



Cumbrae Community Council

January
2023

OUR MISSION

To supply the backbone of the future global energy superhighway

Environment - Social - Governance

At XLCC we will always aim to minimise the impact we have on the environment, from working with our clients to ensure we meet the requirements of all local regulations, to actively engaging with relevant communities to deliver socially responsible initiatives. We are committed to reducing carbon emissions at every stage of our supply chain, from our factories to the ships we use to lay the cables in deep waters.

Environment

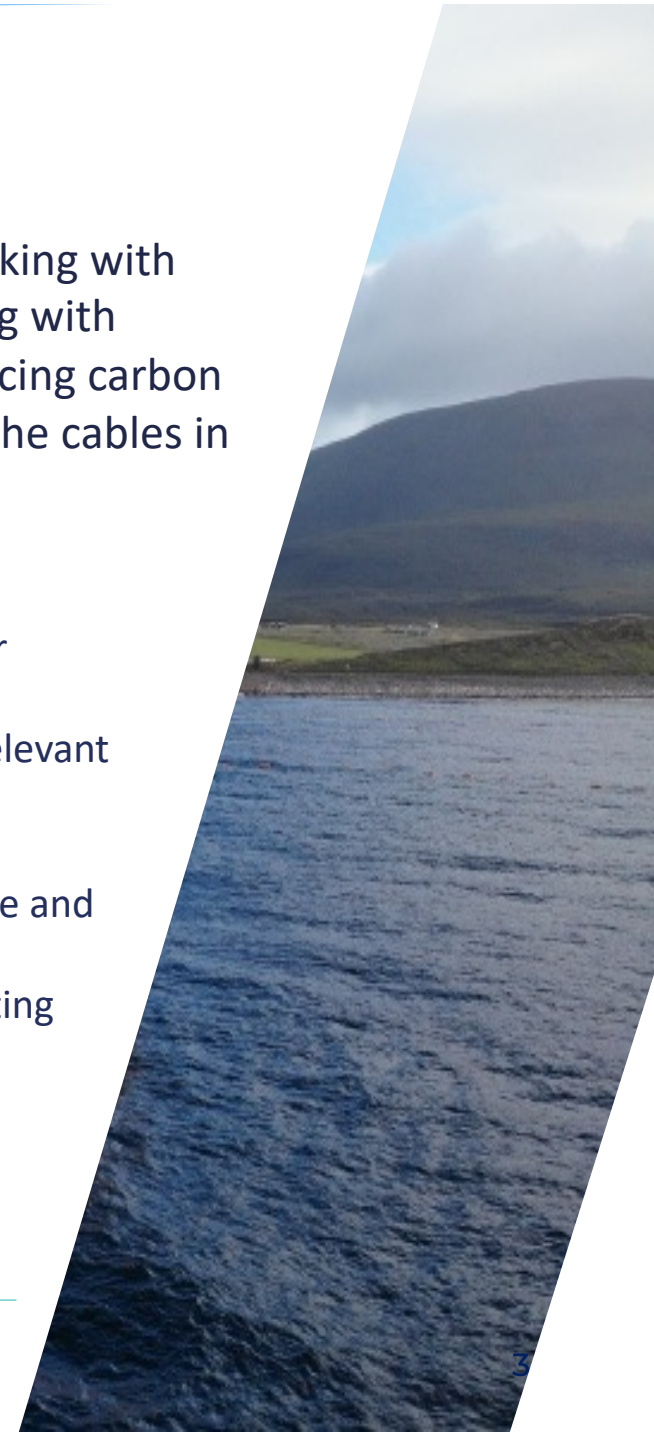
- Ensure we operate in a way that reduces our impact on the planet
- Continually Monitor and assess impact on the local environment at all locations
- Support Non-Governmental Organisations in protecting the environment

Social

- Contribute to the economy of our local communities
- Work with clients to create inclusive approaches to local communities
- Develop education programmes to create better trained and skilled communities
- Engage with local communities to work in partnership to improve local conditions

Governance

- Purchase locally wherever possible
- Ensure we comply with relevant and appropriate laws and regulation
- Create a diverse workforce and leadership
- Create transparent reporting processes



