Policy Note 2019.8 - Limiting the cost of feed-in-tariff subsidies

UKRAINE has guaranteed renewable energy producers to pay them a fixed feed-in tariff, which is significantly above current wholesale market tariffs. The guaranteed feed-in tariff regime was meant to provide a stable environment to RES producers and thus incentivise them to invest. Looking at the increase of renewable energy capacity which benefits from feed-in-tariffs suggest that this policy had been successful in the sense that it led to a significant increase of RES capacity. We estimate that RES capacity eligible for feed-in-tariffs is likely to increase to 5.6 GW[1] by the end of 2019 – up from 3.2 GW as of June 2019. Thus, in the second half of 2019 alone, at least 2.4 GW of renewable capacity will be installed. The strong recent increase partially reflects the attractiveness of investors but is also due to the fact that the current feed-in-tariff regime will run out at the end of the year as it will be replaced by an auction-based support scheme.

In fact, the support scheme has been so successful in attracting investments, that there are concerns that the cost of providing the subsidy may become too large. Additionally, there are concerns that the cost of funding feed-in-tariffs may lead to an increase of electricity tariffs. In order to determine, if these concerns are relevant, it needs to be analysed what exactly is the level of subsidies and who pays for them.

Feed-in-tariffs are guaranteed tariffs which are established above wholesale market prices. The actual subsidy for the RES producer, therefore, is the difference between the feed-in tariff and the wholesale market price – the tariff RES producers would obtain if they had to sell their electricity on the open market similar to other producers not eligible for feed-in-tariffs. The larger the difference between the feed-in-tariff level and the wholesale market price, the larger the cost of subsidising RES producers. The wholesale market price currently stands currently at around UAH 1,700 per MWh. The level of feed-in-tariffs differ depending on when the RES installation was built and the type of renewables. As a rough estimate the feed-in-tariff level of existing installations is about UAH 4,000 per MWh suggesting that currently each MWh is subsidised with UAH 2,300.

Taking into account the expected increase of capacity until end of the year, annual expenditures of subsidising feed-in-tariffs above market prices are expected to rise to UAH 28 bln in 2020 (approx. EUR 0.85 bln) and to remain at similar levels until 2030. As such, FIT expenditures constitute significant expenditures which are equal to 0.6% of GDP or 1.5% of public expenditures. Given these significant expenditures in the form of RES subsidies through feed-in-tariffs, this raises the question if these costs are likely to translate into higher electricity tariffs. The answer to this question depends on how feed-in-tariff subsidies are financed. In case feed-in-tariffs are financed through a surcharge on electricity costs, then indeed, the increased expenditures will directly translate in higher electricity costs. Financing them through the budget would mean that there is no direct impact electricity tariffs – although nevertheless a burden on public finances.

Current and expected RES capacities and FIT

	Capacity (GW)	Electricity produced in 2020 (GWh)	Gross FIT expenditures 2020 (EUR mln)	Net FIT expenditures 2020 (EUR mln)
Already installed and receiving FIT (as of 30/06/2019)	3.4	5,400	807	530
Expected add. capacities until end 2019	2.2	4,250	541	323
Total capacity eligible for FIT after 2020	5.6	9,650	1,347	853

Source: Own calculations

A closer inspection of the way feed-in-tariff support is financed in Ukraine suggest that the increasing cost of RES support will only partially translate into higher electricity costs. This is due to the fact that feed-in-tariff subsidies are only partially financed through a TSO tariff surcharge – which indeed has a direct impact on electricity tariffs. However, the main source of financing of feed-in-tariff subsidies currently originates from proceeds from electricity sales from state-owned generating companies Energoatom and Ukrhydroenergo, which are obliged to supply electricity at tariffs significantly below market level to the Guaranteed Buyer.

The Guaranteed Buyer in turn sells this electricity on the wholesale market at much higher market prices. The profit generated this way is used to subsidise low household tariffs (so-called PSO operations) and recently the government allowed the Guaranteed Buyer also to use these profits to finance RES feed-in-tariff expenditures. As Energoatom and Ukrhydroenergo are state-owned companies, forcing them to sell electricity below market tariffs reduces revenues for the state budget, which effectively resembles budget financing. As such this way of funding feed-in-tariff subsidies does not affect electricity prices.

Amidst the increase of FIT subsidy cost, there have been calls to reduce the feed-in-tariff levels for existing renewable energy installations. Such a proposal is understandable from a policy-makers' perspective but problematic as this means reneging on the feed-in-tariffs guaranteed to investors until 2030. Breaking these guarantees would inevitably damage the investment climate and undermine trust in any future government contract.

It is also likely to undermine the success of the planned auction regime which is meant to become the main instrument of subsidising RES capacity from 2020 onwards. Each attempt to renounce on past guaranteed feed-in-tariffs will make investors think twice whether to participate in the auctions. Those that decide to bid, will factor in a considerable risk premium. Thus, fewer investors will bid at higher prices increasing the cost of future RES support.

1 Other estimations assume even higher RES capacities of up to 5.9 GW until the end of 2019. We have based our estimations on the estimate of 5.6 GW, which thus represents a lower bound of RES capacities.

What is more, international experience suggests that retroactive feed-in-tariff changes carries the risk of legal action from foreign investors seeking arbitration. The government of Spain – which retroactively changed the terms of RES support in 2010 – had several arbitration court rulings against it.

Amidst the disadvantages and risks of an outright retroactive reduction of FIT levels, it is sometimes proposed to stretch support. That is, paying RES investors the same amount of revenue but stretched over a longer period of time. It needs to be understood that this is effectively the same as cutting FIT levels. Any revenue postponed into the future has to provide sufficient interest in order for investors not to be worse off.

Policy makers may therefore decide to compensate investors for having to wait longer for their revenues – for example by guaranteeing them the present value of revenues as before the FIT adjustment. While this may mute protests from the investors, it also implies additional cost of financing the prolongation of subsidies.

Amidst the cost and risk of changing existing FIT contracts, we advise against it. Instead, we recommend to focus on more effective and less risky measures. It should be analysed if the financing of RES support could be changed so as to de-couple it from electricity prices and to allow Energoatom and Ukrhydroenergo to sell their full capacity on the wholesale markets. This would increase liquidity thus diminishing market power of dominant players and thus reducing prices for the population and industry.