ACER Public consultation on the impact of peak-shaving products on the EU electricity market under normal market conditions

CONTRIBUTION, THÜGA Aktiengesellschaft | 10.04.2025
EU-Transparency Register No.: 702152628415-31

1. Policy Objectives

1.1 Impact on wholesale prices

1.1.1.
The first policy objective of a peak-shaving product is to lower wholesale electricity prices. The decrease of the wholesale electricity price would reduce potential "excessive" windfall profits of producers and reduce costs for consumers.
This concept is illustrated in Figure 1. The idea behind a peak-shaving product is to activate demand response based on another price signal than the day-ahead price, thereby reducing the volume of demand participating in the market as buy orders (shift from the right demand curve to the left demand curve*). This reduction in market-participating demand would, in turn, lead to a decrease in wholesale electricity prices compared to a scenario without a peak-shaving product.

Do you agree that the introduction of a peak-shaving product would lead to a reduction of the wholesale electricity prices?
☐ Fully agree
☐ Partially agree
☒ Partially disagree
☐ Fully disagree
☐ No opinion
Feel free to justify your answer above.
During energy price crises a peak-shaving product might be a relevant lever to stabilize the energy markets and could lead to a reduction in wholesale electricity prices. Under normal market circumstances, the introduction and activation of peak-shaving products represent a massive intervention in the market mechanisms. Proposing a peak-shaving product will lead to additional costs for the product itself as well for its administration. These costs will eventually be passed on to consumers. It is likely to furthermore have impact on day-ahead and intra-day trading in the spot-market. In General, peak shaving under normal market conditions is furthermore only possible if and when large industrial consumers (in Germany, 99% of which are connected to the distribution grid) use such an instrument over a longer period of time. The same is true in principle for (a large number of) households.

1.1.2

In an integrated electricity market, the price in a bidding zone depends on supply and demand across all Member States, as well as the available cross-zonal capacities. For a small, well-connected Member State, the price may be largely influenced by demand in larger neighbouring Member States. As a result, due to the different size of the System Operator (SO) and national systems, the ability of individual SOs to influence their national price might be different (due to national demand, level of cross-zonal capacities and national characteristics) compared to neighbouring Member States.

Do you agree that the SO of a small Member State may have a limited impact on market prices when using a peak-shaving product?
☐ Fully agree ☐ Partially agree ☒ Partially disagree ☐ Fully disagree ☐ No opinion
Feel free to justify your answer above.
The impact derives from the quantity of contracted kWh which can also be high in smaller member states with large industrial consumers (i.e. Belgium) and/or smaller member states with relatively high electricity generation capacities – depending on the cross-zonal capacities. The size of a Member State in itself is too simplifying and should not be used as a differentiating criterion.

1.1.3

ACER understands that while the introduction of a peak-shaving product could reduce wholesale electricity prices, it may not guarantee lower costs for consumers. This is because a peak-shaving product also entails additional costs for SOs.

First, there is the cost of procuring the peak-shaving product in order to ensure it is available (i.e. reservation costs). Second, there is the cost of activating it. As illustrated in Figure 1, the price at which demand reduction is compensated through the peak-shaving product is higher than the day-ahead market price. This is because the reduced demand would have otherwise been cleared in the day-ahead market.

What is your view on the potential impact of a peak-shaving product on consumer costs, considering both its potential to lower wholesale electricity prices and the associated costs for SOs?
From our perspective, introducing a peak-shaving product will probably lead to higher costs for consumers. Considering the complex process of demand planning, renewable energy forecasting and further measures to ensure network stability (i.e. reducing consumers demand according to – in Germany - §14a EnWG by DSOs), adding complexity by introducing a peak-shaving product cannot be justified under normal circumstances and counteracts the day-ahead supply and demand mechanism. It is furthermore to be expected, that professional market participants use the competition between peak-shaving products and the spot-market to optimize between the two, causing further costs, especially for other market participants. Interdependency of measures to stabilize the system operators network might also occur leading to investments in flexible assets which calculate with significant fluctuations in wholesale electricity prices are no longer economically attractive, leading to reduced number of assets for network stability. It should also be noted that from our point of view, flexibility possibilities are in general overestimated by the TYNDP, having impact on the expected result for consumer wholesale prices.

1.1.4

For assets receiving state support, such as renewable energy subsidies, capacity mechanisms, or Contracts for Difference (CfDs), ACER considers it more efficient to address potential "excessive" windfall profits through these support mechanisms rather than by introducing a peak-shaving product to lower wholesale electricity prices.

For example, the use of a two-sided Contract for Difference or the implementation of a reliability option within a capacity mechanism could ensure that producer revenues exceeding a certain threshold are recovered.