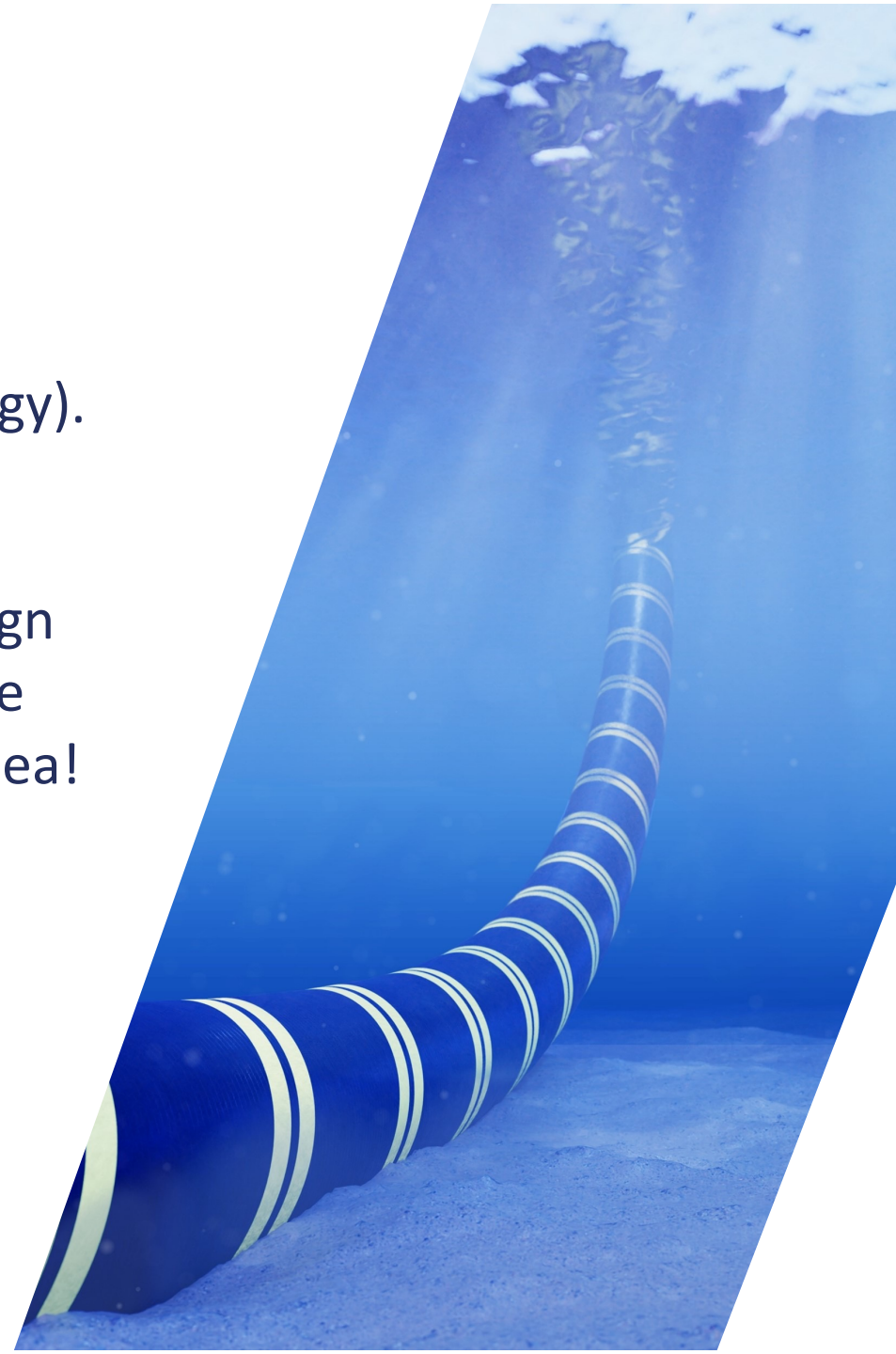
Why needed?

Here and now

- Scottish and UK Government want an industrialised product to drive down the LCOE (levelized cost of energy). Economies of scale. XLCC provides a single SKU (stock keeping unit) – 525KV HVDC cable.
- All main developers want a standardised product (design once then re-use as required). Collaboration across the industry. Great historic examples of this in the North Sea! Commodity product.

What is next?

- Cable Monitoring system
- Repair Capability
- Investment in Quality



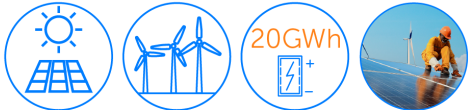
Pathfinder Client

Capturing and connecting the power of nature

- A new clean energy source dedicated to the UK
- Proven technology, that will lower consumer prices
- Reliable, firm and flexible energy – operational before 2030
- A source of revenue rather than cost through the CfD mechanism

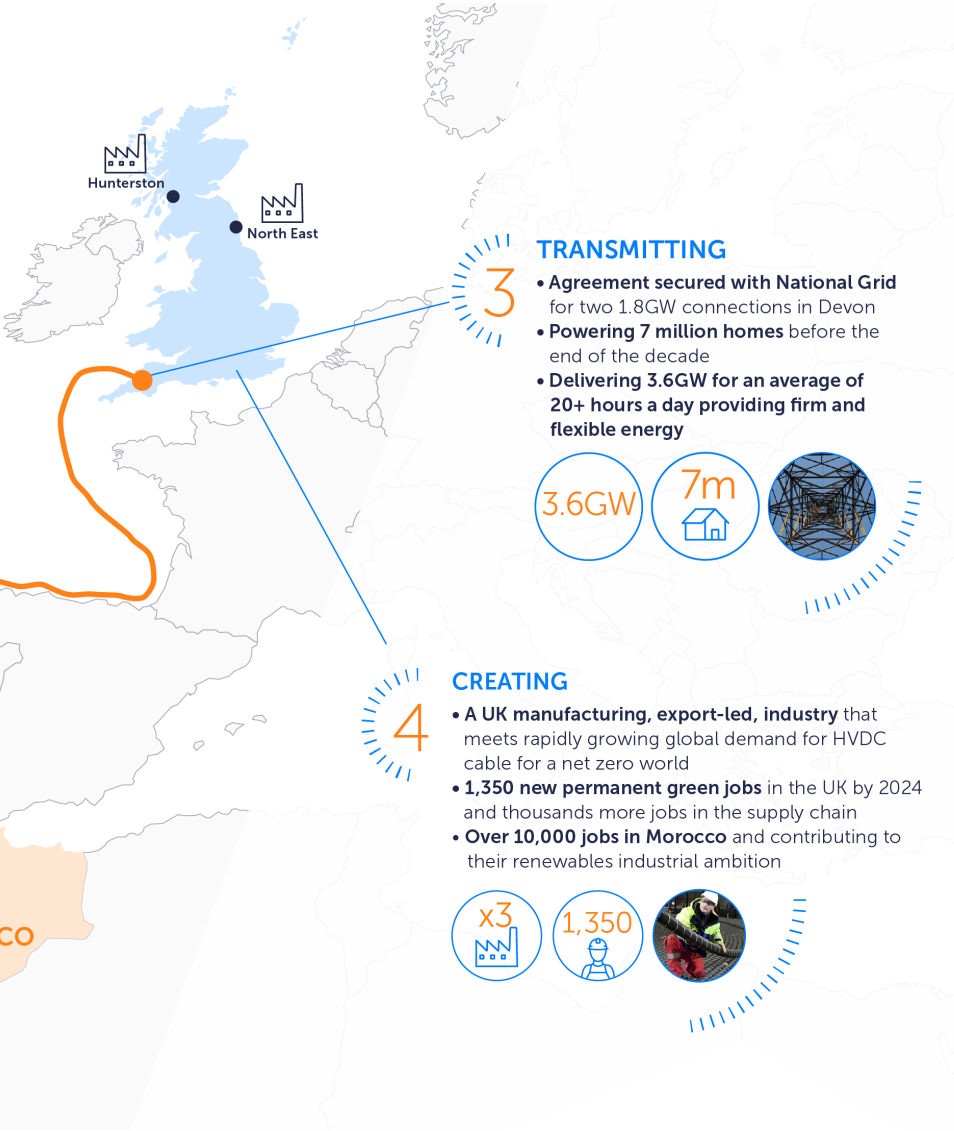
1 GENERATING

- **10.5GW clean power** from large scale solar and wind facilities in Morocco
- High wind and solar intensity providing **ultra-low cost zero-carbon electricity**
- Coupled with **20GWh/5GW battery storage**



