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Subject: State Aid SA.107161 (2023/N) – Italy – RRF - Support for the promotion of agrivoltaic installations

Excellency,

1. PROCEDURE

- (1) On 18 April 2023, Italy notified a support scheme (the “scheme” or the “measure”) for the promotion of agrivoltaic installations for the period until 31 December 2024, pursuant to Article 108(3) of the Treaty on the Functioning of the European Union (“TFEU”). On 15 June 2023, 13 September 2023 and 17 October 2023, the Commission requested additional information, which Italy submitted on 13 July 2023, 27 September 2023 and 19 October 2023.
- (2) By letter dated 13 July 2023, Italy agreed to exceptionally waive its rights deriving from Article 342 TFEU in conjunction with Article 3 of Regulation 1/1958 ⁽¹⁾ and to have the present decision adopted and notified in English.

2. DESCRIPTION OF THE MEASURE

- (3) The measure is a scheme, foreseen by the Italian National Recovery and Resilience Plan (the “NRRP”), to provide support for agrivoltaic installations, as described in recital (7) below, through the combination of two forms of support, namely (i) an investment grant up to 40% of eligible investment costs, and (ii) an incentive tariff

⁽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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in the form of a two-way contract for difference (“two-way CfD”) applied to the production of electricity fed into the network and paid over a period of 20 years (the “incentive tariff”). The two forms of support will be granted cumulatively to beneficiaries selected via tenders.

2.1. Background and objective of the scheme

- (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 in 2019 (Piano Nazionale Integrato per l’Energia e il Clima, PNIEC), of 30% of gross final energy consumption from renewable energy sources by 2030, with a projected 55%-share of renewables in gross final electricity consumption.
- (5) The objective of the measure is to contribute to the achievement of the 2030 targets and to reduce energy dependency. Italy intends to subsidise under the scheme a total new capacity of 1.04 GW and an electricity production of at least 1 300 GWh/year.
- (6) The scheme also aims at increasing the sustainability and resilience of the Italian agricultural sector and supporting its green transition and energy efficiency as well as safeguarding the agricultural soil. The agricultural sector is responsible for 10.3% of EU greenhouse gases emissions ⁽³⁾. By promoting agrivoltaic installations, which can produce high volumes of renewable energy, the scheme aims at reducing the climate and environmental impacts of the agricultural sector.
- (7) Agrivoltaic installations are technologically advanced installations which allow the multiple use of land for both electricity production and agriculture. These innovative installations are characterized by:
 - (a) Innovative integrated modules that are elevated above the ground, which can rotate such that they do not compromise the continuity of agricultural cultivation and cattle breeding, allowing for the application of digital and precision farming tools;
 - (b) Monitoring systems, which make it possible to verify the impact of the photovoltaic installation on crops, microclimate, water savings, recovery of soil fertility, resilience to climate change and agricultural productivity for the different types of crops, as well as the continuity of the farming activities concerned.
- (8) The Italian authorities explained that agrivoltaic installations can promote a more efficient use of land by combining agriculture and energy production and increase the competitiveness of the agricultural sector. The scheme will address simultaneously the challenges of sustainable agricultural practices and renewable energy production.

⁽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⁾ European Court of Auditors, Special report “Common Agricultural Policy and climate” (2021), https://www.eca.europa.eu/Lists/ECADocuments/SR21_16/SR_CAP-and-Climate_EN.pdf.

- (9) The Italian authorities have explained that there are currently no ongoing incentive schemes for agrivoltaic systems in Italy and that these are needed to reach the ambitious EU and national climate protection targets.
- (10) The Italian authorities explained that agrivoltaic installations have not been included in more general support schemes for electricity production from renewable installations due to the additional complexity and higher costs of the agrivoltaic systems, which require the integration of electricity production with agricultural production as well as specific monitoring systems. The scheme is dedicated to projects which are specific for the agricultural sector, and therefore addressed to specific beneficiaries. Moreover, the scheme is financed through the financial resources dedicated to Investment 1.1 ('Development of agri-voltaic systems') of Mission 2 ('green revolution and ecological transition'), Component 2 (Renewable energy, hydrogen, network and sustainable transport) of the Italian National Recovery and Resilience Plan (NRRP).
- (11) The Italian authorities further explained that the limitation of eligibility exclusively to agrivoltaic installations is broadly justified by their technological and cost characteristics, which are both energy and agronomic systems. This complexity implies that agrivoltaic installations have a significant cost differential with respect to traditional photovoltaic installations, which have lower generation costs than agrivoltaic installations and are therefore more profitable. The Italian authorities have submitted information showing that traditional photovoltaic installations are characterised by investment costs of 800 EUR/kW and a Levelized Cost Of Electricity (LCOE) ⁽⁴⁾ of around 70 EUR/MWh. On the other hand, an equivalent agrivoltaic installation has investment costs of 1 500 EUR/kW and a LCOE of around 133 EUR/MWh.
- (12) In addition, the Italian authorities explained that agrivoltaic technology is still not mature but has a high potential for development and will ~~ean~~ bring a significant and cost-effective contribution to the environmental protection and deep decarbonisation objectives of the EU described in recital (4). The Italian authorities recalled that the Union aims to accelerate the deployment of photovoltaic installations. They also referred to a recent report by the Commission's Joint Research Centre ("JRC") ⁽⁵⁾, which finds that agri-photovoltaic has the potential to make a major contribution to achieving the targets set in the European Green Deal. The report finds that, although significant capacity of photovoltaic installations can be installed on roofs, in urban areas, on brownfield sites and on infrastructures, around 50% of future photovoltaic installations is expected to be built on agricultural land. According to the same JRC report, at the EU level, the utilised agricultural area is composed of 98 million hectares of arable land. The Italian authorities submit that this new type of technology (agrivoltaics) will allow to unlock this arable ground as suitable ground for photovoltaic installations and could allow for the installation of 1 TW of additional photovoltaic capacity, using only 1% of the EU's utilized agricultural area.

⁽⁴⁾ The LCOE measures the average net present cost of electricity generation over the lifetime of a power plant.

⁽⁵⁾ Chatzipanagi et. Al (2023), Overview of the Potential and Challenges for Agri-Photovoltaics in the European Union, JRC.

2.2. National legal basis

- (13) The legal basis is the Legislative Decree no. 199 of 8 November 2021 transposing the European Directive 2018/2001 and the draft Ministerial Decree providing implementation of the National Recovery and Resilience Plan, Mission 2, Component 2 (M2C2), Investment 1.1 "Development of agri-voltaic systems" (the "Implementing Decree").
- (14) Italy will adopt the Implementing Decree following the notification of the Commission's authorisation decision. The measure will be applied only after the adoption of a positive Commission decision.
- (15) The managing operator of the scheme will be the Gestore dei Servizi Energetici ⁽⁶⁾ ("GSE").

2.3. Beneficiaries

- (16) The potential beneficiaries of the scheme are:
 - (a) Agricultural producers as defined by Art. 2135 of the Italian civil code ⁽⁷⁾
 - (b) Temporary associations of companies that include at least one subject listed in the previous letter (a).
- (17) To access the scheme, potential beneficiaries moreover need to satisfy the following requirements:
 - (a) Possession of a permit to construct and operate the agrivoltaic installation;
 - (b) Definitive acceptance by the GSE of the potential beneficiaries' request to connect the installations to the electricity grid (which request shall include the estimate of the costs and modalities of such connection to the grid);
 - (c) Compliance with the requirements listed in Annex 2 (a) of the Ministerial Decree ⁽⁸⁾;

⁽⁶⁾ The GSE is 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.

⁽⁷⁾ Agricultural producers as defined by Art. 2135 of the Italian civil code can be either individuals, or cooperatives, or agricultural companies, as defined by the Legislative Decree no 99 of 29 March 2004, as well as consortia formed by two or more agricultural producers, including agricultural cooperatives that perform activities described in Art. 2135 of the Italian civil code, or cooperatives and consortia described in Art. 1, comma 2 of the Legislative Decree no 228 of 18 May 2001 and temporary associations of agricultural companies.

⁽⁸⁾ These requirements are: minimum surface dedicated to agricultural activity must be at least 70% of the total surface of the agrivoltaic system; the minimum height of the installations from the ground should guarantee the continuity of the pastoral (1,3 meters) and agricultural activities (2,1 meters); the electricity production of an agrivoltaic system cannot be lower than 60% of the electricity production of a standard photovoltaic system.

