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**Subject: State Aid SA.57089 (2021/N) – Croatia
Renewable energy sources scheme in Croatia**

Excellency,

1. PROCEDURE

- (1) Following pre-notification contacts, by electronic notification of 3 March 2021, the Croatian authorities notified pursuant to Article 108(3) of the Treaty of the Functioning of the European Union (“TFEU”) an aid scheme to promote electricity from renewable energy sources (“RES”) for the period 2021-2023 in the form of a market premium granted to the winners of the public tenders (“the notified scheme” or “the measure”).
- (2) Further to a request from the Commission on 21 April 2021, the Croatian authorities provided additional information on 21 September 2021.
- (3) On 21 September 2021, the Croatian authorities exceptionally agreed to waive their rights deriving from Article 342 TFEU, in conjunction with Article 3 of Regulation 1/1958¹ and to have this Decision adopted and notified in English.

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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2. DETAILED DESCRIPTION OF THE MEASURE

2.1. Background and objective

- (4) The previous RES support scheme in the form of a feed-in tariff system, which had been approved by the Commission in 2015², expired on 31 December 2015. In addition, the Croatian authorities put in place State aid programs to support production of electricity from RES under the General State aid block exemption regulation (“GBER”)³.
- (5) The notified scheme aims at promoting the use of RES in the electricity production in Croatia.
- (6) Croatia is currently above the EU average⁴ when it comes to realising the goals related to the share of RES in gross final energy consumption, as well as to reducing CO₂ emissions per capita. With the notified scheme, the Croatian authorities aim to achieve the goal of a 36.4 % share of RES in gross final energy consumption by 2030, thereby surpassing the common target at EU level of 32 % set by Directive 2018/2001 (“the Renewable Energy Directive”)⁵, in order to reach a share of electricity produced from RES plants in total electricity consumption of 63.8 % as provided under Croatia’s National Energy Climate Plan (“NECP”)⁶.
- (7) In addition, the Croatian authorities aim to achieve with this notified measure a global reduction of CO₂ and other greenhouse gas emissions and support the EU's commitment to a unified climate and energy policy, in accordance with their NECP.
- (8) The present scheme is part of the Recovery and Resilience Facility plan⁷ (“RRP”) of Croatia, and thus will contribute to the achievement of Croatia’s RRP milestones and targets⁸.

² Commission decision C(2015) 6141 final of 1 September 2015 on SA.38406 (2014/N) – Renewables support scheme in Croatia 2014-2015 (OJ C 159, 19.5.2017, p. 1).

³ SA.58435 (2020/X) – Program državnih potpora za sustav poticanja proizvodnje električne energije iz obnovljivih izvora energije i visokoučinkovite kogeneracije (State Aid Program for incentivising the production of electricity from RES and high efficiency cogeneration); and SA.59786 (2020/X) – Izmjene i dopune Programa državnih potpora za sustav poticanja proizvodnje električne energije iz obnovljivih izvora energije i visokoučinkovite kogeneracije (Amendments to the State Aid Program). The Croatian authorities intend to put in place a new scheme under GBER for 2021-2023.

⁴ In 2017, Croatia achieved a 27.3% share of RES in gross final consumption, whereas the EU average amounted to 17.5%. By achieving that share in 2017, Croatia surpassed the set goal of a 20% share of RES in gross final consumption by 2020, as defined by 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).

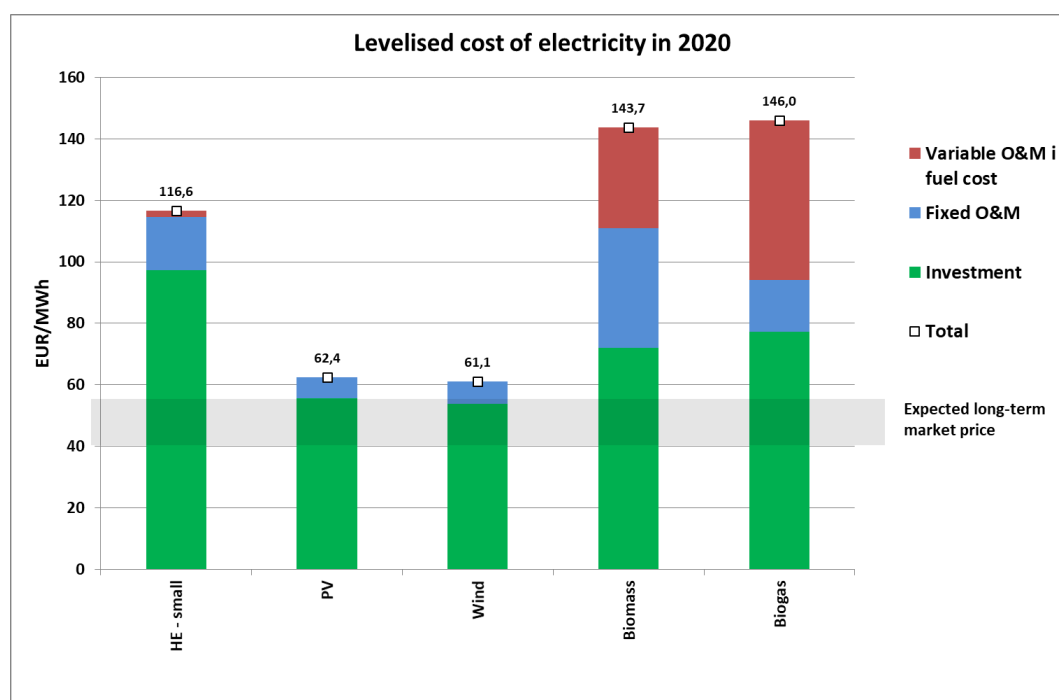
⁵ Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources (OJ L 328, 21.12.2018, p. 82).

⁶ https://ec.europa.eu/energy/sites/default/files/documents/hr_final_necp_main_en.pdf

⁷ Regulation (EU) 2021/241 of the European Parliament and of the Council of 12 February 2021 establishing the Recovery and Resilience Facility (“RRF”) (OJ L 57, 18.2.2021, p. 17) and Annex to the Council Implementing Decision on the approval of the assessment of the recovery and resilience plan for Croatia (ST 10687 2021 ADD 1).

- (9) In addition, the Croatian authorities explain that the development of RES projects such as the notified scheme is intended to have a wider multiplicative effect on the economy, such as the creation of new jobs, economic growth and more balanced economic development of local communities.
- (10) According to the Croatian authorities, the high production cost of electricity from RES in Croatia prevents their competitiveness in relation to the expected long-term electricity market price. The figure below shows the results of the calculation of levelised production costs for various technologies.

Figure 1: Levelised production costs for RES technologies in Croatia



HE: hydro-energy; PV: Photovoltaic; O&M: Operation and maintenance

Source: Croatia

- (11) The Croatian authorities explained that the market price alone is not sufficient to make those projects economically viable. Historic electricity prices on the Croatian power exchange (CROPEX) are provided in Table 1. In addition, the Croatian authorities provided the long-term market price⁹ in Figure 2. It should be noted that the electricity price figures provided by the Croatian authorities do not take into account the current peak in energy prices.

⁸ Reference for the RRP: https://ec.europa.eu/info/sites/default/files/recovery_and_resilience_plan_for_croatia_hr.pdf
In this context, it is noted that the notified scheme will not be financed through the RRF (see section 2.7 on financing below).

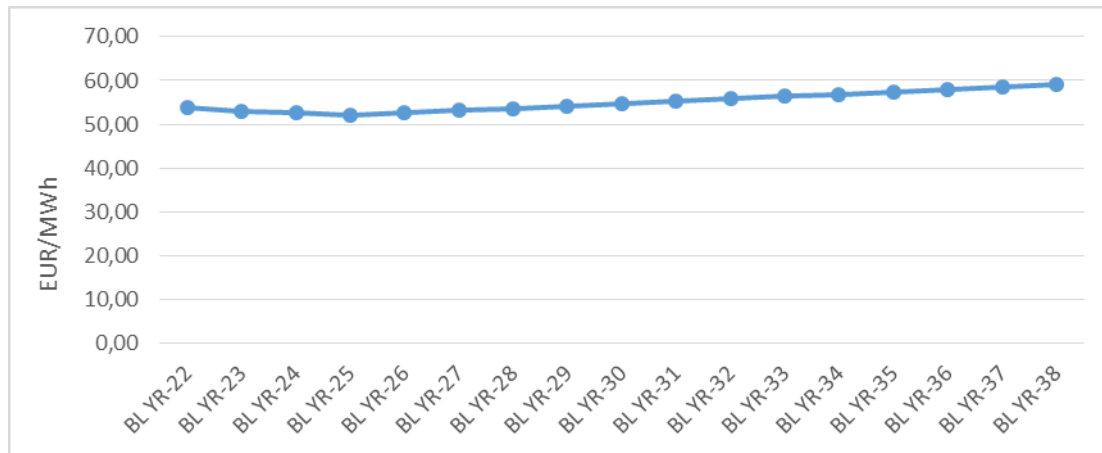
⁹ Based on the expected short- and medium-term trends in the relevant markets in the region and the EU.

Table 1: Average day-ahead market prices (DAM) at Croatian Power Exchange (CROPEX)

| Month | Average DAM Prices at CROPEX (EUR/MWh) | | | |
|-------|--|-------|-------|-------|
| | 2018 | 2019 | 2020 | 2021 |
| Jan | 37,97 | 69,32 | 51,32 | 56,75 |
| Feb | 44,86 | 49,75 | 39,62 | 50,37 |
| Mar | 44,67 | 39,59 | 29,41 | 55,93 |
| Apr | 34,25 | 45,61 | 23,95 | 64,47 |
| May | 42,04 | 41,48 | 22,47 | |
| Jun | 51,77 | 40,36 | 28,77 | |
| Jul | 51,48 | 53,01 | 35,43 | |
| Aug | 60,83 | 55,87 | 38,13 | |
| Sep | 64,15 | 55,43 | 46,92 | |
| Oct | 64,11 | 55,34 | 38,57 | |
| Nov | 63,26 | 45,16 | 47,21 | |
| Dec | 63,61 | 40,10 | 55,54 | |

