

Renewable Energy of Ukraine

# Monthly Monitoring

European-Ukrainian Energy Agency



May 21, 2021



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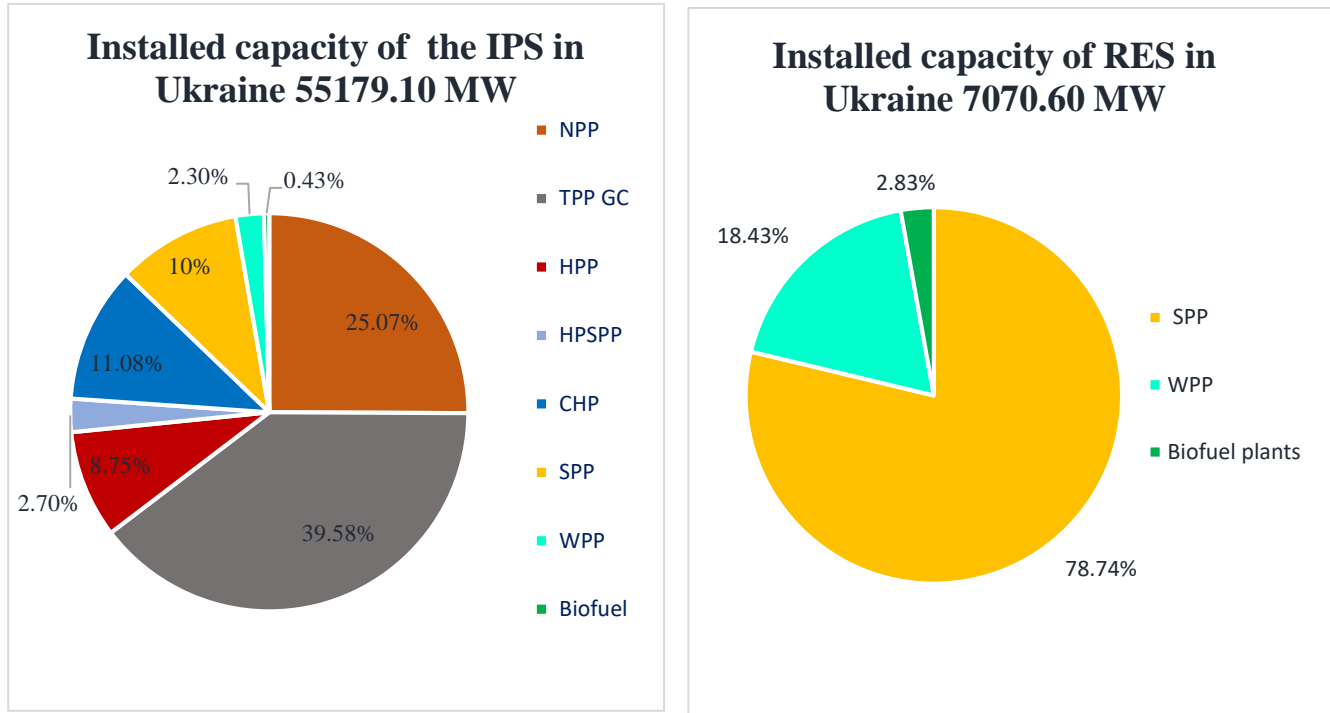
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*Established in 2009, European-Ukrainian Energy Agency (EUEA) as a non-governmental, non-profit organization, business association has grown into an effective advocate for the realization of Ukraine’s massive renewable energy and energy efficiency potential, by working within Ukraine’s business community, government structures, and with other key energy market stakeholders.*

**Members of EUEA:** *Acciona, Arzinger, Beycelik-Elawan Renewable Energy LLC, CCT Energy, CES, DTEK, EMSOLT, Electrum, Elementum Energy, Eurocape, GOLAW, Guris, Green Genius, GrECo Ukraine, GSE&C, Huawei, iC consulenten, IMEPOWER, Indian Solar, IRUN Engineering, Irshanska SPP, Khmelnytsky Bio Power Plant, NBT AS, Met Energy, Scatec, Schneider Electric Ukraine, Sfera, Smart Energy, Sungrow, West Solar, Terra Solar, Thermosystems, TIC Energia, Total Eren, Ukraine Power Resources, Ukrwindinvestments, Voltage Group.*

## Electricity from RES generation statistics

According to the Transmission system operator (NPC “Ukrenergo”) installed capacity of Integrated Power System (IPS) of Ukraine as of April, 2021.