- (d) Avoidance of any interference with the agricultural cultivation and cattle breeding activities underlying the agrivoltaic installation;
 - (e) Compliance of the agrivoltaic installation with national and Union environmental protection rules, as well as with the ‘do no significant harm’ principle referred to in Article 17 of Regulation (EU) 2020/852 ⁽⁹⁾, as set out in the related operating rules in Article 12 of the Ministerial Decree ⁽¹⁰⁾;
 - (f) Possession of a declaration from a banking institution certifying the financial and economic capacity of the participating beneficiary in relation to the size of the investment, taking into account the expected profitability of the investment, and the financial and economic capacity of the corporate group to which the beneficiary belongs, or, alternatively, the commitment of that banking institution to finance the operation.
- (18) The scheme is reserved only for agrivoltaic installations that will be newly built and built with new components.
- (19) Undertakings in difficulty as defined by the Commission Guidelines on State aid for rescuing and restructuring non-financial undertakings in difficulty ⁽¹¹⁾ are excluded from the scheme.
- (20) Access to the scheme is not allowed to undertakings subject to outstanding recovery orders following a previous Commission decision declaring an aid illegal and incompatible with the internal market.
- (21) Agrivoltaic installations which will be located in the territory of other Member States of the European Union (or in a third country geographically bordering Italy, with which the EU has a free trade agreement in force) will be allowed to participate in the auction to access the incentive tariff in the form of a two-way CfD ⁽¹²⁾, subject to the following conditions:
- (a) The existence of a cooperation agreement with the Member State or the country where the installation will be located, in accordance with the requirements laid out in Article 16 of Legislative Decree n.199 of 2021;
 - (b) The agreement (mentioned in recital (21)(a) above) established a reciprocity system and the modalities by which proof of physical import of electricity to Italy is provided;
 - (c) The agrivoltaic installations comply with the same requirements than those applicable to agrivoltaic installations located in the Italian territory (see recital (17) above).

⁽⁹⁾ OJ L 198, 22.6.2020, p.13-43.

⁽¹⁰⁾ The scheme for each procedure must be in conformity with “Istruzioni tecniche per la selezione dei progetti PNRR” of the Ministry for Economy and Finance with document (circolare) of 14 October 2021, n. 21 and the principle “Do No Significant Harm” (DNSH)

⁽¹¹⁾ 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)

⁽¹²⁾ Applicants from other Member States or from neighbouring countries are not eligible for the investment grant, as the latter is funded by the RRF and can therefore only benefit Italian applicants.

- (22) Moreover, installations located outside of the Italian territory can place bids only up to a certain percentage of the assigned capacity. The percentage is calculated based on the following formula, according to which the Italian overall imports of green energy from neighbouring countries are divided by the total electricity consumption in Italy:

$$P_{UE} = P_{TOT\ asta} \cdot \frac{E_{imp\ SM1} \cdot FER\ \%_{SM1} + E_{imp\ SM2} \cdot FER\ \%_{SM2} + \dots + E_{imp\ SMn} \cdot FER\ \%_{SMn}}{E_{tot\ consumata\ ITA}}$$

Where P_{EU} is the available capacity for the projects in other States; $P_{TOT\ asta}$ is the total capacity awarded in the auction procedure to each group; $E_{imp\ SMn}$ is the total imported electricity by the State n; $FER\ \%_{SMn}$ represents the portion of renewable energies in the energy mix of State n and $E_{tot\ consumed\ ITA}$ is the total electricity consumption in Italy.

2.4. Selection of beneficiaries and form of aid

- (23) Beneficiaries will be selected through a competitive bidding process, granting access to both the investment grant and the two-way CfD (without prejudice to the rule that beneficiaries from other countries may not receive the investment grant, as explained in recital (21)). As explained in recital (29), two separate auction processes, with separate eligibility rules based on the size of the installations, will be held.
- (24) Project promoters will have to apply for aid under the scheme by means of an application form. The application form will include the applicant's name, a description of the project, including its location and the amount of aid necessary to carry it. The Italian authorities have explained that new projects cannot start works before having applied for participation in the competitive procedures.
- (25) The bidding process will remain open for 60 days, within which applicants can submit their application to access the scheme. The rankings will be published within 90 days from the closure of each single procedure.
- (26) The investment aid is granted in the form of investment grant that can cover up to 40% of the eligible costs.
- (27) The aid in the form of a two-way CfD is granted for each kWh of electricity produced and injected into the network. The strike price of the two-way CfD will be determined through the auctions for each individual beneficiary. More specifically, beneficiaries will receive a premium on top of the market price that covers the negative difference between such price and the incentive tariff (the strike price). On the other hand, the beneficiaries will have to repay the difference between the market price and the strike price when such difference is positive.
- (28) Generators with an installed capacity up to 200 kW can choose to receive support through a feed-in tariff rather than a two-way CfD. In this case they are required to sell their electricity to the GSE, which resells the electricity on the market. The feed-in tariff corresponds to the strike price.

- (29) Beneficiaries will be selected based on the offered reduction, in percentage terms, from the reference tariffs set by the Italian authorities in the Implementing Decree (see Table 1 below). Bidders will be ranked based on the reduction offered. The strike price of each selected beneficiary will be their bid (pay as bid), adjusted by a regional correction factor (see recital (44)). Two separate auctions will be carried out based on the size of the installations:
- (a) Installations with any nominal power: The total tendered capacity will be up to 740 MW in this tender. Participants will be required to offer a minimum reduction of at least 2% from the reference tariff.
 - (b) Installations with nominal power up to 1 MW: The total tendered capacity will be up to 300 MW. Participants will not be required to offer a reduction from the reference tariffs (although they can do so) and could simply register their participation in dedicated registries. Nonetheless, as explained above, participants will be ranked based on their bid.
- (30) Small installations up to 1 MW can therefore decide in which of the two tenders they would rather compete.
- (31) In the event that the same percentage of reduction is offered, the GSE will apply additional criteria to rank the bids. In particular, priority will be given to installations expected to be used to a greater extent for self-consumption and based on the date of submission of the complete application.
- (32) The remuneration will be paid for a period corresponding to the average lifetime of the installations covered by the scheme, 20 years, that is to say until the installation is fully depreciated according to normal accounting rules.
- (33) Beneficiaries-benefitting from the measure will be subject to standard balancing responsibilities as established by the Authority for electricity, gas and water (the *Autorità di regolazione per energia reti e ambiente*, “ARERA”).⁽¹³⁾
- (34) The payment of the tariff will be suspended in case the electricity market price falls at or below zero ⁽¹⁴⁾. Periods in which the payment will be suspended will not be taken into account to compute the duration of the support.
- (35) Italian authorities have confirmed that, in order to monitor eligibility and related rules, an express review clause has been introduced, on the basis of which it will be assessed, before carrying out the procedures, whether the level of aid originally proposed is, in whole or in part, no longer necessary or no longer sufficient.

2.5. Competitiveness of the tenders

2.5.1. Tendered capacity

- (36) The Italian authorities explained that they expect a number of participants such that to guarantee a competitive bidding process, in view of the limited capacity tendered and the high number of requests that they expect to be presented. From discussions

⁽¹³⁾ See decision 522/2014/R/EEL of the ARERA available at: <http://www.autorita.energia.it/it/docs/14/522-14.htm>

⁽¹⁴⁾ When negative prices are introduced in the Italian electricity market.

with trade associations in the energy and agricultural sector as well as specific agrivoltaic associations, Italy expects manifestations of interests to exceed 20 GW, compared to an auctioned volume of 1 GW. Italy expects that there would be more than 1 000 beneficiaries.

- (37) The Quarterly Energy and Climate Report shows that the Commission for the NRRP PNIEC received, by 31 December 2022, 879 proposals for renewable installations for a total capacity of 50.7 GW, of which 21.5 GW⁽¹⁵⁾ were for agrivoltaic installations⁽¹⁶⁾. The integration between agricultural and photovoltaic production is gaining increasing attention. The Italian authorities submit that sector studies⁽¹⁷⁾ show that operators slightly prefer agrivoltaic installations to traditional photovoltaic. Indeed, agrivoltaic projects represent 55% of the authorization applications for photovoltaic to be built on agricultural territory.
- (38) As mentioned in recital (29), the scheme allocates a total capacity of 300 MW for installations of up to 1MW and 740 MW for larger installations, for a total quota available equal to 1040 MW. The Italian authorities explain that the available quotas were based on the applications for authorizations received and it is believed that these quotas allow to guarantee competition⁽¹⁸⁾.
- (39) The first auction for each category will take place at the beginning of 2024 and possible other auctions will be conducted in the following months, if there is a residual unallocated quota. In particular, the dates of the subsequent auctions will be published four months after the entry into force of the Implementing Decree. However, the Italian authorities explained that, in view of the limited capacity tendered and the high number of requests that they forecasted, they expect to finish all the capacity available in the first tenders.
- (40) The Italian authorities explained that the scheme foresees mechanisms for the reallocation of quotas to take into account effective participation between the two size categories. The operating rules regulating these mechanisms will be published by the Ministry of Environment and Energy Security 15 days after the Implementing Decree enters into force.
- (41) The Italian authorities have confirmed that they will take corrective measures in case of repeated undersubscribed bidding processes, in particular through the

⁽¹⁵⁾ These figures refer to installations with capacity above 10MW, which have requested permits to the Italian authorities. It can be noted that for installations below 10MW Italy does not have data as permits requests are not processed at the national level. Therefore, the expected demand for support in terms of MW is expected to be larger than 21.5 GW, as the latter does not include interest for smaller installations (medium and small agricultural producers).

