



EUROPEAN COMMISSION

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Subject: State Aid SA.53347 (2019/N) – Italy – Support to electricity from renewable sources 2019-2021

Excellency,

1. PROCEDURE

- (1) On 29 January 2019, Italy notified its support scheme to electricity from renewable energy sources (RES) for the period 2019-2021, pursuant to Article 108(3) of the Treaty on the Functioning of the European Union (TFEU). Italy sent supplementary information on 4 February 2019, and the Commission sent a request for additional information on 26 February 2019. The parties held three meetings between March and May 2019. Italy replied to the request for additional information on 10 and 23 May 2019, and on 7 June 2019.
- (2) On 9 May 2018 the Commission received observations by Emergya Wind Technologies B.V. (“EWT”) which was registered under SA.51409 (2018/MI). EWT sent additional information on 12 June 2018. On 23 January 2019 the Commission also received information by a market player who requested anonymity.
- (3) On 18 February 2019 the Commission received a formal complaint by EWT. This complaint was registered under SA.53347 and is assessed in the context of the present decision.
- (4) The Commission also received between January and May 2019 the following submissions from companies and business associations active in the renewable energy sector in Italy, regarding different aspects of the support scheme:

On. Enzo Moavero Milanesi
Ministero degli Affari Esteri
e della Cooperazione Internazionale
Piazzale della Farnesina, 1
00135 Roma

- on 31 January and 6 February 2019 by the European Geothermal Energy Council (“EGEC”);
 - on 7 February 2019 by a market player who requested anonymity;
 - on 12 February 2019 by Elettricità Futura and AssImpIdro;
 - on 22 February by Anie – Federazione Nazionale Imprese Elettrotecniche ed Elettroniche;
 - on 12 March and 21 March 2019 by Assoidroelettrica;
 - on 22 March and 11 May 2019 by Free Rivers Italia, and on 30 May and 5 June 2019 by Free Rivers Italia, jointly with Legambiente and the Centro Italiano per la Riqualificazione Fluviale;
 - on 19 April 2019 by another market player who requested anonymity;
 - on 7 June 2019 by FederIdroelettrica.
- (5) The Commission forwarded the complaints and all the submissions to the Italian authorities on 26 February 2019, 4 April 2019, 12 April 2019, 16 May 2019 and 11 June 2019, and it received their comments on 10 May 2019 and 12 June 2019.
- (6) On 23 May 2019, the Italian authorities have waived their right under Article 342 TFEU in conjunction with Article 3 of Regulation (EEC) No 1/1958 and agreed that the decision in procedure SA.53347 be adopted and notified in English.

2. DESCRIPTION OF THE MEASURE

2.1. Background and objective

- (7) The notified scheme consists in operating aid for the production of electricity from installations using the following renewables technologies: onshore wind, solar photovoltaic (PV), hydroelectric, and sewage gases.
- (8) The objective of the measure is to increase the level of environmental protection through the development of renewable energy technologies. Italy explained that, in view of the current features of the energy market, the production of electricity from the abovementioned renewables technologies is not sufficiently profitable in order to cover their investment and operating costs. It is therefore necessary to grant those technologies a premium on top of the market price in order to promote their development. The adoption of the measure is necessary to help Italy to reaching the 2020 and 2030 EU targets on renewable energies.
- (9) Italy intends to subsidise around 8000 MW of capacity from the renewable technologies mentioned in recital (7) above. The additional supply from renewable energy sources brought about by the measure is estimated at 12 TWh, to be reached once and if all the supported installations are fully operational.
- (10) The notified measure aims to support relatively mature technologies, namely those technologies with rather stable and relatively low costs. In particular, the Italian authorities have decided to include PV in the scope of the notified scheme,

because the deployment rate of PV without subsidies (around 400 MW per year) is ten times lower than the one necessary to achieve the 2030 renewables targets. Italy explained that, in line with the proposed National Energy and Climate Plan, *Piano Nazionale Integrato Energia Clima* (PNIEC), it intends to adopt a second scheme in the future, for the purpose of supporting other renewable technologies characterized by higher costs. Such second scheme does not fall within the scope of the present decision.

2.2. Beneficiaries

- (11) The beneficiaries of the notified scheme are installations producing electricity from onshore wind, PV, hydroelectric and sewage gases. The measure applies to newly built installations, and, at given conditions, entirely rebuilt, brought back into service, repowered, and installations subject to partial or total refurbishments. An exception applies to PV installations, which are eligible only if newly constructed. In this regard, Italy explained that, given the land-consuming nature of PV installations, the measure intends to support the use of last generation components in order to maximize productivity per surface area.
- (12) The following new and refurbished hydropower generators are eligible to apply for support under the notified scheme:
 - (a) Installations not deteriorating the status of surface water or groundwater nor preventing the achievement of good ecological status or potential in accordance with the conditions of Article 4, paragraph, 1 letter a) of the Water Framework Directive (the “WFD”)¹.
 - (b) Installations which have been granted concessions for water services in strict compliance with the requirements of the technical guidelines (Decrees STA 29/2017 and STA 30/2017) of February 2017, and therefore in compliance with Article 4(7) of WFD. Those guidelines have set forth, for the first time, at national level, homogenous scientific criteria to determine how to maintain the good status of the body of water (the “2017 National Guidelines”). Any hydropower installation that does not strictly comply with the 2017 National Guidelines is not considered to respect Article 4(7) of the WFD and therefore cannot be eligible to apply for support under the notified scheme.
- (13) The notified scheme foresees two different procedures for the selection of the beneficiaries, namely descending auctions or the inclusion in dedicated registries, depending on the size of the installations. The selection procedures are described in detail in section 2.3 below. Installations located in the territory of other Member States of the European Union (or in a nearby Country with which a free trade agreement is in force) will be allowed to participate in the auction procedures, subject to the following conditions:
 - the existence of a cooperation agreement with the Member State or Country where the installation is located;

¹ 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

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

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

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

- (15) The Italian authorities have clarified that subsequent capacity increases of an installation will only be eligible under the notified scheme if minimum three years elapse between one capacity increase and another.
- (16) Installations that were eligible and have already applied for aid under the 2016 renewables support scheme² (the “2016 RES Scheme”), but were not selected, are eligible to participate in the notified scheme (“the installations eligible under the 2016 RES Scheme”).

2.3. Procedures for the selection of beneficiaries

- (17) The notified scheme foresees several selection procedures, which should take place every four months. The type of selection procedure differs depending on the size of the investment. The Italian authorities have explained that the final decision on the number of procedures and respective capacity to be awarded has not yet been taken.
- (18) Project promoters will have to apply for aid under the notified scheme by means of an application form. The Italian authorities have explained that new projects cannot start works before being selected for funding under the scheme, both in case of auctions and registries. The Italian authorities also explained that some installations eligible under the 2016 RES Scheme have already started works. In this respect, the Italian authorities confirmed that, as those installations did not receive aid under the 2016 RES Scheme, they interrupted any construction activity and will not complete those works in the absence of aid. The Italian authorities have also provided cash flows of standard existing installations showing that the production costs of electricity from renewable energy sources are higher than the revenues that these installations can obtain from the market.

