to 300 kW;
 - (b) Biomass installations with a nominal capacity up to 1 MW;
 - (c) Offshore wind installations on fixed foundations that are located at a minimum distance from the coast of 12 nautical miles ⁽¹⁰⁾.
- (16) Italy explains that the decision to limit the access to small biogas plants is justified by the fact that, according to the Ministerial Decree of 15 September 2022 ⁽¹¹⁾, priority is given to the production of gas from renewable sources to contribute to the decarbonisation of “hard-to-abate” sectors or sectors that are not easily electrifiable, as well as the transport sector. For that reason, support to the production of electricity with new biogas plants is limited to plants for which the production of biomethane is not technically and economically feasible.
- (17) Regarding biomass plants, the Italian authorities have explained that the decision to limit the access to small plants responds to the principle of the cascading use of biomass, which ensures that biomass is used according to its highest economic and environmental added value. Therefore, the scheme reserves a limited quota for this technology and limits the incentive to small-sized plants.
- (18) The measure applies for the construction of new installations. For traditional geothermal plants, partial or total refurbishments can also be supported under the scheme.
- (19) To access the scheme, installations must meet the following requirements:
 - a. Possession of the permit to construct and operate the plant;
 - b. Definitive acceptance by the potential beneficiaries of the quotation made by the Transmission System Operator (TSO)/ Distribution System Operator (DSO) to connect the installations to the electricity grid (which request shall

(9) These are defined as installations that meet certain emission abatement requirements that are significantly lower than the legal minimum (see further details in recital (37)).

(10) Italy explained that installations within 12 nautical miles have a cost structure comparable to mature technologies.

(11) Ministerial Decree of 15 September 2022 “*Development of biomethane, according to criteria to promote the circular economy – Biomethane production*” in implementation of the National Recovery and resilience Plan, Mission 2, Component 2 (M2C2), Investment 1.4.

include the estimate of the costs and modalities of such connection to the grid);

- c. Compliance with the minimum environmental and performance requirements set out in Annex 2 of the Implementing Decree ⁽¹²⁾.
- (20) Italy confirms that the scheme will be compliant with the Renewable Energy Directive, and notably with the sustainability and greenhouse gas emissions saving criteria for biofuels, bioliquids and biomass fuels, as well as with other applicable aspects of existing EU law. For example, the measure does not encourage the production of energy from waste, in the light of the circular economy objectives referred to in Directives (EU) 2018/850 ⁽¹³⁾, 2018/851 ⁽¹⁴⁾ and 2018/852 ⁽¹⁵⁾, as well as the Commission Communication COM (2020) 98 final “A new Circular Economy Action Plan – For a cleaner and more competitive Europe” ⁽¹⁶⁾.
 - (21) Undertakings in difficulty as defined by the Commission Guidelines on State aid for rescuing and restructuring non-financial undertakings in difficulty ⁽¹⁷⁾ are excluded from the scheme.
 - (22) For undertakings subject to outstanding recovery orders following a previous Commission decision declaring an aid illegal and incompatible with the internal market, access to the scheme is not allowed.
 - (23) Beneficiaries will be selected through a competitive bidding process. The selection procedures are described in detail in Section 2.3. Installations located in the territory of other Member States of the European Union (or in a nearby third Country with which a free trade agreement is in force) will be allowed to participate in the auction procedures, subject to the following conditions:
 - a. the existence of a cooperation agreement with the Member State or the third Country where the installation is located;
 - b. the agreement establishes a system of reciprocity and the manner in which proof of physical import of renewable electricity is provided;

⁽¹²⁾ The Implementing Decree sets requirements for all biogas installations, biomass installations, traditional geothermal installations with innovations, zero-emissions geothermal installations, thermodynamic solar plants, and floating PV installations.

⁽¹³⁾ Directive (EU) 2018/850 of the European Parliament and of the Council of 30 May 2018 amending Directive 1999/31/EC on the landfill of waste (OJ L 150, 14.6.2018, p.100).

⁽¹⁴⁾ Directive (EU) 2018/851 of the European Parliament and of the Council of 30 May 2018 amending Directive 2008/98/EC on waste (OJ L 150, 14.6.2018, p.109).

⁽¹⁵⁾ Directive (EU) 2018/852 of the European Parliament and of the Council of 30 May 2018 amending Directive 94/62/EC on packaging and packaging waste (OJ L 150, 14.6.2018, p. 141)

⁽¹⁶⁾ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions “A new Circular Economy Action Plan for a cleaner and more competitive Europe” (COM/2020/98 final).

⁽¹⁷⁾ Communication from the Commission — Guidelines on State aid for rescuing and restructuring non-financial undertakings in difficulty (OJ C 249, 31.7.2014, p. 1).

- c. the installation complies with the same requirements applied to the installations in the Italian territory and foreseen by the Implementing Decree.
- (24) Installations outside the Italian territory can place bids only up to a certain percentage of the assigned capacity. The percentage is calculated based on a function according to which the Italian overall imports of green energy from neighbouring countries are divided by the total electricity consumption in Italy, based on the following formula:

$$P_{EU} = P_{Tot} \times \frac{E_{imp MS1} \times RES_{\%MS1} + E_{imp MS2} \times RES_{\%MS2} + \dots + E_{imp MSn} \times RES_{\%MSn}}{E_{Tot consumed IT}}$$

where P_{EU} is the available capacity for the projects in other States; P_{Tot} is the total capacity awarded in the auction procedure; $E_{imp MSn}$ is the total imported electricity by the State n ; $RES_{\%MSn}$ represents the portion of renewable energies in the energy mix of the particular State n ; and $E_{Tot consumed IT}$ is the total electricity consumption in Italy ⁽¹⁸⁾.

2.4. Selection of beneficiaries

2.4.1. Functioning of the auctions

- (25) Beneficiaries will be selected through competitive bidding procedures launched by the GSE during the period 2024-2028, in which power capacities will be made available periodically. The scheme foresees several selection procedures, which should take place annually for biogas and biomass plants and at least three times over the entire period for other technologies.
- (26) For each procedure, the period to submit applications will be of 60 days.
- (27) Applicants will have to apply for aid under the scheme on the GSE website, by attaching their bid and the required documentation (see Section 2.2). The applications will include the applicant's name, and a description of the project or activity, including its location, as well as the amount of aid needed to carry it out. Applicants must indicate the offered reduction in percentage terms, starting from the reference tariff applicable to the project they intend to develop. The reference tariffs for 2024, expressed in €/MWh, are identified in Table 1. For the following years, the reference tariffs will be reduced by 3% per year. For installations with capacity up to 300 kW, this reduction will apply from 2026.

Table 1: Reference Tariffs for 2024 and installations' average lifetime

Renewable Source	Type	Eligible installations by Capacity	Installation Average Lifetime	Reference Tariff
		kW	years	€/MWh
Geothermal	Traditional with innovations	All the capacities	25	100
	Zero-emission	All the capacities	25	200
Wind	Off-shore	All the capacities	25	185

⁽¹⁸⁾ All the figures are based on the last annual data available as published by EUROSTAT.

Solar	Off-shore floating	All the capacities	20	105
	Floating on inland waters	1<P≤1000	20	90
		P>1.000	20	75
Biogas	Using by-products respecting health and environmental standards described in European Commission Regulations n. 1069/2009 and n. 142/2011 ⁽¹⁹⁾	1<P≤300	20	233
Biomass		1<P≤300	20	246
		300 <P≤1.000	20	185
Tidal, wave and other marine energy		All the capacities	20	180
Solar Thermodynamic		1<P≤300	25	300
		300<P≤5.000	25	240
		5000<P≤15.000	25	200

Source: *Implementing Decree*

- (28) Bidders will be ranked based on the reduction to the applicable reference tariff offered, the bidders offering the highest reductions prevailing, within the limit of the available quotas.
- (29) The minimum reduction allowed is 2% of the applicable reference tariff ⁽²⁰⁾.
- (30) Italy indicates that the procedures will be carried out electronically, in accordance with the principles of transparency, advertising, protection of competition and in a non-discriminatory manner.
- (31) Italy confirms that there will be no ex-post adjustments to the bidding process outcome.

2.4.2. Available capacity for each selection procedure and baskets

- (32) The total capacity that will be auctioned over the period 2024-2028 amounts to 4 590 MW, divided into nine baskets as shown in Table 2.

Table 2: Total capacity available to be auctioned over the period 2024-2028 by technology

Basket	Installation Type	Category	Eligible installations by Capacity (kW)	Total capacity to be auctioned 2024-2028 (MW)
A	Biogas	New Installations	P≤300	150
	Biomass	New Installations	P≤1.000	
B	Small scale solar thermodynamic	New Installations	P≤300	5

⁽¹⁹⁾ OJ L 300, 14.11.2009, p. 1-33 and OJ L 54, 26.2.2011, p. 1.

⁽²⁰⁾ This obligation does not apply to installations with capacity up to 300 kW.

B-1	Medium/big scale solar thermodynamic	New Installations	P>300	75
C	Traditional geothermal with innovations	New Installations	All the capacities	100
C-1	Zero-emissions geothermal	New Installations	All the capacities	60
D	Solar <i>floating</i> on inland waters	New Installations	All the capacities	50
E	Solar <i>off-shore floating</i>	New Installations	All the capacities	200
	Tidal, wave and other marine energy	New Installations	All the capacities	
E-1	Wind <i>off-shore</i>	New Installations	All the capacities	3 800
F	Traditional geothermal with innovations	Refurbishment	All the capacities	150

Source: *Implementing Decree*

- (33) The Italian authorities consider that, to achieve the decarbonisation objectives, separate baskets are necessary to achieve diversification of energy sources. Technology neutral tenders would lead to a suboptimal result, due to differences across technologies in relation to the following characteristics:
- a. The impact on the electricity network (intermittence level and programmability);
 - b. the costs;
 - c. the degree of technical maturity;
 - d. the project lead-time; and
 - e. the experimental character of some technologies.
- (34) Therefore, according to the Italian authorities, the specificities of the individual energy sources and technologies envisaged impose the need to provide for distinct competitive procedures for the selection of eligible projects. This approach is also justified by the positive contribution that certain technologies can bring, in terms of costs, to environmental protection and deep decarbonisation objectives in the longer term.
- (35) In addition, the presence of separate baskets for these technologies will contribute to the achievement of the technology-based targets reported in the PNIEC, which Italy has put in place to achieve the EU targets. For example, regarding the electricity sector, the PNIEC aims at achieving 950 MW of geothermal capacity, 3 760 MW of bioenergy capacity, 19 300 MW of wind capacity (of which 900 offshore), and 52 000 MW of solar capacity by 2030 ⁽²¹⁾.
- (36) Italy furthermore explains that the choice of having separate baskets is also aimed at directing investments in the supported innovative technologies not only by electricity producers but also by economic operators involved in all the preparatory phases of the projects. This would promote the development of specialised skills in

⁽²¹⁾ See [PNIEC_finale_17012020.pdf \(mimit.gov.it\)](#), page 57.

the area and the creation of an induced network linked to the implementation of these projects, triggering a virtuous circle, capable of making an important but also cost-effective contribution to the overall decarbonisation objectives.

