

PO Box 50, 6920 AB Duiven

To the occupant(s) of this property

<Naam klant>

<Adres> <Huisnummer>

<Postcode> <Plaats>



Correspondence address

PO Box 50

6920 AB Duiven

Date

18 June 2024

Subject

Invitation to drop-in meeting on replacement of Schipluidenlaan electricity substation

Dear resident or business owner,

The Municipality of Amsterdam recently decided to cooperate with Liander to replace the Schipluidenlaan electricity substation at its current site on Koningin Wilhelminaplein. We would like to provide you with some information about this decision and what it means. On Wednesday 3 July we will be organising a drop-in meeting on this topic. You are very welcome to attend and ask any questions you may have.

The meeting will be held on:

- Date: Wednesday 3 July 2024
- Time: between 6.30 p.m. and 8.30 p.m.
- You do not need to register in advance. Just drop in at a time that suits you.
- Location: Koningin Wilhelminaplein 1,1062 HG, Amsterdam

#### **What can you expect during this meeting?**

During the meeting experts from Liander and the Municipality of Amsterdam will explain the plans and you will be able to ask any questions you may have about the new, upgraded substation. Amongst other things, you will be able to see a sketch of the new substation.

#### **Why does the substation need to be replaced?**

Demand for electricity is increasing across the whole of Amsterdam. That is why we need to expand and strengthen the grid. This involves building new substations and upgrading existing ones. The substation on Koningin Wilhelminaplein is one of those we are upgrading. You can read more about how we are strengthening Amsterdam's electricity grid at [www.amsterdam.nl/stroom](http://www.amsterdam.nl/stroom).

#### **Where will the substation be located?**

Liander is building the new substation on the site of the existing one. That means we will need to demolish the existing building to make room for the new, upgraded substation. To allow us to continue supplying electricity to the district while the existing substation is being demolished and the new one is built, we will

first be constructing a temporary substation on Schipluidenlaan. Once the new substation has been completed this temporary substation will be removed again.

**More information and contact details**

Liander manages the electricity grid in Amsterdam. You will find more information about this project at [liander.nl/schipluidenlaan](https://liander.nl/schipluidenlaan). Do you have a question or comment ahead of the meeting? If so, you can contact us at [schipluidenlaan@liander.nl](mailto:schipluidenlaan@liander.nl). We will aim to answer your question within 3-5 working days.

We look forward to seeing you on Wednesday 3 July!

Yours faithfully,

Frank Raymakers

Stakeholder Manager at Liander

Iris Voorwerk

Project Manager at the Municipality of Amsterdam

## Upgrade of Schipluidenlaan electricity substation

*To meet the increasing demand for electricity, Liander is upgrading the electricity substation ('substation') at Koningin Wilhelminaplein 16 in Amsterdam Nieuw-West. This involves replacing the existing substation with a new one. While the existing substation is being demolished and the new one built, electricity will be supplied to the district via a temporary substation, which will be built on Schipluidenlaan. By carrying out this work, we are making sure the district is ready for the future.*

### What is an electricity substation and what does it do?

An electricity substation is a large building that converts electricity from high voltage to medium voltage, before distributing it to much smaller transformer stations around the city. These transformer stations are used to supply electricity to homes and businesses.

### Electricity for everyone – now and in the future

Amsterdam is growing fast and is rapidly becoming a more digital and more sustainable city. As a result, we will be using much more electricity than in the past and we therefore need to expand the electricity grid. Otherwise, we may be faced with outages, which would mean being unable to turn the lights on in our homes, charge our phones or run our refrigerators. That is why we are replacing the Schipluidenlaan substation, to ensure homes and businesses in the West and Nieuw-West district have enough electricity in the future

Want to find out more about the expansion of Amsterdam's electricity grid and how we will be making it smarter? Go to [amsterdam.nl/stroom](https://amsterdam.nl/stroom).

## **What is being built?**

To meet the increasing demand for electricity, we need to ensure that more electricity is supplied to the district. That means laying newer, larger cables to carry electricity and building a substation with greater capacity.