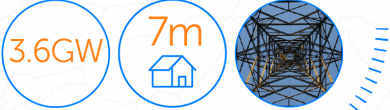
2 CONNECTING

- Proven HVDC interconnector technology on a **3,800km route** under the seabed
- A **dedicated source of renewable energy**, exclusively to power the UK
- **Securing Britain's energy supply** by diversifying from EU interconnectors and LNG dependence, and biomass from North America



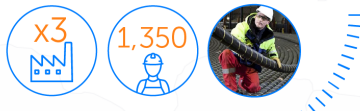
3 TRANSMITTING

- **Agreement secured with National Grid** for two 1.8GW connections in Devon
- **Powering 7 million homes** before the end of the decade
- **Delivering 3.6GW** for an average of **20+ hours a day** providing firm and flexible energy

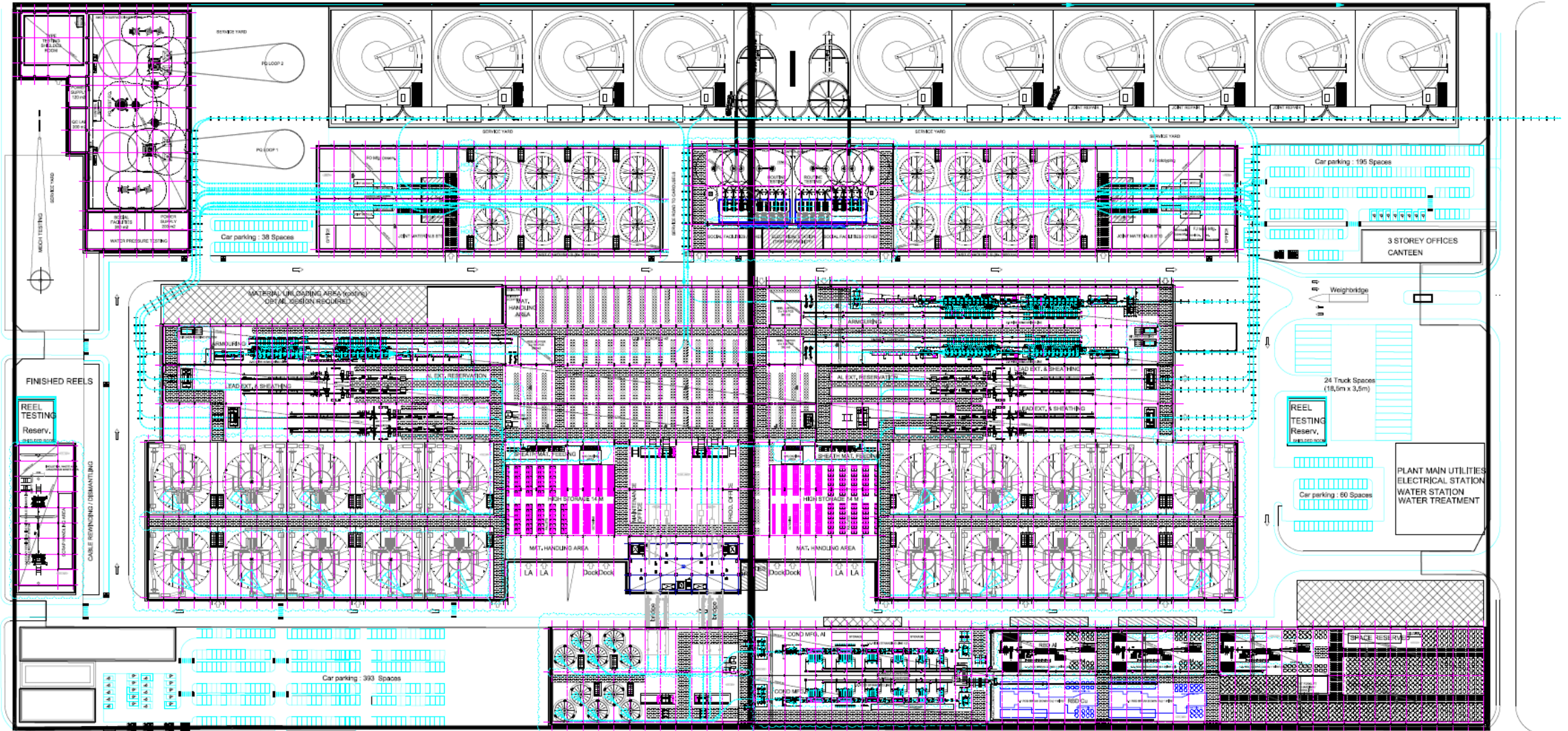


4 CREATING

- A **UK manufacturing, export-led, industry** that meets rapidly growing global demand for HVDC cable for a net zero world
- **1,350 new permanent green jobs** in the UK by 2024 and thousands more jobs in the supply chain
- **Over 10,000 jobs in Morocco** and contributing to their renewables industrial ambition