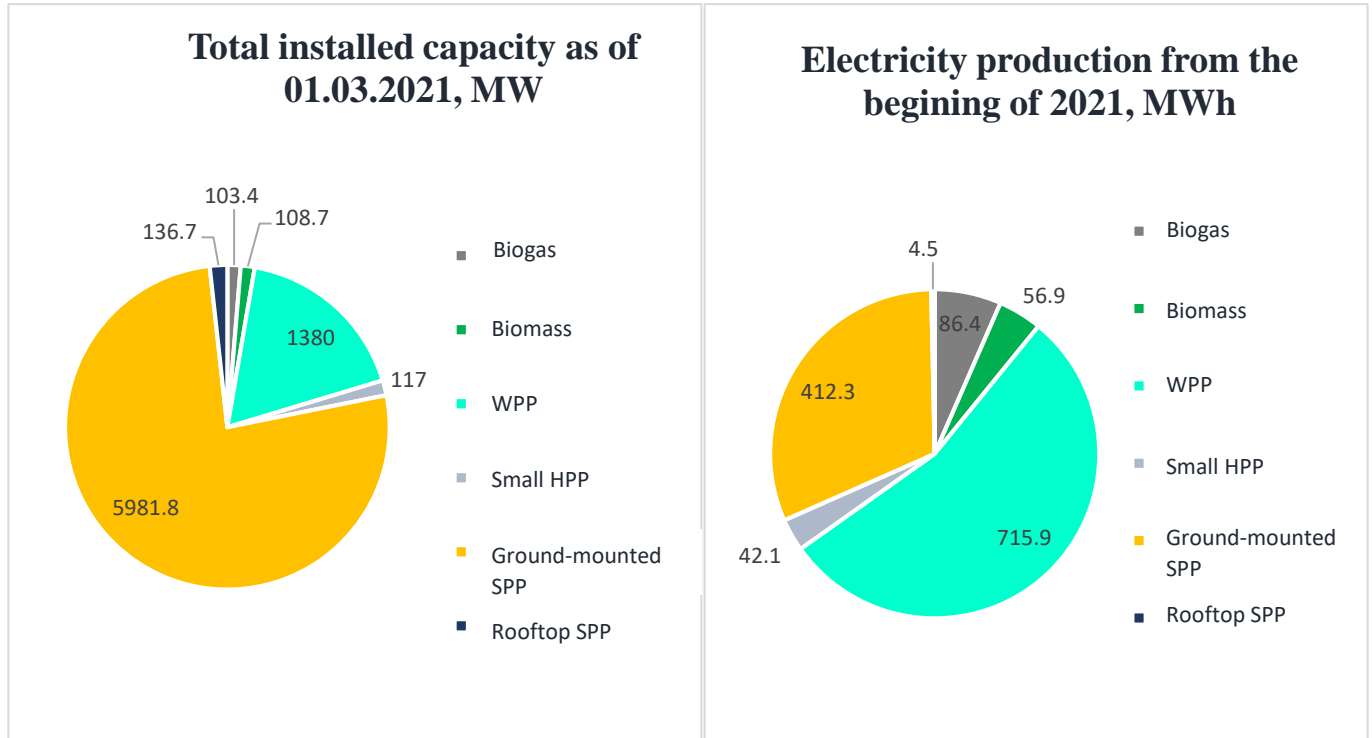


Resource: <https://ua.energy/vstanovlena-potuzhnist-energosityemy-ukrayiny/>

The installed capacity of the power system of Ukraine as of April, 2021, according to NPC "Ukrenergo" is a total of **55179,10 MW**, and separately for RES – **7070,60 MW (10.09%)**.

However, compared to April 2020, the capacity of RES equipment has increased by **1499,4 MW in 2021 - 26%**. In particular, the installed capacity of SPP increased by **1199 MW - 27%**, WPP by **253 MW - 21%**, and biofuels by **47 MW - 31%**.

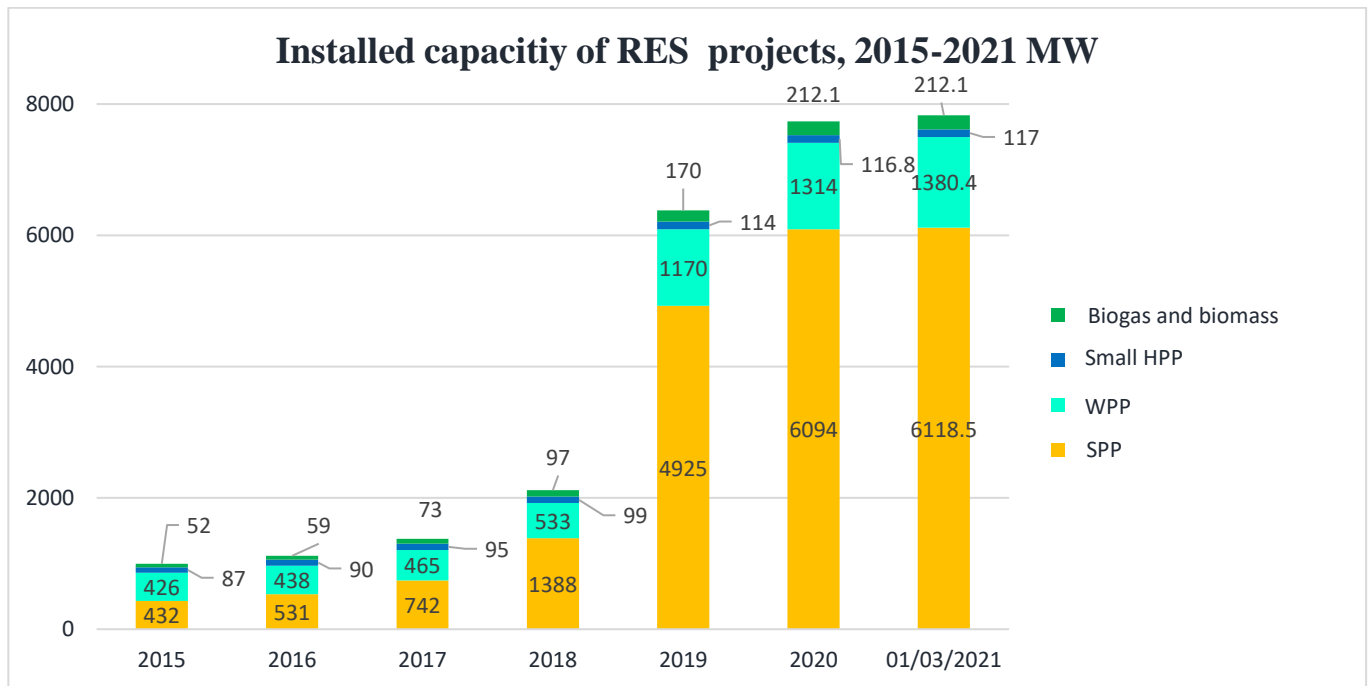
According to the State Regulator, NEURC, the total installed capacity of renewable energy facilities as of March 1, 2021 is **7,828 MW**.