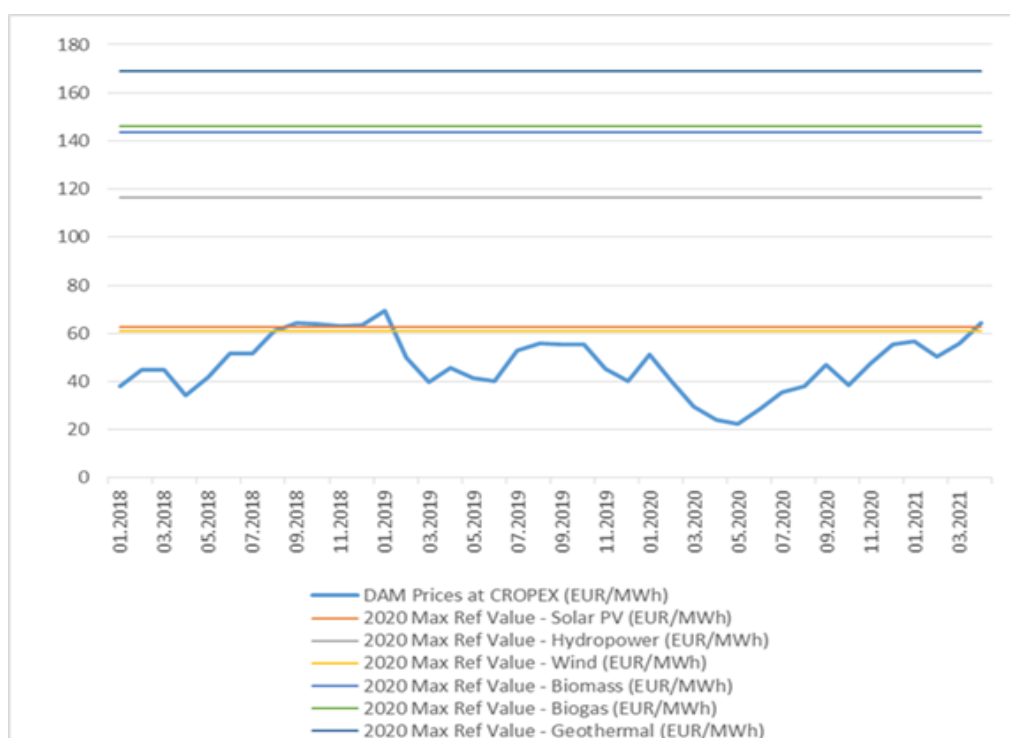
Source: Croatian authorities

Figure 2: Forecast of long-term market price trends in the Croatian Power Exchange (CROPEX)



Source: Croatia

Figure 3: Comparison of historic monthly average DAM prices at Croatian Power Exchange and Maximum reference prices calculated for different RES technologies in 2020



Source: Croatia

- (12) The Croatian authorities consider that it would not be possible to increase the level of production of electricity from RES without providing aid. The introduction of the system of incentives in the form of a market premium shall improve efficient functioning of the electricity market and correct market failures regarding the increase in electricity produced from RES.

2.2. Legal basis

- (13) The national legal basis of the notified scheme is:
- the Act on Renewable Energy Sources and High-Efficiency Cogeneration¹⁰ (“the RES Act”), which entered into force on 20 December 2018¹¹;
 - the Regulation on the promotion of electricity produced from renewable energy sources and high-efficiency cogeneration of 21 December 2018, as amended on 22 May 2020¹² (“the Regulation on the Promotion of RES”);
 - the Regulation on quotas, which entered into force on 15 May 2020¹³; and
 - the Ordinance on acquiring the status of eligible electricity producer¹⁴.

¹⁰ Official Gazette No 100/15, 123/16, 131/17, 111/18.

¹¹ The RES Act is currently under revision.

¹² Official Gazette No 116/2018 and 60/2020.

¹³ Official Gazette No 57/2020.

¹⁴ Official Gazette No 132/2013, 81/2014, 93/2014, 24/2015, 99/2015, 110/2015.

- (14) The notified scheme is described in more detail in the document “State aid scheme for the system of promoting electricity produced from renewable energy sources and high-efficiency cogeneration in the form of a market premium 2021–2022” (“the Program”), which has been prepared by the Croatian electricity market operator¹⁵ (“HROTE”) and approved by the Ministry of Economy and Sustainable Development and the Ministry of Finance. This document will be published on HROTE’s website¹⁶ after the notification of the present decision.
- (15) The Program indicates that the notified scheme will not be implemented before the notification of the Commission decision declaring the scheme compatible with the internal market.

2.3. Beneficiaries

- (16) Any undertakings as well as legal or natural persons, local self-government units and State administration bodies that have acquired the status of eligible RES electricity producer¹⁷ or, in the case of simple plants (i.e., RES production facilities which do not require a construction permit, such as solar power plant installation on the roof of a built house), those that have signed a power grid connection agreement with the distribution system operator (“DSO”) may be beneficiaries under the notified scheme.
- (17) Undertakings having their registered office or a majority of permanent establishments (business units) outside Croatia can participate in the tender, but beneficiaries must have a permanent establishment (business unit) or a branch in Croatia at the time of payment of the aid.
- (18) The notified scheme is only open to plants with installed capacity of at least 500 kW. Plants with installed capacity below 500 kW for electricity produced from all RES are not eligible to this support scheme¹⁸.
- (19) For undertakings active in agriculture, fisheries and aquaculture, the conditions set out in section 1.1, point (14) of the Guidelines on State aid for environmental protection and energy 2014-2020 (“EEAG”)¹⁹ apply.
- (20) The following undertakings will not be eligible under the notified scheme:
- undertakings in difficulty, in accordance with the Commission Guidelines on State aid for rescuing and restructuring non-financial undertakings in difficulty²⁰;

¹⁵ CROATIAN ELECTRICITY MARKET OPERATOR Ltd. (HROTE) for organising electricity and gas markets, with its registered office in Zagreb, Ulica grada Vukovara 284, registration number (MBS): 080517130; PIN (OIB): 75801633608.

¹⁶ www.hrote.hr.

¹⁷ Ordinance on acquiring the status of eligible electricity producer (Official Gazette No 132/2013, 81/2014, 93/2014, 24/2015, 99/2015, 110/2015).

¹⁸ Croatia intends to organise technology-specific tenders as well for producers up to 500 kW. Those small bidders will not receive a premium but a guaranteed price.

¹⁹ Communication from the Commission — Guidelines on State aid for environmental protection and energy 2014-2020 (OJ C 200, 28.6.2014, p. 1).

²⁰ OJ C 249, 31.7.2014, p. 1.

- undertakings in bankruptcy and pre-bankruptcy settlement proceedings or in liquidation, in accordance with the applicable law governing bankruptcy and pre-bankruptcy proceedings; and
 - undertakings subject to a recovery order following a Commission decision declaring the aid illegal and incompatible with the internal market.
- (21) Moreover, no aid can be granted if work has already started²¹: undertakings who have undertaken construction works under the investment or assumed the first firm commitment to order equipment or any other commitment that renders the investment irrevocable, whichever occurs earlier will not be eligible (no aid is provided for the reconstruction of production plants). The aid can be granted only to new installations, i.e. those that can only be built on the basis of a winning bid in a public tender for the award of a market premium and not before.
- (22) Regarding hydropower plants, the Croatian authorities have confirmed the full application of the national rules implementing the Water Framework Directive²².
- (23) Regarding biomass and biogas, the Croatian authorities indicated that only forest- and wood-waste biomass and biogas from mostly manure with other feedstock under condition of fulfilling greenhouse gas (“GHG”) emissions savings criteria under the Renewable Energy Directive will be eligible to support under the notified scheme. The Croatian authorities confirmed that no aid will be granted to food-based biofuels in accordance with point (112) and (113) of the EEAG and that eligible projects will comply with the sustainability criteria of the Renewable Energy Directive. No aid will be provided to the production or use of biofuels²³.
- (24) The Croatian authorities have also confirmed compliance with the Waste Framework Directive²⁴ and, in particular, with the waste hierarchy principle, implemented in national law (in particular, the Act on Sustainable Waste Management²⁵). The notified scheme will provide aid for the production of electricity from biogas using biodegradable waste (especially manure from the farms, silage, agricultural residues, etc.).

2.4. Form of aid and granting authority

2.4.1. General principles

- (25) The notified scheme provides operating aid for electricity produced from RES in the form of a market premium granted to the winners of the public tenders. The Croatian authorities will organise separate tenders with specific quotas for the different technologies, namely solar (with installed capacity exceeding 500 kW),

²¹ Buying of land and preparatory works such as obtaining permits and conducting preliminary feasibility studies are not considered as start of works. For take-overs, ‘start of works’ means the moment of acquiring the assets directly linked to the acquired establishment.

²² 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).

²³ Biofuels are defined as liquid fuel for transport produced from biomass in accordance with the Renewable Energy Directive.

²⁴ Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives (OJ L 312, 22.11.2008, p. 3).

²⁵ Official Gazette No 94/13; 73/17, 14/19 and 98/19.

hydro (with installed capacity between 500 kW and 10 MW), wind (with installed capacity exceeding 3 MW), biomass (with installed capacity between 500 kW and 5 MW), geothermal (with installed capacity exceeding 500 kW), biogas (with installed capacity between 500 kW and 2 MW) and innovative technologies²⁶.

- (26) The granting authority is HROTE, who is responsible for:
- implementing the public tender for granting the market premium in accordance with Article 31 of the RES Act; and
 - concluding market premium agreements based on the decision on selecting the most favourable tenderers in accordance with Article 32 of the RES Act.
- (27) HROTE is a 100 % Croatian State-owned company and is under the supervision of the Ministry of Economy.
- (28) The measure intends to support a total capacity of 2,010 MW for electricity generation from wind, biomass, biogas, geothermal, solar and hydropower plants up to 10 MW, with a connection capacity over 500 kW and innovative technologies.

Table 2: capacity (in MW) supported in 2021-2023

| Year | 2021 | 2022 | 2023 | Total |
|------------------------|-------------|-------------|-------------|--------------|
| Full quota (MW) | 500 | 945 | 565 | 2,010 |

Source: Croatia

- (29) Following the public tenders (see section 2.4.2), the winning installations will conclude with HROTE a market premium agreement (see section 2.4.4). Those installations will then sell their electricity on the electricity market and will be therefore responsible for energy balancing.
- (30) In addition to the market price, those installations will receive a premium paid by HROTE, which is calculated on a “pay-as-bid” basis as the difference between the price they offered to the tender (the “reference value”) and the reference electricity market price (see section 2.4.5). This premium will be paid out during 12 years. The Croatian authorities have also introduced a maximum reference value for each quota/technology that the bidders cannot exceed (see section 2.4.6). Those maximum reference values correspond to the total levelised costs of producing energy (“LCOE”) for each technology and they are updated annually.

²⁶ Defined as new and unproven technology compared to the state of the art in the industry, and is not an optimisation or scaling up of an existing technology in the use of primary energy sources, and as such is not available in the market, which have received development aid within the European Union (e.g. Programme NER 300). Those projects are limited to the technologies eligible under the notified scheme (wind, solar, biomass, biogas, hydropower and geothermal power plants). Therefore, the same criteria apply to the winning beneficiaries depending on the technology used, including the cumulation rules.

Table 3: Reference values for RES technologies in Croatia (2020)

| | Quota (MW) | Maximum Reference value (HRK/MWh) | Maximum Reference value (EUR/MWh)²⁷ |
|---|-----------------------|--|---|
| Solar power plants with installed capacity exceeding 500 kW | 865 | 464.1 | 61.3 |
| Hydropower plants with installed capacity between 500 kW and 10 MW, inclusive | 10 | 866.3 | 114.4 |
| Wind farms with installed capacity exceeding 3 MW | 1,050 | 453.8 | 59.9 |
| Biomass power plants with installed capacity exceeding 500 kW and up to 5 MW, inclusive | 32.9 | 1,067.7 | 141.0 |
| Geothermal power plants with installed capacity exceeding 500 kW | 20 | 1,255.3 | 165.8 |
| Biogas plants with installed capacity exceeding 500 kW and up to 2 MW, inclusive | 22.26 | 1,084.6 | 143.2 |
| Innovative technologies which have received development aid within the European Union | 10 | 1,255.3 | 165.8 |

Source: Croatia

2.4.2. Tender procedure

- (31) The support in the form of a market premium agreement is granted to RES producers following a public tender. HROTE will prepare and conduct those public tenders at least once a year²⁸, until the quotas are exhausted.
- (32) HROTE shall stipulate a minimum number of bids per tender, depending on the width of the portfolio of projects in the pipeline, in order to ensure competitiveness at every technology-specific level²⁹.
- (33) The bids must contain, in particular:
- the bidding connection capacity of the installation (in kW); and
 - the bidding reference value of the project holder in the tender for the award of the market premium (in HRK/MWh), which must not exceed the

²⁷ Based on the EUR middle exchange rate of the CNB on 3 March 2021 (1 EUR = 7.571693 HRK).

