

The NKT logo is displayed in a white, stylized, sans-serif font. The letters are bold and modern, with the 'N' and 'K' having a unique, angular design. The background of the entire page is a deep blue, textured image of ocean waves, with a diagonal white line running from the top right towards the bottom left, creating a sense of movement and depth.

NKT

CIS Transmission security

Turnkey solutions for the procurement, installation and service of high-voltage cable systems.

nkt.com

Leading cable system provider for over a century.

CIS stands for Cable system, Installation and Service. It is the name of NKT's complete power cable system offering – including planning, design, manufacturing, installation and service. Having only one partner throughout the lifetime of your cable system helps to minimize risk and life cycle cost. With more than a hundred years' experience of high-voltage cable systems, NKT is able to provide turnkey solutions that deliver maximum transmission security.



We all depend on secure cable transmission.

High-voltage power cable systems simply must work. They are vital infrastructure that keep our globalized world moving and therefore need to be properly designed, manufactured and handled to ensure safe and continuous operation.

It is easy to take the full functionality of power cable systems for granted. But although rare, cable failures do happen, incurring large costs. This becomes obvious when looking at e.g. the offshore wind sector, one of the fastest expanding high-voltage cable system sectors.

At least 10 submarine cable failures are declared to insurers every year. 80 percent of the total cost paid out by insurance due to wind farm losses is related to cable problems. Incidents occurring during installation and operation of submarine cables lead to insurance claims of tens of millions of euros each year.

Power cable problems are complicated liability issues. Whose responsibility is a cable failure? Say, for example, loading and installation are carried out under separate contracts. How do we know

if a cable fault occurred before or after installation? And who will ultimately take the cost?

The more contractors, the more complex the issue of responsibility and the higher the financial risk and cost of managing contracts and liabilities.

What if you could reduce the risk and turn it into a predictable cost scenario? The solution is spelled CIS – or cable system, installation and service – a comprehensive approach to maximum lifetime functionality of high-voltage cable systems, developed by NKT.

Thorough testing before shipping

Tensile and bend	Fatigue	Bending stiffness	Crush	Longitudinal water	Impact	Squeeze	Torsion
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NKT performs several mechanical tests to qualify cable designs, thus reducing project risk during the installation phase.



A turnkey CIS solution from NKT lets you reduce the risk associated with cable installation and operation and instead enjoy a predictable cost scenario.

Don't buy a cable. Buy transmission security.

High-quality cable systems are a necessary, but not sufficient, condition to ensure successful cable operation. You need to ensure that the cable system life-cycle is maximized – from the first calculations at the designer's desk until the cable is firmly trenched in the sea bed.

NKT's CIS offering covers every aspect of your high voltage cable system business, including planning, design, manufacturing, loading, laying, jointing and service. Our broad expertise reduces the number of interfaces, which is why we can ensure trouble-free project execution.

You will enjoy reduced project risk and lower unexpected cost expenditure, and can turn your attention to your core business instead of costly cable-related contract handling and other complex legal issues.

So what makes NKT willing to embark on such a risky enterprise as a turnkey

CIS solution? The explanation is simple: we have a long and solid cable system experience. Our heritage in power cable manufacturing and installation dates back to the 1800s.

Our manufacturing know-how breeds installation know-how – and vice versa. Being able to predict installation challenges is crucial when designing and testing cables. Conversely, understanding cable design limitations reduces interface and handling risks during installation.

Taking a CIS perspective on your power cable ownership means focusing on trouble-free, secure power transmission.

Every tool used by NKT during installation, maintenance or repairs is carefully selected from a cable-handling perspective. One example is the NKT Victoria, our state-of-art cable-laying vessel which is purpose-built for the installation of high-voltage cable systems.

Incidents occurring during installation and operation of submarine power cables lead to insurance claims of tens of millions of euros every year.



In case of the unlikely.

The S in CIS stands for Service. Just like CIS as such, we provide a complete service portfolio to guarantee fastest maintenance and repairs. Our services range from ready access to spare parts to repair preparedness and marine resource plans.

Power cables seldom fail, in fact, almost never. Most of those rare faults that do occur in the open sea are caused by anchor strikes, dragging fishing nets or other external events. And if or when it should happen, there is money to be saved by taking a proactive approach.