² Commission Decision of 28 April 2016 in case SA.43756 Support to electricity for renewable sources in Italy, OJ C 258/16

2.3.1. Auctions

- (19) Installations with nominal power equal or above 1 MW are selected through descending auctions. Installations with an installed capacity between 20 and 500 kW can make aggregated bids in the auction, provided that they belong to the same basket (see recital (20) below) and their aggregated nominal power exceeds 1 MW. This provision aims to encourage investments on projects that benefit from economies of scale.
- (20) The total capacity reserved for auctions amounts to 6230 MW, divided into three baskets as shown in Table 1 below.
- The first basket includes onshore wind and PV installations. According to the Italian authorities, these two technologies are able to compete with each other and place similar offers because they display similar costs and have shown a stronger potential to reduce costs. In addition, these sources present a high degree of variability;
 - the second basket includes hydropower and sewage gases installations. According to the Italian authorities, these technologies have a cost structure similar to those included in the first basket, but present a lower potential in terms of costs reductions and deployment within the Italian territory. They are also characterized by a lower degree of variability;
 - the third basket includes installations that will undergo a partial or total refurbishment with the exclusion of PV installations.
- (21) The Italian authorities have justified the choice of renewables technologies eligible to participate in the scheme based on the need to achieve diversification. The Italian authorities have explained that the technologies not included in the scheme are characterised by higher costs as compared to the ones that are included. For this reason, they would not be able to compete in technology neutral tenders (see recital (10) above). In particular, the Italian authorities have highlighted the limited potential of offshore wind projects due to characteristics of the seabed in the Italian territory and of the climate. Similarly, in the view of the Italian authorities, biomasses and biogases installations are also characterised by a high cost structure, still comparable, according to operators, to the one foreseen in the 2016 RES Scheme. As regards the geothermal technology, Italy has explained that it is currently developing new requirements to improve the environmental performance of those plants, taking into account the environmental regulation adopted by the Tuscany Region,³ where the majority of new investments are expected. Compliance with those requirements would increase the costs of geothermal installations. In the opinion of the Italian authorities, especially for geothermal installations of more than 10 MW which were already characterised by relatively high costs in the 2016 RES Scheme, those extra-costs will likely exceed all reference tariffs foreseen in the notified scheme for other technologies of similar size. The Italian authorities also consider that some technologies, such as concentrated solar power and geothermal technology with

³ In particular, Law of the Tuscany Region of 5 February 2019, no. 7 and deliberation of the Tuscany regional council n. 344/2010.

zero emissions, are at early stages of development with very few or no projects approved and are therefore not sufficiently mature.

- (22) Italy has explained that new PV and wind installations that are expected to participate in the auctions represent an overall nominal power of around 20 000 MW, thus by far exceeding the available capacity in Basket A (see Table 1 below). Similarly, the power capacity totalled by new installations powered by technologies included in Basket B (hydropower and sewage gases) amounts to around 1 100 MW, sensibly higher than the capacity made available in that Basket (see Table 1 below). Therefore, Italy expects that a sufficiently large number of tenderers will come forward to ensure a sufficient level of competition in the tendering procedure.
- (23) The request to participate in the auction procedure has to include the indication of the offered reduction in percentage terms, starting from the reference tariffs indicated in Table 3, Table 4 and Table 5 below. Bidders are ranked based on the reduction offered.
- (24) The minimum reduction allowed is 2% whereas the maximum rebate that can be offered is capped at 70% of the reference tariff. Italy has explained that the 70% floor was introduced in order to avoid unrealistic offers to take up available capacity in the auctions, as this might pose a threat to the objective of the scheme. In addition, Italy explained that 70% of the reference tariffs (EUR 21/MWh for the first basket, and EUR 24/MWh for the second basket) would be considerably below the current market price as well as any electricity prices ever observed in the Italian market. If a given auction clears at the floor, for the subsequent auction the 70% floor will be increased to 80%. The same methodology will be applied to the subsequent auctions.

2.3.2. Registries

- (25) The selection procedure for projects with an installed electricity capacity of less than 1 MW is based on specific criteria, mainly of environmental nature and, only secondarily, on economic criteria.
- (26) The Italian authorities have clarified that, under the notified scheme, subsequent investments on the same installation can apply for support under the registries if their total combined capacity is less than 1 MW. According to Italy, this requirement and the one referred to in recital (15) above, prevents the artificial split of projects.
- (27) Installations smaller than 20 kW can also participate in the registries by aggregating their bids if their aggregated capacity is lower than 1 MW.
- (28) The amount of capacity available for the registries is divided into the same baskets as for auctions, except for the addition of one further basket for PV installations on roofs of buildings, including rural buildings, with asbestos to be removed.
- (29) The reference tariffs applicable to installations participating in the registries are indicated in Table 3, Table 4 and Table 5 below.

2.3.3. Available capacity for each selection procedure and basket

- (30) Table 1 shows the indicative amount of power capacity available for each selection procedure and basket. As mentioned in recital (17) above, a final decision on the number of selection procedures and power capacity available for each of them has not been taken yet.

Table 1

Nr. of procedure	Basket A MW	Basket A-2 MW	Basket B MW	Basket C MW
<i>Auctions</i>				
1	500	N.A.	10	60
2	500	N.A.	10	60
3	700	N.A.	10	60
4	700	N.A.	10	60
5	700	N.A.	10	80
6	800	N.A.	20	100
7	800	N.A.	20	100
8	800	N.A.	20	100
<i>Registries</i>				
1	45	100	10	10
2	45	100	10	10
3	100	100	10	10
4	100	100	10	10
5	120	100	10	20
6	120	100	10	20
7	120	100	10	20
8	120	100	10	20

- (31) The notified scheme foresees power reallocation mechanisms for the purposes of exploiting the available power and of differentiating the sources of supply. The first mechanism allows the transfer of unused capacity from a basket to another in the context of the registries, in case there is respectively a lack of applications in one basket and an excess in another. Under the second mechanism, unused capacity from earlier procedures is transferred to the subsequent one, both for auctions and for registries. Finally, the third mechanism reserves a minimum percentage of the available capacity for each technology (up to maximum 30%), under certain cumulative conditions,⁴ in order to achieve diversification and grid stability even between technologies in the same basket. This mechanism only applies with regard to auctions for new installations and from the third selection procedure onwards.

⁴ First, the total amount of capacity of installations having participated in the selection procedure exceeds 130% of the total available capacity for each basket. Second, more than 70% of that capacity for each baskets comprises installations of one technology and the extra offered capacity from the other technology exceeds 20% of the total available capacity. Third, the average rebates of the latter technology is at least half of the average rebates of the former technology.

2.4. Remuneration

- (32) The remuneration is granted as a premium for each kWh of electricity produced and injected into the network. The premium amounts to the difference between the reference tariff adjusted for the rebate and the market price. The measure foresees a “two ways contract for difference”: beneficiaries will either receive a feed-in premium on top of the market price or repay the difference between the market price and the reference tariff adjusted for the rebate if it is positive.
- (33) The remuneration will be paid for a period corresponding to the average lifetime of the installations covered by the scheme, as shown in Table 3, Table 4 and Table 5, that is to say until the installation is fully depreciated according to normal accounting rules.
- (34) Generators benefitting from the measure are 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”).⁵
- (35) The payment of the premium is suspended in case the electricity market price falls at or below zero⁶ for more than 6 consecutive hours. Periods in which the payment of the premium is suspended are not taken into account to compute the duration of the support.
- (36) The notified scheme foresees deadlines for the entry into operation of successful installations, depending upon the selection procedure and the type of installation. Penalties are foreseen in case of failure to abide by the indicated deadlines.

2.4.1. Premium

- (37) As explained in Sections 2.2.1. and 2.2.2. above, the starting point for calculating the premium are the reference tariffs established by the notified scheme (see Table 3, Table 4 and Table 5 below). Under the auctions procedure, participants must offer a rebate on those tariffs. Therefore, selected beneficiaries will receive a premium corresponding to the difference between the market price and the reference tariff adjusted for the rebate. Under the registries procedure, participants are ranked based primarily on other parameters, and, secondarily, on the (optional) rebate offered, which will correspond to the premium.
- (38) The starting point to calculate the remuneration applicable to installations entirely rebuilt, brought back into service, repowered, and refurbished, is the premium for new installations as described in recital (37) above multiplied by a coefficient (maximum 0.9), which can vary based on the type of intervention.⁷ In case of refurbishment, the coefficient is the ratio between the average cost of the intervention and the average cost of a new installation of the same technology and

⁵ See decision 522/2014/R/EEL of the ARERA available at: <http://www.autorita.energia.it/it/docs/14/522-14.htm>

⁶ When negative prices are introduced in the Italian electricity market.

⁷ The methodology to calculate the premium is described in detail in Annex 2 of the Ministerial Decree of 23 June 2016.

size. In that case, the Italian authorities have confirmed that installations are also subject to an *ex post* check of the actual costs incurred and that the remuneration is adjusted accordingly.

