



## Current energy policy in Germany - Analysis

### A new Energiewende market

Current Energiewende market structure reached its purpose to prioritize the feed of renewable energies into the grid. However, by focusing on the marginal cost and neglecting the initial cost of implementation, it does not allow necessary return on investment on costly technologies. As such it is destroying investment incentives.

Wholesales prices are down to the limit that investments are no more profitable. Even more, energy producers are at risk if they pursue their business as usual. For instance, RWE used to invest and exploit conventional plants. Tomorrow, even though they turn to renewable energies, they shall not have the funding capacity anymore to secure the initial CAPEX and first rounds of OPEX by themselves. They are moving to a position of project enablers, providing their experience and skill as a support to external investors who might be willing to dig in. Such financial investors might do so, only if provided a secured forecast on profitable return on investment, that the current market does not.

The Future market must achieve two goals:

#### 1/ Balance between supply and demand:

By guaranteeing the efficient balance between supply and demand. Of course it shall stick to the principle of promoting renewables (wind and PV sources), as it does today via the merit order effect (Marginal cost ranking positions at first energy whom exploitation costs are minimal, as it is the case for wind and solar panels). The balancing is directly linked to the security of supply and avoidance of blackout of the grid.

#### 2/ Sufficient return on investment:

Both renewable & conventional sectors, as well as storage and ancillaries services must fetch capitals to warrant future

evolution and expansion. In other terms, all the above-mentioned technologies, mandatory for the future security of supply, must be appealing enough to convince investors to fund the next necessary building phase.

The Future market structure shall be composed of:

- 1/ Current energy market: where revenue comes from the sale of electricity, which is marginal-cost based. Will continue as today, where the most expensive options, and by the way most CO<sub>2</sub> producing, are utilized last.
- 2/ Investment market for capacity instalments, which must reward (i) investments in reliable and flexible resources that can be ramped up on short notice, (ii) investments in demand-side flexibility, and (iii) investments in renewable energy systems.
- 3/ Safeguard market for reserves and balancing power: Everybody will compete in the safeguard market for ancillary services, such as energy reserves/storage and balancing power. Market incentives must ensure proper remuneration for service providers, as they are key to ensure system reliability. It's hard to see this as a completely separate market, as it directly is affected by, and affects itself, the two other markets.

Future investment incentives must ensure:

- New capacity where needed and most efficient (size, caliber and location should be justified prior to the project)
- Carbon neutral electricity
- Confidence and low risk for high-capital investments (FIT is annihilating the risk by securing revenues over 20 years. What guarantees should be provided by the new market?)
- Widespread participation of citizens and SMEs



### What could be the next step ?

The newly set up German government had the benefit of having wrote down, before starting, their roadmap. Section 1.5 of the coalition agreement focus on the next phase of the Energiewende, by, among others, securing a viable economic market and security of supply.

One of the fundamental principles in the future development of renewable energies lies in efficiency in terms of costs and economic viability of the entire system (including for the development of the grid and reserve capacity), the market for European electricity must further be taken into account. The development of renewable energy will also take into account the participation of citizens and make the prospect of cost containment.

It shall not be considered any State subsidies, which distort the market, but a framework of incentivizing schemes, incentivizing for households, but also for large corporate and investors. These last two actors are efficient for developing most economically viable business plans, thus government should position themselves as arbitragers (quota, tenders). State role should not include direct management of funds, other than through the BCE or central banks (through line of credit and debt management) as subsidies and fiscal schemes demonstrated it has a too wide impact on public finances.

Obviously, any modification of the laws should not be retroactive onto incumbent projects in order to avoid a crisis of the investor's confidence. However it is recognized the feed-in tariffs are a too heavy burden for the State, and shall have to be diminished. Going further, it is rational to expect household producers to be first consume from their production, prior to feed it in into the grid, so act as a microgrid. As such, the initiative shall become less an economical business with expected return on investment, than a more rational cost efficiency project, conducting households to the primary objective of efficiency instead of incentivizing through the wallet.

As for medium power generation plants, a tendering process should replace FIT scheme. This mechanism well known by all economic contributors, allows the government as well as the regions to claim for a book of requirements, and for the bidders to build the relevant business plan to meet these requirements. Hence more than a pure financial incentive, tenders have the merits of integrating all technical, operational and financial aspects of a project, and in a sense provide the bidders with the responsibility of setting the price. Competition shall ensure this price to be the right and consistent one.

Furthermore, such mechanism will compel the producers to determine which is the most profitable between feed-in into the grid or commercialize locally. Instead of simply producing and getting the money for it, the supplier shall have to comply with the local/regional demand specifications. This will lead to the concept of clusters, up to the government, landers and regulator to coordinate the necessary transfer between them, through the national grid.

Door is still open for the power reserve capacity. As it is connected to the security of supply, which can, for now, only be provided by stable means of production such as nuclear – which is confirmed to be phased out - and fossil-based energy, the State has the duty to handle its set up. Again, tendering process involving incumbent major suppliers shall ensure the definition of the right price of such reserve kWh capacity, based on the correct cost of exploitation. Obviously, such cost being higher than in case of fulltime exploitation, there shall be a direct influence on the kWh price. Final consumer shall be integrated in the Energiewende, by accepting that security of supply has a cost. Hence, a dedicated kWh tariff for peak period should be set up. It would have dual effect to 1/ cover extra costs of exploitation, 2/ trigger a mindset evolution with the consumer to adapt, run for efficiency and demand obliteration.