Resource: <https://www.nerc.gov.ua/?id=50471>

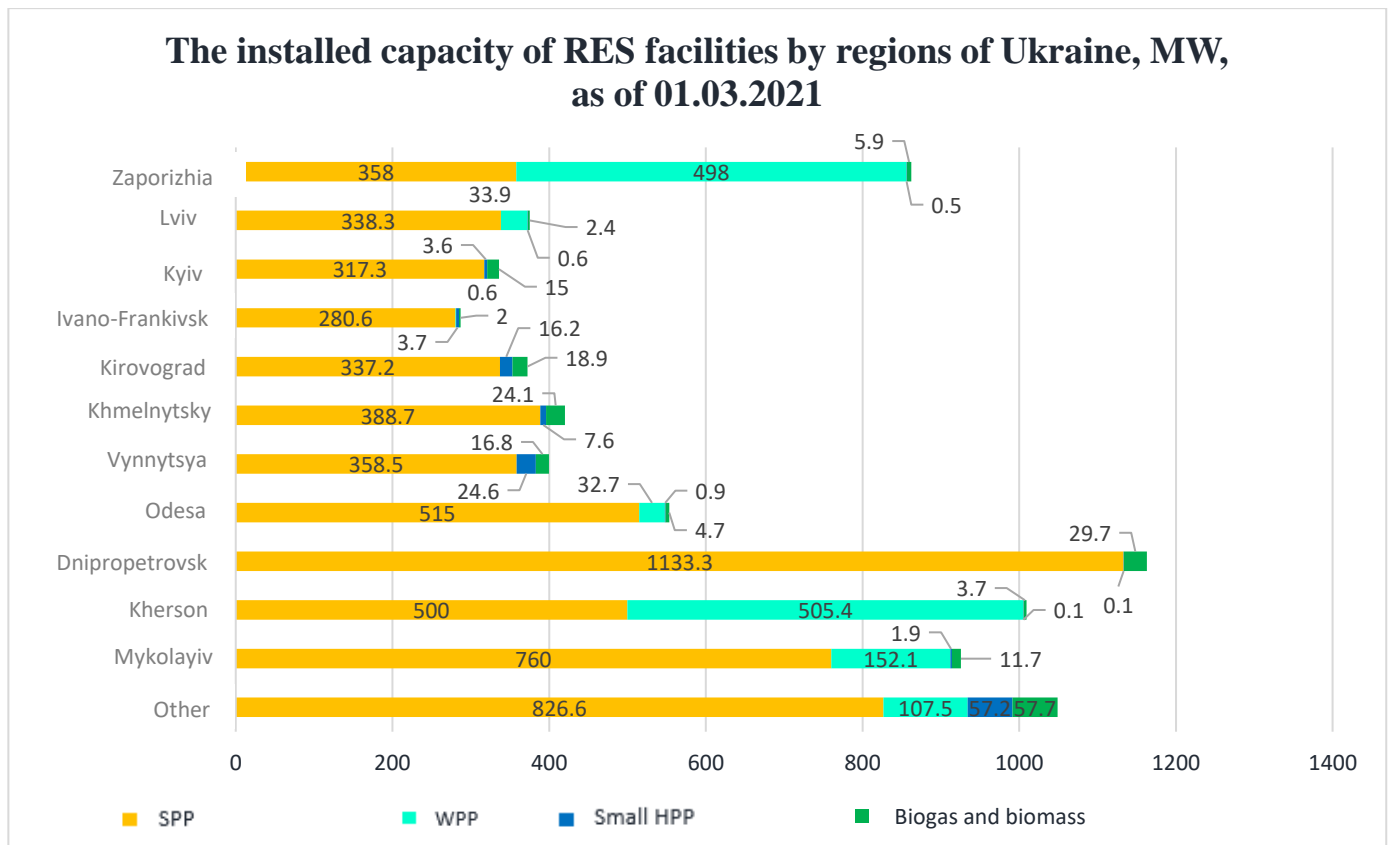
Regarding the separately installed capacity by categories, according to the NEURC, the largest number of ground-mounted stations is currently installed, namely 5981.8 MW. The second position relates to wind power plants - 1380 MW. Rooftop solar stations are 136.7 MW, small hydropower plants - 117 MW. Biomass is 108.7 MW and biogas - 103.4 MW.

Regarding electricity generation, wind power plants have the highest rate since the beginning of 2021, amounting to 715.9 million kWh. Next are ground-mounted solar power plants - 412.3 million kWh, biogas - 86.4 million kWh, biomass - 56.9 million kWh, small hydropower plants - 42.1 million kWh and rooftop solar stations - 4, 5 million kWh.



Resource: <https://www.nerc.gov.ua/?id=50471>

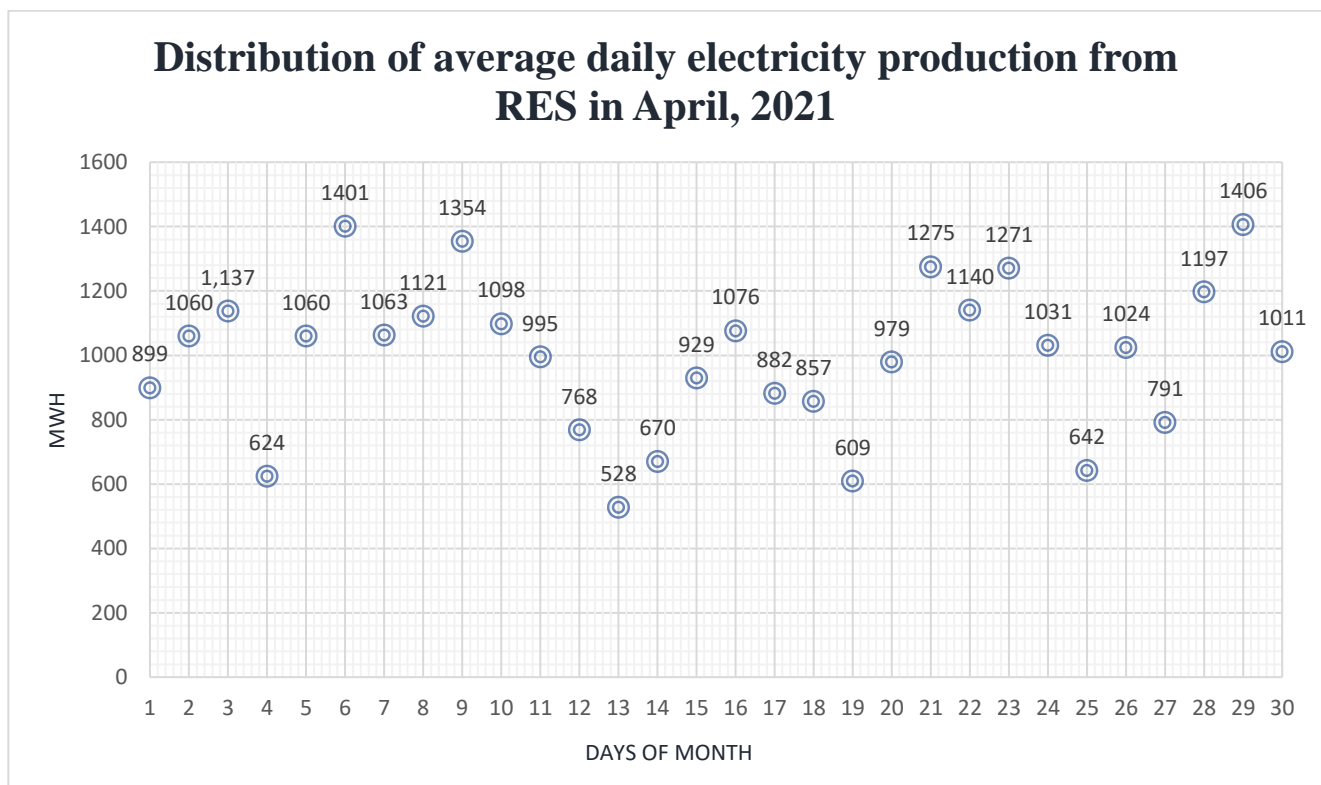
Most of the solar capacity is installed in Dnipropetrovsk region - 1133.3 MW, in Mykolayiv - 760 MW and Odesa - 515 MW. Kherson and Zaporizhia regions show the largest number of wind power capacity, with 505.4 MW and 498 MW, respectively.