- (39) For the purpose of the notified scheme, the average investment costs of refurbishment for each technology are based on the investment costs indicated in the 2016 RES Scheme, decreased by 10%. Table 2 below indicates the 2016 average investment costs based on each technology and on the installation's nominal power.

Table 2: Average investment costs (source: Italian authorities)

Technology type	Technology sub-type	Power (P)	Average investment costs, Cr
		kW	EUR/kW
Wind power	On-shore	1<P≤20	3 300
		20<P≤200	2 700
		200<P≤1000	1 600
		1000<P≤5000	1 350
		P>5000	1 225
	Off-shore	1<P≤5000	-
Hydropower	Run-on-river	1<P≤20	4 500
		20<P≤500	4 000
		500<P≤1000	3 600
		1000<P≤5000	2 800
		P>5000	2 700
	With storage	1<P≤5000	2 300
		P>5000	2 200
Sewage gases		1<P≤1000	3 900
		1000<P≤5000	3 000
		P>5000	3 000

- (40) Generators with an installed capacity lower than 250 kW can choose a feed-in tariff. In that case, they are obliged to sell their electricity to the Gestore dei Servizi Energetici ('GSE'), which resells the electricity on the market. The feed-in tariff corresponds to the reference tariffs and is granted until the installation is fully depreciated according to normal accounting rules.

2.4.2. Reference tariffs

- (41) The reference tariffs applicable to eligible new installations under the notified scheme are indicated in Table 3, Table 4 and Table 5 below. Tariffs are calculated based on an estimation of the average total levelised costs of electricity ("LCOE") of the relevant technology in question, including a fair return on investment. According to Italy, the average rate of return is between 5 and 7.9%, depending on the technology and the size of the installation.

Table 3: estimated LCOE and average lifetime of installations – Wind power (source: Italian authorities)

Technology	Wind power						
Power	1≤P<100			100≤P<1000		P≥1000	
	New	Regenerated	Self consumption	New	Regenerated	New	Regenerated
Average project lifetime (years)	20	20	20	20	20	20	20
Average load factor (%)	23	23	23	25	25	25	25
Energy generated (MWh/year)	200	200	200	1.760	1.760	55.000	55.000
Rate of discount	5,0	5,0	5,0	5,0	5,0	5,0	5,0
Specific investment costs (€/KW)	2.600	1.690	2.600	1.700	1.190	1.200	1.080
Operational costs (€/KW)	58	70	58	38	46	30	36
Specific fuel costs (€/t)	-	-	-	-	-	-	-
Share of capital costs (€/MWh)	114	76	114	68	48	48	43
Share of O&M costs (€/MWh)	34	41	34	20	24	16	19
Share of fuel costs (€/MWh)	-	-	-	-	-	-	-
Expected return (%)	5,2	5,6	5,6	5,4	5,1	5,8	6,5
LCOEs including IRR (€/MWh)	150	120	150	90	72	66,7	66,7
Tariff (€/MWh)	150	120	150	90	72	66,7	66,7
Energy market price (€/MWh)	60,5	60,5	60,5	60,5	60,5	60,5	60,5
Premium (tariff – energy price) (€/MWh)	89,5	59,5	89,5	29,5	11,5	6,2	6,2
Net present value without premium (€)	-189.162	- 119.223	- 125.058	- 526.178	- 193.865	-2.070.864	-1.064.306
Net present value with premium (€)	3.037	6.123	9.482	30.991	4.296	1.576.849	2.554.768

Table 4: estimated LCOE and average lifetime of installations – Hydropower and sewage gases (source: Italian authorities)

Technology	Hydropower (run-on-river)			Hydropower (with storage)		Sewage gases		
Power	1≤P<400	400≤P<1000	P≥1000	1≤P<1000	P≥1000	1≤P<100	100≤P<1000	P≥1000
Average project lifetime (years)	20	25	30	25	30	20	20	20
Average load factor (%)	55	52	58	29	32	80	80	63
Energy generated (MWh/year)	483	3.199	10.080	1.250.000	56.000	700	3.500	8.250
Rate of discount	5,0	5,0	5,0	5,0	5,0	5,0	5,0	5,0
Specific investment costs (€/KW)	5.240	3.780	3.160	2.300	2.100	6.000	5.200	3.500
Operational costs (€/KW)	163	114	106	70	50	200	170	100
Specific fuel costs (€/t)	-	-	-	-	-	-	-	-
Share of capital costs (€/MWh)	95	66	47	73	56	75	65	56
Share of O&M costs (€/MWh)	39	30	26	33	22	33	28	21
Share of fuel costs (€/MWh)	-	-	-	-	-	-	-	-
Expected return (%)	7,9	7,6	6,4	5,1	5,0	5,2	6,4	5,3
LCOEs including IRR (€/MWh)	155	110	78,4	90	78,4	110	100	78,4
Tariff (€/MWh)	155	110	78,4	90	78,4	110	100	78,4
Energy market price (€/MWh)	60,5	60,5	60,5	60,5	60,5	60,5	60,5	60,5
Premium (tariff – energy price) (€/MWh)	94,5	49,5	17,9	29,5	17,9	49,5	39,5	17,9
Net present value without premium (€)	-386.488	-1.349.398	-1.569.628	-689.906.320	-12.535.496	-363.129	-1.249.633	-1.487.562
Net present value with premium (€)	95.856	512.928	698.092	9.640.969	62.952	8.839	232.461	96.314

Table 5: estimated LCOE and average lifetime of installations – Solar PV (source: Italian authorities)

Technology	PV					
	20≤P<100			100≤P<1000		P≥1000
Power	A	A2	Self consumption	A	A2	
Average project lifetime (years)	20	20	20	20	20	20
Average load factor (%)	14	14	14	14	14	14
Energy generated (MWh/year)	63	63	63	1.250	1.250	12.500
Rate of discount	5,0	5,0	5,0	5,0	5,0	5,0
Specific investment costs (€/KW)	1.000	1.150	1.200	800	920	600
Operational costs (€/KW)	30	30	36	26	26	20
Specific fuel costs (€/t)	-	-	-	-	-	-
Share of capital costs (€/MWh)	70	81	84	56	65	42
Share of O&M costs (€/MWh)	28	28	33	24	24	18
Share of fuel costs (€/MWh)	-	-	-	-	-	-
Expected return (%)	6,4	6,5	6,6	7,4	7,7	7,0
LCOEs including IRR (€/MWh)	105	117	105	90	102	66,7
Tariff (€/MWh)	105	117	105	90	102	66,7
Energy market price (€/MWh)	60,5	60,5	60,5	60,5	60,5	60,5
Premium (tariff – energy price) (€/MWh)	44,5	56,5	44,5	29,5	41,5	6,2
Net present value without premium (€)	-25.496	-32.639	-5.463	-270.094	-384.379	-55.939
Net present value with premium (€)	4.341	5.254	5.847	119.444	161.051	748.793

- (42) From January 2021 onwards, the reference tariffs indicated in Table 3, Table 4 and Table 5 will be decreased by 2% for hydro and sewage gases installations (Basket B), and by 5% for wind and PV installations (Basket A). The Italian authorities will monitor every year the production costs to verify any need to amend those reductions.
- (43) PV installations included in Basket A-2 (see recital (28) above) have the right to a premium of 12 EUR/MWh paid on all the energy produced. The Italian authorities explained that this premium is set on the basis of the estimated costs for the asbestos removal and disposal, totalling around EUR 15/sqm, taking into account the average production rates of PV installations of that type.