Liander will first build a new, temporary substation on the same site, next to the existing one, so the existing substation can be demolished. The new substation will then be built on the same spot as the existing substation. The area will be temporarily expanded to allow the temporary substation to be constructed. This temporary substation will be removed once the new substation is ready. In this way we will ensure that electricity continues to be supplied to the area during construction.

The new substation will require a plot of 42 x 37 metres and will consist of two buildings: a transformer building and a switch building. In the transformer building high voltage will be converted to medium voltage, while in the switch building the electricity will be allocated to the transformer stations in the district. The transformer building will be 33 metres long, 10.5 metres wide and 12 metres high. The switch building will be a maximum of 33 metres long, 9.5 metres wide and 10.5 metres high. Together, these buildings will be larger than the existing substation, as more electricity needs to be supplied to homes and businesses in the Nieuw-West district.

## **Upgrading the electricity substation**

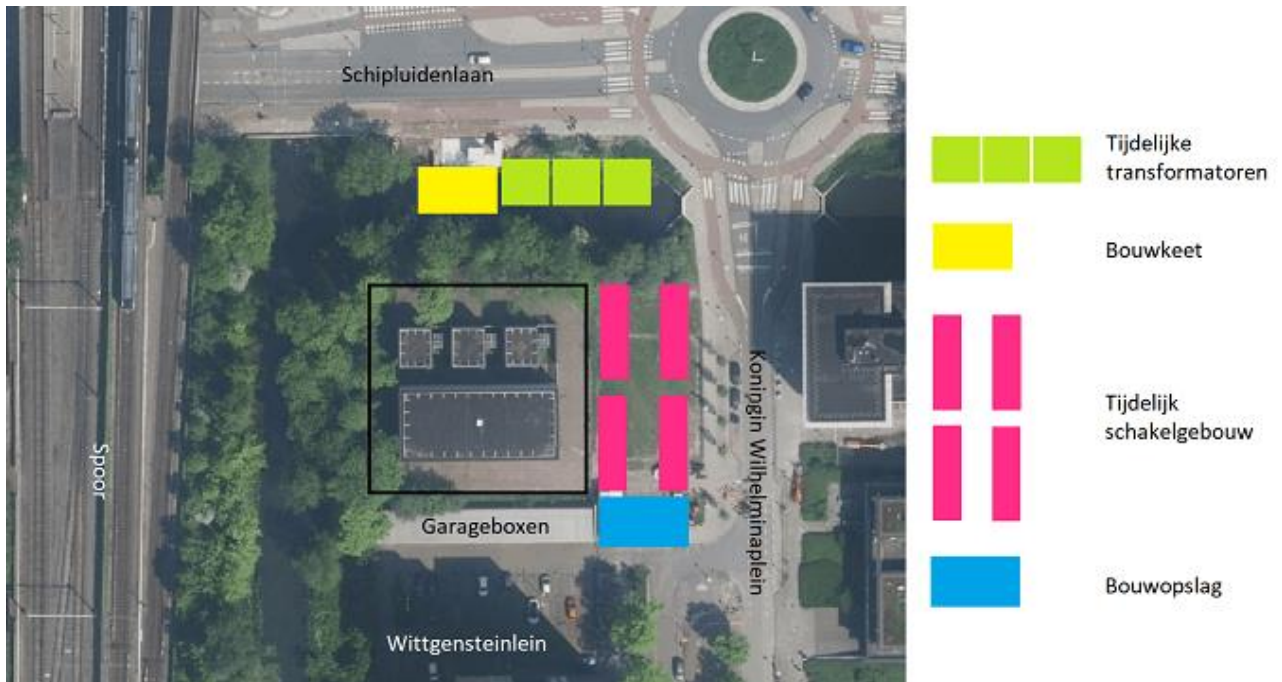
The existing substation is a 50/10kV substation. This means that the transformers in the substation convert the voltage from 50 kilovolts to 10 kilovolts. The outgoing electricity, with a voltage of 10kV, is then supplied onwards to businesses and to transformer stations in residential districts.