## Review of the share of RES in the power system for April 2021

**1.84%** - the share of RES generation in the total energy production by the Integrated Power System (IPS) of Ukraine in April 2021. In April, WPPs generated **246.3 million kWh** and SPPs **587.4 million kWh**, which is **39.9%** and **17.3%** less than forecast, respectively.

Electricity production at solar and wind power plants (SPPs and WPPs) **in the first days of April** increased by 1.1% to 189.3 million kWh compared to last week (against 187.3 million kWh). 67.7% of the total volume was generated by SPPs (128.1 million kWh).<sup>1</sup> **In the first week of April**, electricity production at solar and wind power plants increased by 17.2% to 222.6 million kWh compared to last week (against 190 million kWh). 67.4% of the total produced SPPs (149.9 million kWh).<sup>2</sup>



Resource: <https://ua.energy/peredacha-i-dyspetcheryzatsiya/dyspetcherska-informatsiya/roboata-oes-ukrayiny-za-tyzhden/>

**In the second week of April**, SPPs and WPPs sharply reduced their production: SPPs generated 30.8% less than in the previous week (102.6 million kWh), WPPs - by 45.1% less (42.7 million kWh), which was due to adverse weather conditions. 57.2% of the total volume was produced by SPPs (83.6 million kWh).<sup>3</sup> **In the third week of April**, SPPs and WPPs

<sup>1</sup> <https://ua.energy/zagalni-novyny/roboata-energosityemy-protyagom-29-bereznia-4-kvitnya-2021-roku/>

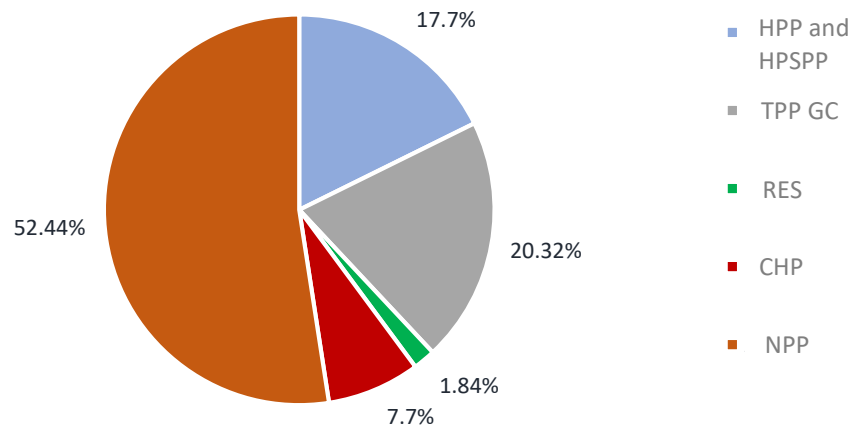
<sup>2</sup> <https://ua.energy/zagalni-novyny/roboata-energosityemy-protyagom-5-11-kvitnya-2021-roku/>

<sup>3</sup> <https://ua.energy/zagalni-novyny/roboata-energosityemy-protyagom-12-18-kvitnya-2021-roku/>



sharply increased their production: SPPs produced 22.6% more than in the previous week (up to 134.9 million kWh), and WPPs - by 20.1% (up to 52.3 million kWh), which is due to more favorable weather conditions. <sup>4</sup> **In the fourth week of April**, SPPs increased their average daily production compared to the previous week (by 13.3% to 21.8 million kWh), while WPPs decreased (by 6.1% to 7 million kWh).<sup>5</sup>

### Structure of IPS generation in April, 2021



Resource: <https://ua.energy/peredacha-i-dyspetcheryzatsiya/dyspetcherska-informatsiya/roboata-oes-ukrayiny-za-tyzhden/>

### Information on the generation restriction of Ukrenergo for April 2021

To balance the power system, **control teams were given to unload RES on March 30 and April 1-3 in the amount of 243 MW to 1415 MW**. Due to a sharp decrease in electricity consumption on Saturday-Sunday, April 10 and 11, control teams were given to unload RES with a total amount of **4,341 MW (for two days together)**.<sup>6</sup> Also due to the reduction of electricity consumption on Saturday-Sunday, April 24 and 25, **control teams were sent to unload RES with a total amount of 2,683 MW (April 24 - 2,199 MW, April 25 - 484 MW)**.<sup>7</sup>

<sup>4</sup> <https://ua.energy/zagalni-novyny/roboata-energosityemy-protyagom-19-25-kvitnya-2021-roku/>

<sup>5</sup> <https://ua.energy/zagalni-novyny/roboata-energosityemy-protyagom-26-kvitnya-4-travnnya-2021-roku/>

<sup>6</sup> <https://ua.energy/zagalni-novyny/roboata-energosityemy-protyagom-5-11-kvitnya-2021-roku/>

<sup>7</sup> <https://ua.energy/zagalni-novyny/roboata-energosityemy-protyagom-19-25-kvitnya-2021-roku/>

## Monitoring of the Memorandum Implementation and Law of Ukraine No. 810-IX

**On June 10, 2020, a Memorandum was signed between the Government of Ukraine and sectoral associations in the field of RES (European-Ukrainian Energy Agency and Ukrainian Wind Energy Association).**

April 10, 2021 was 11 months from the signing of the Memorandum of Understanding between the Government of Ukraine by industry associations in the RES sector and 9 months from the entry into force of the Law of Ukraine 810-IX on reducing "green" tariffs for electricity producers from renewable energy sources (RES).

