



# **Submarine Power Cables**



# Submarine Power Cables at NSW Today

#### **Experience, Innovation and Service**

Norddeutsche Seekabelwerke GmbH (NSW) has been manufacturing underwater cables since 1899. A century of experience in armored and nonarmored cables for carrying power, signals, communications and fiber-optic applications has formed the foundation for a forward-looking organization committed to innovation and unrivalled customer service.

#### Worldwide Partnership

As a 100-percent member of the General Cable Group



(NYSE: BGC) – which is a global leader in the development, design, manufacture, marketing and distribution of copper, aluminum and fiber-optic wire and cable products for the energy, industrial and communications markets – NSW benefits not only from General Cable's profound expertise but also from its global reach in the wire and cable industry.

#### Applications

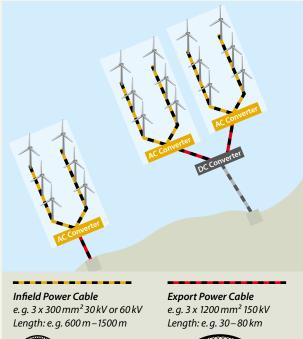
Typical applications for our medium-voltage and high-voltage submarine power cables are:

- Renewable energies
- Offshore windfarms
- Tidal power
- Wave-energy converter farms
- Offshore oil and gas industry
- Island connections and lake crossings, also for longer distances

#### **Submarine Power Cables for Renewable Energies**

Power generation and distribution is becoming an increasingly critical question. Alternatives to fossil fuels are a necessity to avoid disadvantages of CO<sub>2</sub> output. Windfarms, tidal power plants and wave-energy converter farms (WEC) are possible answers to this question which we support proactively with innovative cable concepts.

# NSW Submarine Power Cables in a Typical Offshore Windfarm





300 mm² 30 kV

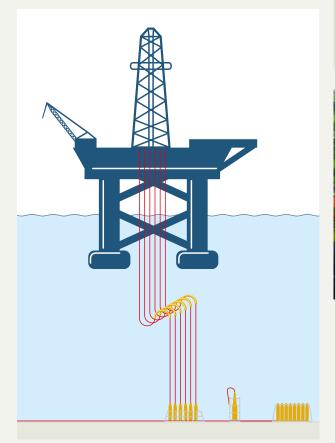


Further designs on request

1200 mm² 150 kV

# Submarine Power Cables for the Offshore Oil and Gas Industry

The challenges and potential of the offshore industry continue to grow apace. At the same time, our customers have very special requirements. As a consequence, tailor-made solutions are needed in most cases. As the recognized experts in submarine power cables for the offshore oil and gas industry, NSW can offer these solutions by meeting the stringent industrial requirements. Developed on a case-by-case basis, our cables are reliable and costeffective even under extreme conditions.



#### Offshore Installation of Submarine Power Cables

In the field of power supply, NSW offers the full turnkey service. In addition to NSW's outstanding cable know-how, this comprises:

- Offshore engineering and project management
- > Desktop study
- > Marine survey
- > Cable laying and protection
- > Cable accessories
- > Testing and commissioning
- > As-built documentation



#### **Quality Assurance and Environmental Protection**

Quality and quality assurance have always been and will continue to be key elements of NSW's activities. NSW established, documented, introduced and maintains a quality management system according to the standards ISO 9001:2000 and ISO 14001:2004 which has been certified and is reviewed regularly for effectiveness by LRQA auditors.

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