²⁸ Article 5 of the Regulation on the Promotion of RES.

²⁹ The Croatian authorities explained that a minimum number of three bids (or more for technologies such as solar or wind energy) would be adequate to ensure the competitiveness of the tenders. For technologies such as geothermal power plants and innovative technologies, this number could be adjusted according to the number of prepared project (especially since the quotas for such technologies are significantly less than others, e.g. wind and solar energy, and due to their specific characteristics cannot be commercialised).

maximum reference value laid down for the group of the power generation installations concerned that has been published in the open call for tender.

- (34) The tender conditions, deadlines, tender procedure details and the contents of the public call for tenders as well as the classification of production plants eligible to participate in public tenders are defined by the Regulation on the Promotion of RES.
- (35) Bidders are ranked based on the reference value indicated in the bid (from the lowest to the highest). The bids with the same reference value are then ranked based on the connection capacity indicated in the bid (from the lowest to the highest).
- (36) HROTE, with the consent of the Ministry for Economy and Sustainable Development, may redistribute the remaining quota for a specific year, if any, for which HROTE failed to conclude a market premium agreement within the limits of the available budget of the notified scheme, to the same technology group in the following tender(s) until the final year of the notified scheme.
- (37) Based on the conducted public tender, HROTE adopts a decision on the selection of the most economically advantageous tenderers: the tenderers with the cheapest bidding reference value are selected³⁰. The conclusion of the tenders is delivered in the form of a decision to all participants of the public tender. It is an administrative act that any tenderer has the right to bring an appeal against if the tenderer can prove or make evident a present or past legal interest in being awarded the market premium agreement.

2.4.3. Justification from Croatia concerning the deviation from the technology neutrality principle

- (38) The notified scheme foresees seven different tender procedures for the technologies listed in Table 3. According to the Croatian authorities, a technology-specific approach, where projects compete within technology-specific baskets, combined with predefined quota for each technology, will deliver optimal use, technology development and diversification of renewable resources. Table 3 above lists the quota for each technology supported under the notified scheme.
- (39) The Croatian authorities invoked the justifications to deviate from the technology-neutrality principle set out in point (126), last paragraph (a) to (e) of the EEAG:
 - the longer-term potential of a given new and innovative technology;
 - diversification of energy sources;
 - maintaining network and grid stability;
 - system integration costs; and
 - the need to avoid distortions on the raw material markets from biomass support.
- (40) In particular, the Croatian authorities submitted that diversification of energy sources will increase security of supply through increased reliability of its own energy system (lower loss-of-production probability) and decreased dependence

³⁰ See Article 5(3) of the RES Act.

on imports³¹. They also considered that a diversified energy system is more flexible, making integration of larger shares of intermittent generation easier.

- (41) The Croatian authorities also explained that, based on operational data of power plants in Croatia registered by HROTE, diversification of renewable energy sources will make the country less vulnerable to seasonal variations of available energy resources. Indeed, monthly resource availability is not uniform during the year for all RES technologies. Some sources with an intermittent nature, like wind and solar, have a high degree of monthly variability while hydro energy, biogas and biomass are more stable. The Croatian authorities consider that complete diversification of energy technologies has beneficial effects on seasonal variability: the average standard deviation of productivity is only 4 % of the average productivity expressed in full load hours (“FLH”).

Table 4: Productivity (in FLH) of different RES technologies in Croatia (2012-2019)

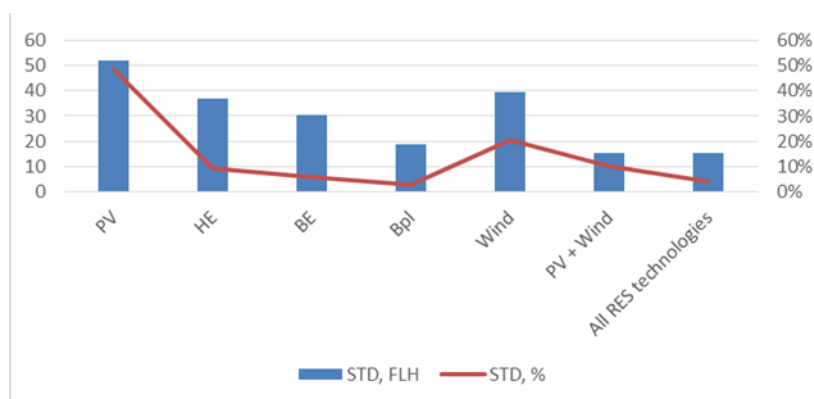
| Average 2012-2019, FLH | Solar | Hydro | Biomass | Biogas | Wind | Solar + Wind | All RES technologies |
|-------------------------|-------|-------|---------|--------|------|--------------|----------------------|
| Jan | 42 | 409 | 550 | 633 | 230 | 136 | 373 |
| Feb | 58 | 382 | 533 | 570 | 247 | 152 | 358 |
| March | 109 | 430 | 575 | 624 | 248 | 179 | 397 |
| April | 136 | 407 | 542 | 602 | 197 | 167 | 377 |
| May | 149 | 428 | 521 | 614 | 174 | 161 | 377 |
| June | 168 | 392 | 509 | 583 | 143 | 156 | 359 |
| July | 175 | 356 | 480 | 588 | 141 | 158 | 348 |
| August | 166 | 331 | 474 | 601 | 153 | 159 | 345 |
| September | 114 | 344 | 524 | 581 | 169 | 142 | 346 |
| October | 86 | 431 | 557 | 616 | 178 | 132 | 374 |
| November | 47 | 371 | 546 | 605 | 227 | 137 | 359 |
| December | 39 | 440 | 553 | 605 | 218 | 129 | 371 |
| Average, FLH | 107 | 393 | 530 | 602 | 194 | 151 | 365 |
| STD ³² , FLH | 52 | 37 | 30 | 19 | 39 | 15 | 16 |
| STD, % | 48% | 9% | 6% | 3% | 20% | 10% | 4% |

Source: Croatia

³¹ Imports represent 40-50% of total primary energy supply in Croatia (depending on year), and net electricity import amounts to 24-41% of total consumption. This includes imports from non-EU countries.

³² STD – Standard deviation.

Figure 4: Monthly variation of production by RES technology, expressed in absolute (STD, FLH) and relative (STD, %) terms



Source: Croatia

(42) In addition, the Croatian authorities also explained that the spatial availability of RES is not harmonised:

- Wind energy is much more present in the coastal area;
- Solar energy dominates the coastal area and is also present inland (in the continental part);
- Geothermal is available inland;
- Biomass and biogas are much more available inland; and
- Small hydro resource is more present inland.

(43) Overall, the Croatian authorities consider that by introducing separate quota for each technology, multiple targets are expected to be achieved at a cost effective basis:

- To continuously increase RES shares;
- To make the transmission and distribution system potentially more flexible;
- To exploit available natural RES resources in an efficient way;
- To foster benefits of renewable energy to local communities, like support to local economy and new jobs in rural and remote areas of Croatia; and
- To make a first step towards bioeconomy in Croatia and to direct waste streams towards value added energy products (by partial use of wood residues, biological waste, manure, etc. as feedstock).

(44) According to the Croatian authorities, the positive aspects of diversification are difficult to quantify, but are recognized as important for a successful implementation of the RES policy in Croatia.

(45) The Croatian authorities provided detailed justification for each technology as presented below.

For wind and solar

(46) According to the Croatian authorities, wind and solar power plants bidding should be differentiated in order to efficiently exploit available and unused solar resources and, thus, achieve energy sources diversification.

- (47) At the end of 2019, Croatia had more than 10 times more wind capacity than photovoltaic (PV) capacity installed and respectively approximately 20 times more in terms of electricity production (see **Table 5**). The Croatian authorities would like to develop the large untapped potential of solar energy in Croatia.

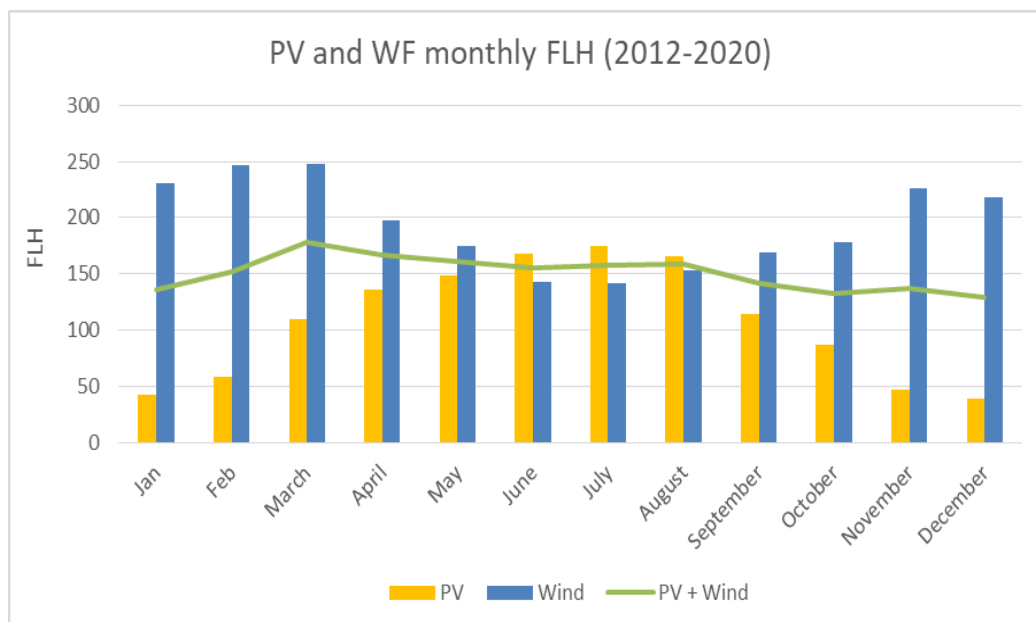
Table 5 Installed capacity and electricity production in Croatia in 2019

| 2019 | Wind | PV |
|---|-------|------|
| Installed capacity (MW) | 575.8 | 53.4 |
| Production (GWh) | 1,391 | 72 |
| PV-to-Wind (Capacity ratio) | 9.3% | |
| PV-to-Wind (Electricity production ratio) | 5.2% | |

Source: Croatia

- (48) Moreover, PV technology has a slightly higher LCOE than wind energy (see Figure 4). Direct competition between PV and wind projects would most likely end up in favour of new wind projects getting support. This concentration would broaden the gap between wind and solar energy. Solar resource would still remain unexploited.
- (49) In addition, the Croatian authorities explained that wind and solar energy are fully complementary in Croatia when one considers monthly resource availability or productivity expressed as FLH. Wind and solar energy considered together have much lower monthly variation in productivity than separate wind and solar energy as shown in the figure below.