**A list of commitments made by the state of Ukraine, in addition to reducing the "green" tariff is the following:**

<p><b>Registration and support of the Government Bill</b> and its support during the hearings in the relevant committee of the Verkhovna Rada.</p>	<p><b>Law of Ukraine 810-IX was adopted by the majority of people's deputies in the Verkhovna Rada on July 21, 2020.</b> <sup>8</sup></p>
<p><b>Granting the right to SE "Guaranteed Buyer" to sell electricity produced from RES at auctions under bilateral agreements.</b></p>	<p>Since October 2020, SC "Guaranteed Buyer" has received such a right and carries out the relevant sales transactions.</p> <p>Guaranteed buyer for the <b>first quarter of 2021</b> sold on the results of trading in "green" electricity on the exchange 864,334 MWh, which was <b><u>5.8% of the total volume of electricity sold by the Guaranteed Buyer for the first 3 months of 2021.</u></b><sup>9</sup></p>
<p><b>Improving the procedure for organizing and conducting auctions</b> for the distribution of support quotas.</p>	<p>Adopted in the Law of Ukraine 810-IX.</p>
<p><b>Stabilization clause</b></p>	<p><b>On May 12, 2021, the Cabinet of Ministers of Ukraine approved amendments to the Tax Code of Ukraine.</b> However, the media reports that this draft law should introduce an excise tax on the sale of "green" electricity from <b>3.2% to 40%</b> (the exact figures are still being discussed). The proposed changes will in fact further reduce the "green" tariff, which will further contribute to an unfavorable investment climate, more arbitration appeals and higher market prices for clean energy.</p> <p>EUEA together with other leading associations sent a letter about possible changes in the Tax Code of Ukraine. Read letter <a href="#">here</a>.</p>

<sup>8</sup> <https://zakon.rada.gov.ua/laws/show/810-20#Text>

<sup>9</sup> <https://www.gpee.com.ua/main/news?id=649>



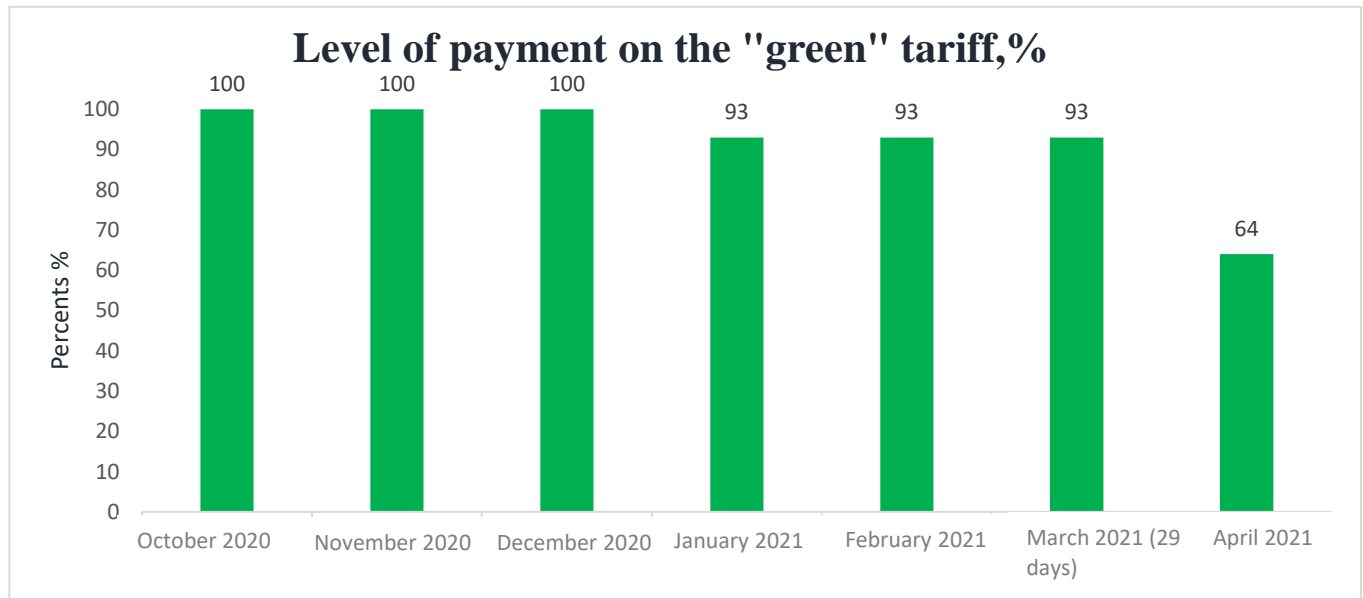
<p><b>100% payment to RES producers, which were to occur from August 1, 2020.</b></p>	<p>Current payments: January - 93%, February - 93%, March - 93%, April - 64%.<sup>10</sup></p>
<p><b>Repayment of existing debt of UAH 22.4 billion accumulated for the period up to August 1, 2020 to RES producers.</b></p> <p><b>The repayment schedule is provided in the Memorandum of Understanding: 40% in the 4th quarter of 2020; 15% percent on a quarterly basis during 2021.</b></p>	<p><b>The debt for 2020 currently amounts to about UAH 16.5 billion.</b></p> <p>Debt repayment schedule is violated. As of the end of the first quarter of 2021, the debt was to be repaid at 55%, while the repayment was 26%.</p>
<p><b>Development and implementation of a mechanism to compensate producers for unproduced electricity from RES due to restrictions by TSO.</b></p>	<p><b>There are many comments in the format of negative feedback from RES producers on the operation of the system today to the compensation mechanism for curtailments, balancing, calculation formulas.</b> Currently, there is a conflict between two regulatory groups (Restriction Management System (RMS) from Ukrenergo and the Balancing Group of the Guaranteed Buyer) regarding the implementation of the instruction on curtailments and liability for imbalances. Industry participants formulate proposals to overcome these problems and plan to send in a joint letter to the Regulator and other relevant institutions.</p>
<p><b>Increasing the tariff for the services of electricity transmission of PJSC NPC “Ukrenergo” to a sufficient level to cover the FIT.</b></p>	<p>The current tariff is UAH 293.93 / MWh without VAT.</p> <p>According to the results of the calculations of the Transmission system operator (NPC “Ukrenergo”), the tariff for electricity transmission services for system users for 2021 <b>from 01.08.2021 should be be 355.55 UAH / MWh and increases by UAH 61.62 / MWh</b> in comparison with the tariff approved by the Resolution of the NEURC dated 09.12.2020 № 2353 (with changes) (UAH 293.93 / MWh), or by 21.0%.</p> <p>On May 14, 2021, EUEA sent a letter to PJSC NPC “Ukrenergo” regarding the tariff structure. Read letter <a href="#">here</a>.</p>
<p><b>Compensation of 20% of the "feed-in" tariff from the State Budget.</b></p>	<p><b>Not provided in the State Budget 2021.</b></p>
<p><b>The right of RES producers to leave the balancing group of the Guaranteed Buyer.</b></p>	<p>Proposals for the draft law were sent by EUEA to the Ministry of Energy of Ukraine in October 2020. News on the consideration of proposals and the draft law itself has not yet been made public.</p>

