



Project : Thornton Bank

General information :

C-Power stands for the development and implementation of a far shore wind farm with a total capacity of 300 MW, on the Thornton sandbank, situated between 27 and 30 km out of the coast of Ostend.

This gives enough energy for the annual consumption of 600.000 inhabitants.

During the summer of 2008 Sarens nv installs the first 6 turbines (5 MW each). Sarens nv was commissioned for this project by Geosea (specialised offshore contractor of the DEME Group).

Project:

During the months of April and May 2008 Sarens nv transported the foundations. Kamags (self propelled modular trailers) transported the 6 concrete giants (3.000t each - 42 m high) from the yard to the quay. The 6 pieces were taken over by the "Rambiz" (floating crane) and placed on the prepared seabed.

The next phase is the assembly of the steel towers and turbine parts on the foundations. To execute this operation, Sarens puts a 750t crane (Liebherr LR 1750) on top of the SMLT (Sarens Multi Lift Tower – height : 40m).

The SMLT stands on the "Buzzard" (Jack up barge).

The nacelle height of the turbines is 120m, measured from the seabed and the heaviest lift is the nacelle weighing 325t.

Sarens NV also provides 2 strutboom cranes for the handling and assembly of turbine parts in Ostend and Zeebrugge.

Planning:

April – may 2008:

Transportation of foundations using Kamags on the "halve maan" in Ostend

9th June – 11th of June 2008:

Mobilisation of a 600t crane (Demag CC2800-1) in Ostend.

This crane will be used for loading and unloading operations of the tower parts and nacelle.



12th of June – 13th of June 2008:

Mobilisation of a 550t crane (Liebherr LG1550) on quay 129 in Zeebrugge. This crane will be used to mobilise the LR 1750 on top of the SMLT and will construct the rotor from hub and blades.

17 June 2008 :

Jack up Barge Buzzard arrives in Zeebrugge quay 129

18 - 21 June 2008:

Assembly of the spiral stair and top platform on the SMLT

23 - 28 June 2008:

Assembly of LR1750 crane on top of the SMLT

Beginning of July 2008:

Test lift

Sea fastening on the Buzzard

Start of the off shore operations.

+/- 15 august 2008 :

End of phase 1 of the Construction of the wind farm

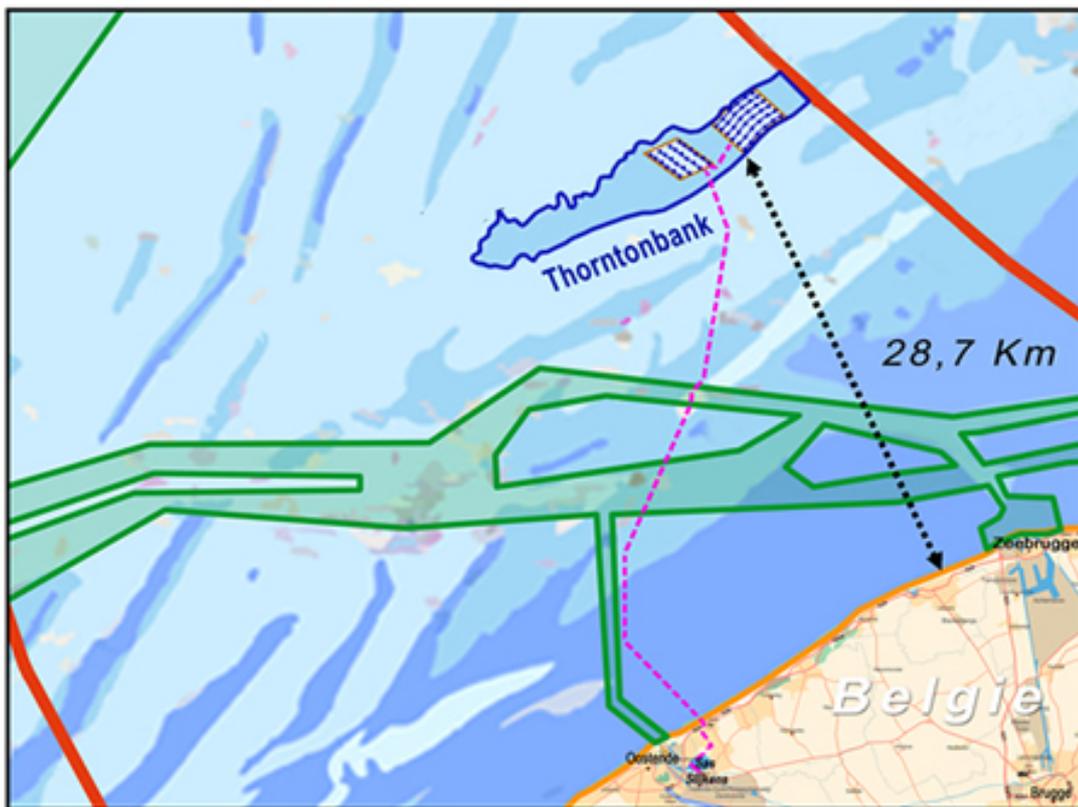
September 2008 :