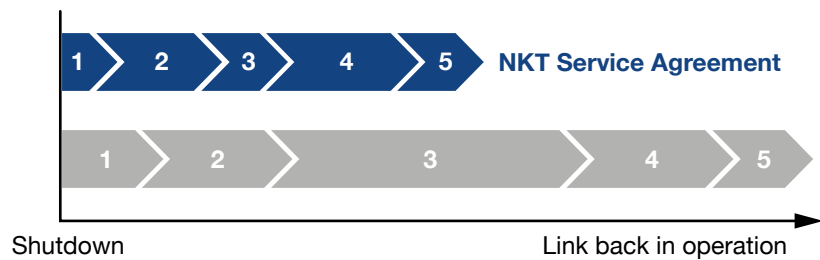
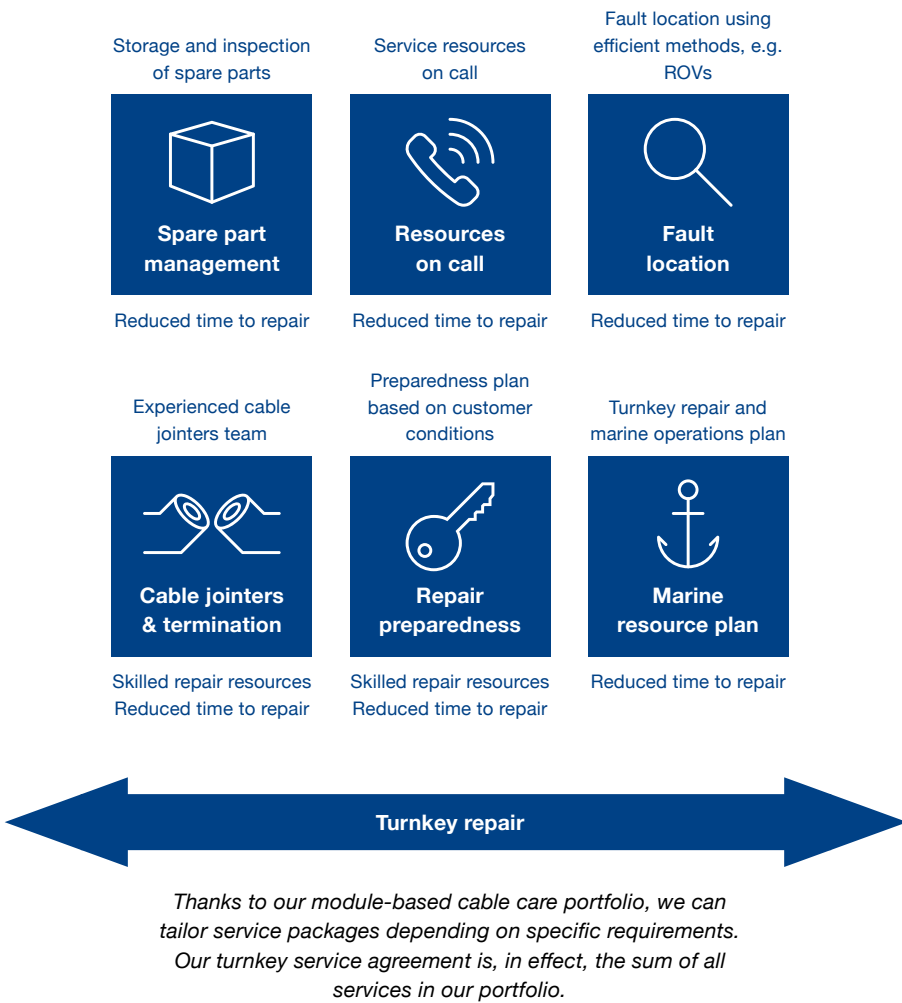
In the event of a cable system problem, it is important to quickly restore normal transmission functionality – because any standstill will be costly, adding up by the hour.

In the case of separate sub-contracts for e.g. supply, installation and

trenching, it can be difficult to assess liabilities. NKT's services are a cost-effective insurance to guarantee the shortest possible cable standstill. Our module-based service range enables us to configure the right combination of services based on your unique requirements.

Our turnkey service contracts typically include a repair preparedness plan, which means that – following identification of a fault – NKT will arrange for the investigation of the fault, the design of a solution and the recovery and repair of the cable.

Cable fault location is simplified by using NKT's advanced remotely operated vehicles (ROVs), equipped with e.g. cameras and sonar.



1. Engineering and documentation – where is the cable located and what is its design?
2. Fault location – find the fault.
3. Mobilization – resources, equipment and spare parts.
4. Repair and jointing.
5. Cable testing and deployment.

By speeding up every phase of restoring a power cable system after a shutdown, NKT can bring a link back in operation in the shortest possible time for those customers that have a service contract.

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NKT is signatory of the Europacable
Industry Charter: A commitment
towards superior quality.