<sup>10</sup> <https://www.gpee.com.ua/main/news?id=342>

<p>Stimulation of balancing and energy storage systems.</p>	<p>The competition has not been announced yet.</p> <p>On April 28, 2021, the deputies registered the Draft Law №5436 on the regulation and financing mechanisms of energy storage systems (energy storage). As incentives for the installation of energy storage can be used, in particular:</p> <ol style="list-style-type: none"> <li>1) setting a fee for the service to ensure capacity adequacy;</li> <li>2) assistance in allocating a land plot / allocating a site for the construction of new generating capacity;</li> <li>3) application of public-private partnership mechanisms;</li> <li>4) provision of state aid to business entities at the expense of state or local resources.</li> </ol>
<p>Conducting auctions for the distribution of RES support quotas until the end of 2020.</p>	<p>It will be recalled that the previous acting Minister of Energy of Ukraine, Olga Buslavets <b>presented on December 3, 2020 (not yet approved by the Cabinet of Ministers of Ukraine) annual support quotas and the schedule of auctions.</b> You can find it <a href="#">here</a> on page 9.</p>

## Information on payments for electricity at the “green” tariff as of May 18, 2021

As of May 18, 2021, SC "Guaranteed Buyer" paid only UAH 25 billion at the "green" tariff (including debts for the last year and the current one). **Currently, the level of payment for January is 93%, February - 93%, March - 93% and April - 64%.** The average level of payment since the beginning of 2021 is **86%**.



Resource: <https://www.gpee.com.ua/main/news?id=342>

## Constitutional Court Proceedings against RES

**There is no news on this issue this month.** It will be recalled that on March 27, 2021, the President of Ukraine revoked the Decrees on the appointment of judge Kasminin, who considered the case of "green" tariffs. Thus, it remains unclear, after the appointment of a new judge, whether the case will be considered from the very beginning or continued based on existing developments.

It will be recalled, that on July 17, 2020, 47 people's deputies of Ukraine appealed to the Constitutional Court to declare unconstitutional the legislative provisions of the Law of Ukraine No 555-IV "On Alternative Energy Sources" of February 20, 2003 and the Law of Ukraine No 2019-VIII "On the Electricity Market" of April 13, 2017 year. According to people's deputies, when adopting the law "On Alternative Energy Sources", the Verkhovna Rada went beyond its powers, interfering in the sphere of constitutional powers of the executive branch, without alternatively establishing coefficients and mechanisms for calculating the "feed-in" tariff, which deprived the executive branch of its discretion and authority to change it. Accordingly, there is a threat of declaring the "feed-in" tariff in Ukraine unconstitutional.<sup>11</sup>

<sup>11</sup> [http://www.ccu.gov.ua/sites/default/files/3\\_332\\_2020.pdf](http://www.ccu.gov.ua/sites/default/files/3_332_2020.pdf)

The chronologic review and the role of industry associations, including EUEA, is highlighted in the previous Monthly Monitoring of the Renewable Energy Sector (RES) in Ukraine of 5 October 2020.<sup>12</sup>

On November 2, an expert discussion was held on the topic: "Constitutional proceedings against RES: the Ukrainian phenomenon."<sup>13</sup> The results of the key theses of the experts are described in the Monthly Monitoring of the RES sector dated November 9, 2020.<sup>14</sup>

On December 8, 2020, the European-Ukrainian Energy Agency received a letter from the Office of the President of Ukraine – supporting position to RES, regarding the constitutional submission of 47 people's deputies of Ukraine. The President, in particular, notes that the disputed provisions of the laws of Ukraine "On Alternative Energy Sources" and "On the Electricity Market" determine the principles of establishing a "feed-in" tariff to stimulate the development of alternative energy sources, and emphasizes that the development of alternative energy including through its economic stimulus, is a matter of energy security.