⁽¹⁶⁾ See Report “*Energia e Clima in Italia: Rapporto Trimestrale*” (https://www.gse.it/documenti_site/Documenti%20GSE/Rapporti%20statistici/GSE%20Trimestrale%20energia%20e%20clima.pdf), Gestore Servizi Energetici, 2022.

⁽¹⁷⁾ See Study “*Le regioni e il permitting: abstract*” (https://greenreport.it/wp-content/uploads/2022/04/R.E.gions2030_Abtract-Report-Le-Regioni-e-il-Permitting.pdf), R.E.gions2030 Project, 2021.

⁽¹⁸⁾ The report “*Energia e Clima in Italia: Rapporto Trimestrale*” (see footnote 6), shows that in December 2022, for installations above 10MW, Italy had already provided a positive opinion for around 60 requests for a total capacity of more than 2 GW.

revision of the reference tariffs as well as through the adjustment of the tendered production capacities.

2.5.2. Reference tariffs

- (42) To justify the reference tariffs presented in Table 1 below, the Italian authorities have identified two main reference projects. For smaller installations, the reference project is represented by an agrivoltaic system with a 300 kW power, which has been considered representative of small installations built on surfaces smaller than one hectare, belonging to small and medium-sized farms. For larger installations, the reference project is an agrivoltaic system with 1 MW installed capacity that is representative of medium/large scale installations built on surfaces larger than 1 hectare and belonging to large agricultural companies with greater investment capacity ⁽¹⁹⁾.

Table 1: Reference Tariffs and Maximum Eligible Investment Costs

Technology type	Power (P)	Reference Tariffs	Maximum eligible investment costs
		EUR/MWh	EUR/kW
Agrivoltaic 300 kW arable farming	Less than or equal 300 kW	93	1 700
Agrivoltaic 1 MW arable farming	More than 300 kW	85	1 500

Source: *The Implementing Decree*

- (43) The Italian authorities explained that the introduction of a cap on the eligible investment costs (see Table 1) allows, on the one hand, to achieve the predetermined power targets and, on the other, the selection of the most cost-effective projects. The cap is lower for bigger installations as some investment costs, such as installation, development, connection and monitoring costs, benefit directly from economies of scale. This is the case, even though more indirectly, for some other cost items, such as modules and inverters, whose costs are usually reduced as the size of the installations increases.
- (44) After the competitive procedures will have taken place, the incentive tariffs will be corrected to account for the different levels of insolation amongst regions, based on the correction factors shown in Table 2 below. The Italian authorities have explained that the correction factors will be added to the strike price awarded depending on the location of the installation.
- (45) The Italian authorities explained that, according to productivity data (measured as the amount of full load hours) recorded in the individual regions from 2015 to

⁽¹⁹⁾ See “*Guidelines on agrivoltaic systems*” (https://www.mase.gov.it/sites/default/files/archivio/allegati/PNRR/linee_guida_impianti_agrivoltaici.pdf) issued by the Ministry of Environment and Energy Security in June; the document “*Agrivoltaics: Opportunities for Agriculture and the Energy Transition*” (<https://www.ise.fraunhofer.de/en/publications/studies/agrivoltaics-opportunities-for-agriculture-and-the-energy-transition.html>) published by the Fraunhofer Institute for Solar Energy Systems ISE in April 2022.

2021⁽²⁰⁾, the average productivity of photovoltaics in the central regions and northern regions are respectively 6% and 15% lower than in the south of the peninsula. The correction is therefore aimed at compensating for the different level of productivity of the installations with respect to their location, and it is aimed at ensuring a level playing field among the beneficiaries. To determine which correction factor to apply to installations located outside of Italy (see recital (21)), the Italian authorities will rely on the observed average level of insolation in the country where the installation is located and assign the correction factor of one of the Italian Regions (see Table 2), namely the one with the closest level of insolation compared to the country at issue.

Table 2: Regional correction factors

Geographical Zone	Correction Factor
Central Regions (Lazio, Marche, Toscana, Umbria, Abruzzo)	+4 EUR/MWh
Northern Regions (Emilia-Romagna, Friuli-Venezia Giulia, Liguria, Lombardia, Piemonte, Trentino-Alto Adige, Valle d'Aosta, Veneto)	+10 EUR/MWh

Source: The Implementing Decree

- (46) The Italian authorities moreover explained that the correction factor is aimed at guaranteeing a greater and more balanced spread of the various installations across the peninsula, compensating for the high energy demand in the Northern regions despite the higher productivity given the meteorological conditions in the Southern regions. Moreover, the correction factors seek to ensure the stability of the network and to reduce the costs of system integration, avoiding improper burdens of possible network congestion, thus leading to lower costs for achieving environmental protection.
- (47) The Italian authorities have set the reference tariffs taking into account the estimated investment and operating costs, as well as the investment grant under the scheme, of those reference projects. The estimated investment costs are mainly based on the cost range reported in the guidelines for agrivoltaic installations published by the Ministry of the Environment and Energy Security⁽²¹⁾. Investment

⁽²⁰⁾ PV Statistical Report 2021 issued by GSE

(https://www.gse.it/documenti_site/Documenti%20GSE/Rapporti%20statistici/Solare%20Fotovoltaico%20-%20Rapporto%20Statistico%202021.pdf).

⁽²¹⁾ For the 1 MW reference project, the investment cost of 1 500 EUR/kW is consistent with the cost range reported in the guidelines for agrivoltaic installations published by the Ministry of the Environment and Energy Security (MASE)

(https://www.mase.gov.it/sites/default/files/archivio/allegati/PNRR/linee_guida_impianti_agrivoltaici.pdf) with reference to the 1 MW case relating to arable crops. In particular, the upper part of the range is taken into account, also due to the inflationary trend recorded in 2022 and the first estimates for 2023. Such costs, as highlighted in the aforementioned guidelines (see also the guidelines of the Fraunhofer Institute on agrivoltaics, available here: <https://www.ise.fraunhofer.de/content/dam/ise/en/documents/publications/studies/APV-Guideline.pdf>) mainly depend on the higher costs, compared to homologous ground systems, attributable both to the assembly

costs (“CAPEX”) take into account the construction of the photovoltaic modules, supply and installation of storage systems, equipment for the monitoring system as well as the connection to the electricity grid. The investment grant is deducted from the overall costs. Operating costs (“OPEX”) ⁽²²⁾ account for the following elements: commercial and insurance management costs, costs for monitoring and surveillance, repair services, inverter replacement, maintenance/mowing and land costs, as well as costs for monitoring the continuity of agricultural and/or livestock activity and those relating to the monitoring of the effects of energy and agricultural concurrent activity.

- (48) The reference tariffs have been defined to obtain a profitability in terms of Internal Rate of Return (“IRR”) of the reference projects in the range of 6 to 7%. The expected lifetime of the projects is 20 years.
- (49) Table 3 below shows the reference tariff calculation as well as the net present value (“NPV”) of the reference projects across the three regions.

structures and to the preparation of the site and installation. The other cost items considered (modules, inverters, electrical works, development) do not show significant differences, except for a slight increase in modules due to the choice of technologies more suitable for agrivoltaics with regard to the lower reduction of irradiation. As for the 300 kW reference project, in the absence of specific data, an increase factor of approximately 13% was considered with respect to the costs of the 1 MW project, considering that this increase factor largely falls within the differences between the investment costs of the relevant power classes of the survey conducted within IEA (see National Survey Report of PV Power Applications in Italy, available here: https://www.gse.it/documenti_site/Documenti%20GSE/Studi%20e%20scenari/National-Survey-Report-of-PV-Power-Applications-in-Italy-2021.pdf).

- (22) With regard to OPEX, for both reference projects a cost of approximately EUR 16/kW was assumed, in line with what is reported in the guidelines for agrivoltaic installations published by the Ministry (available here: https://www.mase.gov.it/sites/default/files/archivio/allegati/PNRR/linee_guida_impianti_agrivo_Itaici.pdf).

