**Key Facts**

- **Client:** ESB Networks, Ireland
- **Location of the project:** Cork Harbour, Ireland
- **Quantity of order:** 220 kV HVAC underground and submarine cable system with a 570 MVA power rating

**Scope**
- 22.5 km of XLPE single-core high-voltage underground cable and 18 km of XLPE single-core high-voltage submarine cable
- High-voltage terminations and straight joints
- Project planning, design and engineering
- Manufacturing and testing
- Cable-laying and installation

**Location**

- **Total cable route length:** 12 km
- **Duration:** February 2011 - July 2011

**Securing the Cork Harbour Crossing II**

Complete cable system solution ensures safe power transmission through the busy shipping route.
Impressive installation work

Quality, speed and flexibility enabled the laying of the submarine cable despite the tough conditions.

The project
Two substations on each side of the shipping route in the Atlantic had to be reliably connected.

March 17 is St Patrick’s Day and the most important day of the year in Ireland. It was on this exact day in 2011, after less than a year of preparation and planning, that the 12 km power transmission link between the Glanagow and Raffeen substations was laid and installed.

Cork Harbour is one of the largest natural harbours in the world and is located between the two substations. The laying of a cable across such a busy shipping route and dealing with the extremely difficult environmental conditions onsite required commitment and competence.

The Cork Harbour Crossing II project thereby placed high demands on the flexibility of the companies involved, as well as on the quality of the technologies employed. High waters of up to 25 metres in depth, extreme tidal changes and strong currents reduced the time frame for installation to just four months. As the cable route led directly through the most important shipping line in Cork Harbour, it was a must to ensure that it could remain open for the ships.

The solution
We faced the challenges with a precisely planned, tailor-made cable system and an excellent logistical concept.

The NKT turnkey project included project management, planning, manufacturing, cable-laying, installation and testing of the cable system. We truly fulfilled all requirements when it came to flexibility, cutting-edge technology and the ability to deliver customised solutions.

To this project, we supplied both submarine and underground high-voltage cable systems and provided high-voltage terminations and straight joints.

We manufactured the cable for each section in individual production lengths in our state-of-the-art f2c factory in Cologne. After the final quality assurance at the factory, the cables were delivered on time by pontoon to Cork. During the cable-laying, the sections were buried in the seabed at a depth of 1 to 2 metres with the aid of a jetting system. The final testing and successful commissioning of the cable circuits were completed as scheduled in July 2011.

At NKT, we are proud to say that we contributed in the most effective manner to this highly efficient power transmission link. The recipe for success was, once again, our customer-oriented approach and our capability to handle and manage very demanding and versatile assignments.