**The position of the President of Ukraine based on the analysis of the provisions of the Constitution of Ukraine and the legal positions of the Constitutional Court of Ukraine concludes that there are no grounds for declaring the provisions of the laws of Ukraine "On Alternative Energy Sources" and "On the Electricity Market" unconstitutional.<sup>15</sup>**

On 17 December 2020, the Grand Chamber of the Court completed its examination of the case file in the open part of the plenary session and moved to the closed part of the plenary session for a decision. Consideration of the case will be continued at one of the next plenary sessions.<sup>16</sup>

## **Average weighted prices of DAM (“day ahead” market) for IPS (Integrated Power System) of Ukraine for April 2021**

<sup>12</sup> [https://euea-energyagency.org/wp-content/uploads/2020/10/SHHomisyachnyy-monitoryng-VDE\\_05.10.2020-1.pdf](https://euea-energyagency.org/wp-content/uploads/2020/10/SHHomisyachnyy-monitoryng-VDE_05.10.2020-1.pdf)

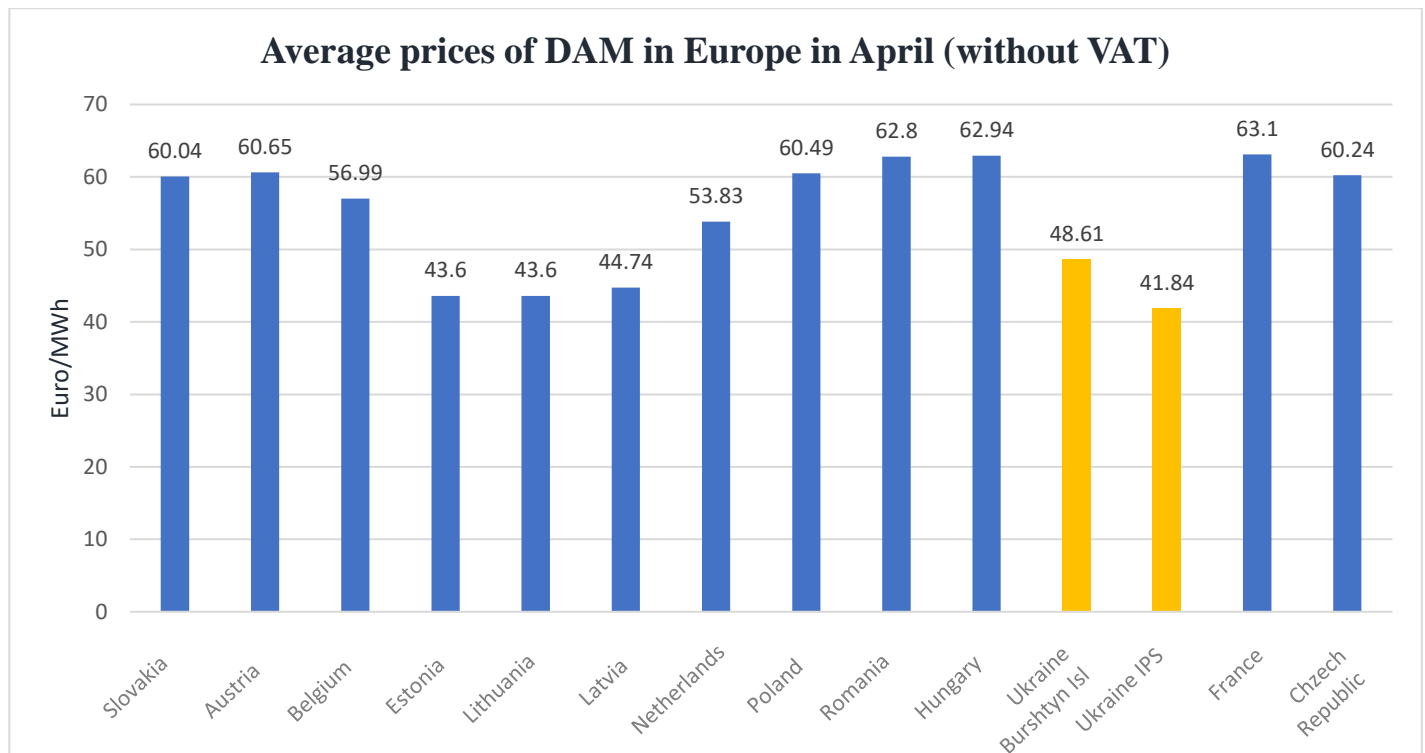
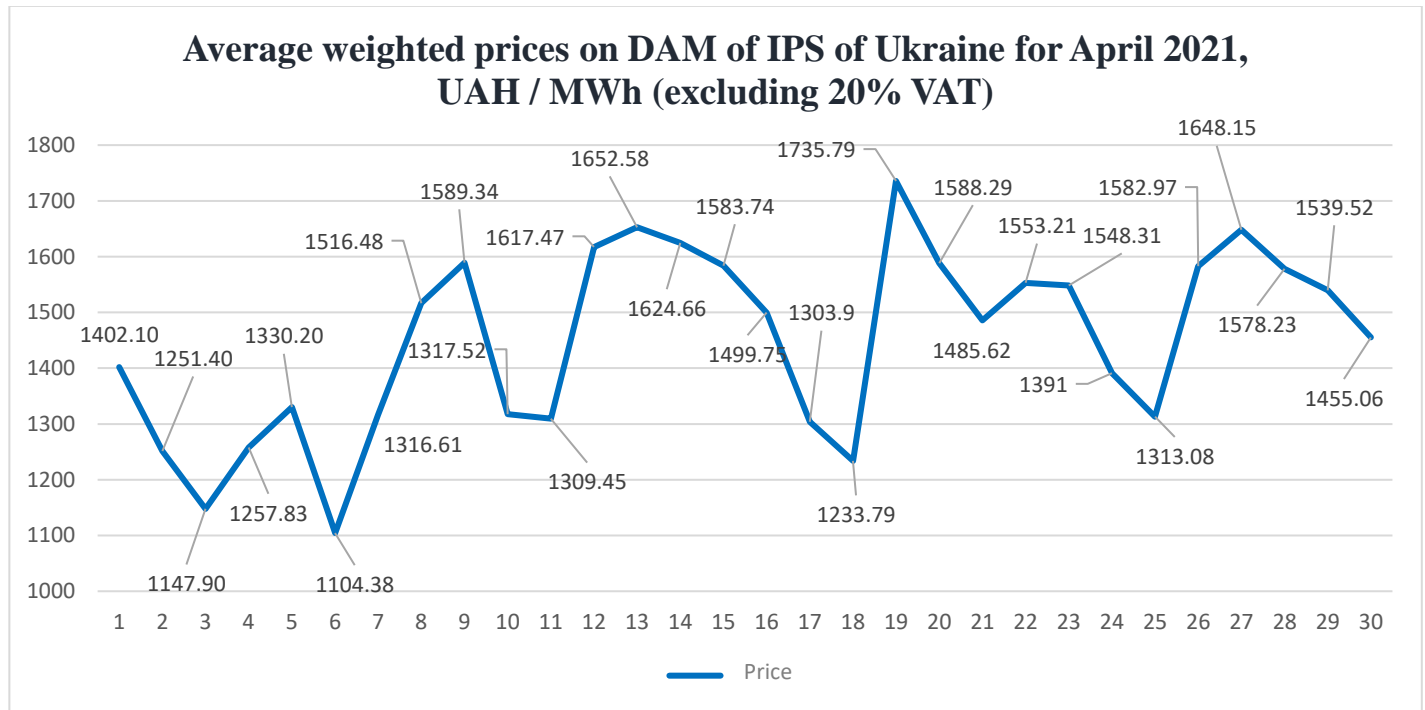
<sup>13</sup> [https://www.youtube.com/watch?v=BoUwHuEWDcw&feature=youtu.be&fbclid=IwAR3Qp7wwMglxTmL4swYd2ThQKkYlQbIM3HtOWZupMu\\_RBJZ40cQRNdHsEaE](https://www.youtube.com/watch?v=BoUwHuEWDcw&feature=youtu.be&fbclid=IwAR3Qp7wwMglxTmL4swYd2ThQKkYlQbIM3HtOWZupMu_RBJZ40cQRNdHsEaE)

