

Shore-to-ship Connection



The first project implemented on-shore and on-board at the port of Marseille in France.

Project context

For many years, the air pollution rate in Marseille was significantly high, causing a serious impact on the surrounding community. The CO₂, SO_x, NO_x, and PM shipping emissions were equivalent to 6,000 to 10,000 cars driving from Aix to Marseille every day. With this in mind, La Méridionale started to analyze how they could reduce their emissions while the vessels are at berth.

Customer environment

CMN La Méridionale is one of the largest ship-owners in Marseille. Their activities have developed considerably since it was founded. Originally an international freight carrier, they now run a service to Corsica island every day as well as a twice-weekly service to Sardinia island for passengers and freight.

Customer challenges

In recent years, CMN La Méridionale has been strongly investing in the environmental aspects of their industry. It is very important, especially as the fast developing area becomes increasingly residential and industrial. They have set objectives to be more economically and more environmentally conscious. CMN La Méridionale has chosen Schneider Electric as a key provider of global solutions to fulfill these missions.

Value to customer

- Short time commissioning
- Easy and simple maintenance
- Greener environment with 0% CO₂ emissions
- Adaptable to connect the ship to berth at both sides (port side and star board)

Green

100% Green Energy with 95% reduction of SO_x, NO_x and DPM emissions

Safe

Fully compliant with IEC/ISO/IEEE 80005-1 standard

Reliable

95% availability with standard equipment

Efficient

66% cost savings compared to fuel

Solution at a glance

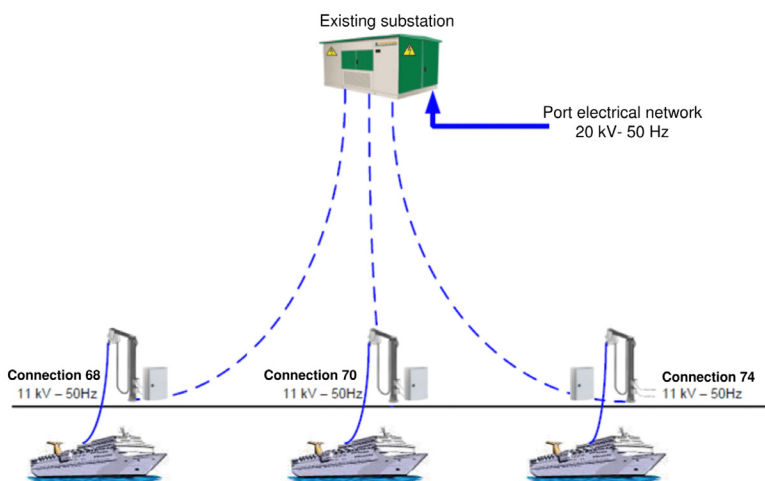
The solution includes the mechanical and electrical scope in partnership with STX - one of the leaders in the shipyard industry.

- Specification
 - Ship power: 1,8 MVA
 - Substation power: 3 x 2 MVA
 - Installation in an existing building
 - Input voltage: 20 kV, 50 Hz
 - Output voltage: 11kV, 50 Hz
- Lead time: 6 months

Solution implementation

The cooperation between STX and Schneider Electric brings an excellent experience to CMN La Méridionale. We implemented a shore-to-ship connection room, watertight door, implementation of electrical cubicle, premset circuit breaker for star board Shore Connection and port side Shore Connection. LV circuit breaker for synchronization has been implemented inside main LV switchboard.

- Solution includes
 - 3 x 2 MVA feeders for ferry ships
 - 3 x 2 MVA transformers 20 kV / 11 kV
 - 3 cable management system fully radio controlled from ferry ship
 - Shore-to-ship connection through mobile plug
 - Incomer (watertight door, ship junction box, control common cabinet, MV cables)
 - MV premset cubicle (interlocking system, sepam trip unit, MV cables)
 - Transformer



“What motivated us to make the decision to work with Schneider Electric is their experience with similar projects around the world. The quality of work they transmitted to us and all the project phases together with our teams have brought us a good dimension to start to be the first.”

Marieke Baudrin - Technical Director of CMN La Méridionale

Customer benefits

With shore-to-ship Connection

- **Standardized:** Compliant with ECA⁽¹⁾ requirements at berth
- **Efficient:** Enhance accuracy of energy measurement consumption
- **Compatible:** Integrated shore connection to power management of ship
- **Sustainable:** Improved quality of environment at the port of Marseille
- **Transparent:** Contribute to a greener image of the ship through the ship emission and efficiency data published in the MRV⁽²⁾ report

(1) Emission Control Areas

(2) The new European Union regulation 2015/757 for the monitoring, reporting and verification (MRV regulation) of CO2 emissions from maritime transport

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June 2016

Document Number MARED116009EN

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