Start production

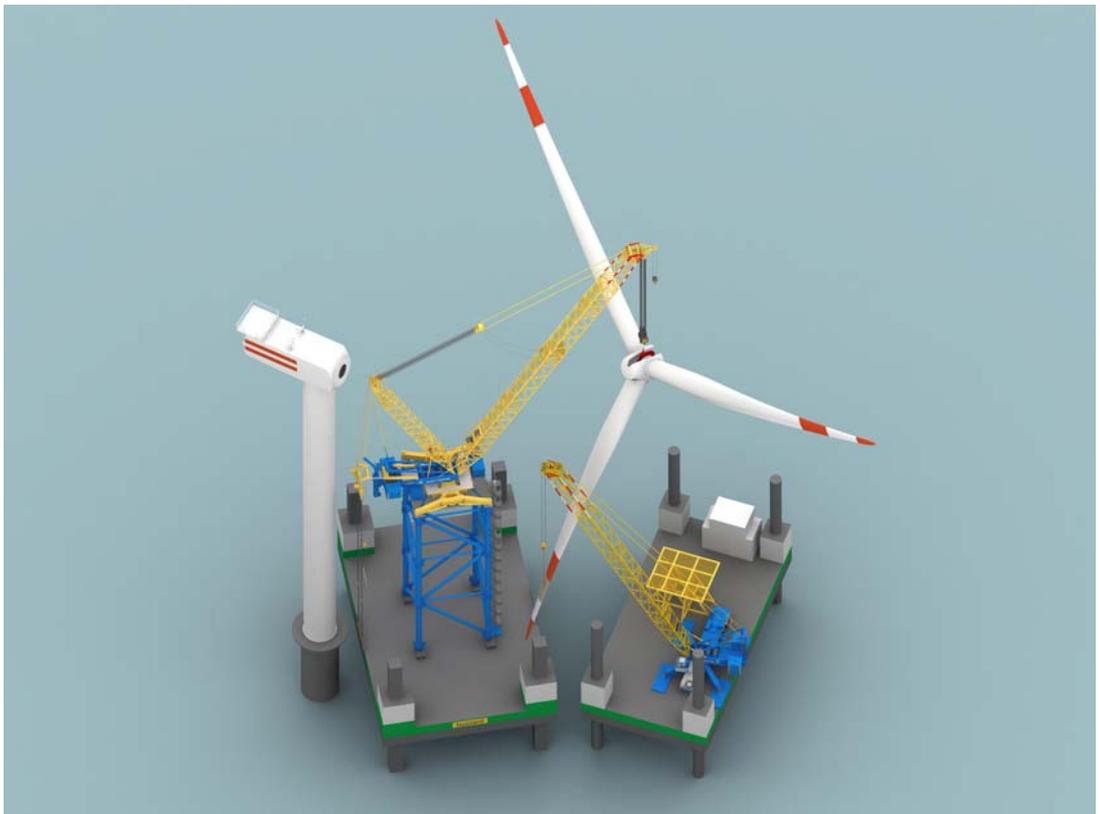
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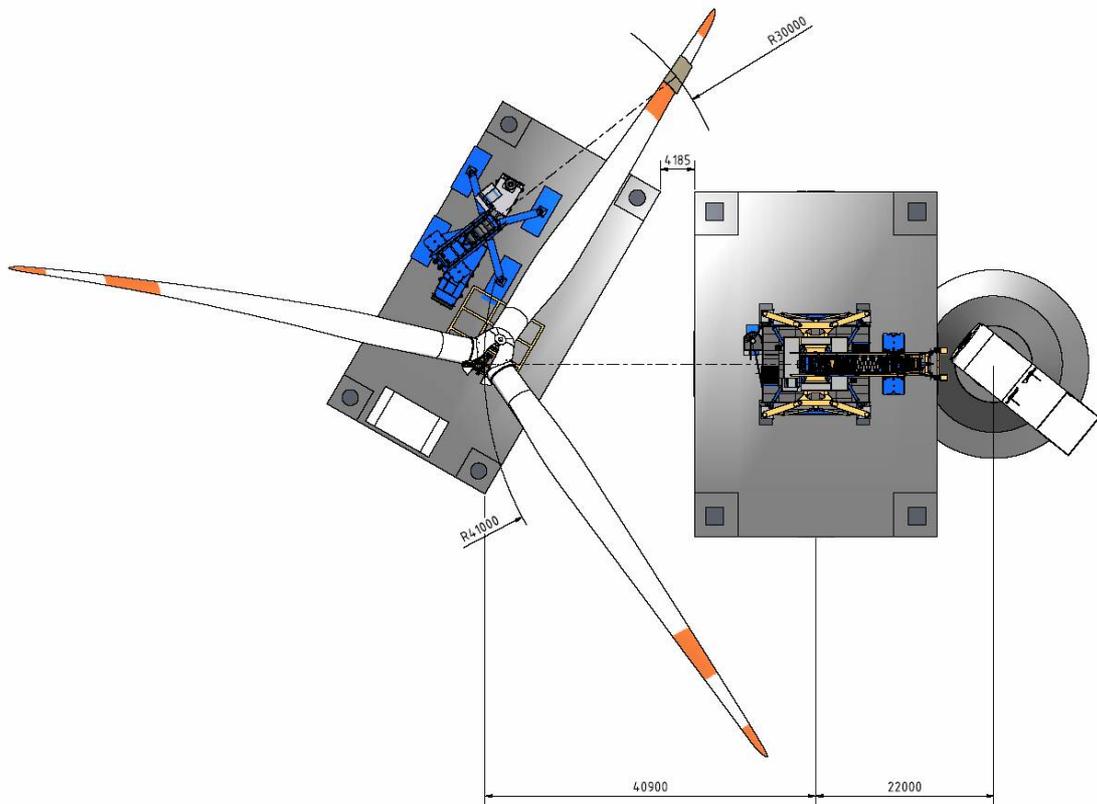
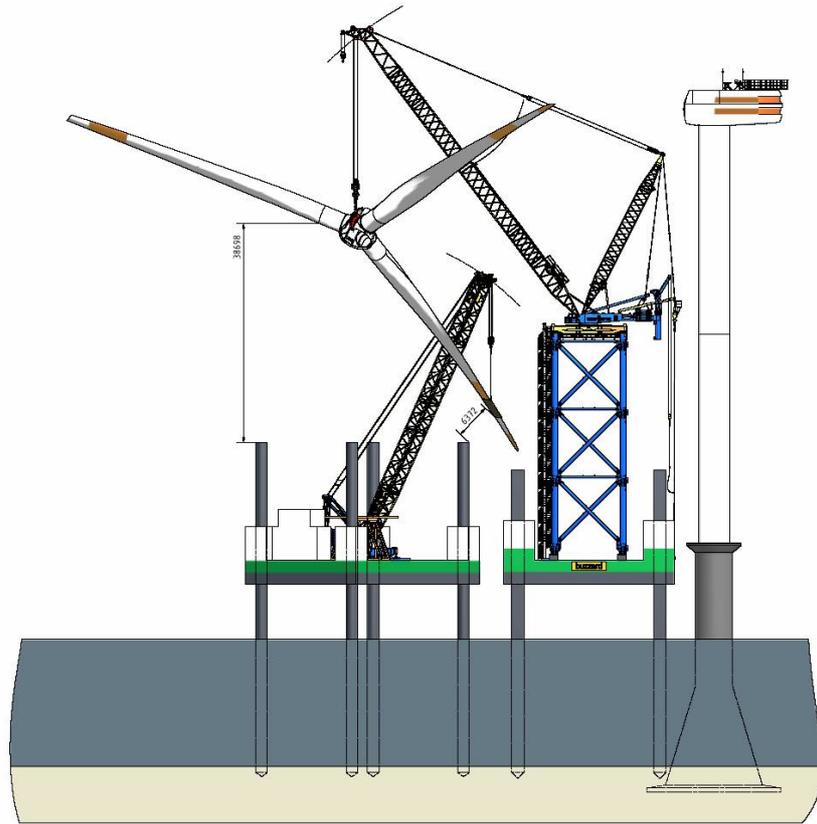
- 300 MW wind farm
- 60 wind turbines each 5 MW
- Annual generation :
production 1.000 GWh – enough energy for the annual
consumption of 600.000 inhabitants
- Avoided CO2 emission : 450.000t / year
- 27 to 30 km out of the Belgian coast
- Water depth : 12 to 27,5 m