## **Reinforcing and increasing capacity**

We will be fitting new technical installations with greater capacity to allow the substation to supply more electricity. The new building will house three transformers, each with a capacity of 53 megavolt amperes (MVA). One of these three transformers will serve as a backup and will only be brought on stream if required, in the event of a fault with one of the other two transformers. These two transformers together will have a capacity of 106 MVA. The two transformers in the existing substation have a combined capacity of 52 MVA.

## Where will the electricity substation be located?

The image below shows the site of the existing substation and what the temporary layout will be. The new substation will be in the same location as the existing one (black frame). The temporary situation is indicated by different coloured blocks.



*\*The positions of the buildings shown in the image have not yet been determined precisely and may change during the technical design process.*

### Site decision by the Municipality of Amsterdam

On 22 May 2024 the councillor responsible [reached a decision on the location of the new substation](#). This is referred to as a site decision. This means that the Municipality will assist with the procedures and permits required to build the new substation on this site.

## Where is the electricity supplied?

The area to which a substation supplies electricity is called the supply area. The Schipluidenlaan substation supplies electricity to a large part of the Amsterdam West and Nieuw-West district.

The electricity is supplied to:

- More than 32,000 small-consumer connections
- More than 180 large-consumer connections
- Various facilities in public spaces, such as street lighting and charging points

## Amsterdam Schipluidenlaan

### Huidige situatie

Voedingsgebied van OS Schipluidenlaan

#### Legenda

	Onderstation (OS) 150 kV Terneet + Liander
	Onderstation (OS) 50 kV Liander
	Hoogspanningsnet 150 kV Terneet
	Kabelverbinding Liander
	Voedingsgebied OS Schipluidenlaan



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## Amsterdam Schipluidenlaan

### Toekomstige situatie

Voedingsgebied van OS Schipluidenlaan

#### Legenda

	Onderstation (OS) 150 kV Terneet + Liander		Station - nieuw te bouwen
	Onderstation (OS) 50 kV Liander		Station - vervanging uitbreiding
	Hoogspanningsnet 150 kV Terneet		Hoogspanningsnet 150 kV - nieuw Terneet
	Kabelverbinding Liander		
	Voedingsgebied OS Schipluidenlaan		



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## Schedule and work

Provisional schedule	What steps will we be taking?
14 May 2024	Site decision by the Municipality of Amsterdam relating to the location of the new electricity substation.
3 July 2024	Information meeting on the site decision and the design of the new electricity substation. During this meeting you will get an idea of the substation's design.
Jul 2024 - early 2025	Further elaboration of the final design of the electricity substation.
Mid-2025 - 2026	<ul style="list-style-type: none"> <li>• Elaboration of the technical design of the electricity substation.</li> <li>• Application for the permits needed to build the electricity substation.</li> <li>• Information meeting on the (construction) work for the new and temporary substation.</li> </ul>
2027 - 2032	<ul style="list-style-type: none"> <li>• Start of the construction of the temporary substation</li> <li>• Construction and connection of high-voltage cable for national grid operator TenneT</li> <li>• Construction of the new substation and demolition of the old one</li> </ul>
2032	New electricity substation substation ready.
2033	Demolition of the temporary substation.

*Note: the above schedule is a summary of the schedule and is subject to change. Through this website we will inform you about possible changes in this planning.*

## Electromagnetic fields (EMFs)

Electromagnetic fields are created wherever electricity flows, including in (household) appliances such as kettles, vacuum cleaners and telephones. There are concerns about these magnetic fields around power stations and their potential health impacts. With every expansion, replacement or construction of a new electricity substation, the GGD is therefore asked about the consequences of EMF on the specific situation. This is also the case for the new Schipluidenlaan electricity substation.

Technical consultancy firm DEP was commissioned by the Municipality of Amsterdam to make a calculation of the EMF contour (see image). This calculation shows that no existing homes are exposed to a magnetic field that will become stronger than 0.4 microtesla\* on average over the year. The GGD therefore does not expect any risks to the health of local residents. The full GGD advice can be found GGD [here](#).