Table 3: Determination of the Reference Tariffs and NPV of the reference projects across the three regions

Reference projects / Assumptions	300 kW South	300 kW Centre	300 kW North	1 MW South	1 MW Centre	1 MW North
Plant Capacity (MW)	0,3	0,3	0,3	1	1	1
Full Load Hours	1.250	1.175	1.063	1.250	1.175	1.063
Total CAPEX (Million EUR)	0,5	0,5	0,5	1,5	1,5	1,5
Total CAPEX (EUR/kW)	1.700	1.700	1.700	1.500	1.500	1.500
Total OPEX (EUR)	4.890	4.890	4.890	16.300	16.300	16.300
Total OPEX (EUR/kW)	16	16	16	16	16	16
Annual Production (MWh)	375	353	319	1.250	1.175	1.063
WACC (%)	7%	7%	7%	7%	7%	7%
LCOE (EUR/MWh)	148	158	174	133	141	156
CAPEX grant (%)	40%	40%	40%	40%	40%	40%
CAPEX grant (Million EUR)	0,20	0,20	0,20	0,60	0,50	0,60
LCOEs (with CAPEX aid, EUR/MWh)	95	101	112	86	91	101
Reference Tariff (EUR/MWh)	93	97	103	85	89	95
Average estimated electricity price 20 years (EUR/MWh)	70	70	70	70	70	70
Incentive (EUR/MWh) ⁽²³⁾	23	27	33	15	19	25
IRR (%)	6,7%	6,4%	5,7%	6,9%	6,6%	6,1%
Net present value without aid (Million EUR) ⁽²⁴⁾	-0,299	-0,316	-0,340	-0,798	-0,852	-0,932
Total aid (investment +incentive tariff) not discounted (Million EUR)	0,368	0,385	0,404	0,957	1,025	1,106
Total aid (investment + incentive tariff) discounted (Million EUR)	0,29	0,30	0,31	0,79	0,83	0,87

Source: Italian authorities

- (50) The NPV of the reference projects has been calculated using as discount rate a Weighted Average Cost of Capital (“WACC”) of 7% for all reference projects and regional areas. The WACC has been defined based on several assumption, including a cost of debt at 6.0% and a cost of equity of 15% ⁽²⁵⁾.
- (51) For Central regions, as explained in recital (45) above, a 6% productivity (in terms of full load hours) reduction compared to Southern regions has been used and a correction factor of +4 EUR/MWh (Table 2) is added to the reference tariff to counteract for the lower level of insolation. For Northern regions, as explained in recital (45) above, a 15% productivity reduction compared to Southern regions has been assumed and a correction factor of +10 EUR/MWh (Table 2) is added to the reference tariff to make up for the lower level of insolation.
- (52) The data provided shows that without support the NPV of the reference projects would be negative.

⁽²³⁾ The term “incentive” in the Table refers to the difference between the reference tariff and the average estimated electricity price (70 EUR/MWh).

⁽²⁴⁾ Calculations are based on an average estimated electricity price over 20 years of EUR 70/MWh in line with the PNIEC scenarios, with a lower electricity price, the NPV would be lower and vice versa.

⁽²⁵⁾ The Italian authorities have made the following assumptions. Tax rate of 27,9%. Equity quota of 25% and debt quota of 75%. The Italian authorities explained that the higher WACC with respect to the traditional ground photovoltaic installations (6%) reflects the higher innovation and risk of agrivoltaic installations.

- (53) In view of the negative NPVs of agrivoltaic installations, Italy considers that in the absence of aid a beneficiary would not invest in the construction of an agrivoltaic installation. The counterfactual scenario is therefore that the beneficiary would not carry out the investment.

2.5.3. *Other conditions*

- (54) Italy confirmed that the bidding process will be carried out in an open, clear, transparent and non-discriminatory manner, based on objective criteria, defined ex ante in accordance with the objective of the measure and minimising the risk of strategic bidding.
- (55) Italy confirmed that the aid will be granted solely on the basis of the initial offer submitted by the bidder and on the basis of the regional correction factors and that no ex-post adjustment to the bids made in the bidding process is allowed.
- (56) Italy confirmed that the auctions do not include a price floor (maximum discount compared to the reference tariffs).

2.6. **Deadline for the start of operation of the projects**

- (57) The scheme foresees deadlines for the entry into operation of successful installations. Successful beneficiaries must start operations within 18 months from the date of publication of the ranking and not after 30 June 2026.
- (58) Failure to comply with such terms involves the application of a 0.5% reduction in the incentive tariff for each month of delay, up to a maximum of nine months of delay ⁽²⁶⁾, but however not after 30 June 2026.
- (59) If, after nine months from the 18-months deadline mentioned in recital (57) or after 30 June 2026, the installation is not yet in operation, the beneficiary loses the benefit of both the investment grant and the incentive tariff.

2.7. **Financing, budget and duration**

- (60) The total cost of the scheme is estimated at EUR 1.65 billion, including both the investment and operating support.
- (61) The investment grant will be financed through the financial resources dedicated to the Investment 1.1 ('Development of agri-voltaic systems) of Mission 2 ('green revolution and ecological transition'), Component 2 (renewable energy, hydrogen, network and sustainable transport) of the NRRP, for a total of EUR 1 098 992 050.96.
- (62) The incentive tariff will be financed by a levy on electricity consumption proportional to electricity use (the general system charges). The charges are paid by end consumers in their electricity bills. The budget of the incentive tariff is estimated at EUR 28 million per year, i.e. EUR 560 million in total. The budget has been estimated considering: a total saturation of the available capacity; a 20-years average price of energy of 70 EUR/MWh in line with the PNIEC scenarios; an average tariff of 87 EUR/MWh, assuming a distribution of the beneficiaries equal

⁽²⁶⁾ Except in case of force majeure or calamitous events ascertained by the competent authorities.

to 30% below 300 kW and 70% above 300 kW, as well as a 50% distribution between auctions and registries.

- (63) Concerning the incentive tariff, the Italian authorities explained that the entity managing the support scheme, GSE, through Energy and Environmental Services Fund (CSEA ⁽²⁷⁾), regularly informs the regulator, ARERA, which sets the general system charges ⁽²⁸⁾ and revises them every three months. The amount collected through the general system charges is transferred by CSEA in accounts managed by GSE. The use of these funds is regulated by the ARERA. The charges are paid by end consumers to their respective electricity suppliers, which in turn transfer the amounts to the electricity distributors ⁽²⁹⁾. The Italian authorities also explained that GSE is a fully public entity controlled by the Ministry of Economics and Finance, and operating under the instructions of the Ministry of Environment and Energy Security and in compliance with the deliberations issued by ARERA.
- (64) The Italian authorities stated that the proposed measure does not by itself, or by the conditions attached to it or by its financing method, constitute a non-severable violation of Union law.
- (65) The funds for the investment grant must be awarded before 31 December 2024 to respect the NRRP Milestone deadline and the installations must become operational by 30 June 2026 to reach the NRRP Target.

2.8. Transparency and cumulation

- (66) 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.
- (67) Detailed information about the projects funded will be published on a comprehensive website in order to comply with points 58 to 62 of the Guidelines on State aid for climate, environmental protection and energy 2022 (“CEEAG”) ⁽³⁰⁾. The relevant data of the measure will be published on the Italian State Aid Register ⁽³¹⁾.
- (68) Italy submitted that projects supported under the scheme are not eligible for aid under other support schemes, nor for individual aid measures.

⁽²⁷⁾ 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 then distributed to companies according to rules issued by the Regulatory Authority for Energy Networks and Environment (ARERA).

⁽²⁸⁾ Note that the charge is not only dedicated to finance the agrivoltaic scheme, but it also covers the general charges related to the support of renewable energy and cogeneration CIP 6/92 (i.e. Ministerial Decree of 4 July 2019, Ministerial Decree FER 2, net metering mechanism, etc.).

⁽²⁹⁾ Italy submitted that, by judgment of 24 May 2016, the Council of State (*Consiglio di Stato*) has clarified that the obligation to pay is on the final consumers.

⁽³⁰⁾ OJ C 80, 18.2.2022, p.1.