- (44) A premium of 10 EUR/MWh is awarded ex post for the energy produced and self-consumed by small installations with a nominal power lower than 100 kW, provided that the self-consumed amount of electricity exceeds 40% of the net production of the plant.⁸ This premium can be combined with the premium described in recital (43) above. The Italian authorities explained that this premium is set on the basis of the estimated extra-costs of hardware and software devices allowing the maximisation of self-consumption, in the absence of which the 40% threshold would not be exceeded.
- (45) The notified scheme foresees a 20% reduction in the reference tariffs indicated in Table 3, in case of wind installations with second-hand regenerated components. The said reduction is based on the estimated lower costs of regenerated components put forward by Italy, as well as the higher maintenance requested in light of the age of the components in question. Italy has clarified that the GSE has adopted rules for the regeneration of components, and that the producer must appropriately certify the regeneration.
- (46) In case of installations that become operational within one year from the entry into force of the notified scheme, and solely under the registries procedure under certain conditions, the applicable reference tariffs are those established by the 2016 RES scheme (see Table 6 below). The Italian authorities have explained that those installations are most likely characterised by higher LCOEs comparable to those foreseen by the 2016 RES Scheme, especially taking into account the length of the selection procedure under the notified scheme (approximately 135 days).

Table 6: LCOEs and indicative average lifetime of installations, 2016 (source: Italian authorities in the context of case SA.43756 (2015/N))

Technology type	Technology sub-type	Power (P)	Indicative average lifetime	I_0
		kW	years	€/MWh
Wind power	On-shore	1<P≤20	20	250
		20<P≤60	20	190
		60<P≤200	20	160
		200<P≤1000	20	140
		1000<P≤5000	20	130
		P>5000	20	110
Hydropower	Run-of-river	1<P≤250	20	210
		250<P≤500	20	195
		500<P≤1000	20	150
		1000<P≤5000	25	125
		P>5000	30	90
	With storage	1<P≤5000	25	101
		P>5000	30	90
Sewage gas		1<P≤1000	20	111
		1000<P≤5000	20	88
		P>5000	-	-

⁸ The 40% threshold corresponds to the current percentage of annual electricity self-consumption and annual net production for existing self-consumption installations: https://www.gse.it/documenti_site/Documenti%20GSE/Rapporti%20statistici/Solare%20Fotovoltaico%20-%20Rapporto%20Statistico%202017.pdf

2.5. Financing, budget and duration

- (47) The scheme will be financed by a levy on electricity consumption proportional to electricity use (the general system charges). The cost of the scheme is estimated at 270 million EUR per year.
- (48) The Italian authorities explained that the entity managing the support scheme, GSE, regularly informs the regulator, ARERA, about the financing needs for the scheme. ARERA sets the general system charges and revises them every three months, based on those financing needs. The amount collected through the general system charges is transferred 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.⁹ The latter transfer the money collected to GSE, which earmarks it for the support scheme. 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 Economic Development.
- (49) The scheme will apply until the last selection procedure which is foreseen by the end of 2021 or until 30 days after the indicative overall cost of the support reaches EUR 5.4 billion.
- (50) Support will be granted to individual projects for a period equal to the average project lifetime shown in Table 3, Table 4 and Table 5.

2.6. Transparency and cumulation

- (51) 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.
- (52) Detailed information about the projects funded will be published on a comprehensive website in order to comply with the provisions of section 3.2.7 of the EEAG.¹⁰
- (53) Projects supported under the scheme might be eligible for investment aid under other support schemes. Any investment aid will be deducted from the operating aid. In particular, the operating subsidy received by projects benefitting from investment aid will be reduced by an amount calculated as to leave the project's Internal Rate of Return (IRR) unchanged. The reduction will be calculated using the reference values (e.g., the specific investment costs) used to calculate the aid.

⁹ With judgment of 24 May 2016, the Council of State (*Consiglio di Stato*) has clarified that the obligation to pay is on the final consumers.

¹⁰ https://www.rna.gov.it/sites/PortaleRNA/it_IT/home

2.7. National legal framework

- (54) The legal basis of the measure is the Decree Law n. 28 of 3 March 2011. Italy will adopt the Ministerial Decree containing the implementing regulation for the scheme following State aid approval. The measure will be applied only after the adoption of a positive Commission decision.

2.8. Complaints

2.8.1. Formal complaint

- (55) EWT focuses its complaint on the registries and puts forward four main claims.
- (56) First, EWT is concerned that PV and wind installations should not compete with each other in the same basket, since PV reached market parity while wind installations still need support to be profitable. The complainant considers that PV could be awarded all the available capacity due to its lower costs and exclude wind installations from the registries. To prove this point, the complainant mentions that there is no wind installation without subsidies in Italy, while a number of PV plants are installed every year without any subsidy for the energy produced (see recital (10)). A reallocation mechanism for registries, similar to the one foreseen for the auctions only (see recital (31) above) would mitigate the issue.
- (57) Second, the notified scheme allows for the use of regenerated wind turbines. EWT explained that those turbines can be bought at a fraction of the cost of a new one and could easily submit cheaper offers than any new turbine. However, according to EWT, those regenerated components have serious problem of structural integrity, require higher maintenance, thereby they are less efficient and have a shorter useful life than new ones. Lastly, the legal framework for regenerating components allegedly presents loopholes reducing the transparency on the origin of the turbine and/or the actions taken to regenerate it. EWT advocates for a higher deduction of the reference tariffs in case an installation uses regenerated components.
- (58) Third, EWT is of the opinion that the inclusion of economic criteria in the ranking of the registries would provide an unfair advantage to installations with older (and less efficient) technologies, which will be able to offer more competitive rebates due to the lower costs.
- (59) Finally, according to EWT the reference tariffs identified by the notified scheme for the onshore wind power installations are particularly low for new medium sized plants.

2.8.2. Market information

- (60) The other submissions received by the Commission in relation to the notified scheme often contain similar arguments.¹¹

¹¹ Certain submissions contained observations outside the scope of the notified scheme. Those information will not be analysed and assessed in this Decision.

Reallocation mechanism

- (61) ANIE also advocates for the introduction of a reallocation mechanism for the registries, in line with the one currently foreseen for auctions only on grounds similar to those presented by EWT.

Perimeter of the measure

- (62) EGEC complained about the exclusion of geothermal installations from the notified scheme. In particular, EGEC claims that traditional geothermal would have a level of costs similar to the one of other technologies included in the notified scheme. Lastly, EGEC points out that geothermal installations meet the currently applicable environmental legislation. On this last point, EGEC notes that the Tuscany Region has adopted specific regulation imposing stricter environmental obligation for geothermal installations as compared to the national one.
- (63) The Commission also received several observations on the exclusion of certain hydro installations, among which those of Elettricità Futura, Assimpidro, Assoidroelettrica and FederIdroelettrica. Those parties pointed to the fact that their concession to use water is allegedly in line with the WFD and, according to Assoidroelettrica, they would have a positive cost-benefit analysis. Additionally, Elettricità Futura, Assimpidro and FederIdroelettrica pointed out that even hydro installations which would be compliant with the 2017 National Guidelines implementing the WFD would be excluded from the notified scheme. FederIdroelettrica, moreover, supported the view that also hydro installations with concessions granted before the publication of the 2017 National Guidelines should be eligible under the scheme, subject to a constant monitoring on the compliance with the WFD, under penalty of exclusion from the remuneration. On the other hand, Free Rivers Italia expressed their support to restricting access to the scheme only to hydro installations having no adverse impact on the current status of the body of water. In their opinion, concessions to small hydro plants have been awarded in excessive number in the past, allegedly in breach of the WFD, despite having a marginal role in the supply of energy on national scale. Free Rivers also submitted some judgments of the *Corte di Cassazione* in support of this claim. For this reason, Free Rivers Italia also argued that small hydro installations should not be eligible under the notified scheme.
- (64) A third party and Assoidroelettrica claimed that the notified scheme would exclude the refurbishments of existing hydro installations and lamented that this approach would force Italy to forego investments that would make existing installations more efficient.

Level of remuneration

- (65) The Commission received observations similar to those of EWT by ANIE, alleging that the reduction foreseen in the premium was too little when compared to the difference in price between installing a regenerated turbine and a new one. On the contrary, another third party mentioned that the reduction disincentives the use of cheaper components and favours the use of new turbines, which will receive higher subsidies.

- (66) Some third parties claim that the tariff foreseen by the notified scheme for small hydro installations is too low to ensure profitability. They also point out that the right level of support for those installations would be the one granted by the 2016 RES Scheme that, under the notified one, could still be granted if an installation enters into force within 12 months. However, in their view, the possibility for such a short lead-time to commissioning is not possible for hydro installations.

