

# FOUNDATION

Save 6,500€ on each foundation using monopiles



“By using monopile foundations for the Eagle Pylon, Energinet saved 6,500€ on each foundation”

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A pneumatic hammer rams the monopile into the ground in less than one hour

Any overhead line foundation solution must be robust enough to last the lifetime of the pylon, be capable of quick installation, and minimise land use.

Foundations for offshore windmills are typically made with monopiles driven into the seabed. Similarly, foundations for pylons on land can be provided by a hollow steel tubular section hammered into the ground.

A monopile foundation footprint is very small compared to a concrete plate foundation. The environmental impact - noise, possible site contamination, and temporary works - is subsequently smaller, and due to very limited excavation, ground water problems are practically eliminated.

For installation, a steel monopile is delivered to the chosen site, where a crane uprights and places it in the driving position on the ground's surface.

The pile gripper holds the monopile in place while a crane lifts a driving hammer onto the top of the monopile. The hammer then drives the monopile into the ground.

The hammer can achieve full foundation installation in under an hour, depending on ground conditions.



The foundation for a lattice tower takes approximately four weeks to produce.

Using this solution, total installation time including set-up of a full strength monopile foundation can be done in one day, compared to the 28 days it would take for the concrete solution to reach the requisite strength for pylon erection.