



# Successful EV charging software migration of 3,500 charge points



## Eneco eMobility



**25,000+**

Charge points



**Network type**

Home and public

## Migration Specs



**3,500 and counting**

Charge points migrated to GreenFlux



**Hardware**

AC charge stations, including Generation 2 Generation 3



**OCPP**

1.5 SOAP  
1.5 JSON  
1.6 JSON  
+ deviations

Boasting the most EV chargers in the European Union<sup>1</sup>, the Dutch electric vehicle (EV) charging infrastructure is robust, offering high-quality public charging options for drivers. It is an open and competitive EV charging market, wherein charge point operators (CPOs)

strive to differentiate their offerings and optimise operational efficiency.

Eneco eMobility (Eneco) is one of the leading CPOs and EMSPs in this market, managing a network of more than 25,000 home and public charge points across the Netherlands, Belgium, and Germany. Given the current size and growth aspirations of their business, Eneco puts considerable focus on expansion and efficient asset management for their organisation.

In 2021, Eneco needed to meet price transparency rules mandated by EU legislation, and enforced by Dutch authority ACM in 2020, by offering ad hoc charging and sharing real-time transaction data. Additionally, Eneco faced a choice concerning the future scalability of its business. To phase out its legacy software platform, one of Eneco's hardware-plus-backoffice providers wanted to migrate all of Eneco's charge stations to its new charging management solution.

Thus, beyond meeting price transparency requirements, Eneco also saw an opportunity to simplify asset management, upgrade charging management functional capabilities, and secure additional scalability for its business. They chose to switch the back-office management of 3,500 charge stations and host all assets under a single, future-proof GreenFlux platform. Eneco's remaining 21,000 charge stations are already hosted on GreenFlux platform.

## Uncomplicating typical migration challenges

Charge station migration can be a difficult, costly, and tedious process, especially when considering the challenges posed by a large network and a diverse assortment of older, legacy hardware. To make the entire process cost-effective, seamless, and hassle-free, GreenFlux's approach to the Eneco migration project focused on addressing three challenges – communication language, secure path communication, and project management.



### Diverse protocol version support

The reliable transfer of data between charge station and the asset management platform is fundamental to ensure ongoing trouble-free EV charging operations. In this migration, the inclusion of a large group of G2 (Generation 2) chargers using older versions of OCPP (1.5 SOAP) and G3 (Generation 3) chargers using OCPP 1.6 JSON, as well as several customisations and deviations of the protocols made by the existing backoffice provider in the early days of EV charging, presented the first challenge.

The hardware-agnostic GreenFlux platform easily accommodated charge stations leveraging a variety of OCPP protocol versions, including 1.5 SOAP, 1.5 JSON, and 1.6 JSON, plus deviations. In preparation, the GreenFlux team performed integration tests, customised paths, and created entirely different channels to optimise communication for various charge point configurations. Further, the team proactively addressed potential communication issues, ensuring only stations with the latest firmware and correct configuration settings were migrated.

*“The integration of the legacy hardware was challenging as GreenFlux was the first backoffice besides the previous hardware and backoffice provider to do*

*so,” said Art Speksnijder, Product Owner IT, Eneco eMobility. “The previous documentation was not good, and a lot of integration testing was required. But our partner provided us with all we needed and helped us make the transition.”*

### Security-integrated design

The next challenge and priority were to realise safe, secure communication between Eneco's charge station SIM card telecom providers and the back-end asset management platform. Security is a core pillar of GreenFlux's product design principles. The GreenFlux platform is ISO27001 and 27002-certified, and the design of its modular and flexible communication services facilitates enablement of secure connections.

The GreenFlux team supported Eneco to set up private APN and VPN data connections with Eneco's SIM card providers to achieve their desired security configuration. This way there was no need to physically change any SIM cards in the charge stations.

*“Creating these connections while ensuring safety is a major milestone that we achieved together with GreenFlux”.*

Art Speksnijder, Eneco eMobility 

### Efficient project management

One of the most familiar challenges of a complex project involving several parties is project management. With over 10 years of operational experience in managing charge stations and large-scale projects, the GreenFlux team efficiently handled collaboration between six different parties to successfully plan and execute the migration of 3,500 charge points.

GreenFlux kept the end customers' perspective in mind throughout the project. The team conducted the migration in a phased manner, giving special attention that charge stations stayed online to avoid distress for EV drivers. They performed required integrations and customisations for protocols, ensured technicalities were by the standards, met safety concerns, and facilitated communication between all involved parties.

Additionally, GreenFlux and Eneco received support from the former backoffice provider, which significantly sped up the process leading to a smooth transition in the end.

*“It was a challenge to align everyone at every stage of the project. GreenFlux helped us manage the entire process smoothly,”* adds Art.