Figure 5: Monthly productivity (FLH, kWh/kW) of wind and solar power plants

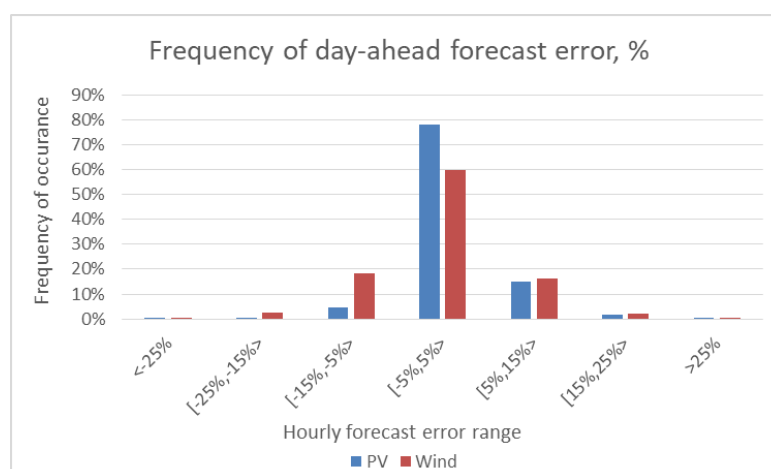


Source: Croatia

- (50) Moreover, the Croatian authorities submitted that technology-specific tenders for wind and solar energy are justified for network constraints and grid stability reasons. They explained that there are huge differences in grid network loads over the country, spatially and seasonally. The network capacity for integration of new

Croatia. Smaller forecast error in the range of -5% to 5% is expected with 78% probability for solar energy, and only 60% for wind energy.

Figure 7: Frequencies of day-ahead forecast errors for wind and solar energy in Croatia



Source: ECO balancing group, forecasts provided by specialized companies using state-of-the-art forecast models and techniques

- (53) As a negative outcome, the Croatian authorities consider that if significant increase of the balancing capacity is required due to concentration on one technology, the costs for the Croatian transmission system operator (“TSO”) would increase, resulting in higher balancing costs for all market participants.
- (54) In case of wind concentration over a limited territorial area as experienced in Croatia, grid expansion would have to be more intensive and thus more expensive, with more new and reconstructed lines in order to increase transmission capacity.

For hydropower plants

- (55) According to the Croatian authorities, a separate quota for small hydro power plants (“HPP”) is justified to exploit untapped hydro potential in Croatia and, thus, achieve energy sources diversification.
- (56) The Croatian authorities explained that small HPP contribute to the overall RES targets. The Croatian authorities defined ambitious national RES targets as part of common EU decarbonisation policy. This will require activation of all available RES resources. Through the notified scheme, the Croatian authorities aim at doubling the production capacity of hydro power plants (500kW-10 MW) from 10 MW to 20 MW.
- (57) The complexity of small HPP developments makes them one of the most risky RES technologies to develop. Typically, development of HPP in Croatia lasts for 10 years, mainly due to spatial, environmental and concessions issues, far too long in relation to the size of those projects according to the Croatian authorities. They explained that de-risking of those projects is essential to push small HPPs development further.

- (58) The Croatian authorities added that historic generation data show that HPPs are overall less variable and more predictable than solar and wind energy, bringing more stability to the system. Some HPPs, especially with a dam and a reservoir, are dispatchable, more flexible and adaptable to grid requirements. However, this comes at increased production cost that make those projects less competitive compared to wind and solar energy.
- (59) Production cost of HPPs is significantly higher than for solar and wind power plants, but much lower than biomass and biogas technologies (see the respective LCOE in Table 6 below).
- (60) Small hydro projects in Croatia are typically up to 2 MW. This is due to limited resource for larger small hydro power plants (5-10 MW) in Croatia and long environmental and other permitting procedures (development of hydro projects in Croatia typically lasts for 10 years mainly due to spatial, environmental and concessions issues). Putting HPPs in the same basket as cheaper technologies would in fact stop further small HPP development.
- (61) Conversely, the Croatian authorities consider that putting HPPs in the basket with more expensive technologies would result in blockage of those more expensive technologies and most probably in the failure to fill the (combined) quota due to the insufficient number of HPP projects.

For biomass, biogas and geothermal energy

- (62) According to the Croatian authorities, specific tenders for biomass, biogas and geothermal energy are justified by the need to achieve diversification and the longer-term potential of a given new and innovative technology.
- (63) First, on the need to achieve diversification, biomass, biogas and especially geothermal energy account for a very small share of final energy consumption in Croatia. According to the Croatian authorities, compared to available resources, the current state of these technologies in Croatia is not fully developed. A more diversified energy system is more flexible. The Croatian authorities consider that biomass, biogas and geothermal energy are stable technologies. Therefore, their inclusion in the energy mix supports integration of larger shares of intermittent generation. However, the cost aspect of the system flexibility and other benefits of using stable RES technologies are not fully reflected in the LCOE of those technologies, according to the Croatian authorities.
- (64) Second, regarding the longer-term potential of a given new and innovative technology, the Croatian authorities intend to activate the potential lying in different market segments that would not be activated without technology-specific policy.
- (65) The Croatian authorities explained that both biomass and biogas markets face non-technology risks (sustainability and emissions savings), that in addition to traditional risks make those projects challenging and risky to develop. According to the Croatian authorities, tendering biomass and biogas together puts additional risk to those projects (risk of not getting support after they are developed to a certain stage) since those projects are often developed by family farms/companies acting in a different primary industry than energy with limited risk capital. The Croatian authorities consider that a common tender might generate additional risk

and reduce the number of projects in the pipeline, resulting in decreased competition.

- (66) Third, according to the Croatian authorities, biomass and biogas installations operate in different operational regimes and fulfil different roles in the system in Croatia. Indeed, according to the structure of existing biogas stakeholders in Croatia (family farms and large agro-industrial farms), the following suitable business models are identified, where energy production is integrated into the existing agricultural system and can contribute to increasing the competitiveness of primary industry activities:
- smaller biogas power plants using primarily manure; and
 - larger biogas power plants linked to large farms, partly using agro-biomass and providing local biological waste treatment.
- (67) Biogas power plants (larger than approximately 650 kW) are obliged to fulfil emissions savings requirements (Article 29(10) of the Renewable Energy Directive³⁴). This requirement significantly increases CAPEX and puts operational challenges to biogas power plant operators against biomass projects.
- (68) The Croatian authorities also justified the existence of two separate tenders for biomass (forest and wood-waste) and biogas (mostly from manure with other feedstock) in order to avoid distortions in the raw material markets. Given that there is already a difference in production cost of biomass and biogas power plants and given that Croatia expects biomass to get cheaper and biogas to get more expensive because of GHG emissions criteria, a joint call for tenders would risk eliminating biogas projects and increasing pressure on wood resources, according to the Croatian authorities.
- (69) Biomass and biogas have different pathways in terms of raw materials. They also result in different by-products produced in the processes (ash, CO₂, digestate, sulphur, etc.). Through the balanced development of biomass (forest or wood-waste biomass) and biogas (gaseous biomass from other raw materials), the key targets of the EU strategy for bioeconomy could be met in a sustainable way.
- (70) Moreover, the Croatian authorities stressed that the targeted effect on local development should also be taken into account. The areas rich in biomass and biogas resources, in general, are sparsely populated areas with scarce industrial economic activity. Those areas are under strong depopulation trend. Therefore, spatially diverse biomass and biogas projects will increase overall economic activity in rural and passive areas, create new opportunities for economic growth and innovation, increase competitiveness and contribute to climate protection by use of local natural resources.
- (71) Finally, regarding the geothermal technology, the Croatian authorities explained that geothermal energy has the most specific project development process. A specific resource risk is present here, whereas geo-research for geothermal projects is extremely expensive and uncertain (see **Table 6**). Geothermal is extremely underdeveloped in Croatia, as geothermal resource assessment lacks research and data. Large upfront risk for investors is already a limiting barrier to

³⁴ 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).

step-in. Putting additional market risks might result in negative overall response and discourage the very few projects under development.

For innovative technologies

- (72) The Croatian authorities justified the need for a separate tender for innovative technologies on the basis on the longer-term potential of a given new and innovative technology.
- (73) The Croatian authorities stressed that investing in a project of an innovative nature involves a high degree of risk in technological, market or financial terms, higher than for other proven projects. Consequently, according to the Croatian authorities, projects in innovative technologies are less attractive to investors: if such projects competed with other RES projects, they would be uncompetitive and without aid they would not be realised.
- (74) By setting a separate quota for innovative technologies, the Croatian authorities intend to ensure that such projects ultimately develop improvements over existing technologies, thus achieving greater environmental benefits.

2.4.4. Market premium agreement

- (75) Based on the results of the public tender, HROTE shall conclude a 12-year market premium agreement with each selected project holder. Following the conclusion of that agreement, the market premium shall be allocated on a monthly basis to the eligible producers for the net electricity supplied, after the project holder for the production plant has acquired the eligible producer status³⁵. The project holder must acquire the eligible producer status and the aid allocation shall start no more than four years from the date of concluding the market premium agreement.
- (76) The market premium (TPi) for each production plant or production unit in a given month is calculated as the difference between: (i) the electricity reference value (RV), as bid by each selected beneficiary in the tender and which must not exceed the maximum reference values set once a year by HROTE, and (ii) the reference electricity market price which is determined every month by HROTE (TCi):

$$TPi = RV - TCi$$

where:

TCi is the reference electricity market price in the accounting period (each month), expressed in HRK/kWh; and

RV is the electricity reference value bid by the beneficiary as defined in the market premium agreement, expressed in HRK/kWh.

- (77) When the reference market price is higher than the beneficiary reference value for a given month, the market premium for that month is zero. The Croatian authorities indicated that they are in the process of amending the RES Act and

³⁵ The status of eligible electricity producer is defined in the Operating License issued by the DSO. It confirms that the RES production plant had successfully carried out the trial run, fulfilled the conditions for permanent operation in the DSO grid and is in line with the agreement on the use of the DSO network.

that they plan to set that the difference will be transferred to the next month(s) and will be subtracted from the premium to be paid to the RES producer when the reference market price drops below the reference value, based on the contract-for-difference principle³⁶.

- (78) No aid is granted for hours when the market prices are negative: eligible producers shall receive the market premium only for net electricity supplied at settlement intervals (hours) where the hourly reference day-ahead electricity price value is higher than or equals zero.
- (79) The market premium agreement shall be terminated, *inter alia*, if the project holder loses the status of eligible producer for the production plant or production unit for which that agreement has been concluded.

