



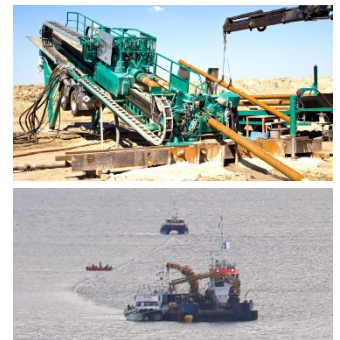
Subsea Power Cable Projects Expertise

Landfalls are more and more installed using a trenchless method like Horizontal Directional Drilling (HDD). It can be a complex part of the project with technical risks involved, potentially leading to programme delays and additional cost. However, these risks can be decreased by determining the risks in early project stages and find solutions that fit within project boundaries.

What on earth could go wrong with HDD?

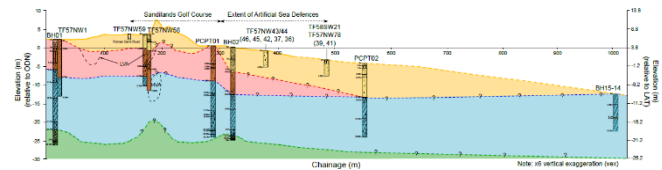
Several typical events that could occur with HDD and could lead to significant delays and additional cost are:

- Borehole instability or collapse
- Drilling fluid loss to the environment (blow-out)
- Deviations from drill trajectory
- Hitting underground obstacles (boulders, man-made, UXO)

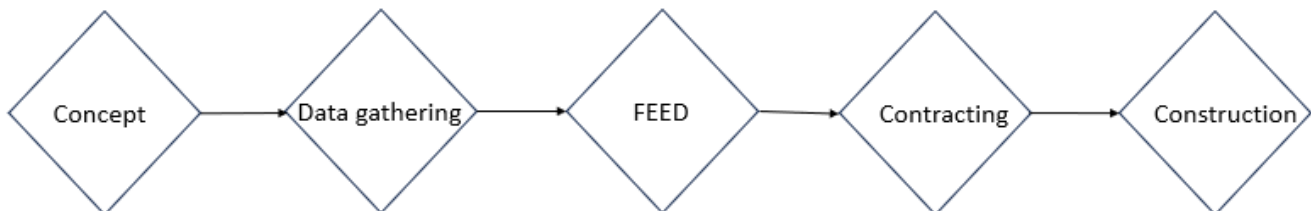


Geotechnical information is key to identify and reduce project risks:

- Risk assessment and mitigations
- Trajectory design
- Calculations (mud pressure, pulling force, settlement, deadman anchor)
- Selection of equipment and tools (rig, drill string, bit, reamers)
- Selection of drilling fluid and possible additives
- Programme development
- Cost estimation



Primo Marine supports clients in different phases of the project:



- | | | | | |
|-------------------------------------|-------------------------|--------------------------------|-----------------------------------|-------------------------|
| ▪ Feasibility study | ▪ Scope of works | ▪ Constructable (pre-) designs | ▪ ITT preparation | ▪ Client representation |
| ▪ Concept selection | ▪ Tender support | ▪ Risk assessment | ▪ Market approach | ▪ Project management |
| ▪ Requirements for data acquirement | ▪ Client representation | ▪ Cost and programme | ▪ Tender support and negotiations | |
| | | ▪ Review documentation | ▪ Evaluation and selection | |

Primo Marine has experts in all disciplines to provide the client with a landfall that suits their requirements:

- Seabed mobility
- MetOcean
- Cable installation
- Geotechnical engineering
- Survey engineering
- UXO
- Contracting
- Etc.

*You have a request? Get in touch with us!
We look forward to helping you. Your Primo Marine Team.*

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