



## PVNED pooling system keeps DONG Energy imbalance cost very low

Supplying energy implies countless data exchanges with third parties, such as network operators and measurement companies. But because DONG Energy in the Netherlands works in a small team, the company decided to outsource its pure data management, such as the legally required programme responsibility. DONG Energy set sail with PVNED.

PVNED sends the expected energy production and consumption to TenneT every day and checks the imbalance against the actual data a day later. “PVNED will have an imbalance for all its customers,” explains Peter Hulshof from DONG Energy. “But this risk is neatly distributed. If one party has a positive difference, and you yourself have a negative difference, it is evened out by PVNED. In order to give your customers a competitive price, you have to ensure you have a minimal imbalance. This is done using good forecasting, but also with the help of the PVNED imbalance pooling system.”

Room for newcomers became available on the Dutch energy market after its liberalisation in 2004. These newcomers didn't only come from the homeland. The Danish nationalised company DONG Energy established itself in the Netherlands in 2005. Now the company has 150,000 Dutch customers. PVNED helps DONG keep the price of energy competitive for its customers.

"As a newcomer on the Dutch energy market, we were faced with a number of important challenges," explains Peter Hulshof, who supervises the Benelux Desk at DONG Energy. "The supplying of energy implies countless data exchanges with third parties, such as network operators and measurement companies. Because we work with a small team in the Netherlands, we decided to outsource the pure data management. This also includes for example the legally required programme responsibility."

### **Programme responsibility keeps the electricity network stable**

Because it's difficult to store electricity, the supply must be constantly well harmonised with the demand. Surplus amounts result in technical problems such as overloading, and extra electricity has to be found if there are any shortages. Every day, to keep the network balanced, Dutch energy companies submit

their energy programme for the following twenty four hours to the national network operator, TenneT. They signal their expected production and consumption using so-called 'nomination'. In reality, however, energy suppliers will produce more or less than this, and customers will also consume more or less. The next day, TenneT sends the allocation (the actual measurement data) to the energy companies and calculates the differences (imbalance) for each energy company.

Peter Hulshof: "The nomination is a daily administrative process. We indicate how much electricity we place on the network every quarter, and how much power we will need for our end-users. If the allocation is different compared to our nomination, we have to pay imbalance costs to the national network operator."

### **PVNED sends the nomination and checks the allocation**

For the exchange of production and consumption information, Dutch energy companies use the sector-specific information application CPS (Central PO Box System). "We supply information about our expectations to PVNED," says Thijs Meuwissen, Data Analyst Power at DONG Energy. "They then send the nomination to the national network operator using the official communication systems."

## **Profile**

DONG Energy is a Scandinavian energy company with more than 1.5 million customers worldwide, 150,000 of whom are in the Netherlands. In the Netherlands, DONG Energy is a supplier of gas and power for private individuals, companies and institutions. DONG Energy was established in 2006 after a merger of six Danish energy companies. DONG Energy has over 50 years' experience on the international energy market.

## **Challenge**

The supplying of energy implies countless data exchanges with third parties, such as network operators and measurement companies. Because DONG Energy wanted to outsource the data management as much as possible, the energy company went looking for a programme responsibility partner.

## **Solution**

DONG Energy set sail with PVNED. The programme responsibility service provider takes care of the necessary communication with the national network provider, TenneT. PVNED sends the expected energy production and consumption to TenneT every day and checks the imbalance with the actual data a day later. Thanks to the PVNED imbalance pooling system, the DONG Energy imbalance is very low.

## **Advantages**

- Portfolio advantage means lower imbalance costs
- No complex administration
- External checking reduces error margin
- No issue management needed
- Independent programme responsibility service provider

A day later, PVNED then receives the allocation with the exact measurement details from the same system. The consumption by large purchasers and producers is read by telemetry every quarter, and medium-sized and small companies as well as individuals fall under a standard profile. The programme responsibility service provider will check its customers' allocation every day by comparing the measurement details with the submitted nomination. If DONG Energy discovers errors on a previous allocation, a request for correction can be submitted up to five days after receipt.

"The daily reports with the exact measurement details also form the basis for our internal forecasting," explains Peter Hulshof. "We base these predictions on information that we receive from PVNED. They check that the details are complete. This check is therefore very important."

### **Customer enjoy competitive rates thanks to the portfolio advantage**

DONG Energy's main advantage from outsourcing the programme responsibility comes from the PVNED imbalance pooling system. As an independent programme responsibility service provider, PVNED has various customers in its portfolio. "PVNED will have an imbalance with all its customers, but that risk is neatly distributed. If one party has a positive difference, and you yourself have a negative difference, it is evened out by PVNED. The party with the biggest difference does after all get most back for its energy surpluses or shortages," explains Hulshof.

"Even so, you have to aim for a zero score as much as possible," adds Meuwissen. "Because you would have been able to sell the surplus a day earlier at a higher price on the APX energy market. So an imbalance almost always costs you money. If you want to give your customer a competitive price, you have to ensure you have a minimal imbalance. This is done using good forecasting but also via the PVNED imbalance pooling system." In principle, you can do the programme responsibility yourself, but as well as the PVNED work and knowledge, we also wanted to take advantage of



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**Thijs Meuwissen, Data Analyst Power at DONG Energy**

this benefit at the same. Our customers also profit from this, because thanks to the portfolio advantage, we can offer them very competitive prices.”

### **Synchronous registers simplify the allocation and forecast**

Every week PVNED and DONG Energy synchronise each other’s connection registers. This is the list of all customers or DONG Energy delivery points. Using the register synchronisation, the two companies check the types of connection and the evolution of the annual consumption, amongst other things. With an accurate register, PVNED doesn’t have any unknown residual values in the allocation, so processing runs smoothly. The register synchronisation is therefore very important.

“After the work by PVNED, we don’t need to implement any or many corrections,” says Meuwissen. “Even though we have some 60,000 connections, the error margin is less than 0.1%. Sometimes we receive the connection details from another programme responsibility service provider, a fault that PVNED has often already seen itself and corrected.”

### **No issue management needed**

DONG Energy is happy with the collaboration. “PVNED is relatively small and so offers the opportunity of a tailored service provision,” says Peter Hulshof. “The organisation is very flexible: if we want to change something in the communication, then that’s possible. Furthermore, PVNED is independent. It doesn’t have any interests in any suppliers which would make the portfolio advantage less interesting.”

New parties in particular should make use of PVNED’s skill and knowledge, according to Meuwissen: “Otherwise you have to do lots more issue management. We have now been able to invest this time in other matters. If the volume continues to increase, we won’t hesitate to also call on other services from PVNED.”



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Peter Hulshof, Supervisor Benelux Desk at DONG Energy

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