

Frequently Asked Questions

What is congestion?

Congestion means that the demand for the transmission of electricity, exceeds the available transmission capacity of the existing grid

Why does TenneT carry out various congestion studies?

The Dutch electricity grid is becoming increasingly busy. In various regions the demand for capacity from TenneT's high-voltage grid is greater than the available supply. TenneT will therefore be expanding the grids considerably over the next few years. At the same time the grid manager is examining whether there are also solutions for the shorter term to make extra capacity available. One of these possibilities is congestion management, a market mechanism whereby scarce capacity is redistributed at peak times. The network operator is obliged to carry out this investigation in the event of scarcity on the network.

Why can't I get a connection when research is being carried out?

The investigation will be started if there is no longer sufficient grid capacity. Connecting more customers means that the grid could become overloaded.

When will there be clarity about the results?

On tennet.eu/congestioninvestigations you will find an indication of the lead times.

I would like my company to participate in the congestion management system. Where and to whom should I report this?

TenneT conducts various studies. On the page tennet.eu/congestiemanagementonderzoeken you can find the latest information and whether you can participate. The grid managers will be using the system of GOPACS system.

How high is the fee for flexible use of electrical power?

There is no predetermined price; it works like a market mechanism with supply and demand. Participants themselves indicate the conditions under which they wish to participate. So the price depends on the supply from the market.

What is a congestion area?

In a congestion area, the maximum transmission capacity of the electricity grid is reached. This means that there is no room for new connections. There must expand or extra space must be created, for example, by applying congestion management.

Who decides whether an area is congested (and on what grounds)?

This is what the grid operators do. They have insight into the capacity and use of the electricity grid. They are also responsible for the reliability and security of supply and therefore ensure that the grid is not overloaded

Is my company located in a congestion area?

The national and regional grid operators publish on their websites where congestion has been identified.

Why is congestion often local? The grid is connected everywhere, right?

The net is like a chain: the weakest link sets the limit. Grid surfaces are also connected to each other with, for example, switching stations, lines of high, low or medium voltage, transformers. If one or more of these components reaches its maximum capacity, then that limitation can apply to the entire area behind it apply.

Why does the ACM set the rules for the electricity grid?

In the Netherlands, the electricity grid is a utility, an essential infrastructure that must work for the common good. Network operators ensure a properly functioning electricity network. The government, through the ACM, the government determines the rules that apply. And ensures that all parties who use the infrastructure can do so on equal terms. In this way the market can operate undisturbed.

Does congestion cause disruptions?

No. The grid operators monitor the safety and security of supply of the electricity network. In a heavily burdened electricity network, network operators therefore do not allow no new connections. And existing connections cannot use more capacity than their contract allows.

What causes congestion?

The energy transition is changing the use of energy systems radically. And not all changes are equally coordinated. In a short space of time, wind and solar parks are springing up in sparsely populated areas with a light energy network. Electrification continues: for cars, heating of houses and greenhouse complexes and soon also in industrial processes. In addition, there is a demand for housing (without natural gas) and data centers are being built.

What is the solution?

The structural solution is to reinforce a large part of the existing electricity networks. Work is underway on this: TenneT invested € 4 billion in grid expansions in 2021 and as of 2025 that amount will even increase to at least € 6 billion per year. However, it takes a long time to expand a high-voltage grid. The construction of a high-voltage substation takes roughly 5 to 10 years, involving spatial planning and licensing procedures take the most time.

Are there other creative ways to create additional capacity more quickly?

It is important to make optimal use of the existing capacity in order to provide space for the development of the sustainable energy system. This can be done by congestion management, which takes various forms. TenneT is also developing other smart solutions, such as the use of the “vluchtstrook”, the existing reserve capacity of the high-voltage grid. TenneT also applies Dynamic Line Rating, which allows more electricity to be transmitted over the high-voltage lines in cool weather.

What is congestion management?

View the animation on congestion management on our website.

I read something about amended regulations. How does that work?

The regulator Autoriteit Consument en Markt (ACM) is currently working on new regulations, which will allow congestion management to be applied more effectively. A draft decision has been prepared; the final decision is expected later this year. With this so-called netcode, the ACM sets out how network operators should deal with this so-called grid code, the ACM stipulates how grid managers should deal with scarce transport capacity. TenneT bases its studies on the principles of the new grid code.

What is involved in a congestion survey?

In a congestion study, the grid operator examines whether there are, in a congestion area are possibilities to apply congestion management. To this end, a technical analysis of the network and its possibilities. An extensive market survey is also carried out to see if there are sufficient connected that can handle their power flexibly. On the basis of these insights, the grid manager publishes a final report with the possibilities.