

Reforming the support scheme for renewables in Ukraine

The expansion of renewable energy in Ukraine has recently gained momentum. This development has been fostered by a generous feed-in tariff for producers of "green" electricity which is guaranteed by the state. However, this feed-in tariff has caused high costs and therefore made a reform of the support scheme inevitable. With the introduction of an auction system, the development of renewable energy shall – in line with the international trend – become more competitive, controllable and cost-effective.

The goals of renewables support in Ukraine

The law on the introduction of auctions for renewable energy sources (RES), which was adopted by Parliament on 25 April 2019, may be of great importance to Ukraine's energy sector.

With the law, the Ukrainian government is reforming the inefficient and expensive current subsidy system. Among other things, an improved RES support scheme could help to diversify the supply side of Ukraine's electricity market, which up to now comprises of only one large private player and a number of state-owned generating companies. A greater integration of RES could, in line with a flexibilization of the electricity system, render most of the base-load generation by coal-fired power plants unnecessary, thus allowing to decommission many of the inefficient and outdated coal plants.

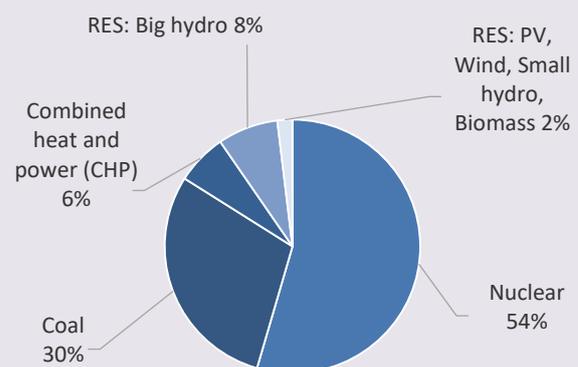
Strong growth since 2018

Up till now, RES have been most relevant in Ukraine's electricity sector. Heat supply for buildings and industry is mainly based on natural gas. Likewise, renewables do not play a significant role in the oil-dominated transport sector. The backbone of power generation continues to be the country's four state-owned nuclear power plants. Renewables break down as follows: the state-owned big hydropower plants generate 8% of total electricity, while the privately-owned renewables that are subsidized by the feed-in tariff (FIT), including wind and photovoltaic (PV) plants as well as biomass and small hydropower plants, generate around 2% of total electricity. Since RES producers only receive the current high FIT if contracts are concluded before the end of 2019, deployment is strongly picking up pace: In Q1 2019 alone, feed-in contracts for 0.9 gigawatts (GW) – almost 50% of the total installed RES capacity of around 2 GW (as of December 2018) – were signed.

It is worth taking a closer look at the supply side of Ukraine's electricity market: apart from the large state-

owned companies, there is only one major player – the energy company DTEK, whose power plants generated about a quarter of Ukraine's total electricity in 2018 and which is owned by the oligarch Rinat Akhmetov. A growing share of renewable energy and thus the potential emergence of new players represents an opportunity to diversify the supply structure of Ukraine's highly concentrated electricity market in the long term. At the same time, however, DTEK is also heavily investing in the RES segment and is already the largest operator of solar power plants in Ukraine. By 2020, DTEK plans to have a total of 1 GW of renewables connected to the grid.

Electricity generation in Ukraine, 2018



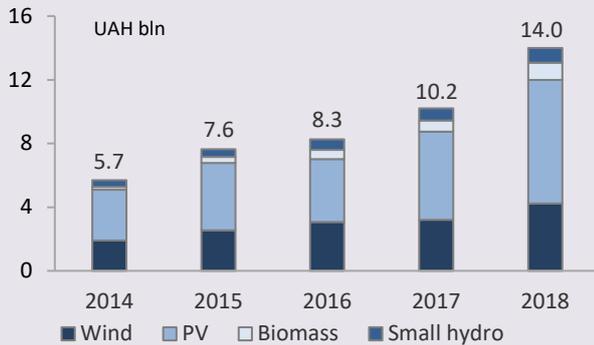
Source: SE Energorynok

Staggering costs due to the current support scheme

Under the current support scheme, producers of "green" electricity receive a FIT (also called "green tariff" in Ukraine) – i.e. a guaranteed minimum payment per kilowatt-hour (kWh) of electricity generated – which by European standards is very high. For example, while in Germany the auction result for wind power was about EUR ct. 6/kWh in 2018, there was a guaranteed remuneration of EUR ct. 10/kWh in Ukraine in 2018. This comparatively high FIT in Ukraine is financed by cross-subsidies in the form of higher electricity prices for industrial consumers.

On the one hand, the high (guaranteed in euro) FIT has in recent years led to an increased deployment of renewables. On the other hand, increased RES generation has led to a dramatic increase in costs. Since 2014, annual FIT costs have more than doubled from around 6 bn to 14 bn hryvnia (about EUR 435 m) in 2018. In view of the current expansion figures, it can be assumed that the current figure will be significantly exceeded in 2019.

Annual costs of Ukraine's feed-in tariff



Source: SE Energorynok, NBU, DiXi Group

RES support under the new law on auctions

With the new law, the development of renewable energy is now supposed to be more controllable, competitive and cost-effective. In the future, the remuneration for electricity from RES will therefore be determined – in line with the international trend – in the course of an auction.

Wind projects with a capacity of more than 5 megawatts (MW) and PV projects above 1 MW are then obliged to participate in the auctions. Wind and PV projects below these capacity limits as well as all biomass and small hydropower projects can continue to claim the previous FIT or voluntarily participate in the auctions. However, the "green tariff" will gradually be lowered for all technologies from 2020 onwards and will finally expire in 2030 – irrespective of the commissioning of the RES plant. With an eligibility period of less than ten years at the planned tariff level, the profitability of most smaller projects is therefore questionable. As a result, investment in this segment is expected to fall over the next three years.

Starting in 2020, there will be two auctions per year in which MW capacities that are determined beforehand will be auctioned. Bids will consist of the capacity of the project (in MW) and a price expressed in EUR per MWh generated. Ascending with the bid price, the best (i.e. lowest) bids are first awarded, while an upper limit (called ceiling price) caps the bids. Successful bidders will be guaranteed the offered price for 20 years after commissioning. This competitive procedure is a less complex form of auctions and is therefore recommended for the introduction of an auction system. Once this system has been proven to work well, a more complex system can be established.

In addition to the above, the law does not include a regional mechanism to control the geographic distribution of renewables within Ukraine. As a result of the current concentration of Wind and PV systems in the south of Ukraine, grid bottlenecks and an increased demand for balancing energy can be expected.

Outlook

The law on RES auctions represents a major opportunity for Ukraine's energy sector: ideally, auctions can set incentives for innovation, ensure a predictable framework for investment, and thus foster a steady development of RES in the electricity sector. However, there are a few conditions that have to be met: there is wide agreement that successful auctions require, among other things, a secure auction software, a trustworthy implementing institution, and sufficient competition in the auction, i.e. a sufficient number of liquid bidders. Setting auction capacities intelligently is another fundamental prerequisite for successful auctions. According to the law, auction capacities are to be proposed by the Ministry of Energy and then passed by the Cabinet of Ministers – whether this process will be carried out with the necessary transparency remains to be seen.

The adopted law thus only sets the course for the future development of renewable energy. Whether the adopted auction system will succeed is largely due to the ability of Ukrainian institutions to ensure transparency, trust and competition for the participants.

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