- (37) A more detailed justification has been provided by Italy for each basket:
- a) Basket A: biomass and biogas plants have high operating costs, much higher than all other RES. They offer however a dispatchable source of electricity, a benefit over other types of RES. These aspects are behind the choice of including them in the same basket. Specifically, the Italian authorities have explained that biomass and biogas technologies have a positive effect on network stability. In view of their dispatchable nature, they can help to cover energy demand in hours when wind or solar energy production is low, thus avoiding exacerbating issues related to grid stability and reducing system integration costs.
 - b) Basket B and B1: thermodynamic solar power is a very promising technology; however, it is not yet fully commercially developed. Even though significant improvements have been achieved in the past 10 years, further standardisation in design and manufacturing is needed for it to become more competitive. As reported in a study by the JRC ⁽²²⁾, the EU's current capacity of thermodynamic solar power is 2.4 GW, mainly located in Spain. Italy submits that the provision of a dedicated quota is necessary to encourage investments and allow the bankability of these projects, which would not be financed otherwise.
 - c) Basket C: traditional geothermal energy with innovations is a technology with high initial investment costs and greater development risks than other renewable technologies, especially those economical and operational risks linked to the uncertainty of the underground conditions. Deep exploration activities present high risks of negative outcomes, such as the drilling of sterile wells, the discovery of geothermal fluids that do not meet the marketability requirements or the discovery of fluids that require specific operational treatments. The need to adopt the most advanced monitoring and environmental protection systems also entails extending development times and increasing costs. In addition, a long time can elapse between the successful exploration phase and the operational phase, which also affects the operability of these projects. Moreover, these projects, compared to traditional geothermal plants, are characterised by innovative elements to reduce emissions ⁽²³⁾. The high risks and high level of innovation is reflected in the low number of active plants, a total of 130 in Europe as of 2020 ⁽²⁴⁾.

⁽²²⁾ See “Clean Energy Technology Observatory: Concentrated Solar Power and Heat in the European Union – 2022 Status Report on Technology Development, Trend, Value Chains and Markets”, p. 10, [Publication Office of the European Union, JRC130811](#).

⁽²³⁾ Such as specific output values for mercury, hydrogen sulphide abatement and NH₃ emissions reduction.

⁽²⁴⁾ See “[The new technology innovations to expand geothermal energy use in Europe](#)”, by Julián López Gómez in collaboration with European Commission, August 2020.

- d) Basket C1: in addition to the considerations in the previous point, zero emission geothermal energy ⁽²⁵⁾ is an advanced but not yet commercial technology, thus requiring a dedicated quota. The innovative character of this technology lies in the total reinjection of the geothermal fluid in the original geological formations, which increases the costs compared to traditional geothermal plants.
- e) Basket D: Floating photovoltaic on inland waters is considered an innovative technology as these projects are not widespread yet, with a cumulative global capacity of approximately 2.6 GW in 2020 (mostly installed in China, Taiwan Region, and Japan) ⁽²⁶⁾ and are still subject to uncertainties regarding the possible structure deterioration and panels' performance levels. However, despite innovative installation methods, which involve an increase in investment and operating costs compared to standard photovoltaics, the level of support needed remains considerably lower than that of the other technologies considered in the scheme, thus requiring the definition of a separate quota.
- f) Basket E: floating offshore photovoltaic installations and tidal and wave energy installations are innovative technologies for which there are only few existing configurations. Italy has decided to offer a minimum quota to verify the degree of feasibility of these technologies. This type of photovoltaic plant differs from those described in Basket D due to high dependence on "exposure circumstances", which make it extremely site-specific, since the offshore location might lead to structural damage and affect its performance. This technology is still not widespread in Europe. According to the World Bank ⁽²⁷⁾, less than 2% of total floating photovoltaic plants currently active worldwide are located in Europe. Regarding tidal and wave energy plants, Italy has shown that most of the financed projects are small scale prototypes or test projects, which demonstrates the difficulty of accessing credit. Indeed, due to the pre-commercial nature of these projects, they are still considered too capital intensive and too risky for market-based finance. In 2023, only approximately 7.8 MW of wave energy and 124 MW of tidal stream energy was installed worldwide across all countries that are part of the International Energy Agency (IEA) Technology Collaboration Programme on Ocean Energy Systems ⁽²⁸⁾.

⁽²⁵⁾ Even though geothermal plants' emissions are lower than those generated by fossil fuels, these installations do emit CO₂, methane, and the so called non-condensable gases, which are dispersed in the atmosphere. Zero-emission plants aims at re-injecting geothermal fluids back into the soil without leakages into the atmosphere. Consequently, these plants are integrated with capture, stockage and re-injection systems. For more details, see "[Zero Emissions Geothermal Flash Power Plant](#)" by Bonalumi et al., 2017.

⁽²⁶⁾ See "[Floating Photovoltaic System Cost Benchmark: Q1 2021 Installations on Artificial Water Bodies](#)", by NREL, page 1.

⁽²⁷⁾ See "[Where Sun Meets Water: Floating Solar Market Report](#)", by The World Bank, ESMAP and SERIS, 2019.

⁽²⁸⁾ See "[Annual report. An overview of ocean energy activities in 2023](#)", by IEA Ocean Energy systems, 2024.

- g) Basket E1: offshore wind power technology requires a longer lead time due to the construction site and specific work that is not found in any other installation, such as logistic infrastructures, adaptations of port areas suitable for hosting exceptional assembly and transport activities. This technology is not yet highly widespread. The Italian authorities have reported that, despite the high potential of the Italian territory for floating offshore wind (around 207 GW), there are currently few operational projects for a total capacity of only 30 MW in 2022 ⁽²⁹⁾. At the same time, this technology presents CAPEX and OPEX costs that are higher than standard onshore wind plants.
- (38) As concerns the total capacity allocated to each basket, offshore wind represents the largest basket (3 800 MW out of 4 590 MW). Italy has explained that for offshore wind, the volume to be auctioned has been set according to the result of the survey launched on 25 June 2021 by the Ministry of Ecological Transition through the public notice "Production of electricity by floating offshore wind farms". As a result, expressions of interest for a power higher than that envisaged in the PNIEC, arrived. In addition, the connection requests presented to the Italian TSO (TERNA) have been taken into account. According to the results, the expected capacity that will be offered by bidders exceeds 100 GW. For traditional geothermal plants, the volumes were defined taking into account the information on construction site projects and on the state of development, while for geothermal plants with zero emissions they have been defined on the basis of the possible application and requests for authorization presented to the Ministry and to the regions. For thermodynamic solar power, reference was made to estimates provided by ENEA, the Italian National Agency for New Technologies, Energy and Sustainable Economic Development, on the industrial potential for building sites in the power range of reference. For floating photovoltaics and tidal energy systems, wave energy and other forms of marine energy, a minimum volume has been foreseen in order to explore the feasibility of these innovative technologies. Therefore, Italy expects a sufficient level of competition in the tendering procedures.
- (39) For each round, the size of the capacity quota auctioned will be identified on the basis of the total capacity of the authorised plants (i.e. plants that have the necessary permits – see recital (19)) that could theoretically participate in the auction procedures and on the frequency of the foreseen auctions, with methods that guarantee the competitiveness of the procedures. In particular, the Italian authorities confirmed that the power auctioned will not be sufficient to satisfy all the requests for incentives presented, implying that not all bidders will receive aid.
- (40) The scheme furthermore foresees power reallocation mechanisms for the purposes of exploiting the available power and of differentiating the sources of supply. The scheme allows the transfer of unused capacity from a basket to another, in case there is respectively a lack of applications in one basket and an excess in another. Moreover, unused capacity from earlier procedures can be transferred to the subsequent one (provided that competitiveness in the next procedure is ensured, in particular that it is likely that not all bidders will receive aid).

⁽²⁹⁾ See "[Eolico Offshore Galleggiante: opportunità nel percorso di decarbonizzazione e ricadute industriali per l'Italia](#)", by The European House Ambrosetti, 2022.

2.4.3. Reference tariffs

- (41) The Italian authorities have identified several reference projects, on the basis of which the reference tariffs presented in Table 1 above have been set. The Italian authorities have identified at least one reference project for each basket and technology.
- (42) Table 3 below presents the main characteristics of the reference projects as well as the net present value (“NPV”) of the reference projects. The detailed calculations of the reference tariffs for each reference project can be found in Annex.

Table 3: Main characteristics and NPV (without State aid) of the reference projects

Technology	Type / Size	Plant Capacity (MW)	Full Load Hours (h)	CAPEX (€/kW)	OPEX (€/kW)	NPV without Aid (m€)
Biogas		0.3	6 000	7 182	654	-3.2
Biomass	Small	0.2	6 300	6 000	1 050	-2.2
	Medium	1	6 300	5 700	967	-7.7
Thermodynamic Solar	Small	0.3	3 088	8 240	247	-2.7
	Medium	1	3 252	7 200	216	-7.6
	Large	10	3 416	6 160	185	-60.0
Geothermal	Traditional New	20	7 185	5 000	202	-51.1
	Traditional Refurbishment	20	7 185	3 500	202	-21.1
	Zero Emissions	5	5 057	8 750	342	-43.7
Floating Solar	On inland waters -small	1	1 350	1 100	22	-0.5
	On inland waters -Medium	10	1 350	900	20	-2.8
	Offshore	10	1 600	1 500	20	-7.2
Tidal, Wave and Other Marine Energy		5	3 100	4 500	145	-20.4
Offshore Wind		600	2 900	2 850	85	-2.3

Source: Italian Authorities

- (43) For each reference project, the Italian authorities have identified all main costs (investment and operating costs) and revenues. Investment costs take into account all the works necessary for the realization of the plants. These therefore include all the main components, the electrical works for the plant and for the connection to the grid, civil works, transport costs and development costs, as well as any contingencies. Operating costs take into account the following elements: costs for raw materials, labour costs and other operational costs (electricity, thermal energy, ordinary and extra-ordinary maintenance, insurance costs).
- (44) The estimated costs and technical characteristics of the reference projects are mainly based on data collected from existing plants, public consultations, and literature. In the absence of well-assessed track records for the more innovative technologies covered by the measure, the estimated costs, the full load hours, and the typical size of the plant are based on a number of data sources, such as documentation provided by the main national stakeholders and international

reports ⁽³⁰⁾. For other technologies like biomass and biogas, data collected by the GSE from plant operators accessing previous support schemes were used.

