

Terms of Reference for CEDA Working Group on Cables

Improving communication between stakeholders by sharing knowledge about subsea power cables.

Introduction

Where originally the offshore construction industry was mainly oil and gas related, climate change awareness introduced a switch to more and cleaner, renewable energy. Due to this shift, the first offshore wind farm developments started in Europe, not coincidentally the region where also big dredging companies were active.

Indeed, it is no surprise that the dredging industry nowadays is largely involved in offshore wind construction projects. There are a lot of common aspects between both:

- the interaction between equipment and soil;
- the (often harsh) operational conditions with respect to waves and weather;
- the scale of the operations;
- the interplay between man, machinery and increasingly important automation;
- the risk management and HSE guidance.

The 100 plus years of experience of the dredging industry proved to be of vital importance to the relatively young offshore wind industry. Not only the dredging companies themselves, but also dredging equipment manufacturers and marine consultancy firms provided their expertise and contributed to this evolution.

The growth in offshore renewable energy did not stop in Europe but is visible worldwide. The fast developments in offshore wind farms also led to the installation and construction of other, offshore related, infrastructure and assets: offshore (high-)voltage substations, energy islands, and especially...cables. Lots of cables! Inter-array cables, export cables, interconnection cables...

Justification

The transmission of all the offshore produced renewable energy requires an enormous length of high voltage (AC and DC) electricity cables. Already in the next decade alone, it is foreseen that tens of thousands of kilometres of subsea cables will be installed.

The mere installation of these subsea cables requires many activities like surveying, extensive geotechnical and geophysical soil investigations, seabed preparation works, the realisation of possible crossings with other subsea/nearshore assets, pre-lay dredging and post-lay backfilling operations or trenching, installation of rock protection, and realisation of landfalls.



Needless to say, all these activities have a significant impact on the marine environment, which usually is already subject to many other maritime (anthropogenic) activities, such as navigation, fishing and sand mining, and/or serves as ecologically valuable habitat for marine fauna and flora.

This means, even much more than in “traditional” dredging projects, that many stakeholders are involved with subsea cables and this is where the role for CEDA comes in!

Due to its diverse membership composition, where many of these different dredging-associated stakeholders are represented, CEDA is the ideal organisation to initiate and facilitate discussions within the wide dredging industry. The Dredging Management Commission (DMC), in particular, was founded to provide a forum for this and to share the necessary knowledge to help connect and improve the communication and mutual understanding between the different stakeholders involved in the management of dredging works in the broadest sense.

Objective

Learning from their own daily, professional activities, all DMC members do realize that at the basis of many issues, claims and even complete project failure, often bad project preparation, misunderstanding and/or lack of knowledge are found. We, therefore, consider a smooth and clear communication between stakeholders, from the very earliest project stage, as vital. As an independent organisation, our goal is to contribute to this by knowledge sharing and connecting people.

In order to give a concrete interpretation to this general aim of enhancing communication between all the stakeholders involved in the numerous cable-laying projects that are ahead, the DMC of CEDA has set up a dedicated working group, namely, the Working Group for Cables (WGC).

This group has been given the task to enhance the internal and external communication and support with relevant knowledge sharing where necessary, leading to a better mutual understanding amongst all stakeholders.

The scope of this working group will include the following:

- The **Communication** between stakeholders is to cover the total chain of parties that are involved in the deployment of high voltage subsea cables;
- The **Education** of stakeholders to facilitate communication and reduce misunderstandings;
- To address the complete life cycle of a cable: from the initiation phase, to permitting, to installation, to operation and maintenance, and finally, to decommissioning.

Composition of the WGC

The current working group is mainly composed of members of authorities, contractors and consultants.

CEDA also aims to reach out to parties who are currently (or have been) involved in offshore cable installation, operation, and maintenance, but whom, until now, have not been a member of CEDA or have (actively) participated in CEDA activities.

For the WGC, this means that, besides participants from the existing corporate members, such as contractors, consultancies, equipment builders and authorities, also employees from the following organisations are strongly invited to participate:

- permitting authorities;
- energy companies;
- power grid operators (Transmission System Operators);
- offshore wind farm owners / operators / developers;
- cable installation contractors;
- cable manufacturers.

Envisaged deliverables and first steps

Based on the first WGC meeting discussions, the following deliverables are envisaged in a first phase:

- Overview of processes and activities to be executed in the framework of a cable laying project in Europe (for the different project phases, going from the initiation phase to decommissioning);
- Identification of the different stakeholders involved and communication lines in the different project phases;
- Identification of a number of issues often arising from different stakeholder understandings/ (mis)interpretation – preferably illustrated by case studies;
- Preparation of a list with points of attention / kind of checklist to enhance communication and avoid misunderstanding between involved parties/stakeholders.

At this point, the DMC would at first aim at a publication and/or presentation to the target audience. Based on this feedback moment, decisions can be made on which topics might require/deserve further elaboration. The WGC composition will then be re-assessed to check whether new members mastering a certain discipline/disposing of a certain missing expertise would be desirable to fill in potential gaps in the knowledge.

The format of the different deliverables can be very diverse, ranging from schematic overviews, (information/position) papers, checklists, workshops with different stakeholders, conferences, online platforms. However, these are not yet fixed and will depend on the progressive outcome of future WGC meetings.

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