

Lessons learned from ENI follow-on projects in 2022

Process



Concrete ambitions in terms of reduction of nitrogen, particulate pollution and CO2 have ensured that electrical machinery has become the means instead of the end.



Mutual trust and collaboration is crucial for success. Freedom in the way a project can be conducted emission free, will stimulate innovation.



Besides ambitious monitoring, the cooperation of clients in solving the challenges regarding emission-free building, is greatly appreciated.



If clients make arrangements for (larger) network connections in an early phase (1.5 years before the start), this will enhance the opportunities for emission-free building.

Machinery



Most of the machines in the follow-up projects are Phase IV or better. All projects feature at least one large emission-free machine at work, with others on order.



The emission-free machines currently used cannot always last a full working day on one charge.



Machine operators are generally positive regarding the emission-free machinery. It is very much comparable with the machines they have previously used, but more comfortable.



The battery management system does not always work adequately. Problems sometimes occur because of the voltage deviations of the batteries.

Energy supply



All follow-up projects expressed a strong preference for the ability to charge via a network connection at the building site, but this was not always available, or only to a limited extent.



The supply and disposal of exchangeable batteries, battery boxes and sustainable generators provides a larger logistic challenge versus the period before emission-free working.



Alongside network connections, (more) sustainable generators are often deployed in order to power machinery.



All follow-up projects make use of at least one hydrogen powered machine. The remainder are electric battery operated or cabled.