- (45) The calculations of revenues include all main expected economic revenues from the sale of renewable energy, namely the energy market price. The expected lifetime of the projects is between 20 and 25 years, depending on the installation (see Table 1).
- (46) The NPV of the reference projects has been calculated using as discount rate a Weighted Average Cost of Capital (“WACC”) of 8% for all installations. The Italian authorities consider that this level of WACC is appropriate for innovative technologies such as those covered by the scheme. Traditionally, in Italy, the WACC for regulated infrastructure services in the electricity and gas sectors is set in the range between 5% and 7%. The higher WACC used in this case reflects the higher risk profile of the innovative technologies covered by the measure and the market volatility and availability of raw materials.
- (47) The data provided shows that without support the NPV of the reference projects would be negative.
- (48) In view of the negative NPVs and of the innovative character or the particularly higher operating costs of these installations, Italy considered that in the absence of aid a beneficiary would not invest in the construction of new installations and in the case of existing geothermal plants, would continue its activities without changes.
- (49) The reference tariffs have been set in a way such that the NPV of the projects after aid is received is still close to or equal to zero, to ensure that overcompensation is avoided.
- (50) The reference tariffs will serve as the starting point for the auctions and will apply to all eligible participants within a basket. Italy has explained that the reference tariffs are at a level that is expected to allow wide participation in the auctions and increase competition.
- (51) As part of its monitoring activities, the GSE will analyse data on the production costs of these installations, taking into account data collected from installations already in operation as well as any changes in the costs of raw materials and components recorded on the national and European markets, including as a result of the effect of changing inflation rates. These data will be sent annually to the Ministry.
- (52) If those analyses show that the level of aid for the eligible categories is no longer necessary or no longer sufficient to ensure effective competition in tendering procedures, the Ministry may update the reference tariffs upwards if the aid is not sufficient, or downwards if the level of aid is no longer necessary. For example, the

⁽³⁰⁾ For example:

<https://www.irena.org/Publications/2023/Aug/Renewable-Power-Generation-Costs-in-2022> ;

https://topsectorenergie.nl/documents/336/20220331_RAP_Challenges_and_potentialfor_offshore_solar_Final.pdf ;

<https://op.europa.eu/en/publication-detail/-/publication/e38ea9ce-74ff-11e8-9483-01aa75ed71a1>.

reference tariffs can be adjusted to inflationary changes occurring between the date of entry into force of the Implementing Decree and the publication of the tender procedures. Where aid is no longer required for a category of beneficiary, that category will be removed before further aid is granted. Any such adjustment shall apply to procedures launched after the update. In addition, Italy will regularly assess the need of having separate baskets and, depending on the results of the analysis in recital (49), Italy will unify previously separated baskets if this separation is no longer justified. In particular, Italy will make sure that technologies expected to bid within 10% of each other are tendered through the same competitive bidding process.

- (53) The Italian authorities confirmed that, in case of repeated undersubscription, they will put in place measure to restore effective competition. For this purpose, they may adjust the reference tariffs upwards to make the participation in the bidding processes more attractive and therefore to restore effective competition in the subsequent bidding processes. Such upward adjustments can however only be made provided that the cause of repeated undersubscription is established to be restrictive bid-caps (reference tariffs, see Table 1) and is therefore unrelated to other factors, such as the lack of sufficient projects that have obtained the necessary permits. The Italian authorities may also adjust downward the production capacity quotas made available in the subsequent bidding processes to restore effective competition, whenever the cause of undersubscription was determined to be the lack of sufficient eligible projects exceeding the capacity quotas made available. Any adjustment shall apply to procedures launched after the update.

2.5. Form of aid

- (54) The selected beneficiaries will receive aid in the form of a two-way CfD for each kWh of electricity produced and injected into the network. The strike price will be determined in the auction (“pay as bid”). The strike price, or incentive tariff, corresponds to the applicable reference tariff adjusted for the rebate offered in the auction by the selected beneficiary. Beneficiaries will either receive a premium on top of the market price or repay the difference between the market price and the strike price if it is positive.
- (55) The remuneration will be paid for a period corresponding to the useful lifetime of the installations covered by the scheme, as shown in Table 1 ⁽³¹⁾.
- (56) Generators benefitting from the measure are subject to standard network balancing responsibilities as established by the Authority for electricity, gas and water (the *Autorità di regolazione per energia reti e ambiente*, “ARERA”) ⁽³²⁾.
- (57) No aid is paid for periods where the electricity market price falls at or is below zero. Italy confirmed that, as far as possible, beneficiaries will not receive incentives to generate electricity at times when this would mean zero air pollution renewable energy sources would be curtailed.

⁽³¹⁾ Net of any potential stops due to force majeure events or stops made to carry out modernisation and upgrading works, during which the provision of incentives is suspended.

⁽³²⁾ See decision 522/2014/R/EEL of the ARERA available at: <http://www.autorita.energia.it/it/docs/14/522-14.htm>.

- (58) Installations with an installed capacity lower than 300 kW⁽³³⁾ can choose to receive support in the form of a feed-in tariff (“FIT”) rather than a two-way CfD. In that case, they are obliged to sell their electricity to the GSE, which resells the electricity on the market. The FIT corresponds to the strike price.
- (59) In the event of cumulation with other support (within the limit of 40% of investment costs), the tariff resulting from the competitive bidding procedures is linearly reduced using a multiplicative factor (1-F), in which F varies linearly between 0 in the absence of contribution, and 26% (12% for biogas or biomass plants) in case of a 40% contribution.
- (60) The Italian authorities provided calculations illustrating how the incentive tariff is reduced to account for the additional aid when operating aid is cumulated with a 40% investment aid and showing that the methodology ensures the absence of overcompensation, as explained in recital (75) below. Italy confirmed that they will ensure that overcompensation is prevented, in line with points 56 and 57 the Guidelines on State aid for climate, environmental protection and energy (“CEEAG”) (34).
- (61) For refurbished installations, the incentive tariff is reduced by applying a coefficient of gradation “D”, which is calculated with the following method. The starting point is the ratio “R”, which is given by:

$$R=C_s/C_r$$

Where C_s is the specific cost of refurbishment (expressed in EUR/kW of power after the intervention) approved by the GSE, and C_r is the specific reference cost, determined under the Ministerial Decree of 6th July 2012 (35). In case of a partial refurbishment, that is when $0.15 < R \leq 0.25$, D is equal to R. In case of total refurbishment, that is when $R > 0.25$, for values of R up to 0.5, D is equal to R, while for $R > 0.5$, D is equal to 0.5 in any case. If $R < 0.15$, the intervention is not classified as a refurbishment and, as such, is not eligible under the scheme. The gradation coefficient is applied after the participants bid in the auctions.

- (62) The Italian authorities explained that in the case of cumulation of aid or refurbishment, the auctions would still be competitive because participants would know before participating in the auction that the tariff will be reduced.
- (63) In addition, the Italian authorities envisage the possibility of adjusting the values of the incentive tariff of the beneficiaries to inflationary changes occurring between the date of publication of the tender procedures and the date of entry into operation of the installation. The Italian authorities have confirmed that this option will be clearly communicated at the time of publication of the call to allow bidders to take this into account in their bid and will be applied in a competitive, transparent, and non-discriminatory manner.

(33) 200 kW from 1st January 2026.

(34) Communication from the Commission – Guidelines on State aid for climate, environmental protection and energy 2022 (OJ C 80, 18.2.2022, p. 1).

(35) See Ministerial Decree of 6th July 2012 “Incentivi per energia da fonti rinnovabili elettriche non fotovoltaiche”, Annex 2, Table 1.

2.6. Start of works and deadline for the implementation of the projects

- (64) First, the Italian authorities have confirmed that to receive aid under the scheme new projects cannot start works before being selected for funding under the scheme. Installations which started works before the publication of the ranking lists by the GSE are not eligible for aid.
- (65) Second, the scheme foresees deadlines for the entry into operation of successful installations, depending on the type of installation, as reported in Table 4. Deadlines apply from the date of publication of the rankings.

Table 4: Deadlines for the entry into operation of successful installations ⁽³⁶⁾

Installation Type	Category	Months
Biogas	New Installations	31
Biomass	New Installations	31
Traditional geothermal with innovations	New Installations	51
Traditional geothermal with innovations	Refurbishment	36
Zero-emissions geothermal	New Installations	60
Solar <i>floating</i> on inland waters	New Installations	36
Wind <i>off-shore</i>	New Installations	60
Solar <i>off-shore floating</i>	New Installations	43
Tidal, wave and other marine energy	New Installations	36
Solar thermodynamic	New Installations	55

Source: the Implementing Decree

- (66) Penalties are foreseen in case of failure to abide by the indicated deadlines. In particular, a 0.5% reduction of the incentive tariff is applied for each month of delay, for a maximum of 9 months.
- (67) After this period of time of 9 months, the GSE will exclude the plant from the scheme, and in case the plant is to be readmitted to the scheme, a reduction of 20% of the incentive tariff is applied ⁽³⁷⁾.

2.7. Financing, budget and duration

- (68) The cost of the scheme is estimated at EUR 1.85 billion per year, for a total of EUR 35.3 billion over the entire duration of the scheme ⁽³⁸⁾.
- (69) The scheme will be financed by a levy included in the electricity tariffs paid by final consumers, i.e. the general system charges, and more specifically the general

⁽³⁶⁾ For installations owned totally by Public Authorities, deadlines are extended by 6 months.

⁽³⁷⁾ If the beneficiary notifies to the GSE, within 12 months from the date of publication of the ranking, its decision not to carry out the project, thus giving up the incentive, this reduction of 20% will not be applied in case the plant is to be readmitted to the scheme at a later stage.