Factory layout



XLCC : Company Organisation



**Total of
900 Employees**

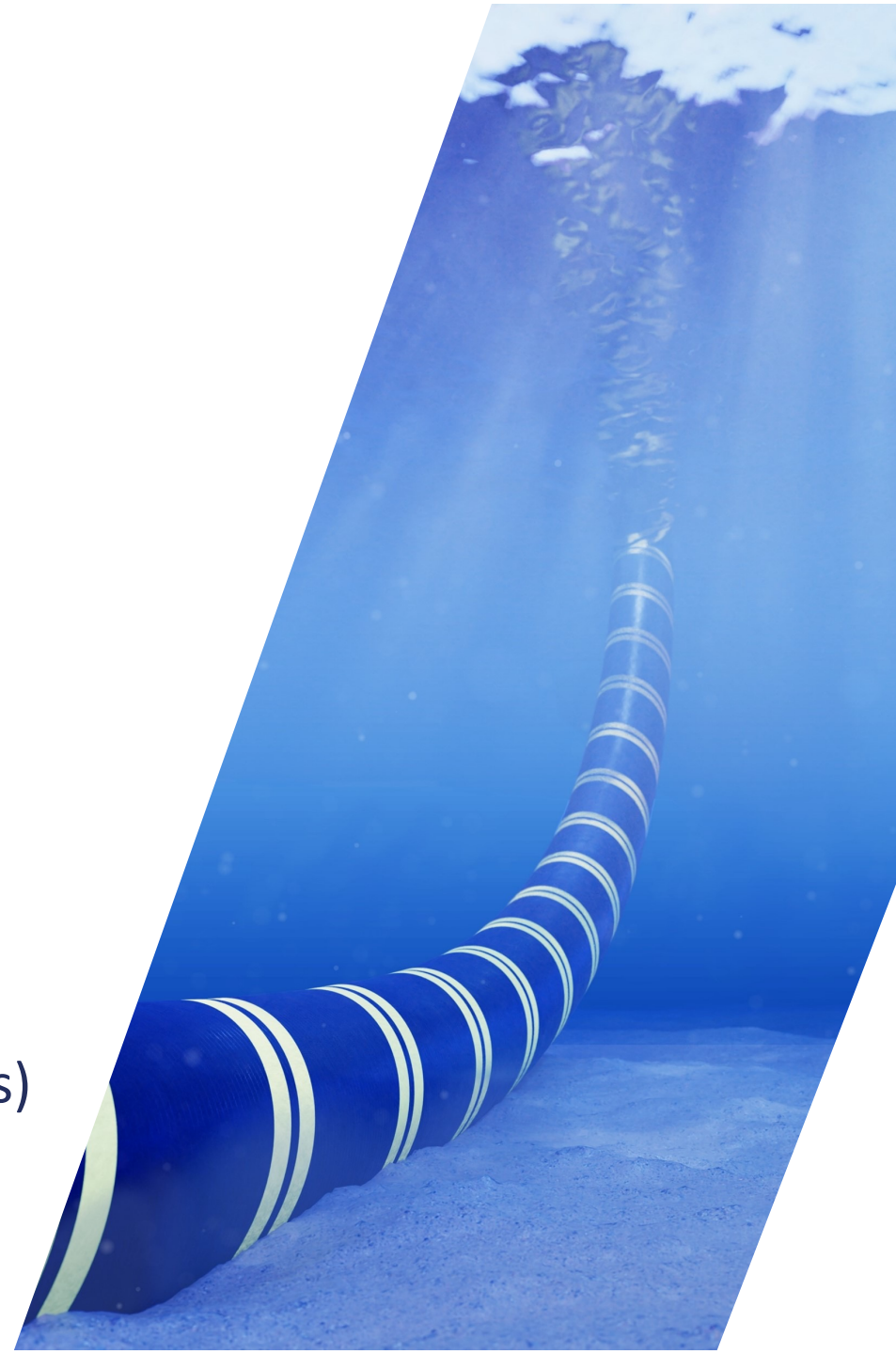
Factory location



Tower Camouflage

The tower is 185 metres tall. This is required to allow the extruded insulation time to set after application to the conductor. This process takes 3 hours. The cable moves through the factory at one metre per minute.

- Hunterston has 59% cloud cover on average
- 8 km of visibility (5 miles on average)
- Most suitable colour – “air superiority” grey
- No structural reason to paint the tower
- Paint (lighthouse paint) has a high degree of plastic content
- Concrete dye is hard to match (colour changes at levels)
- Uncoated concrete would weather better



R&D Testing Facility

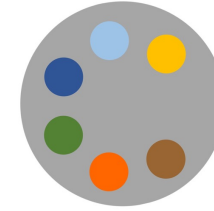
We will construct our own R&D testing facility on site at Hunterston to allow for electrical and mechanical testing. These tests can be used for certification and development works on the cable and all associated accessories. This facility will also accommodate the Pre-Qualification (PQ) and Type Testing (TT) equipment.

What's required?

- Construct the building and facility to carry out the testing (PQ, TT)
- (approx. £27M)
- Buy the equipment to perform the above electrical and mechanical testing (approx. £10M)
- Personnel hire + training = 20 people x 40,000 x 2 years = (approx. £1.6M)
- Estimated total = £38.6M



XLCC + MJ MarCable Training Content



The following will be included in all 2022 PEO courses:-

XLCC Chosen Modules

- ✘ Engineering Quality – An introduction
- ✘ Group Task – Cable industry scenario, presenting conclusions back to XLCC
- ✘ Welding module available as ‘bolt-on’ to those interested at Ayr and Kilwinning campus (already included at Kilmarnock)
- ✘ In 2023, Ayrshire College will develop a bespoke college course to align directly with XLCC employment opportunities

