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a2e - Response to the Consultation "Weißbuch zum Strommarktdesign"

Company background

a2e is a Germany-based organisation specialised in supporting investors in the energy sector. We offer next level advice to investors by analysing the status quo- and anticipating potential changes in the regulatory- and market environment as well as their impact on the investment. Our team has long-dated backgrounds in policy- and regulatory analysis, market and development, renewable and conventional power generation, technology development as well as government affairs.

General introduction

We very much welcome the consultation process of the German Ministry of Economy and Energy on the development of a new market design. a2e is very pleased to have the opportunity to contribute in this consultation process on a non-client basis. Being active in the investment advisory space, our response will focus on items impacting investment certainty and predictability from a German and - due Germany's electricity market size and central location - European perspective.

European Dimension

The German electricity market is a core part of the European electricity market. Over the last decade, various participants have underestimated the impact of the progressing harmonization efforts carried out by the Council of European Energy Regulators, ENTSO-E and others. We believe changes in the German market design will significantly impact power systems of the neighbouring states and due to its size and location will set a clear direction what other countries in Europe will most likely adapt.

Germany is the best-interconnected power system in Europe and has the most liquid electricity exchange among its peers. In this respect, it is vital to stress the importance of a common approach to implement a new market design in Central Europe to secure smooth market operation, reduce complexity, eliminate windfall profits and other market distortions as well as increase market predictability.

Investment predictability

Most European power markets (except Poland and the UK) and especially the German electricity market are facing another decade of severe generation overcapacity, growing renewable penetration and limited demand growth.

During the market liberalization period in the 1990s power plant investors earned the required returns at the electricity market. The financial- and economic crisis of 2007 is still shadowing the sector with electricity demand still below 2007 levels in Europe. The Fukushima event and the political decision on the nuclear exit have created further disruptions in the sector. These circumstances and implemented regulatory measures have caused loss of investors' confidence in the unregulated part of the energy sector while, at the same time, the regulated part of the market, supported by reliable, transparent and predictable regulation have seen a significant growth.

As a result of these developments, the electricity market does and will for the foreseeable future only provide a dispatch signal to the power plant operators but no investment signal. On the contrary, the reliable investment signal comes from government legislation incentivising the politically preferred forms of generation (EEG, KWKG, etc.). These incentives drive the power generation transition going forward.

Below, we present detailed comments to selected measures proposed in the white paper.

Measure 1 – No government interference into electricity pricing

The energy transition is a long-term project requiring billions of Euros of investments across the whole energy sector. Independent price setting among market participants is the foundation and a prerequisite to attract capital. Any change to this scheme increases uncertainties and thus risks to investors as well as damages investor's confidence in Germany and in Europe. Todays and tomorrows German- and neighbouring governments need to fully understand and acknowledge this principle. Given the frequent attempts of various national governments to change regulations, sometimes undermining the ability of the EU to reach its policy objectives, we recommend that Germany due its electricity market size and location should continue its efforts and lead the advocacy to create a tighter European regulation corridor to reduce the risk of any national interference into the free price setting mechanisms.

Measure 6 – Ancillary Service for new participants

The ancillary service market needs as much attention as the electricity market because it has the potential to create major market distortions. Today's ancillary service market design discriminates renewables due the extensive bid-to-delivery period. In an energy system with more and more renewable generation these short-comings need to be fixed to minimize additional costs to consumers. At the same time, the EEG needs to allow renewable generators to participate in the ancillary services market without losing its eligibility to receive the market premium.

Measure 7 – Strategy development for government-driven price piece in electricity and grid fees

The electricity price elasticity is very close to one. In other words most consumers do not change the consumption behaviour when prices vary. A successful energy transition needs to change this characteristic. The electricity consumption has to cover the cost of incentivised generation and increased network investments. This leads to major market distortions and incentivizes inefficient capacity build out simply tailored to avoid surcharges and taxation. The energy transition alongside the declining electricity prices has dramatically increased government driven electricity price pieces resulting in a scheme where the price of the consumed product (kWh) is absolutely neglectable – and will diminish even further.

In order to change the consumption behaviour consumers need to understand price development mechanisms and become real active market actors, reacting to market signals Therefore consumers initially should be incentivised to invest into additional infrastructure. Once the infrastructure is upgraded and connected to the wholesale market consumers understand price fluctuations. The data gathered through this technology can then support a cost benefit analysis of a change in the consumptions behaviour – to answer the question how much money can I save by changing my consumption behaviour? Therefore, we very much welcome the initiative to allow consumers to react on price signals.

We recommend the following basic principles in administration of energy costs: splitting the cost/price of electricity into two different categories:

- Fixed costs which do not change upon your consumption (i.e. grid infrastructure, renewable & CHP surcharge etc.)

- Variable costs (cost of electricity, cost of sales, etc.)

The fixed cost should be allocated among all consumers on the basis of their consumption capacity (kW). The variable cost should continue to be allocated on the basis of the individual consumption (kWh). Consumers would have to pay an annual fixed fee based on the capacity they require ("size of the cable"). The similar concept should be applied to generators where generators pay for capacity utilization.

We are convinced that this cost allocation method will help drive a change in consumption behaviour because electricity price fluctuations become noticeable to consumers. On the infrastructure side, it will re-establish the principle of causation for infrastructure utilization and at the same time drive efficiency by incentivising lower capacity technology (i.e. LED lights, etc). A capacity sensitive electricity system will ultimately help to reduce the peak capacity and therefore also reduce the capacity reserve required for events when renewable energies are not available. The current approach of the government to handle this big-ticket item in small steps towards an undefined target is creating an investment hiatus. The EU state aid compliance of the EEG surcharge holiday for self-consumption is just one of the many examples which could be solved by developing a sustainable long term electricity pricing strategy which helps investor to gain confidence. We understand that this is a rigid step that needs to be well prepared and integrated into a European market but we strongly recommend to start this process now and stop investments into applications, which are profitable only due to regulatory inefficiencies.

Measure 17 – CHP integration into the market

In this respect it is absolutely crucial to have a continued focus on flexible gas-fired co- and poligeneration (CHP) alongside with a growth in a central heating infrastructure. Growing flexible gas-fired CHP and its infrastructure constitute the required bridge to create demand for efficient power-to-heat applications post 2025. A sound CHP infrastructure based on gas fired generation will also contribute to a smoother roll out of power-to-gas technologies from 2030 onwards. We welcome the measures around a stronger CHP integration into the market (measure 17) but would like to see a stronger emphasis on the heating infrastructure support and long term strategy around flexible CHP to unleash investments.

A2e recognizes the complexity and interdependency of the energy transition and its underlying and enablers. We are very pleased to see the progress from the

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Green paper towards the White paper and are open to support the further regulatory development and implementation.

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