2.4.5. Reference electricity market price (*TCi*)

- (80) HROTE shall define the reference electricity market price (*TCi*) no later than the 15th day of the current month for the previous month, based on the calculation methodology for reference electricity market prices provided for in the Regulation on the Promotion of RES and publish it on its website³⁷.
- (81) Reference electricity market prices are calculated as a weighted average hourly day-ahead market prices over the relevant month, for (i) solar, (ii) wind and (iii) all other types of power plants, taking into account specific aspects of the production of solar and wind energy, which are less predictable technologies.
- (82) The calculation of the average monthly reference market price for solar and wind power plants starts from the calculation of the mean of hourly day-ahead prices where net electricity from all solar power plants in Croatia and the net electricity from all wind power plants in Croatia are used as ponders. For other plants, the classic calculation of the average of the reference hourly day-ahead prices is taken into account. Calculations are always based on the hourly day-ahead prices of electricity on the Croatian Power Exchange.
- (83) The Regulation on the Promotion of RES sets gradual correction factors that are the hourly reference day-ahead electricity price, which increases the reference electricity market price each year, assuming gradual decrease of “cost-of-market-performance” over time, for (i) solar power plants, (ii) wind power plants and (iii) all other types of power plants.
- (84) The correction factor in the starting year (2020) is 0.95 for more predictable technologies (biomass, biogas, geothermal and hydro), 0.9 for less predictable (solar) and 0.85 for the least predictable technology (wind). They gradually increase to 1 in 2030. Power plants might have additional operating cost of selling electricity on the electricity market during their first years of operation or decreased income. This is why the Croatian authorities imposed gradualness in exposure to market risks for all RES technologies, however differentiating between more predictable and less predictable technologies.

³⁶ This rule is not provided for in the current version of the RES Act, but Croatia intends to put it in place with the new RES Act which is currently in the parliamentary procedure.

³⁷ www.hrote.hr.

2.4.6. *Maximum reference value*

- (85) For the purpose of the public tenders, HROTE defines the maximum electricity reference values per technology annually, based on the methodology prescribed by the RES Act and the Regulation on the Promotion of RES. HROTE publishes them on its website per production plant group once a year (no later than 1 April).
- (86) Maximum reference values correspond to the LCOE calculated for each technology, i.e. the amount in HRK/MWh corresponding to the generation cost of electricity per unit of electricity production of a reference plant from a particular group of generating plants.
- (87) The calculation of maximum electricity reference values is based on and should not be greater than 100 % of the eligible production costs. Eligible costs include the total investment cost for the construction of RES plants³⁸, operating costs³⁹ and, for biomass, biogas and liquid biofuel power plants, fuel costs and value of useful heat from RES. Eligible costs also include additional investment costs aimed at raising the level of environmental and climate protection in order to comply with future Union standards, especially regarding the fulfilment of the greenhouse gas emission saving criteria and the sustainability criteria for biomass fuels set out in the Renewable Energy Directive.
- (88) The table below summarises Croatia's main assumptions and results for maximum reference values. The maximum reference values will be updated yearly depending on trends and updated data.

³⁸ Investment cost should represent average costs per technology and power plant size. The amount of investment costs per unit of production is calculated by an annuity method, in such a way that the required return on invested capital is provided over the life of the market premium contract.

³⁹ Operating costs are defined as the ratio of specific annual operating costs and annual equivalent plant operating hours.

Table 6: Calculation of levelised cost of electricity as maximum reference values

| Type of project | Solar energy | Hydro energy | Wind energy | Biomass | Biogas | Geothermal energy |
|--|--------------|--------------|-------------|--------------|------------|-------------------|
| Quota, MW | 865 | 10 | 1 050 | 32.9 | 22.26 | 20 |
| ASSUMPTIONS | | | | | | |
| Financial life under consideration (years) (n) | 12 | 12 | 12 | 12 | 12 | 12 |
| Full Load Hours (hours) (FLH) | 1 400 | 3 900 | 2 800 | 7 800 | 7 900 | 7500 |
| Share of equity (eq) | 30% | 30% | 30% | 30% | 30% | 40% |
| Interest rate on borrowed capital (r) | 3% | 5% | 3% | 3.5% | 3.5% | 4% |
| Return on equity (roe) | 12% | 12% | 12% | 12% | 12% | 16.5% |
| WACC | 5.7% | 7.1% | 5.7% | 6.05% | 6.05% | 9.0% |
| Specific investment costs (EUR/KW) (Inv) | 665 | 3 000 | 1 283 | 4 700 | 5 100 | 6 450 |
| Operational costs (EUR/KW) (Opt) | 9.3 | 73.8 | 20.1 | 483.4 | 317.9 | 360.6 |
| Specific fuel costs per LHV (EUR/MWh) (Gor) | N/A | N/A | N/A | 11.3 | 17.9 | N/A |
| Electric efficiency (Emi) | N/A | N/A | N/A | 35% | 35% | N/A |
| Heat efficiency (Hmi) | N/A | N/A | N/A | 25% | 25% | N/A |
| Specific value of deductible heat per unit of produced electric energy (EUR/MWh _{el}) (Vtop) | N/A | N/A | N/A | 33.1 | 33.1 | N/A |
| RESULTS | | | | | | |
| Internal rate of return | 5.7% | 7.1% | 5.7% | 6.2% | 6.2% | 9.1% |
| Production cost (LCOE), EUR/MWh | 62.46 | 116.6 | 61.1 | 143.7 | 146 | 169 |
| Maximum Reference Value during the period of subsidy (EUR/MWh) | 62.46 | 116.6 | 61.1 | 143.7 | 146 | 169 |

Note: Only power plants with capacity larger than 500 kW are included in the table as smaller power plants are not eligible under the notified scheme. Geothermal energy is exempted from deduction of heat value per unit of electricity according to the Regulation on the Promotion of RES.

Source: Croatia

- (89) The Croatian authorities explained that the lifetime of most RES plants is 20 years or more, but with regard to their permanent operation, it is usually necessary to replace the main components after 10-15 years to ensure the necessary performance and environmental standards (especially in facilities that

have moving parts). The share of construction works in total investments varies for different technologies (lowest for solar power plants, significantly higher for network equipment, biogas electricity, small HE and geothermal power plants), and may represent from 10 % up to in some cases 80 % of the total investments. The share of equipment costs ranges between 15 % and 70 % of the total investment. Therefore, the amortization period for the purpose of the notified scheme was set at 12 years for all technologies, taking into account the statutory maximum amortization rates, the average depreciation period for manufacturing facilities and other parts of the RES investment and also taking into account the existing legal framework for the production of electricity from the RES in Croatia.

- (90) The Croatian authorities set the estimated rate of return from 5.7 % to 9 %, calculated on the basis of the weighted average cost of capital (WACC) taking into account specificities of the Croatian economy and neighbouring countries.
- (91) The following assumptions are used to determine the annual cost of capital:
- Required return on invested capital: from 12 % to 16.5 %;
 - Interest rate on loans: from 3 % to 5 %;
 - Financial structure of the investment assumes a 30:70 ratio of own capital (equity) and external sources of financing (loans)⁴⁰.
- (92) The reference electricity values defined in the market premium agreements are subject to annual corrections by applying the average annual consumer price index published by the Croatian Bureau for Statistics for the previous calendar year. The first correction of the reference electricity value shall be made in the calendar year following the year of conclusion of the market premium agreement.

2.5. Cumulation

- (93) Aid granted under the notified scheme may be cumulated with other State aid measures for the same eligible costs if the total aid amount does not exceed the aid amount laid down in the market premium agreement under the present scheme. If the project holder already receives other State aid, in particular, aid for the construction of a production plant or production unit or development aid for innovative technologies, HROTE reduces the market premium accordingly in order to avoid any risk of overcompensation⁴¹.

⁴⁰ The Croatian authorities explained that geothermal power plants has the largest upfront risk (due to drilling and geothermal resource assessment), and thus the equity share required by financial institutions might be higher.

⁴¹ Where the project holder is a beneficiary of any kind of aid for the construction of a production plant or production unit, HROTE will reduce the market premium according to the following methodology:

$$INCENTIVE REDUCTION \left[\frac{HRK}{kWh} \right] = \frac{TOTAL AMOUNT OF AID RECEIVED [HRK]}{(A * INSTALLED POWER [kW] * FLH [h])}$$

where “A” is the annuity factor equal to 12, representing duration of the premium agreement in accordance with Article 15, paragraph 3 of the Regulation on the Promotion of RES and “FLH” is the annual equivalent of full load hours of production plants, a parameter used to determine the production costs of reference production plants, in accordance with Article 24 of the Regulation on the Promotion of RES.

- (94) HROTE is authorized to require the eligible electricity producer who is eligible for support under the notified scheme to submit any documentation and data necessary to verify compliance with the conditions for the payment of incentives. At the same time, HROTE, as a public legal body and provider of State aid, is required to submit data on allocated State aid to the State aid register and may access the data on all State aid beneficiaries in Croatia. HROTE shall thus verify the veracity of the above statement on allocated aid and apply the provisions on the cumulation of aid accordingly.

2.6. Duration

- (95) The notified scheme is expected to run from 2021 (after the notification of the present decision) to 31 December 2023.
- (96) The Croatian authorities confirmed that no aid will be granted under the notified scheme before the notification of the Commission decision declaring the aid compatible with the internal market.

2.7. Financing

- (97) According to Article 38 of the RES Act, the notified scheme is financed by so-called “incentive funds”. According to Article 37 of the RES Act, those incentive funds are collected from:
- an earmarked incentive fee for electricity generation from renewable energy sources and high-efficiency cogeneration (“RES and HEC fee”);
 - the sale of electricity generated in the production facilities of eligible producers, which the electricity market operator buys from eligible producers on the basis of electricity purchase agreements concluded under the previous feed-in tariff systems for the production of electricity from RES and cogeneration⁴² and the guaranteed price offtake agreements referred to in Article 35 of the RES Act;
 - the sale of issued guarantees of origin for electricity generated in the production facilities of eligible producers;
 - a monthly fee referred to in Article 46, paragraph 7, item 2 of the RES Act, paid by the ECO balance group⁴³ members whose production plants exceed the connection capacity of 50 kW; and
 - revenues related to the balancing of deviations of the ECO balance group.
- (98) The Croatian authorities explained that the amended RES Act (in parliamentary procedure at the moment of drafting this decision) will provide for two additional

⁴² Official Gazette No 33/07; Official Gazette No 63/12, 121/12 and 144/12; and Official Gazette No 133/13, 151/13, 20/14, 107/14 and 100/15.

⁴³ The ECO balance group refers to the balance group consisting of domestic electricity producers and other persons performing electricity production and having the right to an incentive price in accordance with the concluded electricity purchase agreements pursuant to the Tariff System for the production of electricity from renewable energy sources and cogeneration (Official Gazette No 33/07), Tariff System for the production of electricity from renewable energy sources and cogeneration (Official Gazette No 63/12, 121/12 and 144/12), Tariff System for the production of electricity from renewable energy sources and cogeneration (Official Gazette No 133/13, 151/13, 20/14, 107/14 and 100/15), and having the right to a guaranteed purchase price pursuant to the electricity purchase agreement referred to in Article 35 of the Act.

sources of financing: (i) part of the income from the auctions of the EU ETS allowances and (ii) part of the Carbon Border Adjustment Mechanism⁴⁴ taxes.