MJ MarCable Modules

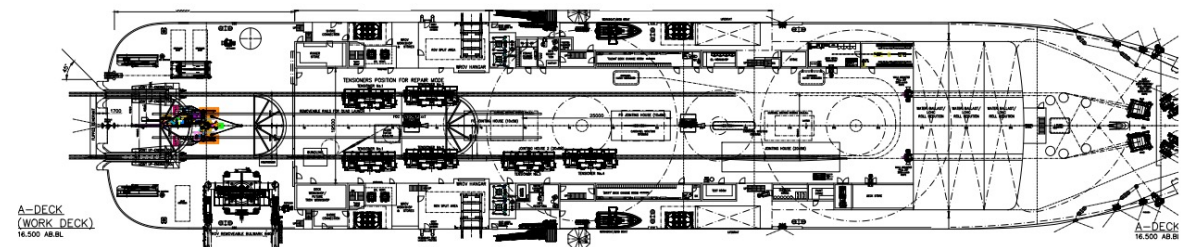
- 🌐 Transmission system components
- 🌐 Cable – Construction
- 🌐 Accessories – Construction
- 🌐 Electric field and insulation
- 🌐 Cable design – Electrical
- 🌐 Cable design – Thermal
- 🌐 Cable design – Mechanical
- 🌐 Manufacturing
- 🌐 Quality
- 🌐 Testing
- 🌐 Installation

CLV

CLV features and timeline

- ✓ World's largest CLV – 200m length, 110 crew capacity
- ✓ Carousel capacity for 26,000 tons of cable
- ✓ Eco-friendly – hybrid fuel option with upgrade path to hydrogen
- ✓ Designer: SALT
- ✓ Broker: Marcas (subsidiary of V-Group)
- ✓ Shipyard tender near complete (announcement Q1 2023)
- ✓ Delivery by early 2026