## Unprecedented migration by GreenFlux

*“Overall, the collaboration, commitment, and knowledge that GreenFlux offered helped make this migration a success. We believe the GreenFlux platform will help us in our future aspirations of expanding our network and scalability of operations,”* said Art.

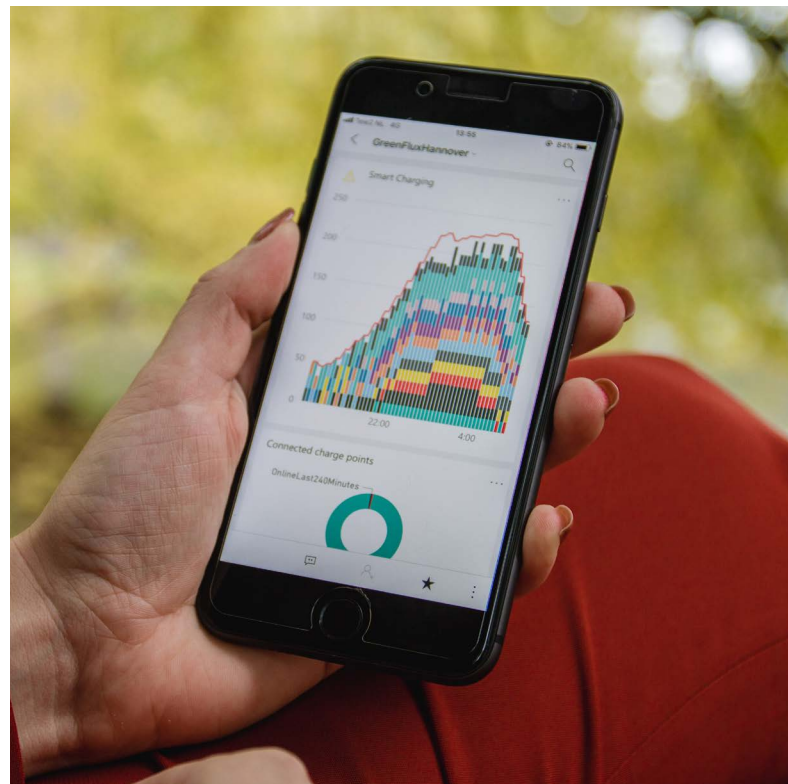
In the initial project phase, 3,461 chargers were successfully migrated to Eneco’s environment on the GreenFlux EV charging management platform.

*“I know some platforms are saying they can help with such migration. They claim to have all kinds of scripts and technology to help. GreenFlux is capable and competent to actually deliver on that promise”.*

Art Speksnijder, Eneco eMobility ⚡

## Unparalleled impact of the migration

With the successful migration, Eneco significantly improved the operational efficiency of its overall network. By hosting its assets on the GreenFlux charge point management system (CPMS), Eneco realised simpler asset management and more secure data communications, ensured future scalability of business and operations, achieved cost savings with smart charging, and gained access to additional features



such as real-time data sharing and ad hoc payments, among others. Additionally, Eneco also realised compliance with EU price transparency requirements.

## A future-proof partner and platform

As charging software evolves and the e-mobility industry consolidates through purchases and mergers, network migrations will become increasingly important for market-leading CPOs. The GreenFlux team and EV charging platform are well-positioned to support even the most complex migration projects.

The GreenFlux platform is agile and modular to help meet any future requirements of CPOs and EMS-PS. The smart and intelligent platform, supporting all current and legacy versions of OCPP, is built upon a flexible structure that facilitates smooth and secure communication between each charge station and the software platform.

The cloud-based GreenFlux platform offers infinite possibilities to scale businesses and operations and expand networks without any limitations. Last but not least, the GreenFlux team facilitates efficient project management, customises any necessary technical changes when dealing with legacy systems, and competently handles complicated projects of any scale, as was proven with the success of Eneco migration.

## Looking to switch platforms?

But afraid it will be difficult because of legacy hardware? Need not worry as GreenFlux is the solution for the smooth switch! With over 10 years of operational experience in managing charge stations, project management, and full support of all current and legacy versions of the Open Charge Point Protocol (OCPP), GreenFlux can help you make the smooth transition.

The end-to-end EV charging and energy management service provider offers a scalable, future-proof, and hardware-agnostic platform to operators looking to secure to operate now or in the future.



***“Overall, the collaboration, commitment, and knowledge that GreenFlux offered helped make this migration a success”.***

Art Speksnijder, Eneco eMobility



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## Milestones achieved:

- **3,500 charge stations** successfully migrated
- **Secure** data communications
- Expanded **capabilities** with ad hoc payments, real-time data sharing, etc.
- **Cost savings** by eliminating physical visits
- Confirmed **future scalability** of business operations