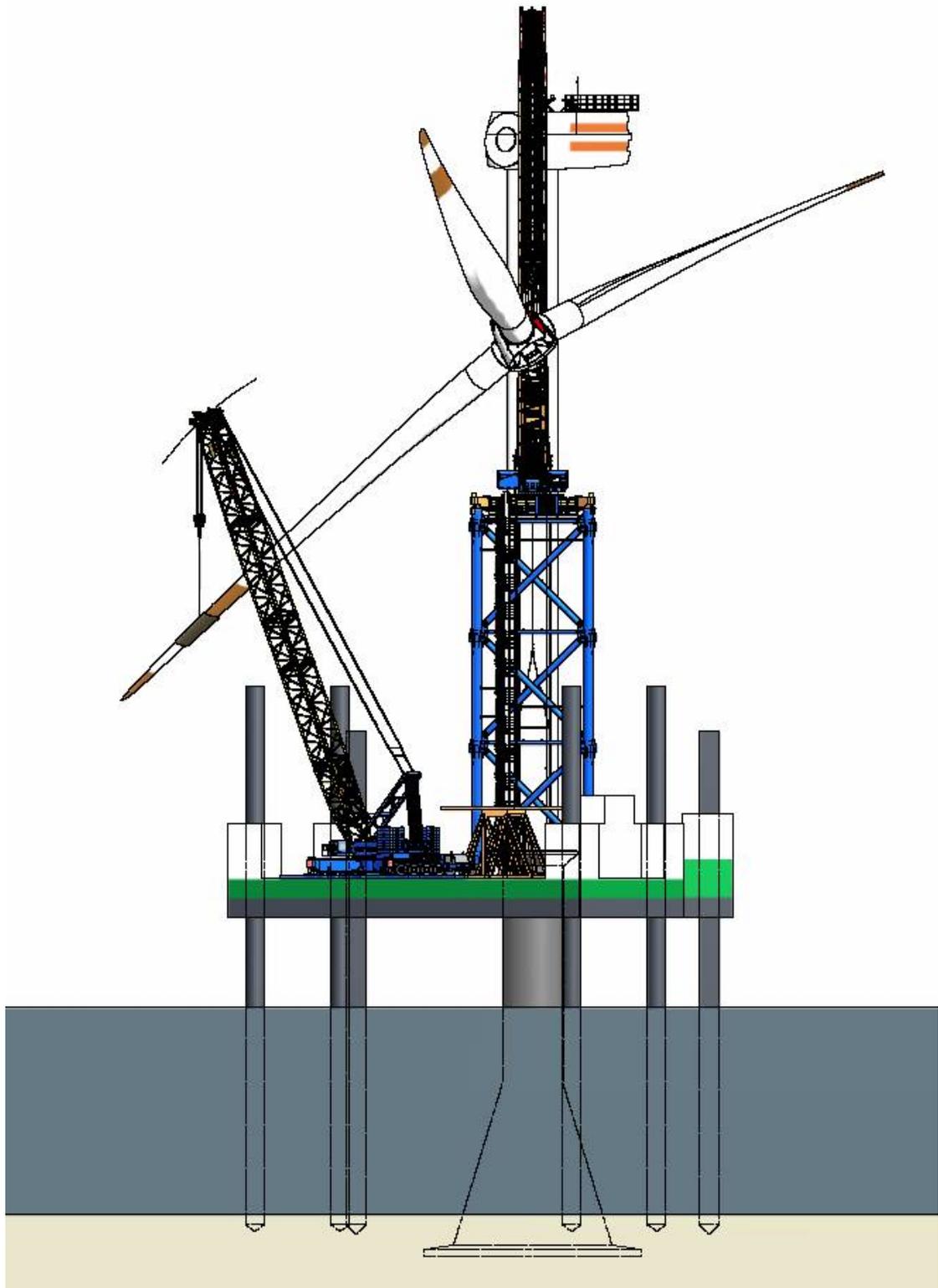
Location :



3D drawings









Some pictures :