*\*The strength of the magnetic field is expressed in microtesla. The GGD advises to prevent, as far as reasonably possible, places where people stay for a long time from ending up in a magnetic field whose annual average strength is higher than 0.4 microtesla.*





## **Communication and contact**

Liander and the Municipality of Amsterdam will inform stakeholders about any important developments relating to the progress of the project. This information will be communicated via letters, drop-in meetings and this website, amongst other channels. Attached you will find the letter that has been sent to people living in the area around the substation:

[Invitation to drop-in meeting on 3 July 2024](#)

## **Contact**

Do you have a question or comment? If so, you can contact us at [schipluidenlaan@liander.nl](mailto:schipluidenlaan@liander.nl). We will aim to respond to your email within 3-5 working days.

## Find out more

### **Why do we need to expand the electricity grid in Amsterdam?**

Amsterdam's electricity grid needs to become bigger, stronger and smarter, as consumption in the city is rising. We are used to electricity being available whenever we need it, just like getting water from a tap. However, we can no longer take that for granted. Our electricity consumption has tripled since the 1970s and the grid used to transport this electricity has grown accordingly over this period. In recent years, however, demand for electricity has increased so quickly that soon our grid will no longer be able to cope. By 2050 Amsterdam's electricity consumption is expected to be three to four times greater than it is today.

That is why we need a grid that is twice its current size. It also needs to be smarter, as more and more people and businesses are generating electricity themselves. The task of expanding our grid is like solving an enormous puzzle. In Amsterdam space is at a premium, both above and below ground. Working out where there is still space for cables to run is quite a challenge, as is deciding where we can build substations and transformer stations that can be connected easily to the existing grid.

The Municipality of Amsterdam is making sure everything is being done in accordance with laws and regulations and that the work is well coordinated. The actual expansion work is being carried out by network operators TenneT and Liander. We will be working all over the city until at least 2035 and will be upgrading or expanding 13 substations like Schipluidenlaan, as well as building 30 new substations. We will also need 2,600 new transformer stations and, of course, hundreds of kilometres of cable to link everything together.

### **What does the construction of the substation mean for the existing trees?**

Liander wants to retain as many trees as possible and avoid damage to their roots. If trees have to be removed during construction, they will be replanted later or replaced with new trees. We will only know the number of trees that will be affected once it is clear how the underground cables will be connected and how much space Liander will need around the substation.

### **Could the substation be built somewhere else?**

To prepare for the site decision, the Municipality asked the engineering consultancy Royal HaskoningDHV to investigate whether there were better sites available for the substation. This proved not to be the case. The report drawn up by Royal HaskoningDHV can be found [here](#).

### **Will I be able to hear the substation?**

The transformers make a low humming noise. In the environmental plan for the new substation the Municipality has included rules on the permitted noise level and Liander is complying with these. Although the new substation will be larger, it will be quieter than the existing substation. That is because the transformers are currently outside the existing substation, while in the case of the new substation they will be in an enclosed space equipped with acoustic insulation. Nevertheless, Liander will have a noise survey carried out by another organisation to assess the transformers' compliance with these regulations. The Municipality of Amsterdam and the Environment Service will also be involved in this.

### **What permits does Liander need to upgrade the substation?**

To be able to build the substation on this site, Liander needs to apply for various permits. This procedure provides for official opportunities for public participation, including the possibility of lodging an objection and appeal.

**How will this construction work affect you?**

Building a substation can cause disruption. Liander will, of course, do everything possible to keep this to a minimum. A schedule for the work is not yet available. We will naturally provide you with more information as soon as we know more.

**What consideration is being given to nature around the building site?**

Studies are being conducted to examine the impact that the work will have on nature on and around the building site, such as the plants and the water in the canals. If it becomes clear that the natural environment will be temporarily or permanently affected, we will try to find a solution, will take remedial action or will find another way to compensate for this. At the moment there is still too little information available on this topic. We will be able to provide you with further details at a later date.