⁽³¹⁾ https://www.rna.gov.it/sites/PortaleRNA/it_IT/home and <https://www.gse.it/trasparenza/sovvenzioni-contributi-sussidi-vantaggi-economici>

2.9. Evaluation plan

- (69) The Italian authorities notified, together with the measure, an evaluation plan, taking into account the best practices in the Commission Staff Working Document on a Common Methodology for State aid Evaluation. The main elements of the evaluation plan are described in this section 2.9.
- (70) 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.
- (71) The questions addressing the direct effect of the aid will mainly investigate: whether the scheme has impacted beneficiaries differently; whether the scheme reached the targets established in Mission 2 of the NRRP “Green Revolution and Ecological Transition”; to what extent the scheme reached the expected effects; whether the scheme contributed to reduce greenhouse gas emissions and other environmental considerations (agricultural continuity, hydric savings, soil fertility and resilience to climate change); whether the scheme has improved the development of agrivoltaic installations.
- (72) A set of questions will address the indirect impacts of the aid (on economic growth, on employment, on other environmental objectives, on the energy consumers), as well as the appropriateness and proportionality of the aid.
- (73) 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.
- (74) Italy considers that the most suitable methodology to be applied for the purpose of the evaluation of the effectiveness of the aid scheme might be Difference-in-Differences (DiD). Successful projects in a given call could be compared, for example, over the same period, to other projects that have not been granted the aid yet, but that will be successful in the next call.
- (75) Italy will also evaluate the competitiveness of the auction, the volume tendered, and the number of participants in the auction.
- (76) The evaluation will be carried out by an independent body (consultant) selected by the Ministry of Environment and Energy Security 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 in the valuation of projects and measures. Data will be collected by the GSE mainly from aid beneficiaries, when they apply for the aid and then annually during the management of the scheme (namely, technical information on the agrivoltaic installations, energy produced, investments, operation 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.
- (77) A final evaluation report will be submitted to the Commission at the end of 2024, presenting descriptive statistics on the aid already granted and verifying the actual

suitability of the foreseen methodology. An additional evaluation report will be submitted before 30 September 2025.

- (78) The evaluation plan and the evaluation reports will be published on the website of the Ministry of Environment and Energy Security.

3. ASSESSMENT:

3.1. Presence of State Aid

- (79) 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 internal market*’.

- (80) Therefore, in order for a measure to constitute State aid within the meaning of Article 107(1) TFEU it has to fulfil four cumulative conditions. First, the aid must be imputable to the State and financed through State resources. Second, the measure must confer a selective advantage to certain undertakings or the production of certain goods. Third, the measure must be liable to affect trade between Member States. Fourth, the measure must distort or threaten to distort competition in the internal market.

3.1.1. Imputability and State resources

- (81) The Commission notes that the support to agrivoltaic installations 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 (15)) and it is established by a National Legislative Decree and a Ministerial Implementing Decree (see recital (13)).
- (82) According to the settled case law, only advantages that are granted directly or indirectly through State resources are to be regarded as aid within the meaning of Article 107(1) TFEU⁽³²⁾. 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⁽³³⁾. 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⁽³⁴⁾. Similarly, the originally private nature of the resources does not prevent them being regarded as State resources⁽³⁵⁾.
- (83) 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

⁽³²⁾ Judgment of 24 January 1978, *Van Tiggele*, 82/77, EU:C:1978:10, paragraphs 25 and 26; Judgment of 12 December 1996, *Air France v Commission*, T-358/94, EU:T:1996:194, paragraph 63.

⁽³³⁾ Judgment of 22 March 1977, *Steinike & Weinlig*, 78/76, EU:C:1977:52, paragraph 21.

⁽³⁴⁾ Judgment of 16 May 2002, *France v Commission*, C-482/99, EU:C:2002:294, paragraph 37.

⁽³⁵⁾ Judgment of 12 December 1996, *Air France v Commission*, T-358/94, EU:T:1996:194, paragraphs 63 to 65.

from the public authorities (*Vent de Colère*)⁽³⁶⁾. 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.⁽³⁷⁾

- (84) The investment grant is financed by the RRF, which constitutes State resources since Member States have discretion to decide on the use of those resources. Once awarded, the RRF funds would be directly controlled by the Italian State and the granting authority would be the Ministry for the Environment and Energy Security which is the central Administration in charge of the implementation of the national Recovery and Resilience Plan, Mission 2, Component 2, Investment 1.1 – “Agro-industrial Development” in Italy.
- (85) The part of the measure in the form of an incentive tariff aid will be financed through a levy on electricity consumption imposed by law and it will be transferred in accounts managed by GSE, a State-controlled public entity specifically appointed by the State to collect the financing and to pay out the aid amount (see recital (15) above).
- (86) On the basis of the above elements, the Commission concludes that the measure is imputable to the State and financed through State resources.

3.1.2. *Selective advantage*

- (87) The scheme favours the generation of electricity from agrivoltaic installations by the selected beneficiaries and is not accessible to other electricity producers that also produce electricity and sell it on the market (see recital (16) above).
- (88) The supported beneficiaries will receive an investment grant for the construction of their installation, which will cover part of the costs they would normally bear (see recital (26) above). The scheme also foresees a two-way CfD (see recital (27) above), on top of the investment aid. The Commission notes that the measure shelters the selected beneficiaries from price volatility and ensures stability, as they will receive a premium on top of the market price that covers the negative difference between such price and the incentive tariff (the strike price). Beneficiaries, on the other hand, will have to repay the difference between the market price and the strike price when it is positive (see recital (27)).
- (89) On the basis of the above, the Commission concludes that the measure confers a selective advantage to the beneficiaries.

⁽³⁶⁾ See judgment of 19 December 2013, *Vent de Colère*, C-262/12 EU:C:2013:851, paragraph 25.

⁽³⁷⁾ 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.

3.1.3. *Distortion of competition and effect on intra-EU trade*

- (90) In accordance with settled case law, ⁽³⁸⁾ 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.
- (91) The electricity market has been liberalised and electricity is widely traded between Member States, so that the supported producers face competition throughout the EU. In particular, Italy trades electricity with several neighbouring countries through high voltage interconnectors. For those reasons, the scheme is likely to distort competition on the electricity market and affect trade between Member States.

3.1.4. *Conclusion on the presence of State aid*

- (92) Based on the above, the Commission concludes that the scheme constitutes State aid within the meaning of the article 107 TFEU.

3.2. **Lawfulness of the aid**

- (93) By notifying the measure before its implementation (see recital (14)), the Italian authorities have respected the notification and standstill obligation laid down in Article 108(3) TFEU.

3.3. **Compatibility of the aid**

3.3.1. *Legal basis for assessment*

- (94) 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 Treaty must contribute to the development of certain economic activity ⁽³⁹⁾. Furthermore, the aid should not distort competition in a way contrary to the common interest.
- (95) In addition, the CEEAG, which specify in its point 16(a) that “*aid for the reduction and removal of greenhouse gas emissions, including through support for renewable energy and energy efficiency*”, lay down specific compatibility conditions for the compatibility of such aid.
- (96) The Commission notes that the measure aims at the reduction and removal of greenhouse gas emissions through support for renewable energy, namely agrivoltaics. The Commission has therefore assessed the measure 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.

⁽³⁸⁾ Judgment of 30 April 1998, *Het Vlaamse Gewest v Commission*, ECLI:EU:T:1998:77.

⁽³⁹⁾ Judgment of 22 September 2020, *Austria v Commission*, C-594/18 P, EU:C:2020:742, paragraphs 20 and 24.

3.3.2. *Positive condition: the aid must facilitate the development of an economic activity*

3.3.2.1. 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

- (97) 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. ⁽⁴⁰⁾ In accordance with points 23 to 25 CEEAG, 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.
- (98) Italy has explained that the scheme supports, via an investment grant and an incentive tariff, the production of energy from agrivoltaic installations (see recital (1)). Therefore, the measure contributes to the development of this economic activity.
- (99) The Commission also notes that Italy has determined, in accordance with point 25 CEEAG, how the aid will contribute to the implementation of the Union climate, environmental and environmental policy objectives and energy (see recitals (5) and (6)). More specifically, by supporting agrivoltaic installations, Italy aims at reducing the national greenhouse gas emissions, therefore contributing to the achievement of the 2030 EU and Italian decarbonisation targets.
- (100) The Commission therefore considers that the scheme facilitates the development of certain economic activities as required by Article 107(3)(c) TFEU and Section 3.1.1 CEEAG.

3.3.2.2. Incentive effect

- (101) Point 26 CEEAG explains that 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 ⁽⁴¹⁾. In other words, and as summarised in point 27 CEEAG, 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.
- (102) In order to demonstrate the presence of an incentive effect, point 28 CEEAG requires that the factual scenario and the likely counterfactual scenario in the absence of aid be identified. Furthermore, point 28 CEEAG requires the incentive effect to be demonstrated through a quantification referred to in Section 3.2.1.3

⁽⁴⁰⁾ See judgment in case C-594/18 P, *Austria v Commission*, EU:C:2020:742, paragraphs 20 and 24.

⁽⁴¹⁾ 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).

CEEAG. In this regard, 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 in the factual scenario without aid over the lifetime of the project (hence, implicitly assuming that the NPV of the counterfactual is zero).