- (99) According to Article 38 of the RES Act, the incentive funds are pooled together and used to finance:
- the payment of the guaranteed electricity price to eligible producers under the previous feed-in tariff support schemes and under the guaranteed price support scheme for RES producers with capacity of less than 500 kW to be put in place under Article 35 of the RES Act;
 - the payment of the market premium under the notified scheme;
 - the power supply system balancing costs, which are assigned to the ECO balance group (except for the fees paid by members of the ECO balance group).
- (100) The incentive funds are also used to finance the costs borne by HROTE for managing the notified scheme, the costs of managing the ECO balance group and the costs associated with the sales volume of issued guarantees of origin for electricity produced in the production facilities of eligible producers.
- (101) The Ministry for Energy allocates and supervises the calculation, payment and spending of the incentive funds. National authorities have no discretion in allocating the incentive funds, which are strictly earmarked and can only be used to finance the measures listed in recital (99). According to Croatia's rough estimates, 22% of incentive funds is expected to finance the notified scheme (in case all quotas are implemented).
- (102) According to Article 41 of the RES Act, the electricity market operator (HROTE) collects the RES and HEC fee from electricity suppliers, who in turn collect it from end consumers in their electricity consumption bills. The fee is a compulsory charge imposed by law, which is charged by electricity suppliers to final customers as a fixed fee for each kWh of electricity consumed in Croatia irrespective of the country of production, including domestically produced and imported electricity.
- (103) The government determines the amount of the RES and HEC fee on the basis of a revenue and expenditure plan for the following year containing at least a three-year period forecast related to the incentive systems, which HROTE submits to the Ministry for Energy (currently the Ministry for Economy and sustainable development) by 30 September of the current year. The level of the RES and HEC fee is determined annually by a decision of the Croatian Government upon proposal of the competent Ministry for Energy by 31 October of the current year for the following year. According to Article 41(4) of the RES Act, the RES and HEC fee amount shall be sufficient to cover the costs of the notified scheme and the other support measures referred to in recitals (99) and (100), taking into account the expected electricity sales revenues referred to in Article 39 of the RES Act and the associated guarantees of electricity origin.
- (104) Moreover, according to the current version of Article 41(6) of the RES Act, the funds collected from the RES and HEC fee that have not been allocated in the

⁴⁴ Proposal for a regulation of the European Parliament and of the Council establishing a carbon border adjustment mechanism, COM/2021/564 final.

course of the year are used to finance the same measures in the following year. The Croatian authorities however committed to amend the national legislation in order to ensure that surpluses from the RES and HEC fee (as compared to the initial estimates based on which the rate of the RES and HEC fee has been determined), if any, will be transferred to the State budget on an annual basis. The Croatian authorities also committed to amend the national legislation in order to ensure that deficits, if any, will ultimately be covered by the State budget.

2.8. Budget

- (105) The budget is calculated for the duration of the entire aid allocation period and the calculation is discounted to the allocation year value.
- (106) The total amount of aid planned under the scheme is HRK 5 928 999 902 (EUR 783 048 111⁴⁵). This amount is allocated annually as follows:

Table 7: Estimated annual budget (discounted to the aid allocation year)

| | 2021 | 2022 | 2023 | TOTAL |
|--------------------|---------------|---------------|---------------|---------------|
| <i>Quota (MW)</i> | 500 | 945 | 565 | 2 010 |
| <i>Funds (HRK)</i> | 2 284 442 781 | 2 514 419 832 | 1 130 137 283 | 5 928 999 902 |
| <i>Funds (EUR)</i> | 301 708 321 | 332 081 588 | 149 258 202 | 783 048 111 |

Source: Croatia

2.9. Transparency

- (107) The Croatian authorities confirmed that they will comply with the provisions under section 3.2.7 of the EEAG: HROTE will publish the following information on its website (www.hrote.hr): the full text of the approved scheme and a link to it, the Commission decision, the identity of the granting authority, the identity of the individual beneficiaries, the form and amount of aid granted to each beneficiary, the date of granting, the type of undertaking (SME/large company), the region in which the beneficiary is located and the principal economic sector in which the beneficiary has its activities.
- (108) Such information will be published after the decision to grant the aid has been taken. It will be kept by HROTE for at least 10 years and will be available to the general public without restrictions.

2.10. Evaluation

- (109) The Croatian authorities have submitted an evaluation plan for the measure. The main elements of the evaluation plan are described below.
- (110) The evaluation plan notified by the Croatian authorities includes evaluation questions in order to assess the scheme's outputs, its direct effects, its indirect effects (both positive and negative), as well as the proportionality of the aid and the appropriateness of the chosen aid instrument.

⁴⁵ Based on the EUR middle exchange rate of the CNB on 3 March 2021 (1 EUR = 7.571693 HRK)

- (111) The evaluation will provide general information, in particular, on whether the scheme achieves its objectives, on the number and type of beneficiaries, and on the auctions to be organised.
- (112) The evaluation will verify how many renewable energy projects are contracted with the aid provided under the scheme. The direct effects of the scheme will be assessed by investigating how many projects would have been realised without the aid during the scheme per each RES technology. In addition, the evaluation will also assess whether the aid has had a significant effect on the course of action taken by the aid beneficiaries and whether the beneficiaries are affected in the same way by the aid, considering size, location or sector.
- (113) The indirect effects of the aid will be assessed by investigating whether the aid has any effect on the (increase of the) RES share in Croatia. In addition, the evaluation will also analyse whether the aid would lead to a reduction of GHG emissions and the cost of GHG reduction per RES technology for the State aid scheme. The evaluation will also assess whether the aid granted has any effect on the economic activity of less developed local communities in Croatia, and it will investigate the impact of the aid on competition, especially by looking at potential crowding-out effects on non-successful tenderers or at potential influences on market prices and positive or negative incentives for new investments.
- (114) The evaluation will analyse the proportionality and appropriateness of the scheme by assessing whether the aid granted through the scheme is proportionate to the problem, i.e. the lack of competitiveness of RES technologies. Moreover, it will investigate whether the aid instrument (floating market premium) is the most appropriate instrument in the context of the Croatian renewable energy industry.
- (115) For the purpose of evaluation of the scheme, the Croatian authorities will use a suit of result indicators connected to the evaluation questions listed above. For the direct effects, the key result indicators will be: the number of new RES projects with and without aid granted, the size of the projects, and their geographical scatter. For the indirect effects, the key result indicators will be: the RES-E share, the Croatian GHG emissions in absolute and specific terms (estimated effect for the new supported RES project), the status of RES projects that do not receive aid one year after the tender closure, the new registered RES projects in the Registry of RES&CHP Projects, the import of electricity (trend), and the geographical scatter of successful projects and overlap with NUTS 3 regions and their development status. For the indirect effects, the key result indicator will be the level of support granted via tenders for each RES technology.
- (116) To evaluate the direct effects of the scheme, the Croatian authorities have committed to apply, to the extent possible given data availability, counterfactual impact evaluation methods in line with the Commission Staff Working Document on Common methodology for State aid evaluation⁴⁶. In particular, for assessing the direct impact of the aid, the Croatian authorities will use counterfactual impact evaluation methods and will rely on the Difference-in-Difference approach (DD method), which was selected as appropriate given the characteristics of the scheme. The Croatian authorities will also supplement the

⁴⁶ Commission Staff Working Document on Common methodology for State aid evaluation, Brussels, 28.5.2014, SWD(2014) 179 final.

counterfactual analyses with additional methods to assess the indirect effects and the proportionality and appropriateness of the scheme (e.g. supply cost methods to assess proportionality of the aid Scheme, SWOT analysis to assess the appropriateness of the scheme, or other quantitative methods to investigate the indirect impacts).

- (117) In order to perform the evaluation, the Croatian authorities have committed to making available to the independent evaluator the detailed data collected from the aid beneficiaries and from the firms that will be included in the control group. Data on assisted projects will be collected directly from the aid beneficiaries using survey tools on a yearly basis. The first survey will include questions on initial values of indicators before the aid was granted (if applicable). HROTE envisages imposing special obligations to beneficiaries under the market premium agreement, based on which beneficiaries will be periodically obliged to submit specific data on their projects, which will also serve to implement the evaluation. The data will be collected both through already established channels such as the HOPS (Croatian TSO), ODS (Croatian DSO), the Agency and the Ministry of economy and sustainable development and through envisaged new information channels (e.g. collaboration with the Ministry of construction). Part of the data will come from regular statistical sources (Croatian Bureau of Statistics, EUROSTAT).
- (118) The Croatian authorities have committed to submit the final evaluation report to the Commission by the end of June 2023. The final evaluation report will analyse the data available up to the end of Q1 2023. Given that only a small share of the projects will be operational by the end of Q1 2023, the Croatian authorities have committed to continue the evaluation even after the completion of the scheme and to submit to the Commission an additional evaluation report by the end of 2026, which will present the complete results of the evidence-based evaluation of the effectiveness of the scheme.
- (119) The evaluation will be conducted by an external independent evaluator to be selected by HROTE. The Croatian authorities have committed to duly consider the relevant experience in related research, the multidisciplinary nature of the evaluation team and the qualifications and experience concerning quantitative methods.
- (120) The evaluation report will be published on the website of the HROTE (www.hrote.hr). The data for the evaluation will be collected respecting all conditions of possible business secrets and confidential information (Communication of the Commission on professional secrets in State aid decisions C (2003) 4582 OJ C 297) and the General Data Protection Regulation⁴⁷. The data will be made available to the European Commission for the purpose of transparency and replicability of the evaluation results.

⁴⁷ Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (OJ L 119, 4.5.2016, p. 1).

3. ASSESSMENT OF THE MEASURE

3.1. Presence of State Aid

- (121) Under Article 107(1) TFEU, 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, in so far as it affects trade between Member States, is incompatible with the internal market.
- (122) In order to constitute State aid within the meaning of Article 107(1) TFEU, the measure must: (i) confer an advantage on certain undertakings or certain sectors (selective advantage), (ii) be imputable to the State and involve State resources, (iii) distort or threaten to distort competition, and (iv) be liable to affect trade between Member States.

3.1.1. Selective advantage

- (123) Under the notified scheme, RES electricity producers receive an advantage because they obtain additional support in the form of a premium on top of the market price (see recital (30)). Those payments guarantee producers of electricity from the supported RES technologies revenues higher than what they would have obtained on the market.
- (124) Moreover, the aid is selective since it favours only producers of electricity from RES and the aid is not accessible to other electricity producers.
- (125) It follows that the measure at issue confers a selective advantage within the meaning of Article 107(1) TFEU.

3.1.2. Imputability and existence of State resources

- (126) The notified scheme is imputable to the State since it is established by law, namely the RES Act, the Regulation on the Promotion of RES and the Regulation on quotas (see recital (13)). In addition, the granting authority, HROTE, is under the supervision of the Ministry of Economy as explained in recital (27).
- (127) 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. It is established by the case-law⁴⁸ that funds financed through compulsory charges imposed by the legislation of the Member State, managed and apportioned in accordance with the provisions of that legislation, may be regarded as State resources within the meaning of Article 107(1) TFEU even if they are managed by private or public entities separate from the public authorities. The Court of Justice has recently confirmed that the fact that the financing of a measure comes from a compulsory levy is sufficient to establish the existence of State resources⁴⁹.

⁴⁸ Judgments of 2 July 1974, *Italy v Commission*, 173/73, EU:C:1974:71, paragraph 35, and of 19 December 2013, *Association Vent De Colère! and Others*, C-262/12, EU:C:2013:851, paragraph 25.

⁴⁹ Judgment of 16 September 2021, *FVE Holýšov, e.a. v Commission*, C-850/19 P, EU:C:2021:740, paragraph 46.

