

# Digitalisation: Empowering the Energy Transition

Position Paper Alliander

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## Facilitating data sharing and transactions

Opportunities for data and transaction platforms within the energy system and energy market and how we are accelerating this process as a network operator

Digitalisation is essential to further increase the sustainability of the energy system

By 2050 the Netherlands has to become energy neutral. The energy transition calls for a huge effort to replace and expand the existing electricity grid. Over the coming years this will once again double the amount of work we have to do. We have realised that simply working harder will not be enough to achieve our goals. That means we are entering a new phase, one that will require us to concentrate fully on getting things done. Against this background, we are keen to make the most of the potential offered by digitalisation.

Digitalisation is crucial to the success of the energy transition. A digital energy system is more adaptable and more controllable. A digital energy market can resolve grid issues more quickly and boost economic activity. And a network operator that works digitally is more productive and collaborates more effectively with its stakeholders.

A key focus of Alliander Digitalisation Strategy 2024-2030 is facilitating data sharing and transactions.



### Digital priority: Facilitating data sharing and transactions

Alliander will make it easier for consumers, businesses and public authorities to access and share data. This will open up opportunities for new services, such as dynamic capacity rates.

Digital data and transaction platforms facilitate the energy system

Since the energy market was liberalised, a process that started around the year 2000, the energy sector has relied on the digital exchange of data and digital transactions between market parties. Examples include the Central Connection Register (Centraal Aansluitingenregister (C-AR)), in which all connections and contracts are recorded, the central processing of metering data (C-ARM) and the CERES register of generating installations (energieleveren.nl).

## We use platforms to:



### Share metering data

By sharing metering data, we ensure fair energy billing between customers and suppliers.



### Register generating installations

A single register that simplifies the registration process for customers who want to supply energy to the grid and allows us to keep track of the load on the grid.



### Deal with customers' connection requests

Coordinating customer requests: a single platform and process for handling utility connections increases customer convenience.



### Sharing and distributing data and transactions smartly

We can share data successfully directly via our assets. The physical P1 port on a smart meter is a standardised, low-cost metering-data interface used by private individuals and businesses for dynamic tariffs and energy management. Various P1 devices and applications are available for this purpose.

With the platform [Mijnaansluiting.nl](https://mijnaansluiting.nl) we are making it easier for customers to request energy, telecom, sewage and water connections. The underlying orders are then distributed among the various contractors via the platform.

The regional network operators develop these platforms and standards in various joint organisational forms, such as Netbeheer Nederland, the Mijn Aansluiting foundation and EDSN B.V.

## Digital platforms create more opportunities

To contribute to Alliander's strategic pillar of 'Sharing data and developing new market services', we are developing business services for the energy market and energy ecosystem in the form of product-market combinations. Data is being offered as an information product. We are offering services in the form of secure digital transactions. To this end, we are setting up digital platforms, which we are using to make our company data accessible and to offer it to the ecosystem in enriched form. We are doing this by offering apps for end users and APIs for automated connections. In this way we are making new services possible, such as:

- Queue-status information for customers waiting for the capacity of their connection to be increased and a geographic insight into (planned) grid capacity that both individual customers and public authorities can use as a basis for planning.
- Real-time insight into available and free grid

capacity for customers to address the problem of congestion.

- Planning and execution of peer-to-peer transactions for customers with a group contract.
- At present, the agreements for these kinds of services still take the form of sector agreements. In the future they will be handled within the framework of the Market Facilitation Forum (MFF) and the Operator Agreement System (BAS).

### Privacy and Security

Data sharing and transactions are bound by privacy and security frameworks, which are always centred around the interests of the rightholder and limit the risks of fraudulent activity. This applies to all developments on transaction and data platforms. Alongside comprehensive and up-to-date security measures, we also always focus on GDPR compliance, sound and substantiated authorisation models, Identity and Access Management, and the use of digital signatures to safeguard data integrity.



## Accelerating on multiple fronts

The energy transition and our strategic ambition of sharing data require us to step up the pace. To make this possible, over the coming years we will be focusing on the following:

- Top-down Strategic Product Management will help Alliander Digitalisation to focus on the requested platform functions. By aligning the required business platforms with our digital platforms, we will realise this strategy, the (updated) foundations of which will be formed by these digital platforms. However, within our overall digitalisation portfolio we will also direct and coordinate relevant individual initiatives, identify opportunities and set more stringent requirements relating to openness and the publication of data and transactions.
- We can see opportunities to involve citizens and businesses more actively in the choices and developments associated with the energy transition. Digitalisation will make it possible to meet their needs in smart ways and enable them to participate directly or indirectly in the energy system. By building scalable production platforms together with the market and combining internal and external data, we will be able to provide valuable insights to parties at regional and local level. In this way we can help them make investment choices that benefit the grid and support them with scenario and grid planning.
- To provide the required platform services, an up-to-date digitalisation landscape is needed. To achieve this, Alliander is making substantial investments in the basis for new digital platforms and the life-cycle management of existing platforms, including a new data, Enterprise Resource Planning, Identity & Access Management and Enterprise Asset Management platform. These platforms will always be cloud-based, which will guarantee interoperability and scalability. Platforms as a Service (PaaS) are the most important, generally available technological basis for making data accessible. At present, appropriate Software as a Service (SaaS) for business platforms that is capable of meeting the ambitions of the energy sector is not yet on the horizon. For (i)OT, edge computing and new, dedicated mobile networks will be the enablers of services at grid-component level.
- Where applications do not already offer it, we will make our internal, off-the-shelf, digital transaction and data platforms accessible with the help of PaaS, based on an integrated technological approach, in coordination with – and, where possible, in collaboration with – the sector. We will establish functional frameworks and technological standards, prioritising sector-wide Identity and Access Management and ensuring a mature data architecture.

## Growing together towards a digital, sustainable future

The energy transition and Alliander's strategic objectives call for a wide range of (new) transaction and data services. To allow us to offer these, we are focusing on simplifying access to and sharing relevant transactions and data promptly for consumers, businesses and public authorities. We are doing this together with the energy sector and all other energy-system stakeholders.

## Alliander Digitalisation Strategy 2024-2030

To find out more about the Alliander Digitalisation Strategy 2024-2030, scan the QR code.

