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Less Competition & Higher Electricity Prices: Why the RWE-Eon Deal is at the Customers' Expense

With more than 600,000 customers, LichtBlick is the largest provider of green energy and green gas in Germany. The RWE-Eon deal affects our business as well – due to the fact that it dramatically worsens the competitive situation of the German energy market.

We have commissioned the consulting firm LBD and the law firm Raue LLP to analyze how the deal will impact energy markets. We have summarized the most important findings of the analysis in this background paper. After an introduction (I), it addresses the consequences for the electricity and gas end-customer markets (II-III), the new energy markets (IV), and energy production (V).

If the destruction of the benefits of energy market liberalization is to be avoided, the mega-deal may not be approved without substantial competition-strengthening conditions (VI). For this reason, LichtBlick has made a statement in the EU antitrust proceedings as announced¹. The analyses summarized here constitute the basis for this statement.

I. Conglomerates Plan to Restructure the German Energy Market

On March 11, 2018, the coup was presented to an astonished public. The energy conglomerates Eon and RWE are attempting to restructure the German energy market:

- Eon will concentrate on grid operation and end customers, and give its power plants to RWE.
- RWE, on the other hand, will primarily generate conventional and renewable power and give its power lines, customers, and chargers to Eon.
- In addition, one sixth of RWE will belong to Eon in the future.

To achieve this, the conglomerates are shifting power plants, power lines, customers, shares, and funds back and forth. The RWE green energy subsidiary² Innogy, founded in 2016, will be broken up.

In the past, the value creation stages in the energy market – power plants, grids, and sales – were divided into relevant portions under four large conglomerates (vertical division of the market). Now, Eon and RWE have decided in favor of a new model of horizontal segmentation – Eon operates grids and supplies customers, and RWE generates energy.

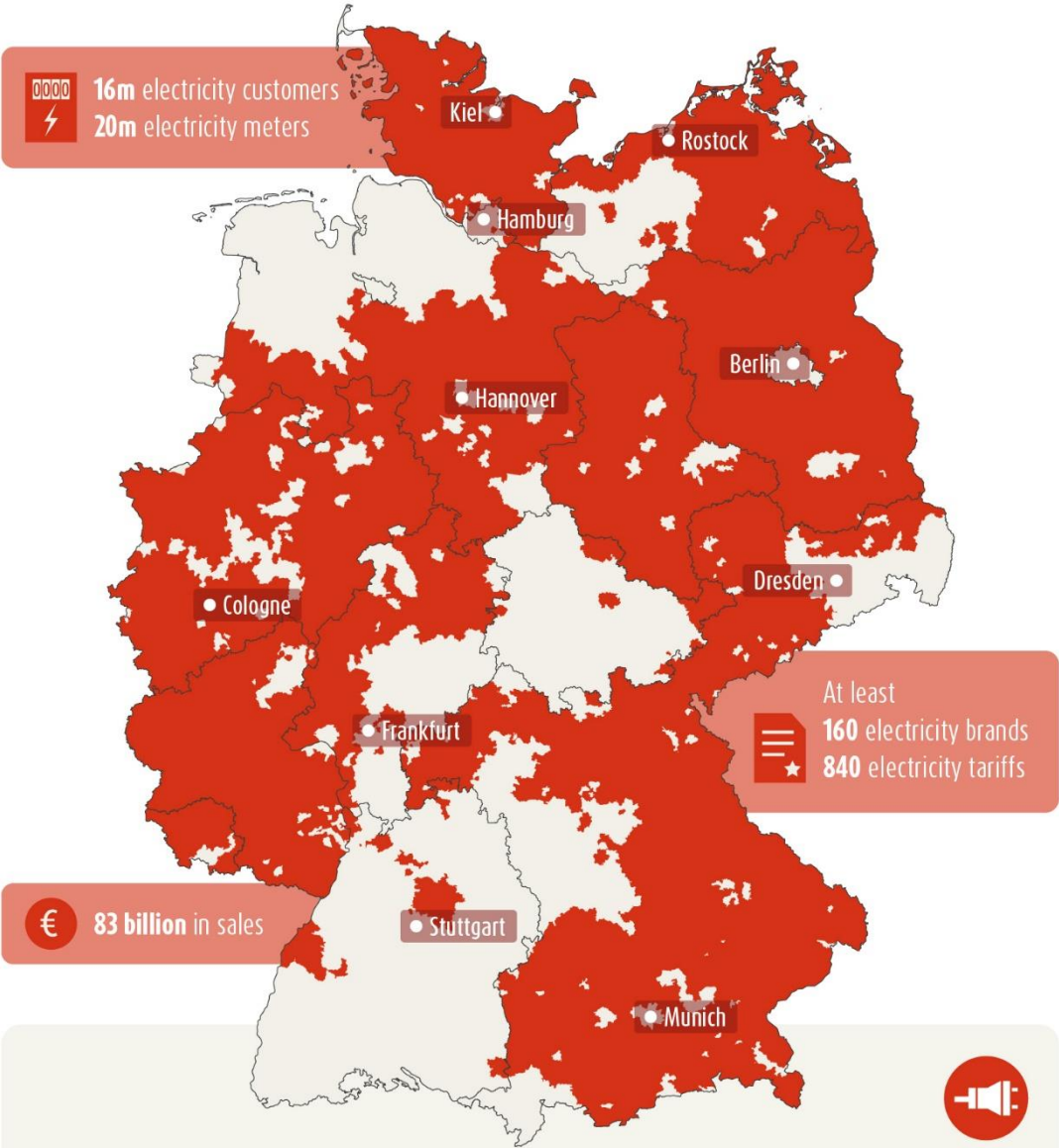
1 Der Spiegel 12/2018, *Zurück zum Monopol* (“Back to Monopoly”), source: [Der Spiegel 2018](#)