⁽³⁸⁾ The indicated budget is an estimate relying on conservative assumptions, notably assuming low electricity prices, and the actual budget could vary also based on the ex-post realisation of the actual electricity prices. The estimate is based on several assumptions: realisation of all the installations selected through the auctions; application of the reference tariff for installations with capacity lower than 300 kW and reference tariff with 2% reduction for installations with capacity above or equal to 300 kW; energy prices equal to 60 EUR/MWh.

system charges for the support of renewable energy and cogeneration (the ASOS component). The ASOS component is used to finance several measures that support renewable energy and cogeneration ⁽³⁹⁾. The Italian authorities explained that the Energy and Environmental Services Fund (“CSEA” ⁽⁴⁰⁾) handles the general system charges and transfers the collected funds to the GSE. The use of these funds is regulated by ARERA. The charges are paid by end consumers to their respective electricity suppliers, which in turn transfer the amounts to the electricity distributors ⁽⁴¹⁾. The latter transfers the money collected to CSEA which according to specific rules set by ARERA, transfers the sum to the GSE, which earmarks it for the support scheme.

- (70) The duration of the scheme is until 31 December 2028. The aid will be disbursed over a period corresponding to the useful lifetime of the installations covered by the scheme (see Table 1 and recital (55)).

2.8. Transparency and cumulation

- (71) Italy will ensure that detailed records regarding all measures involving the granting of aid are maintained. These records will be kept for the duration of the scheme plus an additional period of ten years, including all information relevant to demonstrating that the terms of the proposed scheme have been complied with.
- (72) Italy will ensure compliance with the transparency requirements of section 3.2.1.4 CEEAG. The relevant information on the measure will be published on a comprehensive website ⁽⁴²⁾.
- (73) Italy will ensure compliance with the cumulation rules laid down in points 56 to 57 CEEAG.
- (74) Support under the scheme may be cumulated with the following aid mechanisms:
- a. Only for newly built installations, capital grants not exceeding 40% of the investment costs.
 - b. Financial facilitations to access bank credit either in the form of guarantees or through loans subject to repayment.
 - c. Tax relief mechanisms connected to investment activities.
- (75) In the case of cumulation with a capital grant (recital (74)a)), a tariff reduction will be applied for the plants which have been granted both aid under the scheme and a

⁽³⁹⁾ The ASOS component also covers other measures such as Ministerial Decree of 4 July 2019, Ministerial decree on agrivoltaic power plants, self-consumption mechanism, net metering mechanism etc as approved by Commission decisions SA.107161, SA.53347, SA.106777.

⁽⁴⁰⁾ CSEA is a public economic entity operating in the electricity, gas and environmental sectors. Its main task is to collect certain tariff components and system charges from operators; the revenue from these components is collected in dedicated management accounts and distributed to companies according to rules issued by the Regulatory Authority for Energy Networks and Environment (ARERA).

⁽⁴¹⁾ With judgment of 24 May 2016, the Council of State (*Consiglio di Stato*) has clarified that the obligation to pay is on the final consumers.

⁽⁴²⁾ <https://www.rna.gov.it/RegistroNazionaleTrasparenza/faces/pages/TrasparenzaAiuto.jspx> and the GSE website.

capital grant to avoid overcompensation (see methodology described in recital (59)). The other two types of support (recitals (74)b) and (74)c)) will be assessed by the GSE, which will calculate an equivalent amount of aid and apply the tariff reduction on the basis of this equivalence. The methodology described in recital (59) will then be applied to ensure that overcompensation is avoided.

2.9. Evaluation Plan

- (76) Since the budget of the scheme exceeds EUR 750 million over its total duration and the scheme's total duration exceeds three years, the Italian authorities notified, together with the measure, an evaluation plan, taking into account the best practices recalled in the Commission Staff Working Document on a Common methodology for State aid evaluation. The Italian authorities confirmed that the evaluation plan complies with the relevant requirements set out in Section 5 CEEAG.
- (77) This *ex post* evaluation aims at verifying that the assumptions and conditions underlying the compatibility of the scheme have been achieved, in particular the necessity and the effectiveness of the aid measure in light of its general and specific objectives. The plan will also provide indications on the impact of the scheme on competition and trade. The main elements are described below from recital (78) to recital (86).
- (78) The evaluation plan describes the objectives of the measure and comprises evaluation questions that, through both quantitative and qualitative analysis, address the direct and indirect effects of the measure, as well as its proportionality and appropriateness.
- (79) The questions addressing the direct effect of the aid will mainly investigate the scheme's contribution to: the development of the innovative RES technologies supported by the scheme, the increase of renewable energy production from these innovative technologies, the reduction of greenhouse gas emissions and pollutants. The questions will also investigate whether the reference tariffs provided as the basis of the auctions were well established to stimulate competition and investments and whether beneficiaries have been affected differently by the scheme.
- (80) A set of questions will address the indirect impacts of the aid (on economic growth, on employment, on national value chains development, on competition and trade, and on energy consumers), as well as the appropriateness and proportionality of the aid.
- (81) The evaluation plan describes the result indicators that will be used to measure the degree of achievement of the measure's objectives, and which are matched with the evaluation questions, as well as the methodology applied to identify the impact of the measure.
- (82) Given the characteristics of the scheme, Italy considers that it seems implausible that projects will be carried out without aid. Consequently, it is not possible to use a control group based on projects carried out in the absence of support. While committed to use impact evaluation approaches to assess the effectiveness of the scheme, Italy will select at a later stage the approach for conducting the evaluation. If a robust counterfactual scenario can be identified and an adequate amount of data is collected, the possibility of using a quasi-experimental approach such as the

Regression Discontinuity Design (“RDD”) or Difference-in-Differences (“DID”) will be considered.

- (83) The evaluation will also allow to assess the effectiveness of the different competitive rounds provided for the different technologies. Different characteristics with respect to, for example, grid security, as well as the different expectations about the evolution of costs of the innovative technology, will be taken into account.
- (84) The evaluation will be carried out by an expert independent from the granting authority selected by the Ministry on the basis of the criteria listed in the Implementing Decree, essentially: independency and absence of conflict of interest with the beneficiary, the GSE and the Ministry, experience on the valuation of projects and measures. Data will be collected from the GSE from aid beneficiaries, when they apply for the aid and then annually during the management of the scheme (namely, technical information on RES-E production plants, energy produced, investments, operating costs, quantity of raw material used, etc.). Secondly, any other useful data may also be collected by the GSE through surveys, for example, addressed to trade associations.
- (85) An interim report will be submitted to the Commission by 31 December 2025 presenting descriptive statistics on the implementation of the scheme and on the progress with the data collection and assessing the feasibility of the proposed methodology. The final evaluation report will be submitted by 31 March 2028, nine months before the expiry of the scheme.
- (86) The evaluation plan and the evaluation reports will be published on the website of the Ministry.

3. ASSESSMENT OF THE MEASURE

3.1. Presence of State aid

- (87) Article 107(1) TFEU states that *“any aid granted by a Member State or through State resources in any form whatsoever which distorts or threatens to distort competition by favouring certain undertakings or the production of certain goods, shall, in so far as it affects trade between Member States, be incompatible with the common market”*.
- (88) In determining whether a measure constitutes State aid within the meaning of Article 107(1) TFEU, the Commission has to verify whether the measure:
 - a. is imputable to the State and involves State resources;
 - b. confers an advantage on certain undertakings or certain sectors (selective advantage);
 - c. distorts or threatens to distort competition; and
 - d. is liable to affect trade between Member States.

3.1.1. Imputability and State resources

- (89) The Commission notes that aid under the scheme is imputable to the State, as it is granted by the Ministry for the Environment and Energy Security and implemented by the GSE (see recital (12)) and it is established by the National Legislative Decree and the (ministerial) Implementing Decree (see recital (11)).
- (90) According to settled case-law, only advantages which are granted directly or indirectly through State resources are to be regarded as aid within the meaning of Article 107(1) TFEU ⁽⁴³⁾. That definition covers both advantages which are granted directly by the State and those granted by a public or private body designated or established by the State ⁽⁴⁴⁾. Thus, resources do not need to transit through the State budget to be considered as State resources. It is sufficient that they remain under public control ⁽⁴⁵⁾. Similarly, the originally private nature of the resources does not prevent them from being regarded as State resources ⁽⁴⁶⁾.
- (91) The Court has, more specifically, held that funds financed through compulsory charges imposed by State legislation, and administered and apportioned in accordance with that legislation, may be regarded as State resources within the meaning of Article 107(1) TFEU even if they are administered by entities separate from the public authorities (*Vent de Colère*) ⁽⁴⁷⁾. In particular, a mechanism for offsetting additional costs that is financed by all end consumers of electricity in the national territory and where the sums thus collected are apportioned and distributed to the recipient undertakings, under the legislation of a Member State, by a public entity must be regarded as constituting an intervention by the State or through State resources within the meaning of Article 107(1) TFEU ⁽⁴⁸⁾.
- (92) In this case, the Commission notes that the measure will be financed through a levy on electricity consumption imposed by law and it will be transferred in accounts managed by the GSE, a State-controlled public entity specifically appointed by the State to collect the financing and to pay out the aid amount (see recital (68)).
- (93) On the basis of those elements, the Commission concludes that the measure is imputable to the State and financed through State resources.

3.1.2. Selective advantage

- (94) The scheme favours producers of electricity that generate electricity from renewable sources, eligible under the scheme, namely traditional geothermal energy with innovations, zero-emission geothermal energy, offshore wind power (floating or fixed), biomass and biogas, thermodynamic solar, floating solar (offshore or on inland waters) and tidal, wave and other marine energy (recital

⁽⁴³⁾ <https://www.mise.gov.it/index.php/it/incentivi/bda-banca-dati-anagrafica-per-il-monitoraggio-delle-agevolazioni?wsdl?wsdl>.

⁽⁴⁴⁾ See judgment of 22 March 1977, *Steinike & Weinlig*, C-78/76 EU:C:1977:52, paragraph 21.

⁽⁴⁵⁾ See judgment of 16 May 2002, *France v Commission*, C-482/99 EU:C:2002:294, paragraph 37.

⁽⁴⁶⁾ Copy from IT biomethane (FN 37)

⁽⁴⁷⁾ See judgment of 19 December 2013, *Vent de Colère*, C-262/12 EU:C:2013:851, paragraph 25.

⁽⁴⁸⁾ See order of 22 October 2014, *Elcogás*, C-275/13, not published, EU:C:2014:2314, paragraph 30, judgment of 15 May 2019, *Achema*, C-706/17, EU:C:2019:38, paragraph 68.