Do you agree with ACER's view?
☐ Fully agree
☒ Partially agree
☐ Partially disagree
☐ Fully disagree
☐ No opinion

Feel free to justify your answer above.
In the end, it should be avoided to have an overcomplex set of regulations and instruments, which in theory might lead to perfect results but in practice does not, because market participants cannot make fully informed decisions due to overcomplexity.

1.1.5

For assets that are not under state support schemes, ACER understands that limiting the infra-marginal rents of producers in normal market circumstances might prevent producers to recover their investment costs.

Do you agree with ACER's understanding?
☒ Fully agree
☐ Partially agree
☐ Partially disagree
☐ Fully disagree
☐ No opinion
Feel free to justify your answer above.
-

1.1.6

ACER considers that lowering wholesale electricity prices through subsidised demand response such as peak shaving is not an efficient approach to supporting consumers, as the subsidy provides the same level of support to all consumers, regardless of their actual needs. Instead, ACER recommends targeted measures for vulnerable consumers rather than broad mechanisms that benefit all consumers equally (see 2023 CEER/ACER retail report).

Do you agree with ACER's assessment?
☒ Fully agree
☐ Partially agree
☐ Partially disagree
☐ Fully disagree
☐ No opinion

Feel free to justify your answer above.
In general, it is just, when different circumstances are also treated differently. Since the processes of (large) industrial consumers differ a lot – where some of them are not able to use a peak-shaving product due to technical reasons (i.e. parts of the glass-, steel- or chemical industry) and some of them are (i.e. paper industry), targeted measures are the appropriate instrument. When it comes to vulnerable customers / households, they would not benefit from lowering wholesale electricity prices in the short term, as price calculations and procurement for this segment are often made in the long term.

1.2 Security of Supply

1.2.1

The second policy objective of a peak-shaving product is to ensure security of supply. The premise is that demand reduction from the activation of the peak-shaving product could help avoid situations where there is a loss of load (when production and imports cannot meet demand).

Capacity mechanisms and strategic reserves are introduced and sized to address adequacy concerns (Article 21.1 and 22.1(c) of Regulation 2019/943). For this reason, ACER is of the opinion that in Member States that already have a capacity mechanism or a strategic reserve in place, there is less need to introduce an additional peak-shaving product for ensuring security of supply, as these mechanisms already ensure the necessary level of security of supply.

Do you agree with ACER's understanding? Do you see any advantages in the design of a peak-shaving product compared to a strategic reserve or a capacity mechanism?
☒ Fully agree
☐ Partially agree
☐ Partially disagree
☐ Fully disagree
☐ No opinion
Feel free to justify your answer above.
For Member States such as Germany that have a strategic reserve ("Netzreserve" according to § 13d EnWG and "Kapazitätsreserve" according to § 13e EnWG) and mechanism are already in place on a regional level to ensure the necessary level of security of supply (i.e. reducing consumers demand according to § 14a EnWG by DSOs), and are furthermore in the design and implementation of a capacity mechanism and have the difficulty of high congestion (costs) but an accelerated expansion of the grids, the situation is much more complex.

1.2.2

For countries without capacity mechanisms or strategic reserves, ACER is concerned that by lowering wholesale electricity prices, the peak-shaving product could weaken investment incentives in new capacities, potentially affecting long-term security of supply.

Do you agree with ACER's concerns?
☒ Fully agree
☐ Partially agree
☐ Partially disagree
☐ Fully disagree
☐ No opinion
Feel free to justify your answer above.
-

1.3 Demand response development

1.3.1

The third policy objective of a peak-shaving product is to enable the participation of additional demand response that cannot currently participate in existing wholesale electricity markets.

Do you consider that, even after the implementation of the demand response network code, some demand response will still be unable to participate in the market? If so, what barriers prevents their participation?
Yes, due to technical reasons, such as concrete production necessities (i.e. parts of the Chlor-alkali electrolysis process), but also due to other restrictions. Lowering production capacities need to be aligned with (labour-law-abiding!) work-shifts which in many cases is not practical on short notice (day ahead planning), to only name a few.

1.3.2

ACER understands that the technical requirements for participating in a peak-shaving product would not be lower than those for participating in day-ahead and intraday markets. This is because mechanisms like peak-shaving products, which provide remuneration for capacity (e.g., balancing capacity, capacity mechanisms), typically involve more stringent control processes (such as prequalification) than wholesale market participation.

Do you agree with ACER's understanding?
☒ Fully agree ☐ Partially agree ☐ Partially disagree ☐ Fully disagree ☐ No opinion
Feel free to justify your answer above.
-

1.3.3

ACER understands that by providing remuneration for capacity, a peak-shaving product could enhance the business case for demand response developers and, in turn, support the development of additional demand response.