2 The designation “green energy subsidiary” frequently used with the public is misleading. This is because only three percent of the power delivered to end customers by Innogy consists of renewable energy. [Source: LichtBlick SE 2018](#)

The government welcomed the deal. Initially, consumer protection groups could not find “any disadvantage for customers,” and even predicted falling electricity prices. Competition regulators signaled their consent. Everything fine?

Eon: The New Electricity Monopolist

Eon wants to take over the customers and networks of the RWE subsidiary Innogy. Doing so will result in the energy giant dominating two thirds of the German market in the future*.



The new Eon will dominate broad sections of Germany in the future as the **largest electricity supplier and electrical grid operator** or in one of these two roles.

All data and facts include direct and indirect holdings of the new Eon / *Calculated according to Germany's land area.

Source: LBD / Copyright: LichtBlick SE

The all-clear signal came too soon. This is because the mega-deal stands threatens to take us back to the times of monopoly, 20 years after the liberalization of energy markets. Competition will be substantially restricted. Consumer prices for electricity and gas will increase due to the market power of RWE in power plants and Eon in grids and energy sales. In the future, the new Eon will dominate the new markets coming into being such as charging infrastructure, smart meters and smart-home solutions, and most of all, the future energy data market, thanks to its dominant position in sales, grids, and measurement.

The analyses commissioned by LichtBlick show a picture of the future of Germany's energy market that is beyond concerning:

Sales:

- **Electricity sales:** The new Eon will be the dominant electricity provider in Germany. In roughly two thirds of the country's area, companies of the new Eon conglomerate will supply more than 70 percent of customers. The conglomerate will control competition and prices in these regional markets.
With its 160 electricity brands and 840 electricity tariffs, the new Eon will supply roughly 16 million electricity customers throughout Germany.
- **Gas sales:** The new Eon will be the dominant gas provider. In roughly half of the country's area in which gas connections are offered, companies of the new Eon conglomerate will supply more than 70 percent of customers. The new conglomerate has more than 156 gas brands and 567 gas tariffs throughout Germany in its portfolio.