Selected CLV design



Appendix

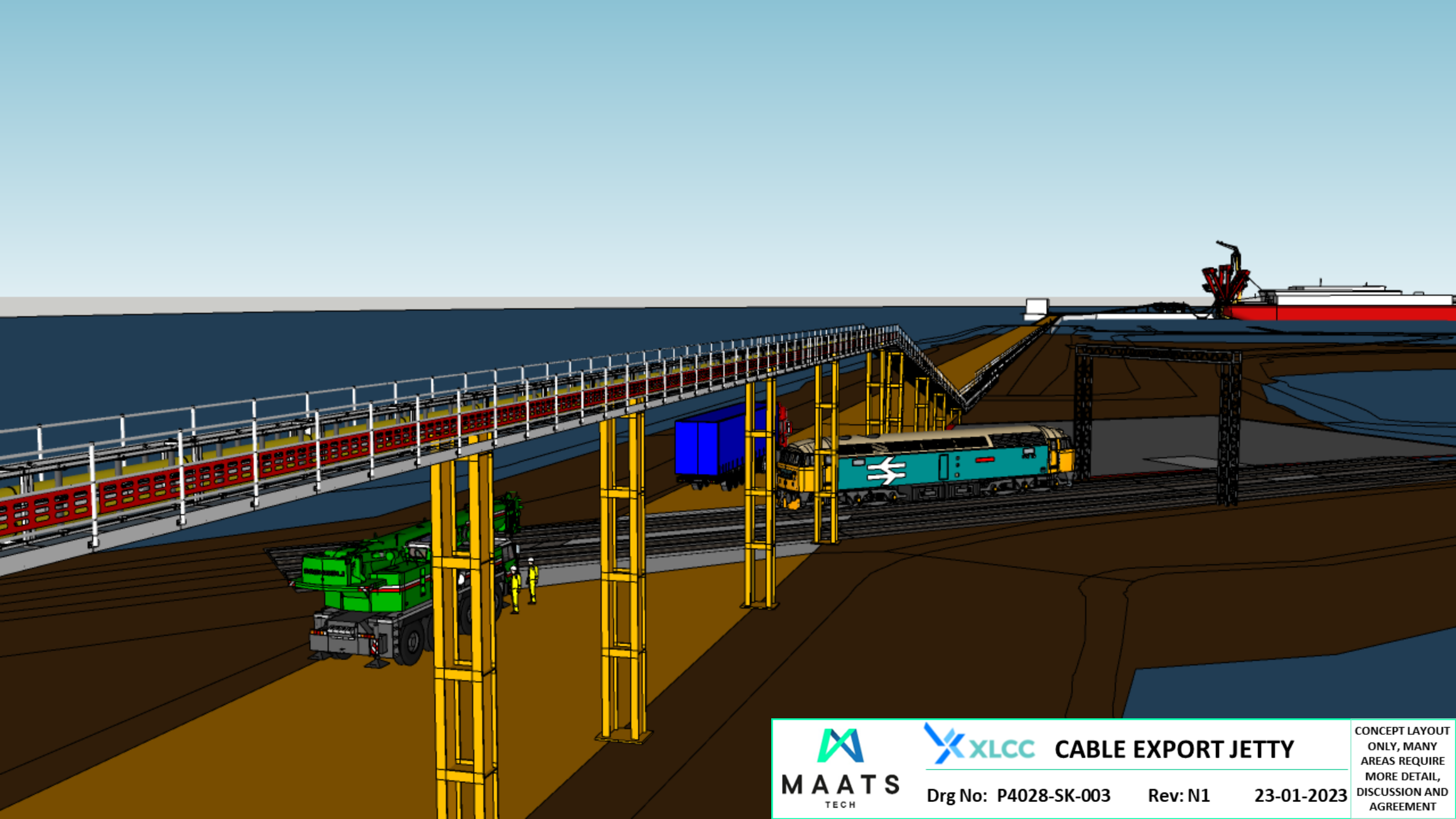
Jetty design and Noise

Noise from Factory

Video taken next to operational cable factory

Residential buildings 300 metres away

Nearest building is a primary school



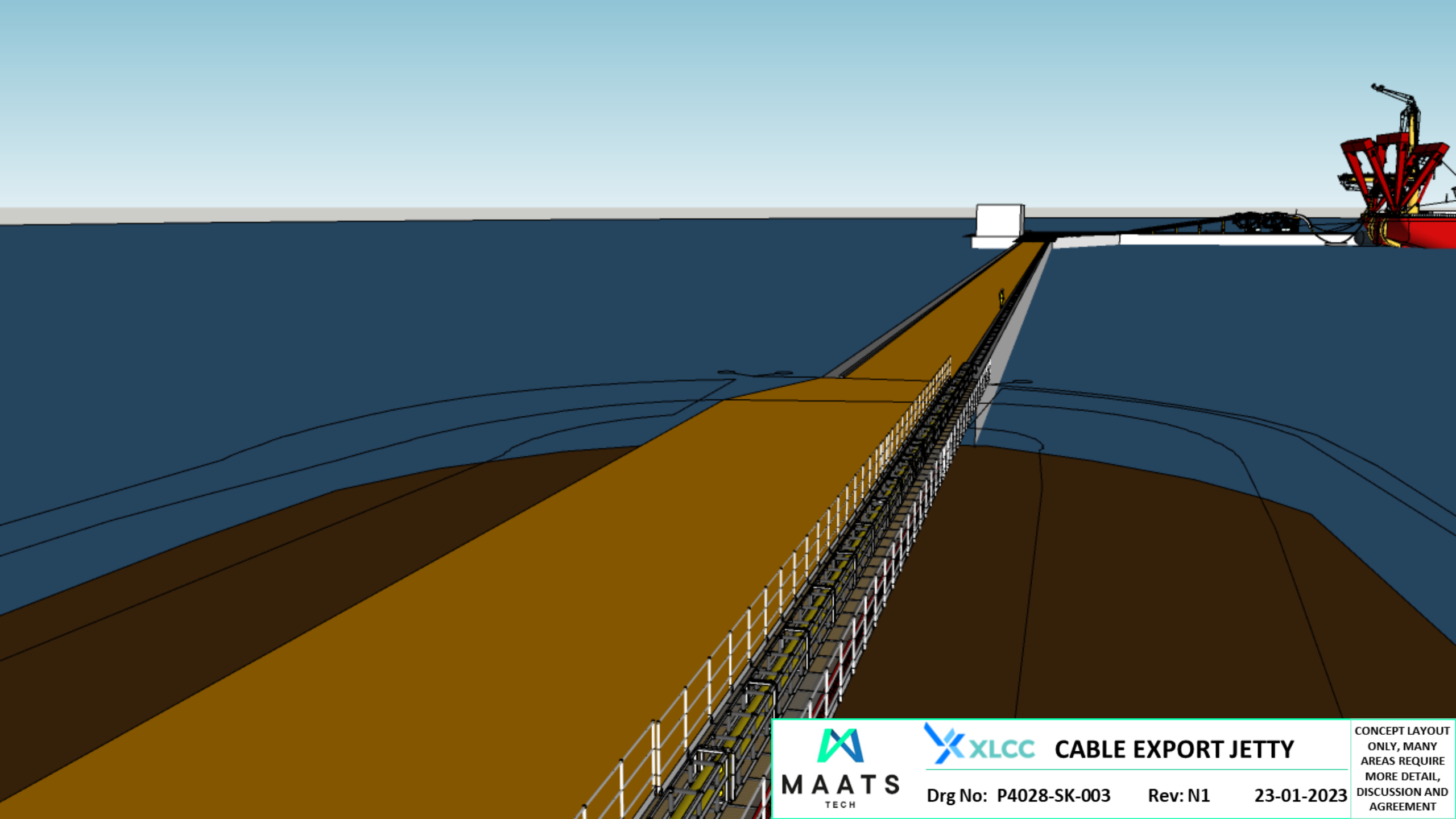
CABLE EXPORT JETTY

Drg No: P4028-SK-003

Rev: N1

23-01-2023

CONCEPT LAYOUT
ONLY, MANY