<sup>14</sup> <https://euea-energyagency.org/uk/novyny-ta-podiyi/novyny-rynku/shhomisyachnyj-monitoryng-galuzi-vde-v-ukrayini/>

<sup>15</sup> <https://euea-energyagency.org/uk/novyny-ta-podiyi/dosyagnennya-ta-diyalnist-yeuea/yeuea-otrymalo-vidpovid-na-svij-lyst-vid-kerivnyka-aparatu-ofisu-prezydenta-ukrayiny/>

<sup>16</sup> <http://www.ccu.gov.ua/novyna/17-grudnya-poryadok-dennyi-zasidan-ksu-zatverdzhennyi-rezultaty-rozglyadu-sprav>

The average weighted price of electricity for April on DAM of the IPS of Ukraine was **UAH 1,449.28 per MWh (excluding the VAT 20%).**<sup>17</sup>



<sup>17</sup> <https://www.oree.com.ua/index.php/indexes>

## Legislative initiatives for the period of April 2021, affecting the activities of RES producers

The results of changes in legislative and regulatory initiatives for the first and second half of April 2021 were prepared by the EUEA Energy Adviser – [IMEPOWER](#).

**The first part of April (1– 15):** <https://cutt.ly/Eb2wJXB>

**The second part (April 15 – May 10):** <https://cutt.ly/Ib9GWuc>

## Top news of the RES sector for April 2021

- **On April 1, 2021, NEURC decided to sign agreements on measures to ensure the fulfillment of obligations under debt repayment agreements.** From now on, the NEURC will be obliged to cover the costs of repaying the liabilities of NPC Ukrenergo provided for in the loan agreements at the expense of the electricity transmission tariff of NPC Ukrenergo. [Details...](#)
- **Curtailments compensation.** Compensation for electricity from renewable energy sources (RES), not released as a result of the dispatching restriction, can be paid as a service to reduce the load only to those producers who have joined the public contract for reduction. [Details...](#)
- **On April 14, 2021, the Verkhovna Rada adopted draft law 3364-1-d, which will allow certifying Ukrenergo as a European TSO according to the ISO (Independent System Operator) model.** On May 12, the law was signed by President of Ukraine Volodymyr Zelensky. [Details...](#)
- **On April 28, 2021, NEURC published a resolution "On Amendments to the Budget of the State Company "Guaranteed Buyer" for 2021, approved by the resolution of the NEURC dated December 16, 2020 № 2493".** [Details...](#)
- **From April 29, 2021, new Minister of Energy of Ukraine – Mr. Herman Galushchenko.** [Details...](#)
- **Lithuanian company Modus Energy International B.V. appealed to international arbitration with a claim against the state of Ukraine for a**



retroactive reduction of “green” tariffs, the amount of claims is estimated at least € 11.5 million. [Details...](#)

- **On May 12, 2021, the Cabinet of Ministers of Ukraine approved amendments to the Tax Code of Ukraine.** However, the media reports that this draft law should introduce an excise tax on the sale of "green" electricity from 3.2% to 40% (the exact figures are still being discussed). The proposed changes will in fact further reduce the "green" tariff, which will further contribute to an unfavorable investment climate, more arbitration claims and higher market prices for clean energy. [Details...](#)
- **The Ministry of Energy has started work on a new model of PSO.** It will be recalled that Guaranteed Buyer was removed from the PSO mechanism, and from now on NNEGC “Energoatom” and PrJSC “Ukrhydroenergo” have to sell electricity to Universal Service Provider under bilateral contracts for the purchase and sale of electricity. The new model should start on June 1. [Details...](#)
- **On May 20, 2021, DTEK opened the first industrial energy storage system in Ukraine with a capacity of 1 MW and a capacity of 2.25 MWh.** This is an important event in the Ukrainian energy sector. [Details...](#)
- **EUEA is proud of the achievements of its member companies:**
  - NBT has installed a new wind turbine on the Syvash wind farm project with a capacity of 250 MW in Ukraine. [Details...](#)
  - EuroCape's subsidiary VLC Renewables has commissioned Ukraine's first 98 MW wind farm. It is expected to become one of the largest onshore wind farms in Ukraine. [Details...](#)
  - Subsidiary Elementum Energy - VR Capital put the Dniester WPP is into operation. The project's wind turbines are the largest installed in Ukraine today. [Details...](#)