Grids & meters:

- **Power grid:** The new Eon will hold direct and indirect majority or minority stakes in 129 regional distribution grid operators. It thus has influence on nearly 41 percent (roughly 20 million) of all electricity meters and controls 50 percent of the German electricity grid (by network length). Together with the dominant position as an electricity provider in many network areas, this results in enormous regional market power.
- **Gas network:** The new Eon will hold direct and indirect stakes in 116 gas network operators. It thus has influence over 3.4 million gas meters. Due to the dominant position as a gas provider in these network areas, this leads to a dominant market position in this area as well.

New energy markets / Big Data

- **New energy markets:** In the still-young innovation markets of smart meters, e-mobility, and charging infrastructure, as well as flexibility, the new Eon can cement its already-imminent dominant position in the market.
- With its dominant position in the end customer and smart meter markets, the new Eon secures the ideal starting point for a dominant position in competition for German consumers' energy data.

Holdings

- Overall, the new Eon will hold direct and indirect strategic minority and majority stakes in 298 local and regional companies.

Electricity production

- The new RWE will also profit massively from the deal. Thanks to its enormous fleet of power plants, the conglomerate will be able to influence pricing in the electricity market in the future to an extent which violates antitrust law.

The political influence of the specialized RWE and Eon mega-conglomerates is also likely to increase substantially once again. The companies are likely to be able to enforce their interests in questions such as the coal phase-out (RWE), grid expansion, appropriate grid fees, and the implementation of market-relevant technical standards (Eon) with even more power than is currently the case.

II. Electricity and Gas: Local Energy Markets

The basis for the market-leading position of the new Eon in the end-customer market is the fact that electricity and gas competition takes place at a local level.

At first glance, the market power of the new Eon with nearly 16 million electricity customers (market share: approx. 31 percent³) in Germany is not exactly unobjectionable. However, this national perspective on energy markets is misleading. This is because competition for customers takes place in local markets.

The tariffs in the electricity and gas market from which consumers can choose vary across the roughly 900 electricity network areas and the roughly 700 gas network areas, represented by the roughly 8,200 postal code areas.

These differences are not based solely on regionally varying grid usage fees or concession levies. The analyses of LBD demonstrate that providers also vary their margins from grid area to grid area in order to respond to the price offering of the base supplier or other competitors in each case. The case for gas tariffs is similar.

Local energy tariffs of base suppliers and their competitors

The analysis of all of the roughly 4,000 electricity and gas tariffs offered in Germany shows that the postal code-centric calculation is employed by nearly every provider. The base suppliers – public utility companies or conglomerates depending on the region – calculate base supply and competition tariffs in a postal code-centric manner. The competing providers also employ postal code-centric tariffs in the market. Naturally, this also applies for the Germany-wide offers of Eon and RWE subsidiary Innogy, as well as the tariffs of the affiliated conglomerate brands such as E-wie-Einfach and Eprimo. Only the green energy providers EWS Schönau, Greenpeace Energy, Naturstrom, and LichtBlick offer uniform tariffs throughout Germany.

Thus, for example, a comparison of the same tariffs of one provider in two grid areas (with different postal codes) in Munich thus shows a price difference of EUR 45.

This market access is also highly pronounced, for example, in influential online marketplaces like Verivox and Check24. Roughly 60 percent of customers⁴ use these to change tariffs and providers. Every switching customer must enter their postal code for the portals to display the

3 Number of customers including all direct and indirect holdings, estimate. Corresponding estimates for the gas market are not reliably feasible due to the data situation. In this area, the new Eon – not including its holdings (!) – supplies 2.1 million customers, which corresponds to a market share of roughly 15%. Including holdings, the number of customers and market share in the gas market are significantly higher.

4 There were roughly 4.7 million changes of supplier in 2017, of which 1 million were due to relocations. Of these, an estimate of approximately 2.6 million were processed through sales channels like Verivox and Check24.

specific menu of offers for their local market. The postal code also determines the tariff offer in all other sales channels. The same tariffs from one provider generally vary in amount across different grid areas (represented by the postal code).

Access to the tariff offers of the providers for consumers thus undoubtedly depends on postal code / grid area / base supply area. From a consumer perspective, there is no national electricity or gas market. Homes and businesses can only choose an offer from their own grid area. They cannot select (more affordable) tariffs from other postal codes or grid areas.