(14)), and that will be selected as beneficiaries. The scheme is not accessible for other electricity producers that also produce electricity and sell it on the market (see section 2.2 above)

- (95) The Commission notes that the scheme confers an advantage on certain electricity producers in the form of a direct grant (2-way Cfd or FIT) (see recitals (54) and (58)). Those payments guarantee that when the electricity price is lower than the strike price, eligible electricity producers will obtain a remuneration for their electricity produced that is higher than the market price, enabling them to cover their costs, which would not be fully covered under normal market circumstances (see recitals (47) and (48)). The Commission also notes that the measure shelters the selected beneficiaries from price volatility and ensures stability of revenues. They are thus advantaged by the scheme.
- (96) Furthermore, the aid is selective, since aid will be awarded only to certain undertakings, namely to producers of renewable electricity from specific RES (see recital (94)), while other undertakings (RES or non-RES) in a comparable legal and factual situation are not eligible for aid and thus will not receive the same advantage.
- (97) Therefore, the Commission concludes that the measure confers a selective advantage to the beneficiaries.

3.1.3. Effect on trade and impact on competition

- (98) In accordance with settled case law⁽⁴⁹⁾, for a measure to impact competition and trade it is sufficient that the recipient of the aid competes with other undertakings on markets open to competition.
- (99) The electricity market has been liberalised and renewable electricity is generally sold on the spot market where it enters in competition with electricity from different sources. Electricity is also widely traded between Member States. In particular, Italy trades electricity with several neighbouring countries through high voltage interconnectors. For those reasons, the notified scheme is liable to distort competition on the electricity market and affect trade between Member States.

3.1.4. Conclusion on the presence of State aid

- (100) Based on the above considerations in this section 3.1, the Commission concludes that the scheme constitutes State aid within the meaning of Article 107(1) TFEU.

3.2. Lawfulness of the aid

- (101) By notifying the measure before its implementation (see recital (11)), the Italian authorities have respected the notification and standstill obligation laid down in Article 108(3) TFEU.

⁽⁴⁹⁾ Judgment of 30 April 1998, *Het Vlaamse Gewest v Commission*, EU:T:1998:77.

3.3. Compatibility of the aid

- (102) The Commission has assessed the compatibility of the scheme on the basis of Article 107(3)(c) TFEU. On the basis of Article 107(3)(c) TFEU, the Commission may consider compatible with the internal market State aid to facilitate the development of certain economic activities within the Union (positive condition), where such aid does not adversely affect trading conditions to an extent contrary to the common interest (negative condition).
- (103) The scheme aims at promoting economic activities in a manner that reduces greenhouse gas emissions and increases the level of environmental protection, as described in section 2.1 CEEAG. The supported activities thus fall within the scope of the CEEAG. More specifically they fall under the category of aid for the reduction and removal of greenhouse gas emissions, including through support for renewable energy (see point 16(a) CEEAG).
- (104) The Commission has therefore assessed the scheme under the general compatibility provisions in Section 3 CEEAG, as well as the specific compatibility criteria for aid for the reduction and removal of greenhouse gas emissions including through support for renewable energy and energy efficiency in Section 4.1 CEEAG.
- 3.3.1. *Positive condition: the aid must facilitate the development of an economic activity*
- 3.3.1.1. Identification of the economic activity which is being facilitated by the measure, its positive effects for society at large and, where applicable, its relevance for specific policies of the Union
- (105) Article 107(3)(c) TFEU provides that the Commission may declare compatible ‘*aid to facilitate the development of certain economic activities or of certain economic areas, where such aid does not adversely affect trading conditions to an extent contrary to the common interest*’. Therefore, compatible aid under that provision of the TFEU must contribute to the development of certain economic activity ⁽⁵⁰⁾.
- (106) Points 23 to 25 CEEAG state that Member States must identify the economic activities that will be facilitated as a result of the aid and describe if and how the aid will contribute to the achievement of Union policies and targets.
- (107) Italy has explained that the scheme supports the production of electricity from specific RES (namely, traditional geothermal energy with innovations zero-emission geothermal energy, offshore wind power (floating or fixed), biomass and biogas, thermodynamic solar, floating solar (offshore or on inland waters) and tidal, wave and other marine energy), therefore facilitating the development of economic activities in this sector (see recital (5)).
- (108) The Italian authorities explained that, by supporting the production of electricity from the eligible RES, Italy aims to reduce the national greenhouse gas emissions, therefore contributing to the achievement of the Union’s climate protection target of reducing greenhouse gas emissions by at least 55% by 2030, with a view to becoming climate neutral by 2050 (see recital (4)). Italy also explained that the

⁽⁵⁰⁾ See judgment in case C-594/18 P, Austria v Commission, EU:C:2020:742, paragraphs 20 and 24.

scheme contributes as well to achieving Italy's national target of generating 30% of electricity consumption from RES by 2030 (see recital (4)).

- (109) The Commission therefore considers that the scheme facilitates the development of an economic activity, namely the production of electricity from specific RES listed in recital (14), and complies with the requirements of Section 3.1.1 CEEAG.

3.3.1.2. Incentive effect

- (110) As stated in point 26 CEEAG, State aid can only be considered to facilitate an economic activity if it has an incentive effect. An incentive effect occurs when the aid induces the beneficiary to change its behaviour towards the development of an economic activity pursued by the aid, and if this change in behaviour would not otherwise occur without the aid⁽⁵¹⁾. The aid must not support the costs of an activity that the aid beneficiary would anyhow carry out and must not compensate for the normal business risk of an economic activity (point 27 CEEAG).
- (111) To demonstrate the presence of an incentive effect, point 28 CEEAG requires the factual scenario and the likely counterfactual scenario in the absence of aid to be identified. Furthermore, point 28 CEEAG requires the incentive effect to be demonstrated through a quantification referred to in Section 3.2.1.3 CEEAG. Point 52 CEEAG explains that a counterfactual scenario may consist in the beneficiary not carrying out an activity or investment. Where evidence supports that this is the most likely counterfactual scenario, the net extra cost may be approximated by the negative NPV of the project (hence, implicitly assuming that the NPV of the counterfactual is zero).
- (112) Italy states that, in the factual scenario, the beneficiary, thanks to the aid, would invest in the construction (or refurbishment, for geothermal plants) of new renewable energy installations. Italy submitted that the most likely counterfactual scenario in the absence of aid would be the beneficiary not investing in the construction of new installations and, in the case of an existing geothermal plants, continuing the existing activity without changes (see recital (48)).
- (113) Italy has identified several reference projects, as described in recital (41), which the Commission has reviewed. The Commission notes that the Italian authorities have provided at least one reference project for each technology included in the scheme. The reference projects have been identified based on reports, public consultations and data collected by the GSE (see recital (44)). The Commission considers the reference projects representative.
- (114) As shown in recitals (42) and (47), the Italian authorities have provided the calculations of the NPV for each of the reference projects and the main assumptions underlying those calculations. The Commission notes that the calculations include all main investments costs and operating costs of the projects, as well as the expected economic revenues from the sale of electricity. The Italian authorities have also duly justified the level of the WACC used. The Commission considers that the assumptions and the calculations are credible.

⁽⁵¹⁾ See in that sense Section 3.1.2 CEEAG, as well as the *Hinkley* judgment (C-594/18 P, Austria v Commission, EU:C:2020:742, paragraphs 20 and 24).

- (115) As a result of these calculations, without the aid and under normal market conditions, the NPV of the reference projects is negative (see Table 3 and detailed calculations in Annex) so that it is very unlikely that any projects would be carried out without aid, since they would not be financially viable.
- (116) The Commission therefore considers that the most likely counterfactual scenario in the absence of aid would be the beneficiary not carrying out the project and, in case of refurbishment, continuing its business without changes.
- (117) Therefore, the requirements in points 26 to 28 CEEAG are fulfilled since the aid will trigger a change in behaviour of the aided undertakings.
- (118) Point 29 CEEAG stipulates that aid does not normally present an incentive effect in cases where works on the project started prior to the aid application. Point 30 CEEAG further explains that the aid application may take various forms, including for example a bid in a competitive bidding process.
- (119) The Commission notes that activities which started before the publication of the rankings by the GSE are not eligible for aid (see recital (64)). The application will take the form of a bid in a competitive bidding process, which includes the minimum information required in point 30 CEEAG (see recital (27)). Therefore, the requirements in points 29 and 30 CEEAG are fulfilled.
- (120) The Commission therefore considers that the measure complies with Section 3.1.2 CEEAG and has an incentive effect.

3.3.1.3. No breach of any relevant provision of Union Law

- (121) State aid cannot be declared compatible with the internal market if the supported activity, the aid measure, or the conditions attached to it entail a non-severable violation of relevant Union law ⁽⁵²⁾.
- (122) In the present case, the Commission has assessed in particular whether the measure contravenes any relevant Union legislation in the energy sector. Italy has confirmed that the measure entails no violation of any relevant Union law and complies in particular with the requirements of the Renewable Energy Directive (see recital (20)). The Italian authorities also confirmed that the measure does not encourage the production of energy from waste, in line with the circular economy objectives referred to in Directives (EU) 2018/850, 2018/851 and 2018/852, as well as the Commission Communication COM (2020) 98 final “*A New Circular Economy Action Plan – For a cleaner and more competitive Europe*”.
- (123) Moreover, if the supported activity or aid measure or the conditions attached to it, including its financing method when it forms an integral part of it, entail a violation of relevant Union law, the aid cannot be declared compatible with the internal market ⁽⁵³⁾. For example, in the field of energy, which is relevant in the case at hand, any levy that has the aim of financing a State aid measure and forms an

⁽⁵²⁾ Point 33 CEEAG, and Judgment of 22 September 2020, *Austria v Commission*, C-594/18 P, EU:C:2020:742, paragraph 44.

⁽⁵³⁾ Judgments of 22 September 2020, *Republic of Austria v Commission*, C-594/18 P, EU:C:2020:742, paragraph 44 and of 30 November 2022, *Republic of Austria v Commission*, T-101/18, EU:T:2022:728, paragraphs 25 *et seq.*

integral part of that measure needs to comply in particular with Articles 30 and 110 TFEU ⁽⁵⁴⁾.