2.8.3. The position of the Italian authorities

- (67) With regard to the points raised by the formal complaint, Italy provided the following observations.
- (68) First, on the competition between wind and PV in the registries, Italy reiterates that the selection of projects under the registries occurs primarily on the basis of non-economic criteria, mainly of environmental nature, and, only secondarily and in case of equal position in the ranking, on economic criteria. The non-economic criteria apply independently from the type of technology. For example, for Basket A, the first selection criterion concerns projects realised on landfills and specific types of caves, regardless of the technology. In addition, Italy recognises the cost difference between technologies. In fact, a wind project up to 100 kW selected on the basis of those non-economic criteria, has a reference tariff almost 50% higher than the one for PV (150 EUR/MWh for wind and 105 EUR/MWh for PV). Italy also considers that the costs and profitability of PV and wind installations between 100 kW and 1 MW are comparable and therefore they have the same reference tariff. Italy stressed that a power reallocation mechanism exists also for registries (see recital (31) above). However, the specific mechanism foreseen for the auctions would not be appropriate for registries, given the relatively small size of the capacity available under the registries as compared to that available under the auctions. In fact, around 85% of the increase of production of electricity from renewable sources is expected to come from installations selected in the auctions.
- (69) Second, with regard to the possibility to use regenerated components and incur in a reduction of the premium, Italy considers the reduction of 20% appropriate, especially given that the use of old components entails on the one hand lower acquisition costs, but on the other hand higher maintenance costs and less efficiency. In particular, the Italian authorities estimate that, on the basis of the costs of the wind operators in the context of the 2016 RES Scheme, the investment costs for installations using regenerated components are approximately 30% lower than those of installations using new components. On the other hand, the Italian authorities estimate that the operating costs for installations using regenerated components are approximately 20% higher than those of installations using new components, taking into account expert analyses. Italy also considers that the legal framework for the regeneration of wind turbines is clear, thanks to a number of rules adopted by the GSE. Those rules establish that the regeneration process must be carried out by specialised technicians and must meet certain technical and safety criteria. On the possible shorter useful life of regenerated components, Italy recognizes the possibility of an early failure of such components but has confirmed that the average lifetime of the wind installation is equal to the one of a new plant, since components can be replaced.

- (70) Third, with regard to the presence of economic factors (rebates from the reference tariffs) for the selection of projects under the registries, Italy explains how the driving factor for the selections under the registries is to favour installations with reduced environmental impact. Any rebates would play a marginal role (see recitals (25) and (37) above). Therefore, there is no particular advantage in the registries for old technologies with lower costs.
- (71) With regard to the other points put forward as market information, Italy refers to the same arguments explained in recitals recital (68) and (69) above.
- (72) On the perimeter of the measure with regard to geothermal installations, Italy maintains that it intends to promote geothermal energy by supporting those installations with reduced environmental impact, taking into account the environmental regulation adopted by the Tuscany Region, which set a higher environmental standard than the previous 2016 RES Scheme. Those installations are expected to have higher costs than any other technology included in the notified scheme and therefore, they could not compete with the technologies included in the existing baskets (see recital (21) above). Therefore, the cost structure of geothermal suggests including this technology in a separate scheme for the support of other renewable energy sources to ensure diversification (see recital (10) above). According to the Italian authorities, geothermal installations significantly contribute to ensuring diversification, as they are characterised by stable and continuous production. In the light of the above, Italy justifies the exclusion of geothermal based on point 126, second b) of the EEAG.
- (73) On hydro installations, Italy has confirmed that all hydro installations with concessions to use water granted in strict compliance with the 2017 National Guidelines are eligible under the notified scheme, as well as hydro installations having no adverse impact on the status of the body of water (see recital (12) above). The Italian authorities have explained that for hydro installations having a potential impact on the status of the body of water, compliance with the WFD cannot be ensured unless their concession was granted in strict compliance with the 2017 National Guidelines. To corroborate this statement, the Italian authorities have also referred to national judgments annulling some hydro concessions that did not respect the requirements listed in recital (12) above.
- (74) On the alleged exclusion of refurbishment of hydro installations from the notified scheme, Italy explained that such possibility is included, as long as they do not change the water flow regime.
- (75) On the tariff for hydro installations being allegedly too low to ensure profitability, Italy submitted LCOE calculations showing that the tariff would allow a sufficient return on investments.

3. ASSESSMENT:

3.1. Presence of State Aid

- (76) A measure constitutes State aid in the meaning of Article 107(1) TFEU if it is *"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 [...] in so far as it affects trade between Member States"*.

- (77) In determining whether a measure constitutes State aid within the meaning of Article 107(1) TFEU, the Commission has to verify whether the measure:
- confers an advantage on certain undertakings or certain sectors (selective advantage);
 - is imputable to the State and involves State resources;
 - distorts or threatens to distort competition; and
 - is liable to affect trade between Member States.

3.1.1. Imputability and State resources

- (78) The measure is imputable to the State as the support has been established by the Law no. 28/2011 and will be implemented by Ministerial Decree (see recital (54) above).
- (79) According to settled case-law, only advantages which are granted directly or indirectly through State resources are to be regarded as aid within the meaning of Article 107(1) TFEU. The distinction between aid granted by the State and aid granted through State resources serves to bring within the definition of aid not only aid granted directly by the State, but also aid granted by public or private bodies designated or established by the State.¹² 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.¹³
- (80) The Court has, more specifically, held that funds financed through compulsory charges imposed by State legislation, and administered and apportioned in accordance with that legislation, may be regarded as State resources within the meaning of Article 107(1) TFEU even if they are administered by entities separate from the public authorities (*Vent de Colère*).¹⁴ 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.¹⁵

¹² To this effect, see judgment of 22 March 1977, *Steinike & Weinlig*, C-78/76 EU:C:1977:52, paragraph 21, judgment of 17 March 1993, *Sloman Neptun*, joined cases C-72/91 and C-73/91, EU:C:1993:97, paragraph 19.

¹³ See judgment of 16 May 2002, *France v Commission*, C-482/99 EU:C:2002:294, paragraph 37.

¹⁴ See judgment of 19 December 2013, *Vent de Colère*, C-262/12 EU:C:2013:851, paragraph 25.

¹⁵ 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.

- (81) In this case, the Commission notes that the measure will be financed through a levy on electricity consumption imposed by law and it will be transferred in accounts managed by GSE, a State-controlled public entity specifically appointed by the State to collect the financing and to pay out the aid amount (see recitals (47)-(48) above).
- (82) On the basis of those elements, the Commission concludes that the notified measure is imputable to the State and financed through State resources.

3.1.2. Selective advantage

- (83) The notified scheme favours the generation of electricity from renewable sources by the selected beneficiaries and is not accessible for other electricity producers that also produce electricity and sell it on the market (see recital (11) above).
- (84) The scheme foresees a “two ways contract for difference” (see recital (32) above). The Commission notes that the measure shelters the selected beneficiaries from price volatility and ensures stability, as they will receive a feed-in premium on top of the market price that covers the negative difference between such price and the LCOEs. Beneficiaries on the other hand will have to repay the positive difference between the market price and the premium when the former exceeds LCOEs. The Commission considers that absent the measure, beneficiaries would not have received the remuneration they receive under the measure and would have continued to operate on normal economic conditions, which would not ensure a fixed and predictable profitable revenue stream.
- (85) On the basis of the above, the Commission concludes that the notified measure confers a selective advantage to the beneficiaries.

3.1.3. Effect on trade and impact on competition

- (86) The electricity market has been liberalised and renewable electricity is generally sold on the spot market where it enters in competition with electricity from different sources. Electricity is also widely traded between Member States. In particular, Italy trades electricity with several neighbouring countries through high voltage interconnectors. For those reasons the notified scheme is likely to distort competition on the electricity market and affect trade between Member States.