With regard to market definition for antitrust law purposes, solely the demand-side perspective is decisive. However, demand is met only with a local offering; consequently, the local market is the relevant market for assessing whether an energy supplier holds a dominant market position. Under German merger control law, market dominance is presumed starting from a market share of 40 percent.

Local energy markets: the Nuon case

When the conglomerate Vattenfall took over the Dutch company Nuon in 2009, the Swedish company had to give up the roughly 200,000 Nuon customers in Berlin and Hamburg. This is because Vattenfall was the base supplier in these areas, and would have substantially expanded its market power in both cities with the Nuon customers. This was the argument of both the German Federal Cartel Office and the EU Commission. One trigger for this condition for Vattenfall was an objection from LichtBlick as one of the most important competitors in Berlin and Hamburg.

Only a short time later, the Federal Cartel Office brought another market definition into play. This concerned the sale of Integra/Thüga to a consortium of public utility companies. According to this, the base supply on one side and the competitive tariffs on the other were two markets to be separated in accordance with antitrust law. The market for competitive tariffs, however, was national.

This market definition is incorrect. As shown above, it does not reflect the reality of the postal code-centric market access for end customers. The end-customer markets for electricity and gas are local markets. For this reason, the EU also did not associate itself with the perspective of the Federal Cartel Office in the Vattenfall/Nuon case.

With market shares of over 70 percent each in a majority of local electricity markets and a relevant portion of local gas markets, the new Eon is taking a dominant market position in an overwhelming portion of local energy markets in Germany.

III. Mechanisms of Market Dominance

Eon as a base supplier: More areas, higher market share per area

The base supplier is the provider in every electricity and gas network area who supplies the most customers. According to the German Federal Network Agency⁵, base suppliers supply an average of 69 percent of electricity customers and roughly 70 percent of gas customers in their delivery areas. Only 31 percent of electricity consumers and 30 percent of gas consumers have switched to a different provider since the beginning of liberalization 20 years ago.

Firstly, as a result of the deal with RWE, the base supply areas of Eon in the electricity market will expand from the current level of 42 percent to approximately 67 percent of Germany's area. Secondly, Eon is gaining customers from previously competing brands of the RWE conglomerate – such as Süwag, LEW, and EnviaM, as well as the Innogy subsidiary Eprimo. As a result, the market share in the future Eon base supply regions will increase to substantially more than 69 percent.

This doubled effect will also occur in the gas market – more regions, and more customers per region. The base supply area of Eon is growing to roughly 50 percent of the regions in which customers can be supplied via gas networks, and the market share is increasing to substantially more than 70 percent.

In total, the number of customers of the new Eon in Germany across all brands and tariffs will increase to roughly 16 million in the electricity sector and to at least 2.1 million in the gas sector.

Competitive advantage: Grid

The roles of base supplier and regional grid operator typically coincide. This also applies for the base supply areas of the new Eon.

Although grid operation and energy sales are separated in accordance with corporate law in grid areas with more than 100,000 customer connections (“unbundling”), the profits from both sectors nevertheless flow into the consolidated balance sheet. In grid areas with fewer than 100,000 connections, the separation of these business areas merely takes place on the balance sheet. Thanks to high officially guaranteed returns, the grid is also a lucrative business. It regularly accounts for the lion's share of profits on the consolidated balance sheets of Eon and RWE/Innogy.

The profits from the grid monopoly increase the financial room for maneuver of the conglomerates, such as in order to offer inexpensive tariffs with high switching bonuses in competitive businesses such as electricity sales. As the dominant electricity and gas network operator, the new Eon is creating a secure financial buffer for the businesses where it faces competition. In the past, the Federal Network Agency has pointed out cases of cross-subsidization between grid and sales. Many competitors without their own grids lack this opportunity.

Competitive advantage: Base supply

A base supplier offers two types of tariffs: base supply tariffs and competitive tariffs. Base supply tariffs are received by all customers who do not chose to change tariffs or providers. Base supply

5 Federal Network Agency, 2018 Monitoring Report, [Source](#)

tariffs are typically substantially higher than the average market price. Base suppliers use the less expensive competitive tariffs to compete in the market.