- (124) According to settled case law, for a levy to be regarded as forming an integral part of an aid measure, it must be hypothecated to the aid under the relevant national rules, in the sense that the revenue from the charge is necessarily allocated for the financing of the aid and has a direct impact on the amount of aid and, consequently, on the assessment of the compatibility of that aid with the common market ⁽⁵⁵⁾. In particular, the concerned charge must be “*levied specifically and solely for the purpose of financing the aid at issue*” and must be “*necessarily allocated*” or “*wholly and exclusively*” allocated for the purpose of financing the aid at issue ⁽⁵⁶⁾.
- (125) In the present case, the scheme will be financed fully and exclusively by a levy imposed on electricity consumption as part of the electricity tariffs paid by final consumers, i.e. the general system charges, and in particular the ASOS component (see recital (69)).
- (126) The ASOS component is also used to support other measures supporting renewable energy ⁽⁵⁷⁾.
- (127) Against this background, the Commission cannot exclude the existence of hypothecation between the levy and the aid awarded and has examined its compliance with Articles 30 and 110 TFEU.
- (128) According to case law ⁽⁵⁸⁾, a charge which is imposed on domestic and imported products according to the same criteria may nevertheless be prohibited by the Treaty if the revenue from such a charge is intended to support activities which specifically benefit the taxed domestic products ⁽⁵⁹⁾. If the advantages which those products enjoy wholly offset the burden imposed on them, the effects of that charge are apparent only with regard to imported products and that charge constitutes a charge having equivalent effect to custom duties, contrary to Article 30 TFEU. If, on the other hand, those advantages only partly offset the burden borne by domestic products, the charge in question constitutes discriminatory taxation for the purposes of Article 110 TFEU and will be contrary to that provision as regards the proportion used to offset the burden borne by the domestic products.

⁽⁵⁴⁾ Judgment of 17 July 2008, *Essent Netwerk Noord and Others*, C-206/06, EU:C:2008:413, paragraphs 40 to 59.

⁽⁵⁵⁾ See judgment of 22 December 2008, *Régie Networks v Rhone Alpes Bourgogne*, C-333/07, EU:C:2008:764, paragraph 99 and case law cited.

⁽⁵⁶⁾ See judgment of 22 December 2008, *Régie Networks v Rhone Alpes Bourgogne*, C-333/07, EU:C:2008:764, paragraphs 99, 100 and 104.

⁽⁵⁷⁾ See for example Commission Decision of 10 November 2023 in SA.107161 (2023/N) – Italy – RRF – Support for the promotion of agrivoltaic installations (OJ C, C/2023/1636, 27.12.2023) and Commission Decision of 22 November 2023 in SA.106777 – Italy – RRF – Support for the development of Renewable Energy Communities (OJ C, C/2024/1159, 30.1.2024).

⁽⁵⁸⁾ Joined Cases C-128/03 and C-129/03 *AEM*, EU:C:2005:224; Case C-206/06 *Essent*, EU:C:2008:413, paragraph 42.

⁽⁵⁹⁾ Joined Cases C-128/03 and C-129/03 *AEM*, EU:C:2005:224; Case C-206/06 *Essent*, EU:C:2008:413, paragraph 42.

- (129) If domestic electricity production is supported by aid that is financed through a charge on all electricity consumption (including consumption of imported electricity), the method of financing, which imposes a burden on imported electricity not benefitting from this financing, risks having a discriminatory effect on imported electricity from RES and thereby may violate Articles 30 or 110 TFEU. However, in line with its decisional practice ⁽⁶⁰⁾, the Commission considers the opening of the competitive bidding process to producers from other Member States and neighbouring countries as described in recitals (23) and (24) to remedy any potential discrimination against RES producers in other Member States, under Articles 30 and 110 TFEU.
- (130) Therefore, the Commission considers that the financing mechanism of the notified aid measure does not infringe Article 30 or Article 110 TFEU, and notes that there is no indication that the neither the aid measure, nor the conditions attached to it entail a non-severable violation of relevant Union law. The Commission therefore concludes that the requirements of point 33 CEEAG are fulfilled.

3.3.1.4. Conclusion

- (131) The Commission therefore concludes that the measure fulfils the first (positive) condition of the compatibility assessment i.e. that the aid facilitates the development of an economic activity pursuant to the requirements set out in Section 3.1 CEEAG.

3.3.2. *Negative condition: the aid cannot unduly affect trading conditions to an extent contrary to the common interest*

3.3.2.1. Necessity of the aid

- (132) To demonstrate the necessity of the aid, point 90 CEEAG explain that the Member State should demonstrate that aid is needed for the proposed activities as required under point 38 CEEAG ⁽⁶¹⁾, taking into account the counterfactual situation, as well as relevant costs and revenues including those linked to measures identified in point 89 CEEAG. Point 89 CEEAG states that Member States must identify the policy measures already in place to reduce greenhouse gas emissions and recognizes that the full costs of greenhouse gas emissions may not yet fully be internalised despite the implementation of measures to that effect, such as the EU ETS and other related measures or policies. In addition, point 90 CEEAG states

⁽⁶⁰⁾ See Commission Decision of 20 December 2021 in State Aid SA.58731 (2020/N) – Austria – Operating aid to electricity from RES in Austria, section 3.3.4; Commission Decision of 29 April 2021 in State Aid SA.57779 (2020/N) – Germany - EEG 2021, section 3.3.1.3; Commission Decision of 24 November 2021 in State aid SA.60064 (2021/N) – Greece - Greek RES and CHP scheme 2021-2025, section 3.3.12; Commission decision of 23 April 2019 in State Aid SA.50199 (2019/N) – Lithuania Support to power plants producing electricity from renewable energy sources, section 3.4.1; Commission decision of 29 March 2019, in Aide d’État SA.48601 (2018/N) – Luxembourg Production d’électricité basée sur les sources d’énergie renouvelables, modification du régime de soutien pour les énergies renouvelables au Luxembourg, section 3.3.8; Commission decision of 24 October 2014 in State aid No SA.36204 (2013/N) – Denmark Aid to photovoltaic installations and other renewable energy installations, section 3.4.

⁽⁶¹⁾ Point 38 CEEAG provides that to demonstrate the necessity of aid, the Member State must show that, in the case of schemes, the reference project, would not be carried out without the aid. The Commission will assess this based on the quantification referred to in Section 3.2.1.3 or specific evidence-based analysis submitted by the Member State showing the necessity of the aid.

that where support is granted in the form of a certain guaranteed remuneration to limit exposure to negative scenarios, limits to profitability and/or clawbacks linked to possible positive scenarios may be required to ensure proportionality. Point 91 CEEAG explains that where the Member State demonstrates that there is a need for aid under point 90 CEEAG, the Commission presumes that a residual market failure remains, which can be addressed through aid for decarbonisation, unless it has evidence to the contrary. Finally, to ensure that aid remains necessary for each eligible category of beneficiary, Member States must update their analysis of relevant costs and revenues at least every three years for schemes that run longer than that, as set out in point 92 CEEAG.

- (133) Italy has explained that, although they have put in place several policy measures to reduce greenhouse gas emissions, there are currently no measures supporting the technologies eligible under the scheme (see recital (5)). The previous scheme, which granted support for electricity from renewable sources, was in place from 2019 to 2021 and has now expired (see recital (5)). The previous scheme targeted more mature technologies, such as onshore wind, solar photovoltaic, hydroelectric and sewage gases, which are characterised by lower costs and are closer to market competitiveness.
- (134) Italy has explained that to achieve the challenging 2030 objectives, it is necessary to deploy all possible technological solutions, including the most innovative ones, currently farthest from competitiveness, such as those covered by the current scheme (see recital (6)). Italy considers that the measure is therefore necessary to guarantee the development of all technologies potentially useful for this objective, which cannot be achieved by solely focusing on the growth of more mature or traditional technologies, but it requires the full achievement of the growth potential of all solutions (see recital (6)). Furthermore, Italy explained that biomass and biogas plants are necessary as they have a positive effect on network stability due to their dispatchable nature (see recital (6)). Italy has also emphasised that these technologies can make a substantial contribution to deep decarbonisation objectives (see recital (7)).
- (135) Italy has identified several reference projects, described Table 3 above. Italy showed that these reference projects would not be carried out without the aid. Italy provided calculations of the NPV for each of the reference RES installations without support (see Table 3 and Annex).
- (136) The Commission recalls its analysis in recitals (114) and (115), notably that the assumptions considered and the calculations performed by Italy are credible, and its conclusion in recital (116) that, without the aid, these technologies would not be economically viable and the reference projects would not be carried out. As shown by Italy, electricity production from renewable resources using the technologies covered by the scheme, in the current market conditions, is not profitable enough to cover the investment and operating costs.
- (137) The Commission notes that the aid is granted in the form of a certain guaranteed remuneration, namely two-way CfD or FIT (see recitals (54) and (58)). The Commission considers that the measure includes limits to profitability or clawbacks linked to positive scenario as the guaranteed remuneration is limited to the incentive tariff that the applicant initially bid and cannot exceed it. More precisely, for larger installations, the aid is granted in the form of a two-way CfD,

which will prevent thus the possibility of windfall profits and overcompensation due to unexpectedly high market revenues (see recital (54)). For smaller installations, beneficiaries directly receive the incentive tariff resulting from their bid from the GSE (recital (58)), which also prevents the possibility of windfall profits due to unexpectedly high market revenues. In this case, the GSE is in charge of selling electricity and keeps the potential benefits resulting from unexpectedly high market revenues. Therefore, the scheme complies with point 90 CEEAG.

- (138) In light of the above, as Italy has demonstrated that there is a need for aid under point 90 CEEAG, and in the absence of evidence of the contrary, the Commission presumes that a residual market failure remains, which can be addressed through aid for decarbonisation, in line with point 91 CEEAG.
- (139) As described in recitals (51) and (52), the Commission notes that the GSE will collect and analyse every year data on the costs of the installations to assess the necessity of the aid and the need to adjust the reference tariffs for the next auctions. In addition, Italy has confirmed that where aid is no longer required for a category of beneficiary, that category will be removed before further aid is granted. Therefore, the requirement of point 92 CEEAG is fulfilled.
- (140) The Commission therefore considers that the measure complies with Section 4.1.3.1 CEEAG, and it is therefore necessary to facilitate the development of the production of electricity from specific RES listed in recital (14).

3.3.2.2. Appropriateness

- (141) Point 93 CEEAG states that the Commission presumes that State aid can, in principle, be an appropriate measure in achieving decarbonisation goals, provided that all other compatibility conditions are met. Since as described in Sections 3.3.1, 3.3.2, 3.3.3, 3.3.4 and 3.3.5, the measure fulfils all the other compatibility conditions, the Commission considers that the aid in the measure is an appropriate instrument to support the targeted economic activity in a manner that increases environmental protection.

3.3.2.3. Eligibility

- (142) Point 95 CEEAG explains that decarbonisation measures targeting specific activities which compete with other unsubsidised activities can be expected to lead to greater distortions of competition, compared to measures open to all competing activities. As such, Member States should give objective reasons for measures which do not include all technologies and projects that are in competition. Point 96 CEEAG provides examples of instances where the Commission may consider that a more limited eligibility does not unduly distort competition. In particular, point 96(d) CEEAG states that a more limited eligibility does not distort competition where a Member State identifies reasons to expect that innovative technologies have the potential to make an important and cost-effective contribution to environmental protection and deep decarbonisation objectives. Point 96(e) CEEAG justifies the limited eligibility when a measure is required to achieve diversification necessary to avoid exacerbating issues related to network stability. Furthermore, Member States must regularly review eligibility rules and any rules related thereto to ensure that reasons provided to justify a more limited eligibility continue to apply for the lifetime of each scheme, as set out in point 97 CEEAG.