- (128) According to the RES Act, the notified scheme is financed by incentive funds that are collected from: (i) the RES and HEC fee, (ii) the sale of electricity by the market operator, (iii) the sale of issued guarantees of origin, (iv) a monthly fee paid by the ECO balance group members, and (v) revenues related to the balancing of deviations of the ECO balance group, as explained in recital (97).
- (129) In particular, the Commission notes that the RES and HEC fee is a surcharge on electricity consumption established by law (see recital (96)). On the one hand, the RES Act provides that HROTE is obliged to collect this surcharge from electricity suppliers who in turn collect it from end consumers in their electricity consumption bills (see recital (102)). On the other hand, operators on which the surcharge is levied have to pay it (see recital (102)). This surcharge therefore qualifies as a compulsory levy, imposed by law, whose purpose is to fund, in particular, the notified scheme.
- (130) Moreover, the Commission observes that the State controls, directs and influences the administration of the funds at stake.
- (131) The granting authority (HROTE), as explained above in recital (26), is 100 % owned by the State and is under the supervision of the Ministry of Economy. Under the RES Act, HROTE is obliged to send to the consumer an invoice for electricity consumed. HROTE has no discretion to determine the amount and the intended use of the surcharge, but it must follow the national legislation (see recitals (101) and (102)).
- (132) As explained in recitals (102) and (104) above, the national legislation sets the methodology by which the Government determines the annual level of the surcharge. In particular, the surcharge is adjusted annually in order to cover the relevant expenditure. The law further determines to what purposes the surcharge, its surplus or its deficit, if any, can be used (see recitals (99) and (104) and will provide for deficits, if any, to ultimately be covered by the State budget.
- (133) In the light of the above, the Commission considers that the measure is granted through State resources and is imputable to the State within the meaning of Article 107(1) TFEU.

3.1.3. Impact on trade between Member States and on competition

- (134) The electricity market has been liberalised and electricity producers are engaged in trade between Member States so that the advantage granted to the producers of renewable electricity is likely to distort competition and affect trade between Member States. The renewable electricity is generally sold on the spot market where it enters in competition with all sources of electricity.
- (135) Therefore, the Commission notes that the advantage granted to the operators of RES installations is likely to distort competition and affect trade between Member States.

3.1.4. Conclusion on the presence of aid

- (136) On the basis of the above-mentioned elements, the Commission considers that the measure constitutes State aid within the meaning of Article 107(1) TFEU.

3.2. Lawfulness of the aid

- (137) The scheme was notified to the Commission on 3 March 2021. The aid will only be granted under the scheme following State aid approval by the Commission. Therefore, the Croatian authorities have complied with their obligations under Article 108(3) TFEU.

3.3. Compatibility

- (138) 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 must contribute to the development of certain economic activity. Furthermore, the aid should not distort competition in a way contrary to the common interest.
- (139) Moreover, the EEAG set out specific compatibility conditions for aid for energy from renewable sources.
- (140) On 2 July 2020, the Commission adopted a communication prolonging the validity of certain State aid rules, including the EEAG, until 31 December 2021⁵⁰.

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

3.3.1.1. Development of an economic activity

- (141) Under Article 107(3)(c) TFEU, in order to be capable of being considered compatible with the internal market, the measure must contribute to the development of certain economic activity⁵¹.
- (142) The measure at issue promotes the development of electricity production from RES in Croatia.
- (143) The promotion of the development of renewable energy is one of the aims of the Union’s policy on energy pursuant to Article 194 TFEU.
- (144) Moreover, as explained in recital (5) and following, the notified measure supports the EU and national objectives. It is consistent with the Croatian NECP aiming at increasing the share of RES in the national energy production mix.

⁵⁰ Communication from the Commission concerning the prolongation and the amendments of the Guidelines on Regional State Aid for 2014-2020, Guidelines on State Aid to Promote Risk Finance Investments, Guidelines on State Aid for Environmental Protection and Energy 2014-2020, Guidelines on State aid for rescuing and restructuring non-financial undertakings in difficulty, Communication on the Criteria for the Analysis of the Compatibility with the Internal Market of State Aid to Promote the Execution of Important Projects of Common European Interest, Communication from the Commission – Framework for State aid for research and development and innovation and Communication from the Commission to the Member States on the application of Articles 107 and 108 of the Treaty on the Functioning of the European Union to short-term export-credit insurance 2020/C 224/02, C/2020/4355 (OJ C 224, 8.7.2020, p. 2).

⁵¹ Judgment of 22 September 2020, *Austria v Commission*, C-594/18 P, EU:C:2020:742, paragraphs 20 and 24.

(145) In view of the above, the Commission considers that the notified scheme facilitates the development of economic activities of production of electricity from renewable sources, as required by Article 107(3)(c) TFEU.

3.3.1.2. Compliance with other provisions of Union law

(146) State aid that contravenes provisions or general principles of Union law cannot be declared compatible⁵².

(147) The Croatian authorities confirmed that aid under the notified scheme will be granted in compliance with:

- the Renewable Energy Directive;
- the Water Framework Directive with regard to the support provided to hydro power plants in line with point (117) of the EEAG;
- the Waste Framework Directive and in particular with the waste hierarchy principles, in compliance with point (118) of the EEAG.

(148) The Croatian authorities also confirmed that no aid will be granted to food- and feed- based biofuels in accordance with points (112) and (113) of the EEAG.

(149) 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 market⁵³. 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 TFEU⁵⁴.

(150) According to a 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 the aid and, consequently, on the assessment of the compatibility of that aid with the common market⁵⁵.

(151) In particular, the concerned charge must be levied specifically and solely for the purpose of financing the aid at issue⁵⁶.

(152) Moreover, it is also apparent from the case-law that there may be no such hypothecation when the amount of aid is determined solely on the basis of objective criteria, not related to the allocated revenue, and subject to an absolute

⁵² Judgment of 22 September 2020, *Austria v Commission*, C-594/18 P, EU:C:2020:742, paragraph 44.

⁵³ Judgment of 22 September 2020, *Republic of Austria v Commission*, C-594/18 P, EU:C:2020:742, paragraph 44.

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

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

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

statutory ceiling⁵⁷. In particular, the Court has held that there is no hypothecation when the national legislation establishes the aid amount between a minimum and maximum value regardless of the revenue from the tax⁵⁸. Moreover, the Court has recently held that there was no hypothecation between the tax and the aid granted in a case where the amount of the aid was determined according to criteria unrelated to the allocated tax revenue and where national legislation provided that any surplus in relation to this aid had to be reallocated, as appropriate, to a reserve fund or the treasury, that revenue also being the subject of an absolute ceiling, with the result that any surplus is also reallocated to the State's general budget⁵⁹. To exclude the existence of a hypothecation link, the Court also took into account the fact that, where the revenues from the levy are insufficient to cover the total aid amount, the relevant Member State is required to cover the shortfall by means of contributions from its general budget

- (153) In the present case, the notified scheme is financed by incentive funds, collected through different sources, including a levy imposed on electricity consumption, both electricity domestically produced and imported electricity (see recital (102)). Those incentive funds finance other measures (see recitals (99) and (100)).
- (154) The amount of aid, *i.e.* the level of the market-premium paid to the RES producers on top of the market price, is determined on a “pay-as-bid” basis: it corresponds to the difference between the reference value as bid by the RES producer in the tender (which must be lower than the maximum reference value set by HROTE) and the reference electricity market price (see recital (30)). The maximum reference value, which works like a cap and determines the maximum aid amount, is set by the national legislation based on the average production costs (LCOE) of each technology (see recitals (86) and (87)). Moreover, the supported capacity (the quotas) is determined by the Quota Regulation. As a result, the amount of aid is determined by the results of the tender for specific quotas and neither the total volume of the support nor the individual support are determined by the level of the RES and HEC fee revenues.
- (155) Croatia furthermore committed to amend its national legislation to ensure that surpluses of the RES and HEC fee, if any, will be reallocated to the general State budget and deficits, if any, will be ultimately covered by the general State budget (see recital (104)).
- (156) It follows that the RES and HEC fee does not have a direct impact on the amount of the aid and, therefore, does not form an integral part of the measure as it is not hypothecated to the aid under the relevant national rules. As a result, the compliance of the RES and HEC fee with Articles 30 and 110 TFEU is not assessed in the present decision.

⁵⁷ Judgment of 20 September 2018, *Carrefour Hypermarchés and Others*, C-510/16, EU:C:2018:751, paragraph 21.

⁵⁸ Judgement of 27 October 2005, *Distribution Casino France and Others*, C-266/04 to C-270/04, C-276/04 and C-321/04 to C-325/04, EU:C:2005:657, paragraph 52.

⁵⁹ Judgements of 20 September 2018, *Carrefour Hypermarchés and Others*, C-510/16, EU:C:2018:751, paragraph 22 and of 10 November 2016, *DTS Distribuidora de Televisión Digital v Commission*, C 449/14 P, EU:C:2016:848, paragraphs 70 to 72.

(157) In light of the above, the Commission considers that the measure does not infringe relevant Union law.

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

3.3.2.1. The market affected by the aid

(158) The market affected by the aid is the market for electricity production in Croatia.

3.3.2.2. The positive effects of the aid measure

(159) As indicated in section 3.3.1.1., the measure contributes to the development of certain economic activity: the electricity production from RES in Croatia. The promotion of the development of renewable energy is one of the aims of the Union's policy on energy. The measure is also in full consistency with the Croatian NECP, the Croatian RRF.

(160) In addition, as explained by the Croatian authorities (see recital (9)), the measure will also have a wider multiplicative effect on the economy, such as the creation of new jobs, economic growth and more balanced economic development of local communities.

3.3.2.3. The negative effects of the aid measure on the internal market: the aid measure minimizes the distortions on competition and trade

3.3.2.3.1. Need for State intervention

(161) According to subsection 3.2.2 of the EEAG, the Member State needs to demonstrate that there is a need for the State intervention and in particular that the aid is necessary to remedy a market failure that otherwise would remain unaddressed. In the case of the production of electricity from RES, the Commission presumes that a residual market failure remains, which can be addressed through aid for renewable energy, for the reasons set out in point (115) of the EEAG.

(162) Based on the information submitted by the Croatian authorities in recital (11), the Commission notes that the RES producers (solar, wind, biomass, biogas and hydropower) still require State intervention in the form of subsidies to be financially viable in Croatia. The aid will contribute towards achieving the goal of the green transition based on market terms.

(163) The Commission notes that the high production cost of electricity from RES in Croatia prevents their competitiveness in relation to the expected long-term electricity market price (see recital (10)). While the electricity price figures provided by Croatia do not take into account the current peak in energy prices, there is currently no indication that that peak would be seen as long-lasting enough to enable additional market-based investments.

(164) Therefore, based on the assessment carried out by the Croatian authorities, it is unlikely that, absent the aid, the development of electricity production from RES

and thus the development of those participating RES technologies would occur, or would occur to the same extent.

- (165) Based on the information provided by the Croatian authorities, the Commission concludes that the measure is necessary to contribute to the development of the production of electricity from renewable sources in Croatia.