Of the 69 percent of consumers who receive electricity from the base supplier, roughly 27.8 are subject to the high base supply tariffs and 41.2 percent are subject to the lower competitive tariffs.

Of the 70 percent of consumers who receive gas from the base supplier, roughly 19 are subject to the base supply tariffs and 51 percent are subject to the competitive tariffs.

Its role as a base supplier creates an additional competitive advantage for the new Eon. This is because the annual margin per customer for the base supply tariff is 60 percent higher than the competitive tariffs on average⁶.

However, base suppliers naturally also offer the lower competitive tariffs. Firstly, this allows them to bind customers for whom the base supply is too expensive to their company. Secondly, they use these to attempt to win back customers lost to competitors.

The extravagant profits from the base supply tariff business create an additional financial buffer for the tariffs subject to competition. Along with the grid profits, the cross-subsidization of the competitive tariffs from the base supply tariffs is an additional advantage that many competitors lack.

The base suppliers also have a third advantage. This is because they achieve customer growth without sales costs as a result of statutory provisions. For one, customers from bankruptcies – such as roughly one million customers of the bankrupt companies Teldafax and Flexstrom – are returned directly to the base supply. Even more crucial are the regular customer gains from relocations. Anyone who moves or relocates and does not actively deal with their electricity provider is automatically supplied by the local base supplier with the base supply tariff – even if they were previously with a different provider. Differently than for all other competitors, the base supplier automatically receives the address data of consumers and can thus market their offers directly and without high sales costs. This mechanism alone allows base suppliers to achieve customer growth for their profitable base supply tariffs corresponding to 10 to 17 percent of movers each year – and without active sales.

Online marketplaces: Eon “in competition” with Eon

Calculated based on area, the new Eon is a base supplier and grid operator for 62 percent of Germany and 45 percent of regions supplied with gas. Eon benefits from all of the effects listed in these areas. The conglomerate’s accounts are lavishly filled with the high profits from the grid and from base supply tariffs – sources of income which competitors such as LichtBlick lack access to. With this “war chest,” Eon will have no trouble dominating the competition for electricity and gas customers seeking changes.

For this reason, it is worth taking a look at the mechanisms of the most important marketplace in the energy sector: the internet. Roughly 60 percent of consumers change their provider through portals such as Verivox and Check24. These are not portals for comparison in the proper sense of the word but rather their own marketplaces. This is because special and regularly adjusted tariffs and prices are offered here which are not, for example, available through the web presences of the suppliers. Competition takes place within these portals.

⁶ Assuming annual consumption of 2,500 kWh of electricity or 17,000 kWh of gas; calculated for April 2018.

How do these marketplaces work? After being shown their postal code-centric tariff comparison, the lion's share of customers who switch providers online typically choose one of offers listed in ranks 1 through 6.

Each company is only permitted to offer one or two tariffs under one brand on Verivox and Check24. The advantage thus goes to whoever has a number of brands in their portfolio. The new Eon possesses a wide variety of brands and tariffs that is no longer transparent for consumers – in the electricity market alone, this spans at least 160 brands with 840 tariffs.

All prices are adjusted in a postal code-centric manner. Due to its enormous financial buffer, it is possible for Eon to fill the relevant placements for a given postal code area in a marketplace like Verivox or Check24 at all times. Thanks to the conglomerate's numerous brands, the name "Eon" does not need to appear even once. A customer who wants to change from an expensive Eon base supply tariff to a more affordable tariff will, with a certain probability, remain within the Eon family without realizing it – and will have the subjective impression of being in a competitive market with numerous providers in play, while in fact they have only switched tariff and brand.

As a matter of course, the new Eon can and will also tackle the local markets that the conglomerate does not (yet) dominate. The funds required for this will be available. After the takeover of RWE customers, it will already have distanced itself substantially from all other major competitors. While the new Eon, including its holdings, supplies roughly 16 million customers in the German electricity market, the customer numbers of the next largest conglomerates – Vattenfall and EnBW along with its subsidiary Yello – lie in the lower single-digit millions. The competitive situation will also substantially worsen for public utility companies in which Eon does not hold a stake.