- (143) The measure targets the production of electricity with renewable energy technologies listed in recitals (14).
- (144) According to the Italian authorities, the measure is necessary to guarantee the development of all technologies potentially useful to achieve the Union 2030 and 2050 climate objectives. As already described in recital (133) above, the previous scheme covered more mature technologies with lower costs and did not include the technologies covered by the scheme at stake. However, Italy explains that to reach these ambitious climate targets, it is necessary to deploy all possible technological solutions, including the most innovative ones and currently farthest from competitiveness, such as those covered by the current scheme (see recital (6)).
- (145) In particular, Italy explains that the eligible innovative technologies have the potential to make an important and cost-effective contribution to environmental protection and deep decarbonisation in the longer term (see recital (34)). This is particularly true for floating photovoltaic on inland waters, floating off-shore photovoltaics and tidal energy, off-shore wind power plants, geothermal energy with innovation and zero emission geothermal energy, and solar thermodynamic (see recital (37)). Italy considers that the deployment of these renewable technologies will allow to drastically reduce the greenhouse gas emissions linked to electricity production (see recital (7)).
- (146) Furthermore, the Italian authorities have explained that biomass and biogas technologies have a positive effect on network stability. In view of their dispatchable nature, they can help to cover energy demand in hours when wind or solar energy production is low, thus avoiding exacerbating issues related to grid stability and reducing system integration costs (see recital (37)(a)).
- (147) Therefore, the Commission considers that the restricted eligibility criteria for the measure are justified, notably on the basis of point 96(d) and 96(e) CEEAG. Indeed, the Commission considers that Italy has identified reasons to expect that the innovative technologies supported under the scheme have the potential to make an important and cost-effective contribution to environmental protection and deep decarbonisation in the long term (see recital (7)).
- (148) To monitor eligibility and related rules, Italy has introduced an express review clause, on the basis of which, each year, it will be assessed, before carrying out the procedures, whether adaptations should be introduced (see recital (52)).
- (149) The Commission therefore considers that the measure complies with points 95 to 97 CEEAG.

3.3.2.4. Proportionality of the aid including cumulation

- (150) Point 103 CEEAG provides that aid for reducing greenhouse gas emissions should in general be granted through a competitive bidding process as described in points 49 and 50 CEEAG, so that the objectives of the measure can be attained in a proportionate manner which minimises distortions of competition and trade.

- (151) Point 49 CEEAG sets out the conditions under which aid allocated through a competitive bidding process can be considered proportionate⁽⁶²⁾, while point 50 CEEAG explains that the selection criteria used for ranking bids should put the contribution to the main objectives of the measure in relation with the aid amount requested by the applicant.
- (152) Moreover, point 104 CEEAG explains that this bidding process should, in principle, be open to all eligible beneficiaries to enable a cost-effective allocation of aid and reduce competition distortions.
- (153) Point 106 CEEAG explains that, where the analysis required under point 90 shows there may be a significant deviation between the bid levels of different categories of beneficiaries, the risk of overcompensation of cheaper technologies should be considered. Where appropriate, bid caps may be required to limit the maximum bid from individual bidders in particular categories. Any bid caps should be justified with reference to the quantification for reference projects referred to in points 51, 52, and 53 CEEAG.
- (154) Point 56 CEEAG explains that when aid under one measure is cumulated with aid under other measures, Member States must specify the method used to ensure that the total amount of aid for a project or an activity does not lead to overcompensation or exceed the maximum aid amount allowed under CEEAG.
- (155) First of all, regarding proportionality of the aid, as the aid will be granted based on a bidding process, the Commission has verified whether it qualifies as a competitive bidding process.
- (156) As confirmed by Italy, the Commission notes that the bidding process will be carried out in accordance with the fundamental principles of transparency, openness and non-discrimination (see recital (30)).
- (157) As described in recital (28), the selection is made based on the percentage of reduction proposed by the applicant compared to its applicable reference tariff, as set in the Implementing Decree. The Commission considers that this is an objective criterion, defined *ex-ante* in accordance with the objective of the measure. The Commission also notes that the procedures will be carried out electronically, in an open, clear, transparent, and non-discriminatory manner (see recital (30)).
- (158) Therefore, the Commission considers that the bidding process is competitive under the meaning of point 49(a) CEEAG.

⁽⁶²⁾ Namely: a) The bidding process is open, clear, transparent and non-discriminatory, based on objective criteria, defined *ex ante* in accordance with the objective of the measure and minimising the risk of strategic bidding; b) The criteria are published sufficiently far in advance of the deadline for submitting applications to enable effective competition; c) The budget or volume related to the bidding process is a binding constraint in that it can be expected that not all bidders will receive aid, the expected number of bidders is sufficient to ensure effective competition, and the design of undersubscribed bidding processes during the implementation of a scheme is corrected to restore effective competition in the subsequent bidding processes or, failing that, as soon as appropriate; and d) *Ex post* adjustments to the bidding process outcome are avoided as they may undermine the efficiency of the process's outcome.

- (159) Each tender will be open for 60 days (see recital (26)), so that it can be concluded that the criteria are published sufficiently in advance of the deadline for submitting applications to enable effective competition in line with point 49(b) CEEAG.
- (160) In each round, a specific quota of production capacity will be made available, and applicants will be selected until the quota allocated to the round is exhausted (see recital (28)).
- (161) Based on the estimate and information provided in recital (38), the Commission notes that, for each basket, the interest in the scheme is expected to exceed the total capacity to be auctioned and that for certain technologies, the capacity to be offered will be minimal to explore the technical feasibility of these innovative technologies.
- (162) In addition, Italy explained that the capacity quota auctioned in each round will be identified on the basis of the total capacity of the authorised plants that could theoretically participate in the auction procedures and on the frequency of the auction procedures, taking into account the state of the authorization processes in order to guarantee the competitiveness of the auctions (see recital (39)). The quotas will, therefore, be set in such a way that the volume auctioned will not be sufficient to satisfy all the potential capacity that has received authorisation.
- (163) However, as explained in recital (53), Italy will take remediation measures in case of repeated undersubscribed bidding processes, in particular by adjusting the power quotas auctioned, or the reference tariffs and, in case relevant, unifying previously separated baskets.
- (164) Therefore, the Commission considers that the budget and volume related to the bidding process is a binding constraint under the meaning of, and in compliance with, points 49(c) and 103 CEEAG.
- (165) Italy has confirmed that the selection process does not allow for any ex-post adjustments to the bidding process outcome, in line with point 49(d) CEEAG (see recital (31)).
- (166) The selection criterion used for the rankings is the percentage of reduction proposed by the applicant compared to its applicable reference tariff (see recitals (27) and (28)). This percentage sets the level of the incentive tariff requested by the applicant, which is expressed in EUR per MWh (recital (54)). As the objective of the scheme is to increase in energy production from renewable energy sources, the Commission considers that point 50 CEEAG is complied with, and that the selection criterion used for ranking bids puts the contribution to the main objective of the measure in relation with the aid amount.
- (167) Italy has introduced different baskets based on the type of technologies (see Table 2). As explained in recital (33), the need to have separate baskets for different technologies is justified in view of their diversity in terms of level of innovation, costs, degree of technological maturity and development lead time (see details by technology in recital (37)).
- (168) In addition, the Commission notes that the presence of separate baskets for these technologies will contribute to the achievement of the technology-based targets

reported in the PNIEC, which have been put in place by Italy in order to reach the 2030 Union targets (see recital (35)).

- (169) In line with point 104(a) CEEAG, Italy explains that a single process open to all eligible beneficiaries would lead to a suboptimal result and not allow the achievement of the objectives of the measure. Specifically, the need for separate baskets is justified by the positive contribution that the eligible technologies can bring to environmental protection and deep decarbonisation objectives and the potential to reduce the costs of these innovative technologies in the longer term, in line with point 96(d) CEEAG (see recitals (34) and (36)).
- (170) This is in particular the case for baskets B, B1, C, C1, D, E, E1 and F that target innovative technologies, namely floating photovoltaic on inland waters, floating off-shore photovoltaics and tidal energy, off-shore wind power plants, geothermal energy with innovation and zero emission geothermal energy.
- (171) In addition, the need for separate competitive bidding processes can be justified partly by costs considerations in line with point 104(b) CEEAG. Indeed, as shown in Annex, some technologies present a significant difference in costs. This is in particular the case for baskets B and B1, which cover the same innovative technology but present a significant cost difference linked to the size of the installations. The same applies for baskets C and C1 (geothermal energy with innovation and zero emission geothermal energy) which present a significant cost difference. For basket F, which concerns refurbishment projects, a specific reduction coefficient applies to reflect the specific cost structure of such projects compared to new ones (see recital (61)).
- (172) For biogas and biomass plants, which are characterised by high operating costs⁽⁶³⁾ (but offer dispatchability), they all compete in the same basket (recital (37)). The Commission notes that in this case, beneficiaries are small projects as defined in point 107(b)(i) CEEAG, namely, for electricity generation, projects below or equal to 1 MW of installed capacity. Although Italy could have exempted such categories from the competitive bidding process, it has decided to also grant aid for these beneficiaries through a competitive bidding process, minimising therefore distortions of competition.
- (173) In line with point 105 CEEAG, Italy has confirmed that they will adapt the scheme over time to guarantee effective competition in the tender procedures by unifying previously separate quotas when needed (see recital (52)). In particular, Italy will make sure that technologies expected to bid within 10% of each other are tendered through the same competitive bidding process (recital (52)).
- (174) In line with point 106 CEEAG and to reduce the risk of overcompensation of cheaper technologies, Italy has decided to set different bid caps – i.e. reference tariffs in the present case, on the basis of which applicants bid a percentage discount (recital (27) and Table 1). The Commission notes that the bid caps have been set with reference to the quantification of the relevant reference projects, as detailed in Section 2.3.3. Moreover, Italy has indicated that the bid caps are not expected to

⁽⁶³⁾ By comparison with other renewable technologies, that mainly have investment costs (such as wind, solar, and geothermal energy).

unduly restrict the auctions and they will be revised ahead of the auctions in case they are too restrictive (see recital (30)).