- (103) Italy states that, in the factual scenario, the beneficiaries are expected to invest in the construction of agrivoltaic installations to generate agriculture/energy co-benefits (see recital (53)). Italy considers that the most likely counterfactual scenario in the absence of aid would be that the beneficiaries do not invest in agrivoltaic installations and continue their agricultural activities without energy production given that agrivoltaic installations are not economically viable, as evidenced by the quantifications of the reference projects submitted by Italy (see recital (53)).
- (104) More specifically, Italy has considered two main reference projects, which are two agrivoltaic installations with a capacity of 300kW and 1 MW respectively (see recital (42)). The choice of these projects allows to represent both, small installations built over agricultural areas smaller than one hectare and medium/big installations built over agricultural surface above 1 hectare. In light of the foregoing, the Commission considers the reference projects credible.
- (105) As shown in Section 2.5, the Italian authorities have provided the calculations of the NPV for each reference project and the main assumptions underlying those calculations. The Commission notes that the calculations include all main investment costs and operating costs of the projects. The Italian authorities have also duly justified the level of the WACC used. The Commission thus considers that the calculations of the NPV provided by Italy are credible.
- (106) In light of the above, and given the fact that, as shown in recital (52), the NPV of the reference projects is negative, the Commission considers that the most likely counterfactual scenario in the absence of aid would be that the beneficiary would not invest in agrivoltaic installations and continue its agricultural activities without energy production.
- (107) In this context, the Commission considers that without support under the measure the beneficiaries lack the incentives to make the investments supported by the scheme. Therefore, the requirements in points 26 to 28 CEEAG are fulfilled since the aid will trigger a change in behaviour of the aided undertakings.
- (108) Moreover, while as explained in point 29 CEEAG, aid does not normally present an incentive effect in cases where works on the project started prior to the aid application, the Commission notes that Italy confirmed that activities which started before the submission of the aid application are not eligible for aid (see recital (24)). Therefore, the requirement of point 29 CEEAG is fulfilled.
- (109) In addition, as the Italian authorities have confirmed that the application form will include the applicant's name, a description of the project, including its location and the amount of aid necessary to carry it out (recital (24)), the requirements in point 30 CEEAG are fulfilled.

(110) Finally, point 32 CEEAG provides that aid granted merely to cover the cost of adapting to Union standards has, in principle, no incentive effect. Since there is no Union standard applicable to the agrivoltaic sector, the requirements of point 32 CEEAG are fulfilled.

(111) In light of the above, the Commission therefore considers that the measure has an incentive effect.

3.3.2.3. No breach of any relevant provision of Union law

(112) 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 ⁽⁴²⁾.

(113) In the present case, Italy confirmed that the proposed measure does not by itself, or by the conditions attached to it or by its financing method constitute a non-severable violation of Union law (see recital (64)). In particular, Italy confirmed that the scheme and the conditions attached to it comply with the EU and national environmental protection rules. In addition, the Commission has no indications of any possible breach of Union law ⁽⁴³⁾ that would prevent the notified measure from being declared compatible with the internal market.

(114) 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 ⁽⁴⁴⁾. For example, in the field of energy, any levy that has the aim of financing a State aid measure and forms an integral part of that measure needs to comply in particular with Articles 30 and 110 TFEU ⁽⁴⁵⁾.

(115) 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 ⁽⁴⁶⁾. In particular, the concerned charge must be “*levied specifically and solely for the*

⁽⁴²⁾ Point 33 CEEAG, and judgment of 22 September 2020, *Austria v Commission*, C-594/18 P, EU:C:2020:742, paragraph 44.

⁽⁴³⁾ Including Directive 2014/52/EU of the European Parliament and of the Council of 16 April 2014 amending Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment (OJ L 124, 25.4.2014, p. 1–18), Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (OJ L 20, 26.1.2010, p. 7–25), Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (OJ L 20, 26.1.2010, p. 7–25), and Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy (OJ L 327, 22.12.2000, p. 1–73).

⁽⁴⁴⁾ 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.*

⁽⁴⁵⁾ Judgment of 17 July 2008, *Essent Netwerk Noord and Others*, C-206/06, EU:C:2008:413, paragraphs 40 to 59.

⁽⁴⁶⁾ 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.

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 ⁽⁴⁷⁾.

- (116) In the present case, the investment grant will be funded through resources obtained through the RRF (recital (84)), which is paid from the general State budget, and only the component of the measure granted in the form of an incentive tariff will be financed by the revenues from the levy (recital (85)).
- (117) The GSE, which will disburse the incentive tariff, will obtain part of the funds to disburse via a levy on electricity consumption, in particular on the ASOS component ⁽⁴⁸⁾ of the final customers’ electricity bill, as set out in the ARERA regulation.
- (118) However, as the Commission cannot exclude the existence of hypothecation between the levy and the aid awarded, the Commission has examined its compliance with Articles 30 and 110 TFEU.
- (119) According to case law ⁽⁴⁹⁾, a charge which is imposed on domestic and imported products according to the same criteria may be prohibited by the Treaty if the revenue from such a charge is used to support activities which specifically benefit the taxed domestic products. Such a charge would include a levy 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 this provision as regards the proportion used to offset the burden borne by the domestic products.
- (120) In line with its decisional practice ⁽⁵⁰⁾, the Commission considers the opening of the competitive bidding process to producers from other Member States and neighbouring countries as described in recital (21) to remedy any potential discrimination against Renewable Energy Sources (“RES”) producers in other Member States, under Articles 30 and 110 TFEU.

⁽⁴⁷⁾ See judgment of 22 December 2008, *Régie Networks v Rhone Alpes Bourgogne*, C-333/07, EU:C:2008:764, paragraphs 99, 100 and 104.

⁽⁴⁸⁾ The ASOS component is the component of the electricity bill that consumers pay to support renewable energy.

⁽⁴⁹⁾ 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.

⁽⁵⁰⁾ 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.

- (121) In light of the above, the Commission considers that the measure does not infringe relevant Union law, and that the requirements of point 33 CEEAG are fulfilled.

3.3.2.4. Conclusion

- (122) 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.

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

3.3.3.1. The need for State intervention

- (123) As explained in point 38 CEEAG, to demonstrate the necessity of aid, the Member State must show that the project, or 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 CEEAG or specific evidence-based analysis submitted by the Member State showing the necessity of the aid.
- (124) In addition, point 89 CEEAG states that the Member State must identify the policy measures already in place to reduce greenhouse gas emissions and 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 order to demonstrate the necessity of aid, points 38 and 90 CEEAG explain that the Member State must show that the reference project(s) would not be carried out without the aid, taking into account the counterfactual situation, as well as relevant costs and revenues including those linked to measures identified in point 89 CEEAG. In addition, point 90 CEEAG states 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. In addition, as explained in point 91 CEEAG, where the Member State demonstrates that there is a need for aid under point 90, the Commission presumes that a residual market failure remains, which can be addressed through aid for decarbonisation, unless it has evidence to the contrary.
- (125) Italy has explained that, although they have already put in place several measures aimed at meeting the Union climate objectives (see recital (10)), there are currently no measures addressing the market failure of agrivoltaic installations being not economically viable absent State aid (see recital (52)) while such installations provide benefits for the environment (see recital (6)). As explained in recital (9) above, agrivoltaic installations have not been included in more general support schemes for electricity production from renewable installations due to the additional complexity and higher costs of the agrivoltaic systems, which cater for the integration between the electricity production and the agricultural production as well as specific monitoring systems.
- (126) In addition, in order to show the necessity of the aid, Italy provided calculations of the NPV for each of the reference installations without support, as shown in Table 3 above. Italy has identified two reference projects, described in recital (104) above. The Commission recalls its analysis in recitals (105) and (106), and its conclusion

in recital (106) that, without the aid, the agrivoltaic installations would not be financially viable and the projects would not be carried out. The Commission considers that the measure hence complies with point 38 CEEAG.

- (127) The Commission notes that part of the support is granted in the form of a guaranteed remuneration. The Commission considers that the measure includes limits to profitability or clawbacks linked to positive scenarios as the guaranteed remuneration is limited to the incentive tariff that the applicant initially bids and cannot exceed. More precisely, the aid is granted in the form of a two-way CfD, which will prevent the possibility of windfall profits and overcompensation due to unexpectedly high market revenues (see recital (27)). For smaller installations below 200 kW that decide to benefit from a Feed-in Tariff rather than a two-way CfD (see recital (28)), beneficiaries directly receive the incentive tariff resulting from their bid from the GSE, which also prevents the possibility of windfall profits and unexpectedly high market revenues. Therefore, the scheme complies with point 90 CEEAG.
- (128) For completeness, the Commission notes that the scheme will run for less than three years and that the last round of tenders is expected to take place before December 2024, when RRF funds need to be granted (see recital (65)). Therefore, point 92 CEEAG does not apply to the notified measure.
- (129) In light of the above, the Commission therefore considers that the measure is necessary to support these agrivoltaic installations.