AREAS REQUIRE
MORE DETAIL,
DISCUSSION AND
AGREEMENT



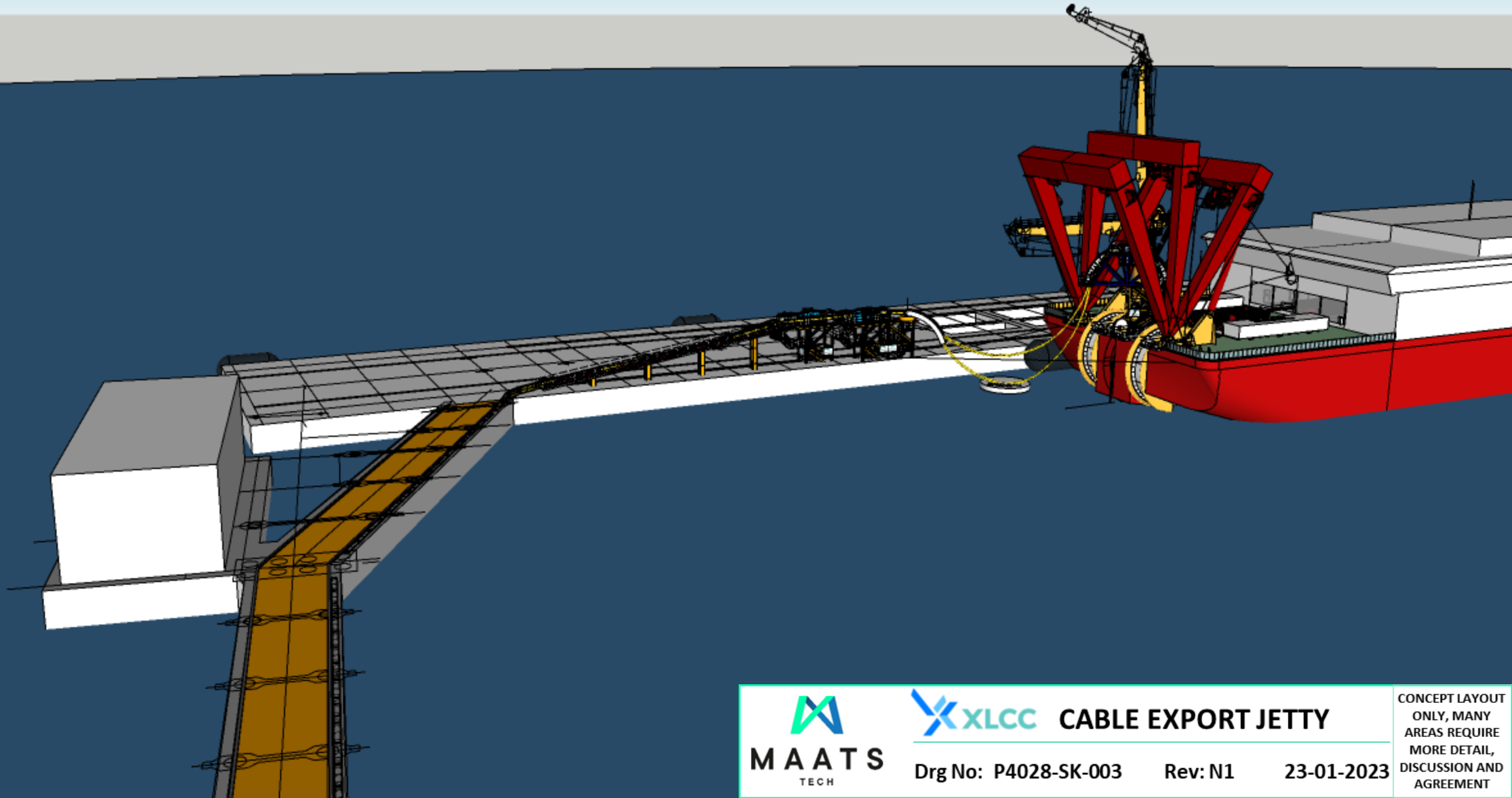
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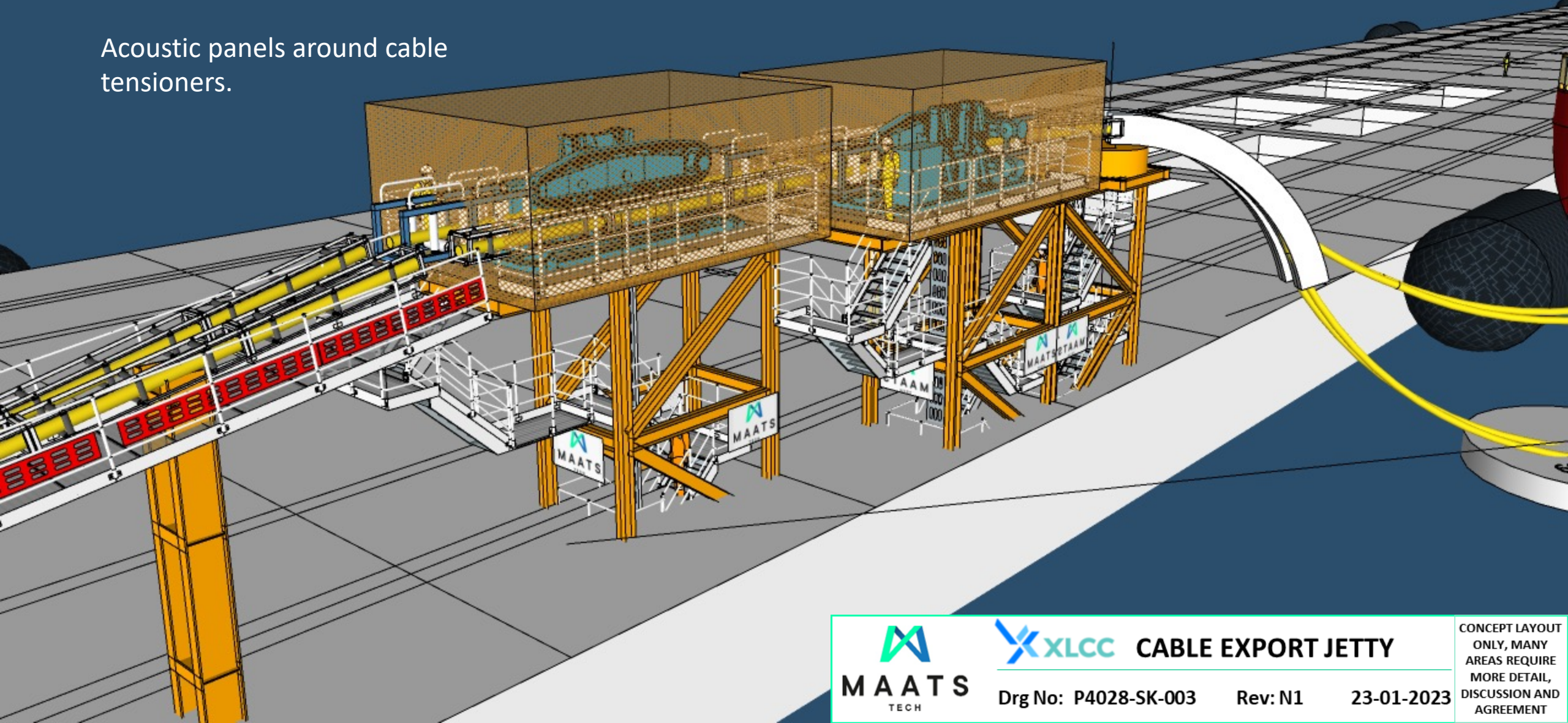
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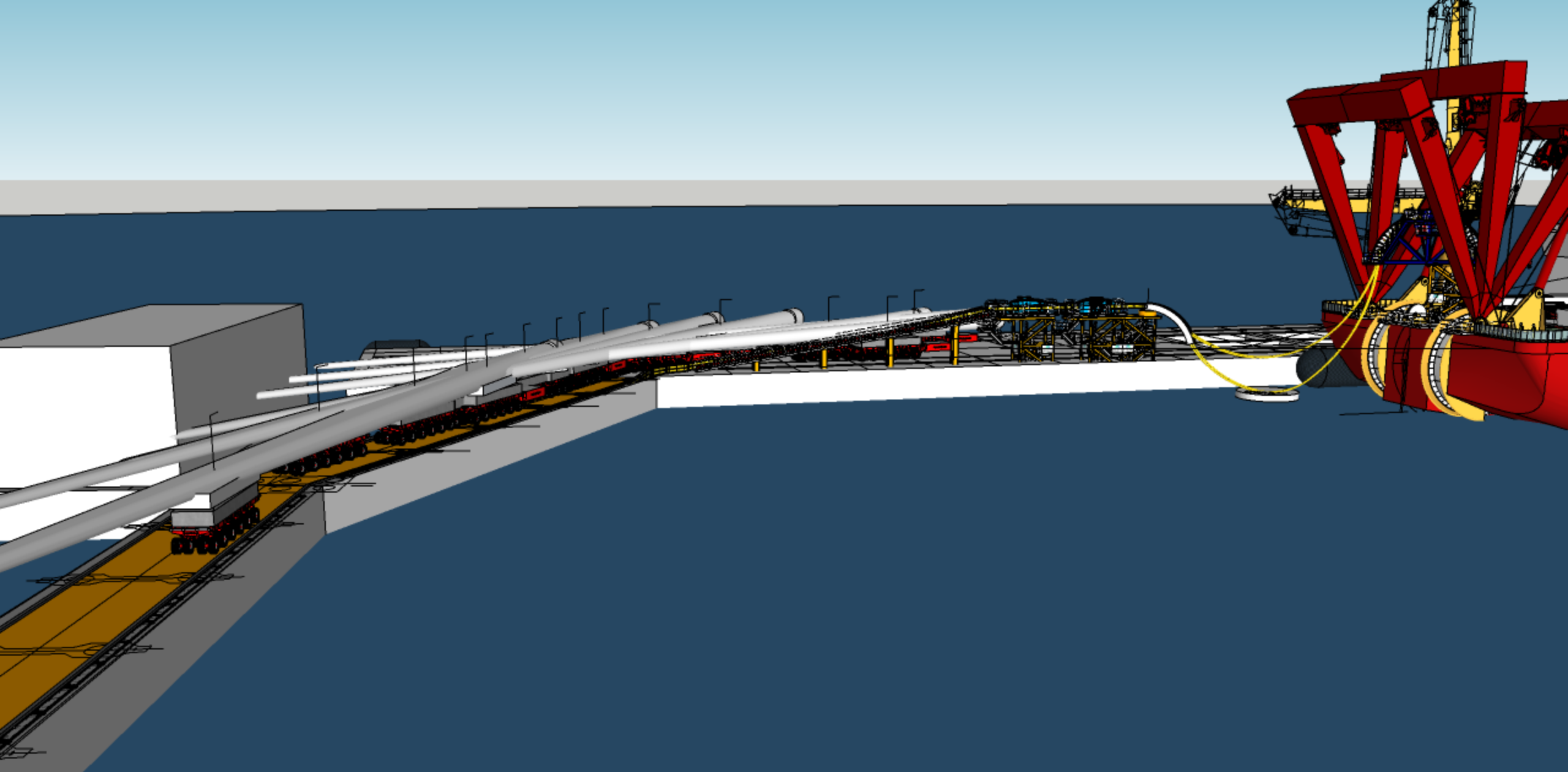
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Acoustic panels around cable tensioners.





