Sustainable Subsea Networks

Funded by a grant from the INTERNET SOCIETY FOUNDATION, with research conducted by:

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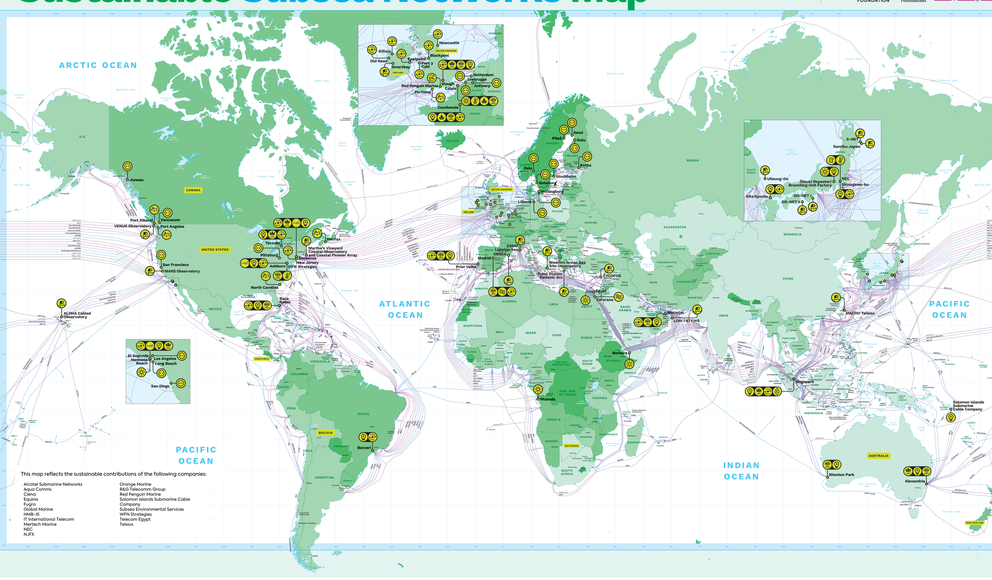
Sustainable Subsea Networks Map

Designed and produced by TeleGeography

In partnership with SUBOPTIC FOUNDATION, Internet Society Foundation, SUSTAINABLE SUBSEA NETWORKS



Offset Emissions
Companies can offset their emissions and should favor durable carbon removals over tree planting and conservation offset efforts

Protect Cables
A well-protected cable leads to fewer repairs and less CO2 emissions

Be Energy Efficient
Owners of cable landing stations, factories, and ships have all pursued energy efficiency upgrades to reduce both CO2 impact and cost of electricity

Recycle Cables
Cable recycling returns materials to the circular economy

Extend Lifetime
The more years a cable is in operation, the more sustainable it generally is

Increase Bandwidth
The more capacity, the more sustainable the network

Connect to Green Energy
Data centers and cable landings on green grids, purchasing carbon neutral power, and building renewable installations reduce carbon emissions

Be Regulation-Conscious
Countries have established environmental regulation for data centers and/or cable landing stations

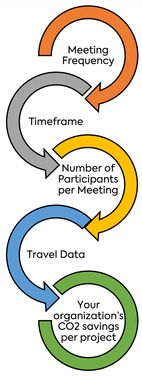
Plug into Shore Power
When cable ships plug into shore-side electric power, they do not have to burn CO2 emitting-fuel

Lend Cables to Science
Scientists use ocean observatories and SMART cables to monitor ocean and climate conditions

Commit to Targets
Environmental standards and certifications enable sustainable practices

Account and Disclose
Companies can track their carbon emissions and disclose them to the public

Carbon Emissions Savings Calculator



Based on data provided by industry partners, we developed the first calculator in the industry to measure carbon emission savings in transitioning to remote work.

Submarine Telecom Forum Sustainable Subsea Column

Improved Data Collection
Developing a standard to calculate our carbon footprint will not only keep track of our climate impacts, but it will also prepare for regulation that requires this information

Meeting Remotely when Possible
By moving to remote meetings a single consortium system can avoid the equivalent of 154 gasoline-powered passenger vehicles driven for one year

New Installations and Retrofitting Infrastructure
We weigh important considerations when developing new installations or retrofitting older infrastructure for energy efficiency

Sustainable Everyday Operations
Companies are making strides toward sustainability, including powering ships using the electrical grid and using carbon neutral energy at the cable landing station

Renewable Energy Feasibility Study (REFS)

- Prototyping and Installing Renewable Energy Technologies According to Local Geographies
- Engaging Policy, Legislation and Local Communities
- Catalyzing Investments and Strategic Partnerships Toward Sustainable Economic Gains

REFS is the first external and multi-disciplinary investigation of renewables that connects individual subsea cable companies to a broader set of local, regional, and global contexts and offers specific actionable suggestions toward energy transition

Policy Research

- Initiated select regional and national assessments of renewable energy policies and ICT infrastructure growth
- Developing recommendations to increase the role of regulation in making the industry more sustainable
- Examined international law relating to sustainability in the subsea cable industry
- Conducted a comparative analysis of national regulations governing subsea cables, with particular focus on energy transition
- Studied the influence of standards and certifications in adopting green initiatives within the industry

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For more information on our research, publications, resources and partnerships, scan the QR code and visit our website.