- (175) Support under the scheme may be combined with other aid mechanism described in recital (74). In these cases, the Commission notes that Italy has set a tariff reduction for those plants that have been granted cumulation of aid to ensure that the total amount of aid for an installation does not exceed the maximum amount allowed by the CEEAG. The tariff reduction reduces the incentive tariff to account for the additional aid.
- (176) The Commission notes that Italy committed to comply with points 56 and 57 CEEAG (see recital (73)).
- (177) Therefore, the Commission concludes that the aid granted under the scheme is proportionate.

3.3.2.5. Transparency

- (178) Italy will ensure compliance with the transparency requirements laid down in points 58 to 61 CEEAG (see recitals (71) and (72)). The relevant data of the measure will be published on the Italian State Aid Register (see recital (72)).

3.3.2.6. Avoidance of undue negative effects on competition and trade

- (179) Point 70 CEEAG explains that the Commission will approve measures under CEEAG for a maximum period of 10 years. As stated in recital (70), the scheme will run until 31 December 2028, so the measure complies with point 70 CEEAG.
- (180) Point 116 CEEAG explains that the aid must not merely displace the emissions from one sector to another and must deliver overall greenhouse gas emissions reductions.
- (181) The Commission considers that, by supporting the development of renewable energy technologies, the measure will deliver overall greenhouse gas emissions reductions and will not merely displace the emission from one sector to another, in line with point 116 CEEAG.
- (182) Point 120 CEEAG explains that Member States must demonstrate that reasonable measures will be taken to ensure that projects granted aid will actually be developed.
- (183) The Commission notes that Italy has set clear deadlines for project delivery, as described in recital (64) and (65) and Table 4, as well as penalties in case these deadlines are exceeded (see recitals (66) and (67)).
- (184) In addition, Italy will apply certain pre-qualifications requirements, as applicants must have obtained a permit qualification for the construction and operation of the plant before, must possess an accepted estimate for the connection to the electricity grid, and submit it in their application form (see recital (19)). Therefore, the Commission concludes that point 120 CEEAG is fulfilled.

- (185) Point 121 CEEAG explains that aid which covers costs mostly linked to operation rather than investment should only be used where the Member State demonstrates that this results in more environmentally-friendly operating decisions. Point 122 CEEAG states that where aid is primarily required to cover short-term costs that may be variable, Member States should confirm that the production costs on which the aid amount is based will be monitored and the aid amount updated at least once per year.
- (186) The NPV calculations for the reference projects provided by Italy show that the share of operating costs in the total costs does not exceed the share of investments costs (see Annex). The aid therefore covers costs mostly linked to investment rather than operation.
- (187) Point 123 CEEAG explains that the aid must be designed to prevent any undue distortion to the efficient functioning of markets and preserve efficient operating incentives and price signals.
- (188) The Commission notes that the incentive tariff is granted in the form of a two-way CfD (see recital (54)), which thus maintains the appropriate price signals. However, in line with footnote 70 of the CEEAG, small-scale installations are not obliged to participate in the market and can benefit from direct price support⁽⁶⁴⁾. As detailed in recital (58), this applies to installations with a capacity up to 300 kW (reduced to 200 kW from 1 January 2026). The Commission also notes that, as mentioned in recital (57), no subsidy will be paid for hours in which the market price is negative. Therefore, the scheme complies with point 123 CEEAG.
- (189) Point 126 CEEAG requires measures to avoid providing incentives for the production of energy that would displace less polluting forms of energy.
- (190) The Commission notes that, in line with point 126 CEEAG, incentives under the scheme are provided for the generation of electricity from renewable installations. Italy explained that for the time being production of electricity from all renewable sources is necessary to reach the 2030 targets (see recital (4)). The Italian authorities confirmed that, according to currently available renewable energy production possibilities, as far as possible, the beneficiaries will not receive incentives to generate electricity at times when this would mean zero air pollution renewable energy sources would be curtailed (see recital (57)). Therefore, the Commission concludes that the measure complies with point 126 CEEAG.
- (191) Point 127 CEEAG explains that aid for decarbonisation may unduly distort competition where it displaces investments into cleaner alternatives that are already available on the market, or where it locks in certain technologies, hampering the wider development of a market for and the use of cleaner solutions. This point provides that the Commission shall verify that the aid measure does not stimulate or prolong the consumption of fossil fuels and energy, thereby hampering the development of cleaner alternatives and significantly reducing the overall environmental benefit of the investment.

⁽⁶⁴⁾ The definition of small-scale installations in footnote 70 of the CEEAG refers to the definition contained in Article 5(2)(b) of Regulation (EU) 2019/943.

- (192) The Commission notes that, as the measure only targets renewable energy installations, it does not displace investments into cleaner alternatives that are already available on the market and it does not stimulate or prolong the consumption of fossil-based fuels and energy, in line with point 127 CEEAG.
- (193) Point 131 CEEAG explains that, where risks of additional competition distortions are identified or measures are particularly novel or complex, the Commission may impose conditions, including the obligation to perform an *ex-post* evaluation, as set out in point 76.
- (194) In view of the significant budget of the scheme, the scheme will be subject to an *ex-post* evaluation, as described in Section 2.8.
- (195) Point 132 CEEAG states that for schemes benefiting a particularly limited number of beneficiaries or an incumbent beneficiary, Member States should demonstrate how the proposed measure will not lead to distortions of competition, for example, through increased market power.
- (196) The Commission considers that the measure is intended to support a large number of beneficiaries, of different sizes and types, so that it is not expected that the scheme will be benefiting a particularly limited number of beneficiaries or an incumbent beneficiary.
- (197) Therefore, the Commission considers that aid granted under the notified measure avoids undue negative effects on competition and trade.

3.3.3. *Weighing up the positive and negative effects of the aid*

- (198) Point 134 CEEAG states that, provided that all other compatibility conditions are met, the Commission will typically find that the balance for decarbonisation measure is positive (that is to say, distortions to the internal market are outweighed by positive effects) in light of their contribution to meeting Union energy and climate objectives, as long as there are no obvious indications of non-compliance with the ‘do no significant harm’ principle.
- (199) The Commission notes that the measure will contribute to the achievement of Italy’s energy and climate objectives and that all other compatibility conditions are met. The Commission finds no obvious indications of non-compliance with the ‘do no significant harm’ principle.
- (200) Therefore, the Commission concludes that the positive effects of the measure outweigh its negative effects on the internal market.

3.3.4. *Companies in difficulty and under recovery order*

- (201) As explained in recitals (21) and (22), the measure is not open to undertakings in difficulty or undertakings that are subject to an outstanding recovery order following a previous Commission decision declaring an aid illegal and incompatible with the internal market.
- (202) The Commission therefore concludes that the measure complies with points 14 and 15 CEEAG.

3.3.5. Evaluation Plan

- (203) Points 455 and 456 CEEAG state that to further ensure that distortions of competition and trade are limited, the Commission may require notifiable aid schemes to be subject to an *ex post* evaluation and that in any event an *ex-post* evaluation will be required when the State aid budget exceeds EUR 750 million over the total duration of the scheme.
- (204) As further explained in point 458 CEEAG, the *ex post* evaluation should aim at verifying whether the assumptions and conditions underlying the compatibility of the scheme have been achieved, in particular the necessity and the effectiveness of the aid measure in the light of its general and specific objectives and should provide indications on the impact of the scheme on competition and trade.
- (205) Point 459 CEEAG further provides that the Member State must notify a draft evaluation plan, which will be an integral part of the Commission's assessment of the scheme, under three set of scenarios.
- (206) As the envisaged budget of the scheme exceeds EUR 750 million over its total duration (recital (76)), the scheme will be subject to an *ex post* evaluation and the Italian authorities submitted an evaluation plan with the notification, as an integral part of it, thereby complying with point 459 CEEAG.
- (207) The Commission considers that the notified evaluation plan contains all the necessary elements: the objectives of the measure to be evaluated, including the evaluation questions, the result indicators, the envisaged methodology to conduct the evaluation and the proposed timing of the evaluation including the date of submission of the final evaluation report (see section 2.8).
- (208) The Commission notes that:
- a. The scope of the evaluation is defined in an appropriate way and the scope and arrangements for the evaluation is set out in this Decision (see recitals (77) to (83)). It comprises a list of evaluation questions with matched result indicators. Moreover, the evaluation plan explains the main methods that will be used in order to identify the impacts of the measure (see recitals (78) to (80) and recital (82));
 - b. In line with point 460 CEEAG, the evaluation plan is drafted in accordance with the common methodological principle provided by the Commission ⁽⁶⁵⁾ (see recital (76));
 - c. The Italian authorities committed, in line with point 461 CEEAG, that the evaluation is conducted according to the notified evaluation plan by an independent expert in accordance with the criteria laid down in the evaluation plan (see recital (84));
 - d. The proposed modalities for the publication of the evaluation results are adequate to ensure transparency (see recital (85) and (86));

⁽⁶⁵⁾ Commission Staff Working Document, Common methodology for State aid evaluation, 28.5.2014, SWD(2014) 179 final.

- e. In line with points 461 and 463 CEEAG, Italy committed to submit to the Commission an interim report by end of March 2025 and a final evaluation report nine months before the expiry of the scheme (31 March 2028). Both reports will be made public (see recital (86)). The Commission notes that the evaluation method might be further fine-tuned in common accord between the Italian authorities and the Commission, and it will be described in the interim report (see recital (85)).

(209) The Commission notes that Italy shall communicate to the Commission any difficulty that could significantly affect the agreed evaluation in order to work out possible solutions.

(210) Moreover, the Commission notes that the measure will be suspended if the final evaluation report were not submitted in good time and sufficient quality.

(211) The Commission concludes that the evaluation plan notified by the Italian authorities complies with the requirements set out in Section 5 CEEAG.

3.3.6. Conclusion on the compatibility of the measure

(212) The Commission concludes that the aid facilitates the development of an economic activity and does not adversely affect trading conditions to an extent contrary to the common interest. Therefore, the Commission considers the aid compatible with the internal market based on Article 107(3)(c) TFEU, as interpreted in the relevant points of CEEAG.

4. AUTHENTIC LANGUAGE

(213) As mentioned in recital (2), Italy has exceptionally accepted to have the decision adopted and notified in English. The authentic language will therefore be English.

5. CONCLUSION

The Commission has accordingly decided not to raise objections to the aid on the grounds that it is compatible with the internal market pursuant to Article 107(3)(c) of the Treaty on the Functioning of the European Union.

Yours faithfully,

For the Commission

Margrethe Vestager
Executive Vice-President