IV. Impact on the New Energy Markets

The smart meter as a business model and as the key to the digital market of the future

The energy market is facing a fundamental transformation into a fully-digitized market in which client data play the central role. Developments that have already changed other markets like retail can also be expected for the energy industry. Access to client data, rather than energy, will become the decisive economic factor in the future. The new Eon is perfectly set up to control this new market.

Today, under normal circumstances, a household sends one dataset to its grid operator, and from there to its electricity supplier, once per year: the meter reading. Starting in 2019, a large-scale roll-out of smart meters is being launched in Germany. This will make customer data such as consumption data available in real-time. Instead of one dataset, thousands, tens of thousands, or even more elements of data will flow from the customer to the energy companies. These data will serve as the foundation for new data-based business models – for example in controlling consumption, smart home solutions, or even the sale of customer data to third parties. Companies can also use them for marketing and sales for their own products, since it is dubious at the least whether the applicable data protection regulations would shut down this practice.

There are roughly 50 million electricity-metering points in Germany. The new Eon, including its holdings, will control roughly 20 million metering points. This corresponds to a market share of more than 40 percent. The next-largest competitor, EnBW, falls far behind at 11 percent.

The smart meter roll-out will certainly be subject to competition regulation. Nevertheless, the initial responsibility for the roll-out lies with the grid operators in their capacity as the fundamentally responsible meter operators. Significant competition will only be achieved if competitive providers can offer smart meters at more affordable prices than the network operators. To date, competing meter operators – which do not operate grids – only account for a market share of less than one percent, and are thus virtually insignificant.

The new Eon has access to roughly 20 million electricity meters which will gradually be replaced with smart meters. The number of metering points operated by Eon to be equipped with smart meters and the volume advantages associated with this will create the opportunity for Eon to set technological standards, undercut the prices of potential competitors from the start, and to prevent consumers from switching to other providers through the use of its own competitive offerings.

Analyses by LBD show that the new Eon can achieve roughly 50% lower costs than the next-largest competitor EnBW in the purchase and operation of the central communication tool for intelligent meters (the “Smart Meter Gateway”) by 2020 due to economies of scale.

As a result of these cost advantages, the new Eon can dominate competition in the smart meter market. This is due to the fact that once Eon can offer the installation and operation of intelligent meters at an unbeatably affordable price, the opportunity then exists to displace not only free competitors, but also other grid operators in their historic grid regions. The market share of the new Eon can thus increase rapidly in the measurement market. This therefore represents an impending monopoly – particularly with regard to access to the customer data that will be so valuable in the future.

Eon could become the Google of the energy sector: Big Data is the future gold of the energy sector

The new Eon will become the leading Big Data conglomerate in the German energy market. The conglomerate meets all the necessary prerequisites for this:

- Access to over 40 percent of electricity meters and several million gas meters – with significant chances of dramatically expanding this market share.
- Access to millions of end customers in the electricity and gas market who are supplied with energy by the numerous brands of the Eon family.
- Overflowing coffers thanks to the highly profitable electrical grid, gas network, and base supply business areas.
- This financial strength enables substantial investments in new markets and anti-competitive pricing.

Digitalized platform business models will develop in the fields of energy supply, smart meters, solar and batteries, electric mobility and chargers, and in the flexible generation and storage of energy (such as for the stabilization of electrical grids). In addition, customer data itself will become possibly the most important economic factor – as the basis for the business models listed here as well as those not yet foreseeable (such as the combination of energy and insurance products), as the foundation for targeted marketing, and as an asset in itself through the sale of data to third parties.

Platform businesses follow the “winner takes all” principle. This fact has proven abundantly clear in other fields. For example, Amazon controls 46 percent of the German online retail market, WhatsApp controls 81 percent of the instant messaging market, and Google controls 93 percent of the search engine market. This type of development now threatens the energy market as well if antitrust authorities and policy-makers do not move to obstruct the plan of Eon and RWE.