3.3.2.3.2. Appropriateness and incentive effect

- (166) According to point (40) of the EEAG, the proposed measure must be an appropriate instrument to address the policy objective concerned. According to point (116) of the EEAG, the Commission presumes the appropriateness and limited distortive effects of aid granted by Member States to achieve their climate change and sustainability targets, provided that all other compatibility conditions are met. As explained in recital (7), Croatia has set up the measure to achieve its target share of RES in gross final energy consumption by 2030. As has been and will be shown in the previous and the following sections, the compatibility conditions are met. Therefore, the Commission considers the aid to be appropriate.
- (167) An aid measure has an incentive effect if it incentivises the beneficiary to change its behaviour towards the development of a certain economic activity pursued by the aid measure and if the change in behaviour would not occur without the aid⁶⁰.
- (168) Furthermore, point (50) of the EEAG provides that aid does not present an incentive effect in all cases where works on the project started prior to the aid application.
- (169) As stated in recitals (10) and (11) above, the participating RES technologies are still not entirely cost-competitive in relation to the expected long-term electricity market price. Without the aid, the Commission notes that RES installations would not be financially viable.
- (170) As mentioned in recital (21), the Croatian authorities confirmed that, in line with point (50) of the EEAG, no aid can be granted if work has already started.
- (171) The Commission therefore concludes that the aid has an incentive effect, as the measures induce the beneficiaries to change their behaviour and invest in RES installations, which they would not undertake without the aid.

3.3.2.3.3. Proportionality

- (172) According to point (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.
- (173) Those conditions are detailed in section 3.3.2.1 of the EEAG on operating aid granted to energy from renewable sources.

⁶⁰ See, in that sense, points 49 and 120 of the EEAG, as well as judgment of 22 September 2020, *Republic of Austria v Commission*, C-594/18 P, EU:C:2020:742.

- (174) According to point (124) of the EEAG, in order to incentivise the market integration of electricity, beneficiaries must sell their electricity directly in the market and be subject to market obligations. The following cumulative conditions apply from 1 January 2016 to all new aid schemes and measures: a) the aid is granted as a premium in addition to the market price whereby the generators sell their electricity directly in the market; b) the beneficiaries are subject to standard balancing responsibilities, unless no liquid intra-day balancing markets exist; and c) the scheme ensures that generators have no incentive to generate electricity when market prices are negative.
- (175) As it is explained under recitals (29) and (78), the Croatian authorities have confirmed the compliance of the Croatian legislation with conditions under point (124) of the EEAG.
- (176) According to point (126) of the EEAG, operating aid for electricity from renewable energy sources must be granted in a competitive bidding process on the basis of clear, transparent and non-discriminatory criteria.
- (177) Moreover, point (126) of the EEAG provides that such competitive bidding process can be limited to specific technologies where a process open to all generators would lead to suboptimal results which cannot be addressed in the process design in view of: a) the longer-term potential of a given new and innovative technology; b) the need to achieve diversification; c) network constraints and grid stability; d) system (integration) costs; or e) the need to avoid distortions on the raw material markets from biomass support.
- (178) The tender procedure detailed under section 2.4.2 ensures that the aid granted to the beneficiaries is limited to the minimum needed to achieve the operation of the installations, since the aid is awarded to the applicants who offered the lowest reference value.
- (179) Moreover, the maximum reference value, which works like a cap mechanism, ensures that the premium is limited to the difference between total levelised costs of producing energy (LCOE including the WACC) and the electricity market price. The Commission notes also that the minimum number of bids per tender will allow the Croatian authorities to ensure the competitiveness of the tenders (see recital (32)).
- (180) As explained under recitals (39), the Croatian authorities claims that different quotas are necessary in order to reach the policy goals described in the NECP, by the longer-term potential of a given new and innovative technology, the need to achieve diversification, network constraints and grid stability, system (integration) costs and the need to avoid distortions on the raw material markets from biomass support, within the meaning of point (126), fifth sentence, letters (a), (b), (c), (d) and (e) of the EEAG.
- (181) The Commission notes also that the Croatian authorities intends by those different quotas to achieve more diversification and more grid stability (see recitals (40) to (43)). The different quotas will indeed make important contributions to grid stability through their ability to offer non-intermittent production and to provide flexible production. The Commission notes also that the Croatian authorities have explained in more detail the specificities of each technology in order to justify the use of separate quotas.

- (182) As shown in Figure 1, the costs to produce electricity from RES vary considerably depending on the technologies. If those technologies were to compete together, the cheapest technology will be the only one to win the tender. Putting some technologies in competition with intermittent technologies would also lead to suboptimal results. Thus, in the absence of different quotas, there would be little diversification of energy sources.
- (183) In light of the above and especially on the justification provided by the Croatian authorities (see section 2.4.3 above), the Commission considers that the deviation from the principle of the technological neutrality based on the organisation of separate tenders for the different quotas listed in recital (30) and in Table 3 is justified.
- (184) The notified scheme also complies with point (129) of the EEAG as the aid will not be granted beyond the point at which the benefitting plants have been fully depreciated according to normal accounting rules (see recitals (75) and (89)) and any investment aid previously received must be deducted from the operating aid (see recital (93)).
- (185) In light of the above, the Commission notes that the measure provides for a number of safeguards to ensure that any aid is limited to the minimum necessary to achieve its objectives.
- (186) Therefore, the Commission considers the measure is proportionate.

3.3.2.3.4. Evaluation plan

- (187) The EEAG (point (28) and Chapter 4) state that the Commission may require that certain aid schemes be subject to an evaluation, where the potential distortion of competition is particularly high, that is to say when the measure may risk significantly restricting or distorting competition if their implementation is not reviewed in due time. Given its objectives, evaluation only applies for aid schemes with large aid budgets, containing novel characteristics or when significant market, technology or regulatory changes are foreseen.
- (188) The present scheme fulfils the criteria of being a scheme with a large aid budget; therefore it will be subject to an evaluation.
- (189) The scope and modalities of the evaluation have been defined, taking into account the Commission Staff Working Document on Common methodology for State aid evaluation, in an evaluation plan that Croatia has notified together with the aid scheme and whose main elements are described in section 2.10 above.
- (190) The Commission considers that the notified evaluation plan contains the necessary elements: the objectives of the aid scheme to be evaluated, the evaluation questions, the result indicators, the envisaged methodology to conduct the evaluation, the data collection requirements, the proposed timing of the evaluation including the date of submission of the final evaluation report, the description of the independent body conducting the evaluation or the criteria that will be used for its selection and the modalities for ensuring the publicity of the evaluation.

- (191) The Commission notes that the scope of the evaluation is defined in an appropriate way. It comprises a list of evaluation questions with matched result indicators. Data sources are individually defined for each question. Moreover, the evaluation plan sets out and explains the main methods that will be used in order to identify the impacts of the scheme, and discusses why these methods are likely to be appropriate for the scheme in question.
- (192) The Commission acknowledges the commitments made by the Croatian authorities that the evaluation will be conducted according to the notified evaluation plan by an independent evaluation body. The procedures envisaged for selecting such evaluation body are appropriate in terms of independence and skills. Moreover, the proposed modalities for the publication of the evaluation results are adequate to ensure transparency.
- (193) The Commission notes the commitment made by the Croatian authorities to submit the final evaluation report by the end of June 2023 and an additional evaluation report by the end of 2026.
- (194) The Commission notes the commitment made by the Croatian authorities to take into account the evaluation results for the design of any subsequent aid measure with a similar objective.
- (195) The Commission reminds that the notified scheme has to be suspended if the final evaluation report is not submitted in good time and sufficient quality.

3.3.2.3.5. Transparency of the aid and other feature of the scheme

- (196) According to point (104) of the EEAG, Member States have the obligation to ensure transparency of the aid granted by publishing certain information on a comprehensive State aid website. As explained above in recital (107), the Commission takes note that the Croatian authorities will comply with this transparency requirement under section 3.2.7 of the EEAG by publishing the relevant data for the notified measure on a national website.
- (197) As explained in recital (20), the Commission notes that no aid will be granted to undertakings in difficulty or subject to an outstanding recovery order following a Commission decision declaring the aid illegal and incompatible with the internal market. The Commission therefore considers that the notified measure is in line with points (16) and (17) of the EEAG.

3.3.2.4. Weighing up the positive effects of the aid with the negative effect on the internal market

- (198) The negative effects of the measure on competition and trade must be sufficiently limited, so that the overall balance of the measure is positive. The Court of Justice has clarified that in order to assess whether a measure adversely affects trading conditions to an extent contrary to the common interest, the Commission must weigh up the positive effect of the planned aid for the development of the

activities that aid is intended to support and the negative effects that the aid may have on the internal market⁶¹.

- (199) On the positive side of the balance, the Commission notes that the measure will facilitate the development of electricity production from RES in Croatia from a variety of technologies. Moreover, the aid should induce positive indirect effects in terms of environmental gains.
- (200) In this regard, the Commission notes that promotion of the development of renewable energy is one of the aims of the Union's policy on energy pursuant to Article 194 TFEU. Moreover, point (30) of the EEAG recognises that an increased level of environmental protection may be attained through a shift to a low carbon economy with a significant share of variable energy from RES.
- (201) Therefore, the Commission welcomes the fact that, as explained in recitals (5), the notified scheme supports the new EU and national targets (climate neutrality by 2050 and increased use of renewable energy sources). It is consistent with the Croatian NECP aiming at increasing the share of renewables in the national energy mix at low cost for the electricity consumer.
- (202) The Commission notes that the notified measure will contribute to meeting Croatia's national target of 36.6 % of its energy consumption from RES by 2030. In addition, the measure will contribute to achieving the EU target of at least 32 % share of RES on the energy consumption in 2030 set by the RED II. Moreover, the measure will contribute to the Croatian's long-term goal to reduce its greenhouse gases for the ETS sector by 43 % by 2030 (relative to 2005 level). The Commission notes that the notified scheme is in line with the Green Deal Communication⁶².
- (203) As explained in recital (11), the Commission notes that there is still uncertainty concerning the development of RES technologies in the future. In addition, the favourable market conditions have not led to a substantial development of RES on market terms.
- (204) On the negative side of the balance, the Commission notes that the measure provides an advantage to selected beneficiaries, to the exclusion of other electricity producers. However, the Commission notes that the aid will be allocated through a competitive bidding process, which will limit the risk of overcompensation. In addition, as explained under section 2.4.6, the overall payments of the premiums will be limited by a maximum reference value on payment from the State. Therefore, the measure is designed to limit distortions of competition.
- (205) Point (116) of the EEAG establishes a presumption that aid to energy from renewable sources has limited distortive effects provided all other compatibility conditions are met. As explained under section 3.3, those conditions are met. Therefore, the design of the notified scheme ensures that distortions of competition and trade are kept to the minimum.

⁶¹ Judgement of 22 September 2020, *Austria v Commission*, C-594/18 P, EU:C:2020:742, paragraph 101.

⁶² Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions, The European Green Deal, COM/2019/640 final.

(206) In light of the above, the Commission concludes that the notified measure has significant positive effects in terms of facilitating an economic activity and, at the same time, of environmental protection while not leading to undue distortions of competition and trade. It follows that the positive effects of the aid outweigh its negative effects on competition and trade. Therefore, the aid at issue facilitates the development of certain economic activities while not adversely affecting trading conditions to an extent contrary to the common interest, as required by Article 107(3)(c) TFEU.

3.3.2.5. Conclusion with regard to the compatibility of the measure

(207) In light of the above, the Commission considers that the notified scheme promoting the production of electricity from RES contributes to the development of certain economic activities without unduly affecting competition and trade, and that the aid is therefore compatible with the internal market on the basis of the EEAG.

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
Executive Vice-President