3.1.4. Conclusion on the presence of State aid

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

3.2. Lawfulness of the aid

- (88) No aid will be granted before a positive Commission decision (see recital (54) above). Therefore the Italian authorities did not put the aid measure into effect before a final Commission decision. Thus, Italy has complied with the stand-still obligation set out in Article 108(3) TFEU.

3.3. Compatibility with the State aid policy for environmental protection and energy 2014-2020

- (89) The Commission notes that the notified measure aims to provide operating aid to the generation of electricity from renewable sources. As it regards support for electricity from renewable sources, the notified measure falls within the scope of the Guidelines on State aid for environmental protection and energy 2014-2020 (EEAG).
- (90) The Commission has therefore assessed the notified measure based on the general compatibility provisions of the EEAG (set out in its section 3.2) and based on the specific compatibility criteria for operating aid granted for the production of electricity from renewable energy sources (sections 3.3.1 and 3.3.2 of the EEAG).

3.3.1. Objective of common interest

- (91) The aim of the notified aid measure is to help Italy achieving the long term climate change and energy sustainability targets set by the EU as part of the EU energy policy. The scheme will help Italy to reach the 2020 and 2030 EU targets on renewable energies. In line with paragraphs 30 and 31 of the EEAG, Italy defined the objective of the measure and explained the measure will contribute towards reaching the European energy policy goals (see recital (8) above).
- (92) Paragraph 108 of the EEAG recalls that the Guidelines should prepare the ground for achieving Union environmental objectives beyond 2030. Directive (EU) 2018/2001 establishes a binding renewable energy target for the EU for 2030 of at least 32%.¹⁶ The Commission therefore interprets paragraphs 107 and 116 of the EEAG as applying not only to the achievement of the EU's 2020 targets for renewable energy but also to the new 2030 target.
- (93) The Commission considers that the notified aid measure is aimed at an objective of common interest in accordance with Article 107(3)(c) TFEU.

3.3.2. Need for State intervention, appropriateness and incentive effect

- (94) In paragraph 107 of the EEAG the Commission acknowledges that "*under certain conditions State aid can be an appropriate instrument to contribute to the achievement of the EU objectives and related national targets*".
- (95) Pursuant to paragraph 116 of the EEAG, in order to allow Member States to achieve their national 2020 target and contribute to the EU 2030 target, the Commission presumes the granting of State aid to be an appropriate instrument to promote energy from renewable sources, provided all other conditions set therein are fulfilled.
- (96) In line with paragraph 49 of the EEAG, the incentive effect occurs if the aid induces the beneficiary to change his behaviour towards reaching the objective of common interest, which it would not do without the aid.

¹⁶ Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources, OJ L 328, 21.12.2018, p. 82–209.

- (97) The Italian authorities demonstrated that for the technologies eligible under the scheme the LCOE would be higher than the expected electricity market price (see the LCOE calculations shown in Table 3, Table 4, Table 5 and 6 above). Without the aid and under normal market conditions, the NPV for renewable energy projects would therefore be negative (examples in Table 3, Table 4, Table 5 and Table 6 show a negative NPV in the absence of aid). The Commission concludes that without the aid the projects benefitting from the scheme would not be financially viable. The aid therefore allows the beneficiaries to change their behaviour and invest in renewable energy.
- (98) According to paragraph 50 of the EEAG, aid does not present an incentive effect where work on the project had already started prior to the aid application by the beneficiary to the national authorities. According to paragraph 52 of the EEAG, aid awarded on the basis of a competitive bidding process is not required to meet the conditions of paragraphs 50 and 51 of those guidelines. Therefore, beneficiaries participating in auctions (installations above 1 MW) are not required to demonstrate compliance with paragraphs 50 and 51 of the EEAG.
- (99) The Commission notes that new projects and refurbishments cannot start works before being selected for funding under the scheme, both in case of auctions and registries (see recital (18) above). Therefore, paragraph 50 of the EEAG is complied with.
- (100) As regards installations eligible under the 2016 RES Scheme, which have already started works, the Commission notes the following. As long as those installations participate in the auctions (installations above 1 MW), they are not required to demonstrate compliance with paragraph 50 of the EEAG. For the remainder of those installations (installations below 1 MW) the Commission observes that there might be a certain tension between the wording of paragraphs 49 and 50 of the EEAG concerning the conditions of the presence of incentive effect of aid.¹⁷ However, the Italian authorities have provided a number of arguments to prove the existence of a change in behaviour also for installations below 1 MW. First, those installations have not received aid under the 2016 RES Scheme. For this reason, the installations that started works interrupted any construction activity and will not complete those works in the absence of aid (see recital (18) above). Secondly, the cash flows of standard existing installations provided by the Italian authorities show that the production costs of electricity from renewable energy sources are higher than the revenues that these installations can obtain from the market (see recital (18) above). Without the scheme, there would therefore be an insufficient incentive to operate the RES installations as such activity would not be economically viable.¹⁸ On the basis of the above-mentioned specific circumstances of the case, the Commission concludes that any aid granted under the notified scheme to installations eligible under the 2016 RES Scheme can still provide for a change of behaviour. The Commission therefore concludes that the aid has an incentive effect, as it induces the beneficiaries to change their

¹⁷ This tension has already been recognized in the Commission decision on the case of State Aid SA.51192 (2019/N) – Poland – CHP support and State aid SA.52530 (2019/N) – Poland – Reductions from CHP charges for Energy Intensive Users.

¹⁸ See Commission decision in case SA.40348 – Spain - Support for electricity generation from renewable energy sources, cogeneration and waste, recital 107.

behaviour by enabling them to stay operating on the market without the need to terminate their operations or significantly decrease the number of operating hours.

- (101) According to paragraph 51 of the EEAG, Member States must introduce and use an application form for aid. The Commission notes that the project promoters will be required to submit an application form before being selected for funding under the scheme (see recital (18) above). In addition, the Italian authorities have confirmed that existing facilities had already applied for aid under the 2016 RES Scheme (see recital (16) above). For those reasons, the Commission concludes that paragraph 51 of the EEAG is complied with.
- (102) In view of the above, the notified aid measure is necessary, appropriate and has an incentive effect.

3.3.3. Proportionality

- (103) According to paragraph 69 of the EEAG, environmental aid is considered to be proportionate if the aid amount per beneficiary is limited to the minimum needed to achieve the environmental protection objective aimed for.
- (104) The Commission assessed proportionality of the aid under the provisions of Section 3.3.2 EEAG on operating aid to energy from renewable sources.
- (105) Except for generators with installed capacity below 250 kW, aid will be granted as a premium on top of market price and the generators will sell their electricity in the market (see recital (32) and (40) above). Generators will be subject to standard balancing responsibilities and have no incentives to sell electricity at times of zero or negative market prices (see recital (35) above). The Commission therefore concludes that the scheme complies with the provisions of paragraph 124 of the EEAG. The Commission also concludes that the exception for generators with an installed capacity below 250 kW is in line with paragraph 125 of the EEAG, which excludes the application of the provisions of paragraph 124 of the EEAG for installations with an installed electricity capacity of less than 500 kW.
- (106) The Commission also notes that any investment aid previously received must be deducted from the operating aid (see recital (53) above). Therefore, the Commission concludes that paragraph 129 of the EEAG is complied with.

Auctions

- (107) According to paragraph 126 of the EEAG, aid granted by means of non-discriminatory competitive bidding processes is presumed to be proportionate if those processes are open to all generators producing electricity from renewable energy sources.
- (108) On the general requirement of openness to all types of renewables technologies, the auctions put different technologies in competition against each other in pre-defined baskets. The procedure will be open to anyone who can meet the prescribed requirements for tenderers (see recital (20) above). Italy expects that a sufficiently large number of tenderers will come forward to ensure a sufficient level of competition in the tendering procedure (see recital (22) above). The Commission welcomes the fact that Italy has created baskets in which different

technologies can compete with each other. All technologies are exposed, to some extent at least, to competitive pressure from at least one other technology. The Commission notes that the procedure is likely to induce a sufficient number of tenderers to bid. The tender is open to all producers without discrimination, and is conducted in a transparent manner.