The new charger market

Innogy is currently the market and technology leader in the nascent charger market, and is pursuing rapid expansion of infrastructure in grid areas owned by the conglomerate.

Similarly to the case of traditional gas stations, charger infrastructure overwhelmingly consists of very small local markets. The consumers – owners of electric vehicles – only search for a parking place with charging infrastructure within a very narrow spatial area. Due to the lack of parking spaces in metropolitan areas, there are virtually no alternative options for drivers. In many regions, Innogy has already achieved a dominant market position with shares of more than 40 percent of public charging stations. Locally, the market shares can even exceed 90 percent⁷. Innogy holds high market shares in areas such as western Germany, northern Germany, portions of Brandenburg and Saxony, and western Bavaria.

The new Eon would currently hold a market share of nearly 20 percent of public chargers in Germany. It can be assumed that the conglomerate would take over the previous Innogy strategy of a forced expansion of charging stations in its own grid areas. This would serve to strengthen the monopoly position in its own grid regions and rapidly increase the Germany-wide market share to more than 40 percent.

With the integration of Innogy, the new Eon possesses the knowledge and the funds to dominate the charger market. The faster the expansion of charging infrastructure proceeds, the more significant the cost advantages arising from the sheer quantity of installed and operated stations will become for market exploitation. These cost advantages (economies of scale) will additionally increase the probability that the new Eon will also invest in chargers outside of its grid regions.

Consumers who drive an electric vehicle would be confronted with a market-dominating provider in the grid areas of the new Eon – which make up roughly 60 percent of Germany’s area. From this position, the local monopolist can determine the prices at public chargers without disruptive pressure from competition.

Attractive co-products from household electricity and access to public chargers would also only be available from Eon in many regions – at least as long as the operator of the charger is also the electricity provider. In any event, this option is likely to strengthen the already dominant position of the conglomerate in local markets further, or even expand it.

The new Eon has a clear, regional competitive advantage in a key new energy market. The conglomerate already held a dominant market position in the charging station grid in many regions immediately after conclusion of the deal with RWE, and would be able to expand this position rapidly – even beyond its own grid areas. There is no provider in sight which could even come close to challenging Eon in this field.

⁷ LichtBlick Charger Check 2018, [Source](#)

V. Bundling of Power Plants at RWE: Impact on Electricity Prices

While the new Eon is expanding its market position in sales, grids, and new markets to the level of market dominance through the deal with RWE, RWE is benefiting from the additional power plant capacities that the conglomerate is taking over.

After the takeover of power plants from Eon, the new RWE possesses 38.7 gigawatts of conventional power plant capacity (corresponding to a market share of 38 percent) and 8.5 gigawatts of renewable energy (market share of nearly 8 percent).

LBD analyses according to the standards of the Federal Cartel Office show that the new RWE, with the addition of the power plants of Eon, would have influenced or even dominated prices for electricity generation in roughly one in every six hours of the year in 2017 (17.8 percent of all hours).

According to the Cartel Office's definition, this indicates the presence of substantial market power, or at some times even a dominant market position of RWE in electricity generation.

Depending on assumptions on future electricity generation in Germany, the decommissioning of power plants, the growth of the RWE power plant fleet, and the development of electricity imports, the market power of the new RWE could increase further in the coming years – culminating in a market-influencing or market-dominating position in more than half of all hours of the year 2030. This monopolistic position of RWE would lead to a massive increase of electricity prices in Germany. Increasing production margins in the present already indicate that the intensity of competition in the electricity generation market is falling.

VI. Consequence: Antitrust Authorities Must Block the Deal

The energy industry analyses by LBD discussed here clearly demonstrate how severely competition will be restricted by the reallocation of energy markets between Eon and RWE. Competitors such as public utility companies, smaller energy conglomerates, and independent providers such as LichtBlick will face massively reduced competitive opportunities. Consumers will be the victims, because electricity, gas, and all future business models linked with energy in the large-scale monopolistic sub-markets will be one thing above all: more expensive.

The EU Commission and the Federal Cartel Office must shut down this impending development and forbid the mega-deal, because it threatens to torpedo the achievements of the liberalization of the German energy market.

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