

Different types of network usage

In light of the current grid fee regulation, the legislature allows a reduction in the costs of network usage, in case the customer supports the network through its cautious or lightening conduct.

Namely, the following:

- Atypical grid usage: here the consumption conduct of the user is atypical to the strain of the network
- High continuous load: you consume at a location 10+ GWh yearly, and show a high continuous load (7000+ hours of full load)

Atypical network usage

End consumer, that show a special – further specified in the grid fee regulation (§ 19 Abs. 2 StromNEV) – purchase behaviour, are entitled to have a customized grid fee. Agreements arrived at based on the above are to be authorized by the regulatory body (BNetzA). Agreement on a customized fee is bound by the restriction, that the current prerequisites of the § 19 Abs. 2 StromNEV be properly fulfilled. If this is not the case, the invoicing of the grid fee follows the amounts published in the actual price sheet.

Potentials / Example

Initial Situation

A customer with a consumption peak of 700 kW in summer. The peak load window of the network operator falls in wintertime to between 17:00-18:00. In this period the peak consumption of the customer is at 500 kW.

Application

The invoice-relevant annual peak load is defined based on the period of the peak load window. The peak load time window is exemplary between 17:00-18:00 pm in winter. In this period our customer decreases its demands by a load management measure by 200 kW from its normal consumption.

The now invoice-relevant annual peak consumption falls to $500 \text{ kW} - 200 \text{ kW} = 300 \text{ kW}$.

Old calculation:

fees of the network operator: 70,00 Euro / kW.

$700 \text{ kW} \times 70,00 \text{ Euro pro kW} = 49.000 \text{ Euro}$

New calculation:

fees of the network operator: 70,00 Euro / kW.

$300 \text{ kW} \times 70,00 \text{ Euro pro kW} = 21.000 \text{ Euro}$
 $49.000 \text{ Euro} - 21.000 \text{ Euro} = 28.000 \text{ Euro per year.}$

Savings

Our achievements for you

In co-operation with our partners, we provide you an analysis & assessment of your network utilization at all sites and take care of all procedures concerning the network operators and the Federal Network Agency (BNETZA). In addition to this, combined with our smart metering, you also have constant access to your energy data and can compare how your network load behaves inside and outside of the peak load window.

1. Access to data history
2. Evaluation with partners
3. Identify optimization approaches
4. Application for network operators / BnetzA
5. Monitoring and control with the acteno smart metering

To whom??

Customers, who are already atypical, or can become atypical through appropriate load management / generation management measures.

- Press companies
- Metal industry (including non-ferrous metal industries)
- Chemical industry
- Glass industry
- Energy production
- Petrol industry
- Retail packaging
- Food industry
- Clinics

- Trade
- Logistics

Note: the minimum transfer potential has to be 100 kW.

Legal Grounds

- Federal Network Agency
- Grid fee regulation

[Individuelle Netzentgelte gem. §19 StromNEV
Sonderformen zur Netznutzung](#)

High continuous load (10+ GWh yearly / 7000+ hours of full load)

End consumers, that show a special – further specified in the grid fee regulation (§ 19 Abs. 2 StromNEV) – purchase behaviour, are entitled to have a customized grid fee. Agreements arrived at based on the above are to be authorized by the regulatory body (BNetzA). Agreement on a customized fee is bound by the restriction, that the current prerequisites of the § 19 Abs. 2 StromNEV be properly fulfilled. If this is not the case, the invoicing of the grid fee follows the amounts published in the actual price sheet.

Potentials / Example

Initial situation

A customer with an annual peak consumption at 2000 kW and a yearly net consumption of 14.860 Mwh (7430 hours of full load).

Application

according to the grid fee regulation (StromNEV) network fees can be reduced here to 80% of the common network fees.

Old calculation

Service fees of the network operator: 70,00 Euro / kW. $2.000 \text{ kW} \times 70,00 \text{ Euro pro kW} = 140.000 \text{ Euro}$.

working fees of the network operator: 1,03 Eurocent / kWh or 10,30 Euro / MWh.

$14.860 \text{ MWh} \times 10,30 \text{ Euro pro MWh} = 153.058,00 \text{ Euro}$.

Working fees and services fees total: 293.000 Euro

New calculation

service fees of the network operator: 70,00 Euro / kW.

$293.000 \text{ Euro} \times 0,20 = 58.600 \text{ Euro}$ (maximum load).

$293.000 \text{ Euro} - 58.600 = 234.000 \text{ Euro}$ per year.

Savings

Service for you

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Interruptible Consumer-facility

Interruptible Consuming-facilities without assessment can be shut down during load peaks by the grid operator. In the off-peak the customer gains an exemption of the grid costs up to 80 percent.

Currently this procedure is mainly used for night storage heating. The coverage can be expanded on further electric loads and storages.

Potentials / Example

Initial situation

Customer

with a switchable load in low voltage. Yearly consumption of the switchable load is 12.000 kWh.

Application

Extension of the switchable load to a setup of interruptible consumption through a firm metering

Old calculation

working fee of the network operator: 6,43
Eurocent / kWh or 0,0643 Euro / kWh

$12.000 \text{ kWh} \times 0,0643 \text{ Euro per kWh} = 771,60$
Euro

New calculation

working fee of the network operator will be
reduced to 80%:

$0,0643 \text{ Euro / kWh} \times 0,20 = 0,01286 \text{ Euro / kWh}$

$12.000 \text{ kWh} \times 0,01286 \text{ Euro pro kWh} = 154,32$
Euro

Savings

$771,60 \text{ Euro} - 154,32 \text{ Euro} = 617,28 \text{ Euro p.a.}$

For whom ?

- Trade
- Electromobiles
- Storage (electric as well as thermo)
- Households
- Fields of application : Refridgerator / freezer, room temperatures, hot water, compressed air, Prozesswärme, airing ***

Note: network usage on the level of low voltage

Legal basic

Betreiber von Elektrizitätsverteilernetzen haben denjenigen Lieferanten und Letztverbrauchern im Bereich der Niederspannung, mit denen sie Netznutzungsverträge abgeschlossen haben, ein reduziertes Netzentgelt zu berechnen, wenn ihnen im Gegenzug die Steuerung von vollständig unterbrechbaren Verbrauchseinrichtungen, die über einen separaten Zählpunkt verfügen, zum Zweck der Netzentlastung gestattet wird. Als unterbrechbare Verbrauchseinrichtung im Sinne von Satz 1 gelten auch Elektromobile. Die Steuerung muss für die in Satz 1 genannten Letztverbraucher und Lieferanten zumutbar sein und kann direkt durch den Netzbetreiber oder indirekt durch Dritte auf Geheiß des Netzbetreibers erfolgen; Näheres regelt eine Rechtsverordnung nach § 21i Absatz 1 Nummer 9.

Quelle: EnWG § 14a Steuerung von unterbrechbaren Verbrauchseinrichtungen in Niederspannung

- EnWG [EnWG §14a](#)

Singular Facilities

The fees of singularly operated facilities, according to § 19 Abs. 3 StromNEV will be determined individually at each location. The condition for this is that, in case of many facilities that share the same grid or transformer level, the customer has an exclusive right. ***

The amount of the fee is based on the individually attributable expenses, which, according to § 4 StromNEV, are aligned with such parameters as for example the number of the facilities in order, the installed capacities and the length of conductor.

The amount of the fee is determined at each sampling location as the single price multiplied with the amount of the individual units. The current individual fees according to § 19 Abs. StromNEV per each sampling location, based on § 27 Abs. 1 StromNEV, are published on the website of the network operator.