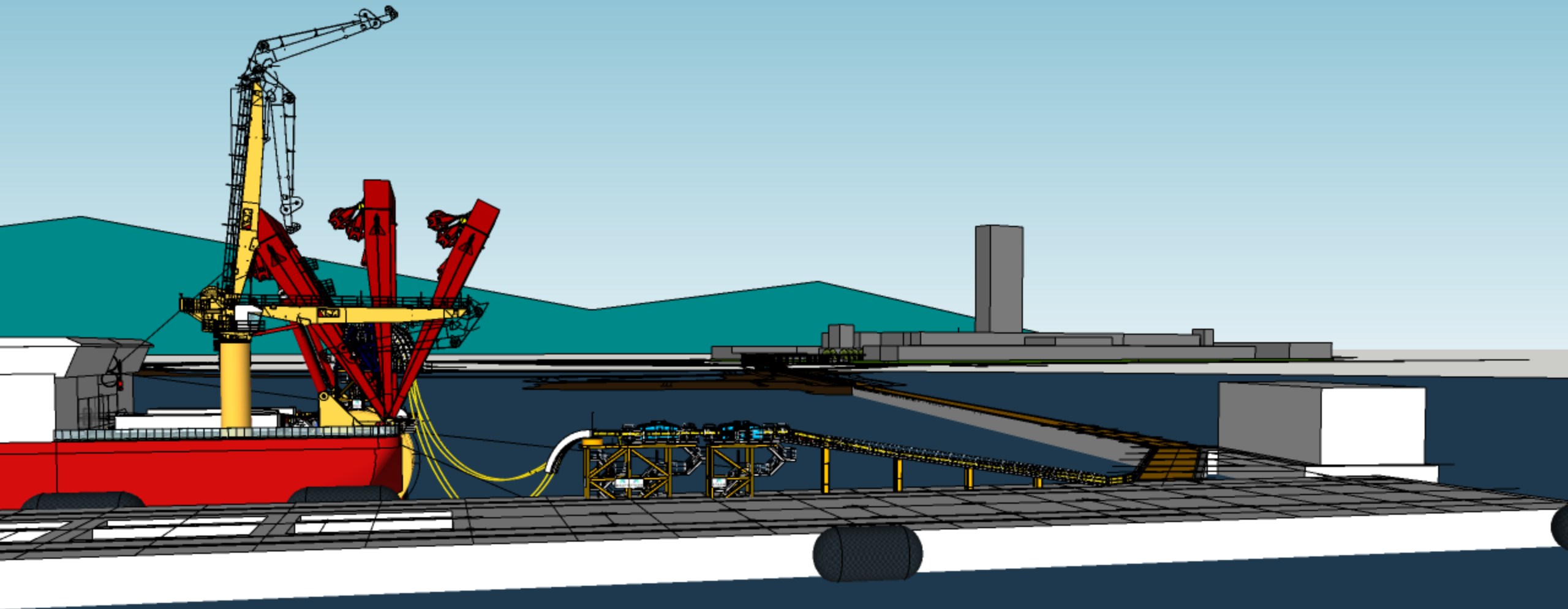
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Appendix