- (109) The Commission considers the exclusion of offshore wind, geothermal, biomass and other RES technologies from the auctions to be justified. First, the Commission notes that the notified measure was designed according to the draft National Energy and Climate Plan for the period 2021-2030, and that Italy intends to ensure a certain diversification of technologies. As explained in recital (21) above, the Italian authorities have explained that a process open to all generators would lead to suboptimal results in view of diversification. In particular, due to the fact that, as submitted by the Italian authorities (see recital (21) above), the costs of excluded technologies are higher compared to the eligible ones, it is difficult to create equal and non-discriminatory bidding terms in tenders that could include at the same time technologies with a very different cost structure. In addition, other technologies either do not have a strong potential of development in Italy (like offshore wind technology) or they are at early stages of development and lack the maturity to compete with the more mature RES technologies (like concentrated solar power and geothermal technology with zero emissions). Therefore, the Commission considers that the limitation to specific technologies is justified in line with paragraph 126, 5th sentence, *litera* (b) of the EEAG.
- (110) The Commission also notes that the notified scheme foresees a power reallocation mechanism specific to auctions (see recital (31) above), which would reserve a certain capacity to a certain technology within the same basket. The Commission observes that this mechanism would only be applicable as of the third selection procedure and only if particular circumstances occur (see footnote 4 above) to ensure diversification and grid stability. Therefore, the Commission considers that this power reallocation mechanism is justified in line with paragraph 126, 5th sentence, *litera* (b) and (c) of the EEAG.
- (111) The Italian authorities explained that the maximum rebate referred to in recital (24) above was introduced in order to avoid unrealistic offers to take up available capacity in the auctions, as this might pose a threat to the objective of the scheme. The Commission notes that the maximum rebate from the reference tariff is considerably lower than the current market price or any price ever registered on the Italian market. Therefore, if the auctions clear at that level, beneficiaries are highly unlikely to be overcompensated. This is because, in that case, the aid will amount to zero and beneficiaries will only be protected against drops in the market price to levels that have never been observed in the past and are unlikely to be observed in the years to come. At the same time, this protection against an unexpectedly sharp fall in the market price helps to ensure that projects that are granted aid have a reasonable chance of securing project financing, and therefore of being completed on time to help achieve the 2020 and 2030 RES targets. Based on the results of the auctions, the Italian authorities will increase the maximum rebate and therefore reduce the potential aid amounts further (see recital (24) above).

- (112) The Commission considers that the support levels at the maximum rebate minimise aid with regard to the objectives pursued, in particular to allow different technologies to compete against each other and to ensure a reasonable rate of return in the event of very bleak market conditions. This therefore ensures the bankability and completion of projects. The Commission also notes that the aid is only granted until the plant has been fully depreciated (see recital (33) above). Therefore, the Commission concludes that paragraph 129 of the EEAG is complied with.

Registries

- (113) According to paragraph 128 of the EEAG, in the absence of a competitive bidding process, the conditions of paragraph 131 of the EEAG are applicable. Paragraph 131(a) of the EEAG states that the aid per unit of energy must not exceed the difference between the LCOE and the market price of the relevant technology. Paragraph 131(b) of the EEAG allows a normal return on capital to be included in the LCOE.
- (114) The Commission has verified that the aid does not exceed the level required to recover the initial investment costs and the relevant operational costs, plus a margin of reasonable return (between 5% and 7.9%). These rates are in line with the rates of return of renewable energy projects recently approved by the Commission and does not lead to overcompensation.¹⁹
- (115) Paragraph 131(c) of the EEAG states that the production costs are to be updated regularly, at least every year. The Italian authorities have confirmed that production costs will be monitored every year (see recital (42) above).
- (116) Paragraph 131(d) of the EEAG states that aid is only granted until the plant has been fully depreciated. The remuneration will be paid for a period corresponding to the average lifetime of the installations covered by the scheme, that is to say until the installation is fully depreciated according to normal accounting rules (see recital (33) above).

Conclusions on proportionality

- (117) Based on the above considerations, the Commission concludes that the aid granted under the scheme is proportionate within the meaning of paragraph 69 of the EEAG.

¹⁹ See for example the decisions in cases SA.47205 Complément de rémunération pour l'éolien terrestre à partir de 2017 (France), SA.43756 Support to electricity for renewable sources (Italy), SA.36023 Support scheme for electricity produced from renewable sources and efficient cogeneration (Estonia), SA.43140 Support to renewable energy and CHP (Latvia), SA.40348 Support for electricity generation from renewable energy sources, cogeneration and waste (Spain), SA.50715 Transitional aid scheme for onshore wind (Denmark).

3.3.4. Distortion of competition and balancing test

- (118) According to paragraph 90 of the EEAG, the Commission considers that aid for environmental purposes will by its very nature tend to favour environmentally friendly products and technologies at the expense of other, more polluting ones. Furthermore, that effect of the aid will in principle not be viewed as an undue distortion of competition since it is inherently linked to its very objective.
- (119) According to paragraph 116 of the EEAG, in order to allow Member States to achieve their targets in line with the EU 2020 objectives, the Commission presumes that the distortive effects of the aid are limited, provided all other conditions set therein are met.
- (120) The Commission therefore considers that the overall balance of the proposed scheme is positive and that the measure does not have undue distortive effects on competition and trade.

3.3.5. Additional aspects – Compliance with other provisions of EU law

- (121) In accordance with paragraph 29 of the EEAG, as the support for green electricity is financed by a charge levied on all electricity consumption, the Commission has examined its compliance with Articles 30 and 110 TFEU.
- (122) According to the case-law, a charge which is imposed on domestic and imported products according to the same criteria may nevertheless be prohibited by the Treaty if the revenue from such a charge is intended to support activities which specifically benefit the taxed domestic products.²⁰ If the advantages which those products enjoy wholly offset the burden imposed on them, the effects of that charge are apparent only with regard to imported products and that charge constitutes a charge having equivalent effect to custom duties, contrary to Article 30 TFEU. If, on the other hand, those advantages only partly offset the burden borne by domestic products, the charge in question constitutes discriminatory taxation for the purposes of Article 110 TFEU and will be contrary to that provision as regards the proportion used to offset the burden borne by the domestic products.
- (123) If domestic electricity production is supported by aid that is financed through a charge on all electricity consumption (including consumption of imported electricity), then the method of financing – which imposes a burden on imported electricity not benefitting from this financing – risks having a discriminatory effect on imported electricity from renewable energy sources and thereby violating Article 30 or 110 TFEU.²¹ A similar issue would arise between any neighbouring country that has signed a free trade agreement with the European Union containing provisions similar to Articles 30 and 110 TFEU.

²⁰ 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.

²¹ Case 47/69 *France v Commission*, EU:C:1970:60, paragraph 20.

- (124) The Italian authorities explained that the scheme will be financed by a levy on energy consumption. In this respect, therefore the Commission notes that:
- the notified aid scheme is financed through a charge imposed on electricity consumed in Italy, irrespective of whether domestically produced or imported;
 - the charge is calculated on the amount of electricity consumed (and thereby imposed on the product itself).
- (125) Where a Member State finances aid for domestic producers through a charge that is levied on imported and domestic products alike, the charge may have the effect of further exacerbating the distortion on the product market caused by the aid as such. For that matter, it is not necessary that the charge exclusively finances the aid, since the additional distortive effect can already be present if a sizable share of the revenues from the charge is used to finance the aid.
- (126) In order to alleviate any concern regarding compliance with Articles 30 and 110 TFEU, Italy ensures that producers located in other European Member States (or in a neighbouring State with which a free trade agreement exists) will be allowed to bid for a certain percentage of the capacity allocated within the tenders. The percentage figure has been established as a function of Italy's total imports of green electricity from the neighbouring countries divided by the total electricity consumption in Italy according to the following formula:

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

where: P_{EU} is the capacity available for projects located in other States; P_{Tot} is the total capacity allocated in the tender; $E_{imp\ MSn}$ is the total electricity imported from State n ; $RES_{\%MSn}$ is the share of renewables in the electricity mix of State n and $E_{Tot\ consumed\ IT}$ is the total electricity consumed in Italy.