3.3.3.2. The appropriateness of the aid

- (130) Point 39 CEEAG explains that the proposed aid measure must be an appropriate policy instrument to achieve the intended objective of the aid, that is to say, there must not be a less distortive policy aid instrument capable of achieving the same results. Moreover, point 93 CEEAG provides that the Commission presumes the appropriateness of aid for achieving decarbonisation goals – and therefore of aid for renewable energy technologies to reduce greenhouse gas emissions – provided all other compatibility conditions are met.
- (131) Since as exposed above in Section 3.3.1 and 3.3.2 and below in Sections 3.3.4, 3.3.5, and 3.3.6, all other compatibility conditions are met, the Commission therefore considers that the measure is an appropriate instrument to support the targeted economic activity and to achieve the decarbonisation goals.

3.3.3.3. Eligibility

- (132) 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 reasons for measures which do not include all technologies and projects that are in competition. 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.
- (133) As described in recital (10), the measure supports energy production from agrivoltaic installations linked to measure 1.1 ‘Agro-industrial development’,

belonging to mission 2 component 2 of Italy's NRRP. The aim of the measure is to favour the diffusion of agrivoltaic plants to increase the competitiveness of the Italian agricultural sector, reducing energy costs and improving its environmental performances, in order to generate agriculture/energy co-benefits.

- (134) The Commission notes that scheme's eligibility is limited to a single renewable energy technology, i.e., the agrivoltaic technology. The Italian authorities have explained that the limited eligibility is justified by the additional complexity and higher costs of the agrivoltaic systems compared to standard photovoltaic installations, which cater for the integration between the electricity production and the agricultural production as well as specific monitoring systems (see recital (7)). As explained in recital (11), traditional photovoltaic installations present significantly lower investment costs, while agrivoltaic installations are still characterised by high costs and, in the current market conditions, are not yet profitable.
- (135) In addition, the Commission also notes that the Italian authorities consider this innovative technology to have the potential to make an important and cost-effective contribution to the environmental protection and deep decarbonisation objectives of the EU, as it allows to unlock arable land as suitable ground for PV installations (see recital (12)), thus increasing the potential for renewable energy sources in Italy.
- (136) Therefore, the measure falls within the provision referred to in letter (d) of point 96 CEEAG as a technology that has the potential to make an important cost-effective contribution to environmental protection and deep decarbonisation in the longer term.
- (137) In view of the limited duration for granting the scheme, the Commission considers that the reasons provided to justify the more limited eligibility will most likely continue to apply for the duration of the scheme.
- (138) The Commission therefore considers that the restricted eligibility criteria for the measure are justified.

3.3.3.4. The proportionality of the aid

- (139) Point 47 CEEAG explains that State aid is considered to be proportionate if the aid amount per beneficiary is limited to the minimum needed for carrying out the aided project or activity. Point 103 CEEAG states 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.
- (140) In this regard, point 49(a) CEEAG notably provides that to be competitive the bidding process should be 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. Points 49(c) and 103 CEEAG further specify that 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, that the expected number of bidders is sufficient to ensure effective competition and that 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. In addition, 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. However, the bidding process can be limited to one or more specific categories of beneficiary where evidence is provided that there is significant deviation between the bid levels that different categories of beneficiaries are expected to offer. Moreover, 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.

- (141) Point 106 CEEAG explains that, where the analysis required under point 90 shows that 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.
- (142) 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 the CEEAG.
- (143) In the present case, first of all, as aid under the measure will be granted based on a bidding process, the Commission has verified whether this bidding process would qualify as a competitive bidding process as described in points 49 and 50 CEEAG.
- (144) Italy confirmed that the bidding process will be carried out in an open, clear, transparent and non-discriminatory manner, based on objective criteria, defined ex ante in accordance with the objective of the measure and minimising the risk of strategic bidding (see recital (54)). As described in recital (29), 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. Therefore, the Commission considers that the measure complies with point 49(a) CEEAG.
- (145) In addition, each tender will be open for 60 days (see recital (25)), 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.
- (146) The Commission also notes that a tender for each of the two categories of installations is envisaged in 2024 and that, if there is residual unallocated quota, other tenders could be held in the following months (see recital (39) above). In each round, a quota of production capacity will be made available, and applicants will be selected until the quota allocated to the round is exhausted. Nonetheless, the Italian authorities expect to exhaust the whole capacity available in the first round of tenders (see recital (39)). Italy indeed submitted that, from consultations with trade associations, in the energy and agricultural sector as well as specific agrivoltaic associations (see recital (36)), it emerged that the demand will be higher than 20 GW, showing the increasing interest for this type of technology, while 1.04 GW will be auctioned in total. As detailed in recital (37) and footnote 18, for large

projects of more than 10 MW, Italy has already received interest for 21.5 GW of capacity and had already provided a positive opinion for around 60 requests for a capacity of 2.2 GW already in December 2022, which is already sufficient to ensure that there would be sufficient participants to cover at least 1 GW. In addition, Italy expects interest from smaller installations for which Italy does not have consolidated data at national level.

- (147) Moreover, the Commission notes that, although Italy considers that the number of bidders is expected to be higher than the estimated number of successful bidders in both tenders, as explained in recital (43), Italy will take remediation measures in case of repeated undersubscribed bidding processes, in particular through the revision of the reference tariffs as well as through the adjustment of the tendered production capacities. This modification will be applied to the procedures following the adoption of the modifications themselves.
- (148) In view of the above, the Commission considers that the measure complies with point 49(c) CEEAG.
- (149) Italy has confirmed that the selection process does not allow for any ex-post adjustments to the bids made in the bidding process, in line with point 49(d) CEEAG (see recital (55)).
- (150) The selection criteria used for the ranking is the percentage of reduction proposed by the applicant compared to the reference tariff applicable to it (see recital (28)). This percentage sets the level of the incentive tariff (the strike price) requested by the applicant, which is expressed in EUR per MWh. As the objective of the scheme is the production of renewable energy from agrivoltaic installations, 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.
- (151) Tenders will be open to all participants that satisfy the admission criteria (see recital (17) above) in line with point 104 CEEAG.
- (152) As explained in recital (23), Italy has introduced two auctions and different reference tariffs based on the size of installations. As shown in Table 3, the two sizes of installations have a significant cost difference, due to economies of scale for the larger installations, so that there is a significant deviation between the bid levels that these two categories of beneficiaries are expected to offer. Therefore, the Commission considers that separate bidding processes can be carried out for different types of installations, in accordance with point 104(b) CEEAG.
- (153) In line with point 106 CEEAG and to reduce the risk of overcompensation of the cheapest category, i.e., the larger installations, Italy has decided to set different bid caps (based on different reference tariffs) depending on the size of installations, namely below or equal to 300 kW and above 300 kW, on the basis of which applicants bid a percentage discount (see recital (29)). The bid caps have been set with reference to the quantification of the relevant reference projects, as detailed in Section 2.5.2.
- (154) The Commission notes that the bid caps are not expected to unduly restrict the auctions, as the bid caps have been calculated on the basis of quantifications of reference projects (see recital (48)). In any event, the Italian authorities have

confirmed that they will take corrective measures in case of repeated undersubscribed bidding processes, in particular through the revision of the reference tariffs as well as through the adjustment of the tendered production capacities (see recital (41)).

- (155) The support granted is a combination of the investment grant and the incentive tariff. The selection of a beneficiary through the bidding process gives the right to both forms of aid (except for beneficiaries whose installations would be located abroad and who can only access the incentive tariff, as explained in recital (21)), which constitute the overall incentive. The level of the incentive tariff is directly established via the bidding process where successful participants will receive the incentive tariff for which they bid. Although the amount of investment grant is not directly determined through the competitive bidding process, the Commission considers that it actually forms part of the bid of the applicant. Indeed, when setting its bid, the Commission expects that the applicant will take into account the expected level of investment grant and deduct it from the overall costs used to define the appropriate level of incentive tariff needed. Furthermore, the Commission notes that when establishing the bid caps, Italy took into account the amount of investment grant to be received under the scheme (see recital (46)), so that applicants would also need to take into account the investment grant to be received in their bid to be able to participate into the tender and offer a competitive bid. This consideration is further reinforced by the fact that Italy has confirmed that the auctions will not have a price floor (see recital (56)).
- (156) The scheme also envisages correction factors for the incentive tariff to compensate for the different level of productivity of the installations with respect to their location. The Commission notes that these factors can guarantee a greater and more balanced spread of the installations across Italy and other countries (see recital (45)), thus compensating for the high energy demand in the Northern regions despite the higher productivity, given the meteorological conditions, in the Southern regions. Moreover, the correction factors contribute to the stability of the network and to the reduction of the costs of system integration, avoiding improper burdens of possible network congestion, thus leading to lower costs for achieving environmental protection, as provided in point 96 (e) and (f) CEEAG.
- (157) The Commission notes that the selection is based on the incentive tariff (strike price of the two-way CfD), which internalises expectations on the investment grant.
- (158) The Commission also notes that the fact that there is a cap on the maximum amount of eligible investment costs (see Table 1) can have an impact on the bids placed by undertakings regarding the incentive tariff, which can be seen as equivalent to an implicit bid cap. For instance, an undertaking with high investment costs exceeding the caps may need a higher level of incentive tariff payments to reach the same profitability as an undertaking with investment costs that are below the caps. Although this undertaking may need the same overall amount of aid as an undertaking with lower investment costs, the implicit bid cap related to eligible investment costs may distort its bid for the incentive tariff on which basis they will be selected. This may have an effect on the participation of certain undertakings to the bidding procedure as well as favour certain categories of undertakings.