Do you agree with ACER's understanding?
☐ Fully agree ☒ Partially agree ☐ Partially disagree ☐ Fully disagree ☐ No opinion
Do you see any modifications to the characteristics (e.g., time of procurement, time of activation) of the peak-shaving product that would make it more attractive for demand response?
-

1.3.4

When demand response is activated through the peak-shaving product, its remuneration is higher than if it had been activated through the market. This is because a demand response asset participating in the peak-shaving product receives both a capacity payment and an activation price, which exceeds the wholesale market price (see Figure 1). As a result, there is a risk that the introduction of a peak-shaving product could lead to a shift of demand response away from wholesale markets toward the peak-shaving product.

Do you agree with this?
☒ Fully agree
☐ Partially agree
☐ Partially disagree
☐ Fully disagree
☐ No opinion
Feel free to justify your answer above.
-

1.3.5

As a peak-shaving product reduces wholesale electricity prices, this might reduce the business case for the development of demand response projects to participate in wholesale electricity markets.

Do you agree with this?
☒ Fully agree
☐ Partially agree
☐ Partially disagree
☐ Fully disagree
☐ No opinion
Feel free to justify your answer above.
Investments in flexible assets which calculate with significant fluctuations in wholesale electricity prices are no longer economically attractive. This may lead to a reduced number of assets for network stability and participating in wholesale electricity markets. In the end, a peak shaving product is yet just another product (besides, day-ahead, intraday, primary- and secondary control power) with which flexibilities are split but not multiplied. The instruments are overall communicating vessels; flexibilities made used by a peak shaving product will in the end be missing flexibility capacities in the other in the electricity market established instruments.

2. Interaction of peak-shaving products with the electricity markets

2.1

ACER understands that by remunerating demand reduction at a price different from the wholesale electricity price, the introduction of a peak-shaving product could result in an inefficient dispatch and therefore a loss of socio-economic surplus. Specifically, demand

response participating in the peak-shaving product may be activated and therefore not consume, even though its valuation is higher than the day-ahead price (see Figure 1). As a result, the economic surplus would have been increased if this demand had been allowed to consume instead.

Do you agree with this?
☒ Fully agree
☐ Partially agree
☐ Partially disagree
☐ Fully disagree
☐ No opinion
Feel free to justify your answer above.
The complex process of demand planning, renewable energy forecasting and further measures to ensure network stability will be influenced by a peak-shaving product as well. Therefore, counter-rotating effects can be observed which may lead to a dysfunctional supply-and-demand mechanism. Furthermore, wholesale electricity prices reflect the supply and demand of electricity but not the physical network load. Consequently, the necessity for additional regional load balancing measures may be required.

2.2

In an integrated market, ACER understands that by reducing national demand, a System Operator would also lower electricity prices in other Member States. This price reduction could, in turn, impact the incentives for demand response development in those markets or affect their security of supply.

Do you agree with ACER's understanding regarding the cross-border impact of activating a peak-shaving product?
☐ Fully agree
☒ Partially agree
☐ Partially disagree
☐ Fully disagree
☐ No opinion

Feel free to justify your answer above.
As the European Energy Union and market are far from being completed, this is a rather theoretical thought which should be addressed in the mid 2030s. As for now, conclusions derived from this theoretical exercise may – unwillingly – result in mechanisms that hinder the further integration of the European Energy Union.

2.3

Do you have any other comments on the interaction between a peak shaving product and existing mechanisms and markets (capacity mechanism, balancing products, wholesale markets)?
Due to the intrusion of a peak-shaving product, potential lower wholesale electricity prices will also affect long-term price calculations and their reliability. Adding just another instrument to the electricity market will basically lead to them cannibalizing each other.

3. Other

You are kindly invited to share your general view on the topic of peak-shaving products. Feel free to provide any other benefit or disadvantage of the introduction of peak-shaving products under normal market circumstances, as well as any other comments.
-

Thüga is the largest cooperative network of municipal energy and water service providers in Germany. More than 100 municipal utilities with around 27,200 employees make up the Thüga Group with sales of € 48 billion (2024) and investments in infrastructure of € 3.7 billion (2024). This makes the Thüga group the third largest energy suppliers. Together, the companies of the Thüga Group drive the energy transition locally and develop intelligent solutions for the livable city of the future.

Contact:
EU-Transparency Register No.: 702152628415-31

Martin Kaspar
EU Energy Policy / Brussels Office
T: +49 151 21205126
martin.kaspar@thuega.de

Melanie Mannhardt
Sales / Marketing
T: +49 170 6321324
melanie.mannhart@thuega.de

Das große Plus der Gemeinschaft