- (127) The participation of producers from other States in the support scheme is subject to the following conditions:
- a cooperation agreement with the relevant State is in place;
 - the cooperation agreement describes the rules to prove physical delivery of the green electricity; and
 - the projects in the relevant State fulfil the same requirements as the projects located in the Italian territory.
- (128) The Commission considers that this is in line with paragraph 122 of the EEAG, which provides that Member States can set up cooperation mechanisms. The Commission therefore concludes that opening the scheme in this manner reduces the risk of possible discrimination against producers of green electricity in other Member States.
- (129) In light of the above, the Commission considers that the financing mechanism of the notified aid measure does not infringe Article 30 or Article 110 TFEU.

- (130) Under paragraph 117 of the EEAG, when granting aid for the production of hydropower, Member States must respect Directive 2000/60/EC and in particular Article 4(7) thereof, which lays down criteria in relation to allowing new modifications of bodies of water.
- (131) In this respect, the Commission notes that only installations that have no adverse impact on the status of the body of water and installations that strictly comply with the 2017 National Guidelines, will be eligible to receive State aid under the support scheme assessed in the present decision (see recital (12) above).

3.3.6. Conclusion with regard to the compatibility of the measure

- (132) In light of the above, the Commission considers that the notified scheme pursues an objective of common interest in a necessary and proportionate way without unduly affecting competition and trade, and that therefore the aid is compatible with the internal market on the basis of the EEAG.

3.3.7. Complaints

Formal Complaint

- (133) In this section, the Commission will assess the claims related to the notified State aid measure put forward by EWT in its formal complaint and the respective position of Italy.
- (134) First, on the competition between PV and wind installations within the same basket in the auctions and in the registries, the Commission acknowledges that PV was already being deployed in Italy without support. However, the Italian authorities have estimated that the current deployment rate of PV would not be sufficient to reach the 2030 target. The Commission notes that, under certain conditions, State aid can be an appropriate instrument to contribute to the achievement of the Union objectives and related national targets (see paragraph 107 of the EEAG).
- (135) As regards the use of auctions, the Commission also notes that market instruments should normally ensure that subsidies are reduced to a minimum in view of their complete phasing out (see paragraph 109 of the EEAG). In particular, the Commission notes that pursuant to paragraph 126 of the EEAG bidding processes can be limited to specific technologies where a process open to all generators would lead to a suboptimal result which cannot be addressed in the process design. It is therefore a possibility, rather than an obligation, for the Member State to create baskets for a single technology, which should be appropriately justified by the Member State. In this case, the risk of one technology prevailing over the other technology is addressed in the process design by means of the reallocation mechanism (see recital (31) above).
- (136) With regard to registries, the Commission notes that the selection procedure is based mostly on non-economic criteria, independently from the type of technology. It is therefore very unlikely that the different costs structure for installations below 100kW would have an impact on the possible prevalence of one technology on the other. In addition, with regard to having a reallocation mechanism for registries, similar to the one foreseen for the auctions only (see recital (32) above), the Italian authorities have explained that the capacity

allocated to registries is much smaller than the one reserved for auctions. For those reasons, the potential imbalance created by a given registry (or even all of them) being awarded to one single technology is negligible on a national scale and consequently does not trigger diversification concerns. The Commission considers that the choice of Italy is valid. That choice is also justified for reasons of administrative simplicity, since it entails a lesser burden in terms of resources and process. In particular, the Commission notes that paragraph 126 of the EEAG concerns bidding processes only.

- (137) Second, as already concluded in recital (114) above, the Commission considers that the reduction of the premium for installations using regenerated turbines is proportionate on the basis of the LCOE provided by the Italian authorities. The information submitted by Italy shows that the premium is calculated taking into account not only the lower acquisition costs of regenerated wind turbines but also their higher maintenance costs and lower productivity due to lower efficiency (see recital (45) above). The cost of regenerated turbines takes into account the costs associated to the regeneration process, as regulated in detail by the GSE (see recital (69) above). The data provided by the Italian authorities on the estimated costs for installations using regenerated components shows that the reduction of the premium is overall proportionate to that reduced cost (see recital (69) above). In addition, the Commission notes that while EWT and other third parties consider such reduction too low, another third party argues that the reduction of the premium is too high (see recital (65) above).
- (138) Third, with regard to the ranking criteria used for the registries, the Commission notes that according to paragraph 128 of the EEAG, in the absence of a competitive bidding process, the conditions of paragraphs 124, 125 and 131 of the EEAG are applicable. In that respect, the aid should not exceed the difference between the LCOE from the particular technology in question and the market price, including a normal return on capital. It is therefore for the Member States to decide how to award any State aid to small installations of less than 1 MW, as long as compliance with paragraphs 124, 125 and 131 of the EEAG is ensured. If under the registries the projects are ranked also on the basis of economic criteria, such as rebates on the reference tariffs, that in principle contributes to the minimisation of the aid amount. In particular, the Commission notes that the aid granted under the registries complies with point 131 of the EEAG for the reasons explained in recitals (113) to (117) above.
- (139) Finally, with regard to tariffs for medium sized onshore wind installations, the Italian authorities have explained that wind power is a rather mature technology, especially in case of installation with a nominal power slightly below 1 MW. The Commission considers that the LCOEs applicable to this type of installations as calculated by Italy are reasonable, and thus the related tariffs are adequate to the maturity of the technology and to the size of installations.

Market information

- (140) In this section the Commission will assess the remaining alleged State aid issues put forward by the various submissions received in relation to the notified scheme and the respective position of Italy.

- (141) On the perimeter of the measure with regard to geothermal installations, the Commission takes note of the intention of the Italian authorities to increase the environmental performance of geothermal installations in Italy. Given that this choice entails higher costs for geothermal installations, the Commission considers that the risk of a *de facto* exclusion of that technology is possible, since geothermal technologies would not be in a position to bid competitively against any other technology included in the notified scheme. As the Italian authorities have stressed the importance of the geothermal technology in Italy for the purpose of achieving diversification (see recital (21) above), the exclusion of geothermal from the auctions with a view to include it in a separate support scheme is in line with paragraph 126 of the EEAG (see also recital (109) above).
- (142) On the perimeter of the measure with regard to hydro installations, the Commission notes that under paragraph 117 of the EEAG, Member States must respect the WFD, and in particular Article 4(7) thereof. For this reason, the Italian authorities have explained that only hydro installations having no adverse impact on the status of the body of water and installations with a concession granted in strict compliance with the 2017 National Guidelines will be eligible under the notified scheme (see recital (12) above). The Italian authorities have restricted the eligibility to those two categories because for hydropower installations having a potential impact on the status of the body of water, compliance with the WFD cannot be ensured unless their concession was granted in strict compliance with the 2017 National Guidelines (see recital (73) above). On the basis of the information available, the Commission considers that the perimeter of the scheme with regard to hydro installations is adequate to ensure compliance with paragraph 117 of the EEAG.
- (143) On the alleged exclusion of refurbishment of hydro installations from the notified scheme, the Commission takes note of the clarification of the Italian authorities. The Commission notes that any projects involving hydro installations are eligible under the notified scheme, including refurbishments, as long as they do not change the water flow regime (see recital (74) above).
- (144) On the allegedly too low tariff for hydro installations, the Commission recalls that environmental aid is considered to be proportionate if the aid amount per beneficiary is limited to the minimum needed to achieve the environmental protection or energy objective aimed for (see paragraph 69 of the EEAG). In particular, paragraph 131 of the EEAG provides that the aid per unit of energy should not exceed the difference between the LCOE from the particular technology in question and the market price, including a normal return on capital. Moreover, the LCOEs provided by Italy are reasonable. In fact, as time passes and technologies mature, it can be expected that the costs of any given technology decrease.
- (145) In the light of the above, the Commission considers that the notified scheme is compatible with the internal market on the basis of the EEAG for the reasons laid down in Section 3.3 above.

4. CONCLUSION

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

Yours faithfully,

For the Commission

Margrethe VESTAGER
Member of the Commission