- (159) In this respect, Italy explained that this should ensure the selection of the most cost-effective projects and to reach a minimum amount of capacity supported. The Commission considers that in view of the element above and in view of the expected level of competition within the tenders, the risk of distortion of competition resulting from these implicit bid caps is likely to be limited to a minimum.
- (160) With regard to cumulation, point 56 CEEAG provides that “[a]id may be awarded concurrently under several aid schemes or cumulated with ad hoc or de minimis aid in relation to the same eligible costs, provided 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 these guidelines. If the Member State allows aid under one measure to be cumulated with aid under other measures, then it must specify, for each measure, the method used for ensuring compliance with the conditions set out in this point”. Moreover, point 107 CEEAG explains that “[c]entrally managed Union funding that is not directly or indirectly under the control of the Member State, does not constitute State aid. Where such Union funding is combined with State aid, it has to be ensured that the total amount of public funding granted in relation to the same eligible costs does not lead to overcompensation”.
- (161) As aid under the scheme cannot be combined with other public incentives or support schemes intended for the same eligible costs (see recital (68)), the scheme therefore complies with points 56 and 57 CEEAG.
- (162) In light of the foregoing, the Commission considers that aid granted under the measure is proportionate.

3.3.3.5. The transparency of the aid

- (163) Italy has ensured to comply with the requirements laid down in points 58 to 61 CEEAG, as indicated in recitals (66) and (67). The relevant data of the measure will be published on the Italian State Aid Register.

3.3.3.6. Avoidance of undue negative effects of the aid on competition and trade

- (164) Point 114 CEEAG provides that “[w]ith the exception of point 70, Sections 3.2.2 and 3.3 do not apply to measures for the reduction of greenhouse gas emissions”. Point 70 CEEAG explains that the Commission will approve measures under CEEAG for a maximum period of 10 years. As stated in recital (65), aid can be granted under the scheme until the end of 2024. Therefore, the scheme complies with point 70 CEEAG.
- (165) 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. Points 127 to 129 CEEAG provides that Member States to explain how they intend to avoid the risk that the aid ultimately stimulates or prolongs the consumption of fossil-based fuels and energy.
- (166) The Commission notes that, as explained in recital (6), the measure promotes the development of agrivoltaic installations and the production of renewable energy in order to reduce overall greenhouse gas emissions. The Commission notes that the measure exclusively aims at supporting renewable energy, and that it does not

stimulate or prolong the consumption of energy from fossil fuels and does not incentivize energy or industrial production based on natural gas. The Commission thus considers that the measure complies with points 116, 127 and 129 CEEAG.

- (167) 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.
- (168) The Commission notes that Italy has set clear deadlines for project delivery and has put in place a suitable penalty system to ensure that projects will actually be developed (see recitals (57) to (59)). In addition, Italy will apply certain pre-qualification requirements, as applicants must have obtained a permit for the construction and operation of the installation and submit it in their application (see recital (17)). Therefore, the Commission considers that the scheme complies with point 120 CEEAG.
- (169) Point 121 CEEAG explains that aid which covers costs mostly linked to operation rather than investment should only be used where the Member States demonstrate that this results in more environmentally friendly operating decisions. Point 122 CEEAG states 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.
- (170) As mentioned in recital (3), the measure is characterised by the combination of the two forms of support, investment grant and incentive tariff. The Commission notes that the aid covers both the costs linked to the investment and the operation. However, it is not meant to cover costs mostly linked to operations. As shown in Table 3, investment costs represent the most significant part of the costs of the installations. Therefore, the Commission considers that the scheme complies with points 121 and 122 CEEAG.
- (171) Point 123 CEEAG provides that the aid must be designed to prevent any undue distortion to the efficient functioning of markets and, in particular, preserve efficient operating incentives and price signals. The Commission notes that the incentive tariff is granted in the form of a two-way CfD (see recital (27)), which thus maintains the appropriate price signals. The Commission notes that for smaller installations below 200 kW, the scheme provides that beneficiaries can instead directly receive the incentive tariff resulting from their bid from the GSE (see recital (28)), and that this is in line with footnote 70 CEEAG ⁽⁵¹⁾. Indeed, in such case, which involves small-scale installations under the meaning of footnote 70 CEEAG, the GSE would be in charge of selling energy and would keep the potential benefits resulting from unexpectedly high market revenues (see recital (28)). The Commission also notes that the payment of the tariff will be suspended in case the electricity market price falls at or below zero (see recital (34)). Therefore, the scheme complies with point 123 CEEAG.

⁽⁵¹⁾ Footnote 70 CEEAG provides that "[s]mall-scale renewable electricity installations may benefit from direct price support that covers the full costs of operation and does not require them to sell their electricity on the market, in line with the exemption in Article 4(3) of Directive (EU) 2018/2001. Installations will be considered as small-scale if their capacity is below the applicable threshold in Article 5 of Regulation (EU) 2019/943".

- (172) In addition, the Commission notes that, in line with point 126 CEEAG, incentives under the scheme are provided for the generation of electricity from agrivoltaic installations, which thus do not displace less polluting forms of energy.
- (173) 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.
- (174) The Commission notes that, as the measure only targets agrivoltaic installations, which is a renewable energy source, 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.
- (175) 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 CEEAG. The Commission has not identified specific risks of additional competition distortions. The Commission however positively notes that Italy has committed to carry out an *ex-post* evaluation of the scheme, as described in Section 2.9.
- (176) 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.
- (177) The Commission considers that the measure is intended to support a large number of beneficiaries, of different sizes, so that it is not expected that the scheme will benefit a particularly limited number of beneficiaries or an incumbent beneficiary (see recital (36)). In any event, the Commission notes that the choice of introducing a separate tender as well as a specific reference tariff for small installations is a way to ensure that small installations can benefit from the support and therefore to limit concentration of the market.
- (178) On the basis of the conclusions presented above, the Commission considers that aid granted under the measure avoids undue negative effects on competition and trade.

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

- (179) Point 134 CEEAG states that, provided that all other compatibility conditions are met, the Commission will typically find that the balance for decarbonisation measures 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.

- (180) The Commission also 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 scheme will help Italy to reach the 2030 EU targets on renewable energy.
- (181) In addition, as the measure is in line with the measures set by the NRRP as approved by the Council, its compliance with the 'do no significant harm' principle is considered fulfilled.
- (182) Based on the above, the Commission concludes that the distortions to the internal market are outweighed by positive effects.

3.3.5. *Companies in difficulty or subject to outstanding recovery orders*

- (183) As explained in recital (18) and (20), Italy took the engagement not to award aid under the present measure to undertakings in difficulty and to undertakings that are subject to an outstanding recovery order following a previous Commission decision declaring an aid illegal and incompatible with the internal market, until the total amount of illegal and incompatible aid has been recovered. ⁽⁵²⁾
- (184) Based on the above, the Commission concludes that the measure complies with points 14 and 15 CEAAG.

3.3.6. *Evaluation plan*

- (185) Although the total duration of the scheme does not exceed three years, the Commission positively notes that the Italian authorities submitted an evaluation plan in the context of the notification of the scheme.
- (186) 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 2.9).
- (187) The Commission notes that:
- (a) The plan 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;
 - (b) The Italian authorities committed that the evaluation will be conducted according to the notified evaluation plan by an independent evaluation body in accordance with the criteria laid down in the evaluation plan;
 - (c) The proposed modalities for the publication of the evaluation results ensure transparency;

⁽⁵²⁾ See judgment of the Court of First Instance of 13 September 1995, *TWD v Commission*, T-244/93 and T-486/93, ECLI: EU:T:1995:160, paragraph 56. See also Communication from the Commission — Commission Notice on the recovery of unlawful and incompatible State aid (OJ C 247, 23.7.2019, p. 1).

- (d) Italy will submit to the Commission a final report by the end of 2024 and an additional evaluation report by 30 September 2025.

3.3.7. *Conclusion on the compatibility of the measure*

- (188) In light of the foregoing, 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 under the relevant points of the CEEAG.

4. AUTHENTIC LANGUAGE

- (189) As mentioned in recital (2), Italy has 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

Didier REYNDERS
Member of the Commission