

# Manx Marine Environmental Assessment

## Infrastructure

### Cables & Pipelines



Vessel in Manx waters with cable and pipe laying kit on-board. Photo: Department for Enterprise.

#### **MMEA Chapter 6.1**

**October 2018 (2<sup>nd</sup> edition)**

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# Manx Marine Environmental Assessment

**Second Edition: October 2018**

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This document was produced as part of the Manx Marine Environmental Assessment, a Government project with external stakeholder input, funded and facilitated by the Department of Infrastructure, Department for Enterprise and Department of Environment, Food and Agriculture.

This document is downloadable from the Isle of Man Government website at:  
<https://www.gov.im/about-the-government/departments/infrastructure/harbours-information/territorial-seas/manx-marine-environmental-assessment/>

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**Suggested Citations**

**Chapter**

Howe V.L. 2018. Marine and Coastal Historic Environment. In: Manx Marine Environmental Assessment (2<sup>nd</sup> Ed). Isle of Man Government. pp. 22.

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The Isle of Man Government has facilitated the compilation of this document, to provide baseline information on the Manx marine environment. Information has been provided by various Government Officers, marine experts, local organisations and industry, often in a voluntary capacity or outside their usual work remit. Advice should always be sought from relevant contacts where queries arise.

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# Cables & Pipelines

## **Existing submarine cables, gas infrastructure, electrical grid and connectivity.**

### Introduction

This chapter outlines the existing submarine infrastructure, including gas pipelines, power and telecommunications cables, with their connectivity to the existing infrastructure network on the Isle of Man. Links to sources of up to date information are provided together with key stakeholder contacts, and further local resources. An initial and generalised assessment of potential effects from a range of potential future developments in Manx territorial waters is also provided.

There are two gas interconnector pipelines between Scotland and Ireland passing close to the west coast of the Isle of Man. From one of these interconnector pipelines there is a spur pipeline with a landfall at Glen Mooar.

The electrical interconnector to the UK is owned by the Manx Cable Company, a wholly owned subsidiary of the Manx Utilities Authority (See Appendix A).

The subsea section of the Gas spur connecting IC2 to the IOM is owned by BGE (IOM). Ownership transfers to the Manx Utilities Authority inland.

### The Manx Utilities Authority (Manx Utilities)

The Manx Utilities Authority (Manx Utilities) was created in April 2014 following the merger of the Isle of Man Water and Sewerage Authority and the Manx Electricity Authority. It is Statutory Board of the Isle of Man Government sponsored by the Department of Infrastructure.

Manx Utilities is a £100m turnover business, responsible for providing its customers with safe, reliable, efficient and economic supplies of electricity, natural gas and clean water; as well as processing waste water, and delivering flood risk management services. In addition to operating a successful energy trading enterprise, Manx Utilities has two subsidiary businesses specifically focussed on commercial telecommunications and subsea cable management.



**Pulrose Power Station, Douglas. Photo: Manx Utilities.**

## **Manx Utilities Activities**

- Generation of electricity on Island and procurement of electricity, using an AC power interconnector marine cable, to meet demand on the Island.
- Provision of electrical power to all consumers via the transmission and distribution networks.
- Energy trading, in particular the sale of surplus electricity and reserve generation capacity to the UK.
- Operation of a high pressure gas transmission network to supply natural gas for electricity generation and also to Manx Gas for domestic and industrial use.
- Sale of fibre optic capacity and associated services to internet businesses and IOM internet service providers on a wholesale basis.
- Collection, treatment and distribution of water to Isle of Man residents, businesses and visitors.
- Management, maintenance and development the Island's sewerage infrastructure and the sewage treatment and disposal systems.
- Manx Utilities is the Isle of Man's Flood Risk Management Authority with a duty to provide general supervision over all aspects of flood risk management on the Island.

Please see the Manx Utilities website for further information: [www.manxutilities.im](http://www.manxutilities.im)

# Baseline Environment

## Location of Existing Infrastructure

A summary of all known subsea power, telecommunication cables and pipeline infrastructure for Manx waters is provided in Table 1, along with a display of their positions in Figure 1. Appendix A provides cable information for fishermen about the IOM-UK Interconnector including co-ordinates of the areas where protection (matrassing) has been installed along its route.

Accurate grid coordinates for cables are available from the cable operators listed (see: [www.escaeu.org](http://www.escaeu.org))

The Kingfisher Information Service provides information to improve safety to fishermen and the protection of submarine cables through the KISCA Project. For further details please see: [www.kis-orca.eu](http://www.kis-orca.eu). For the latest information & positions of other subsea cables in and around Manx Territorial Waters, please visit [www.kingfishercharts.org](http://www.kingfishercharts.org).

For further information relating to the IOM-UK Interconnector, please contact: Stephen McGhee, Manx Utilities, Tel: 07624 498792, email: [steve.mcghee@manxutilities.im](mailto:steve.mcghee@manxutilities.im).

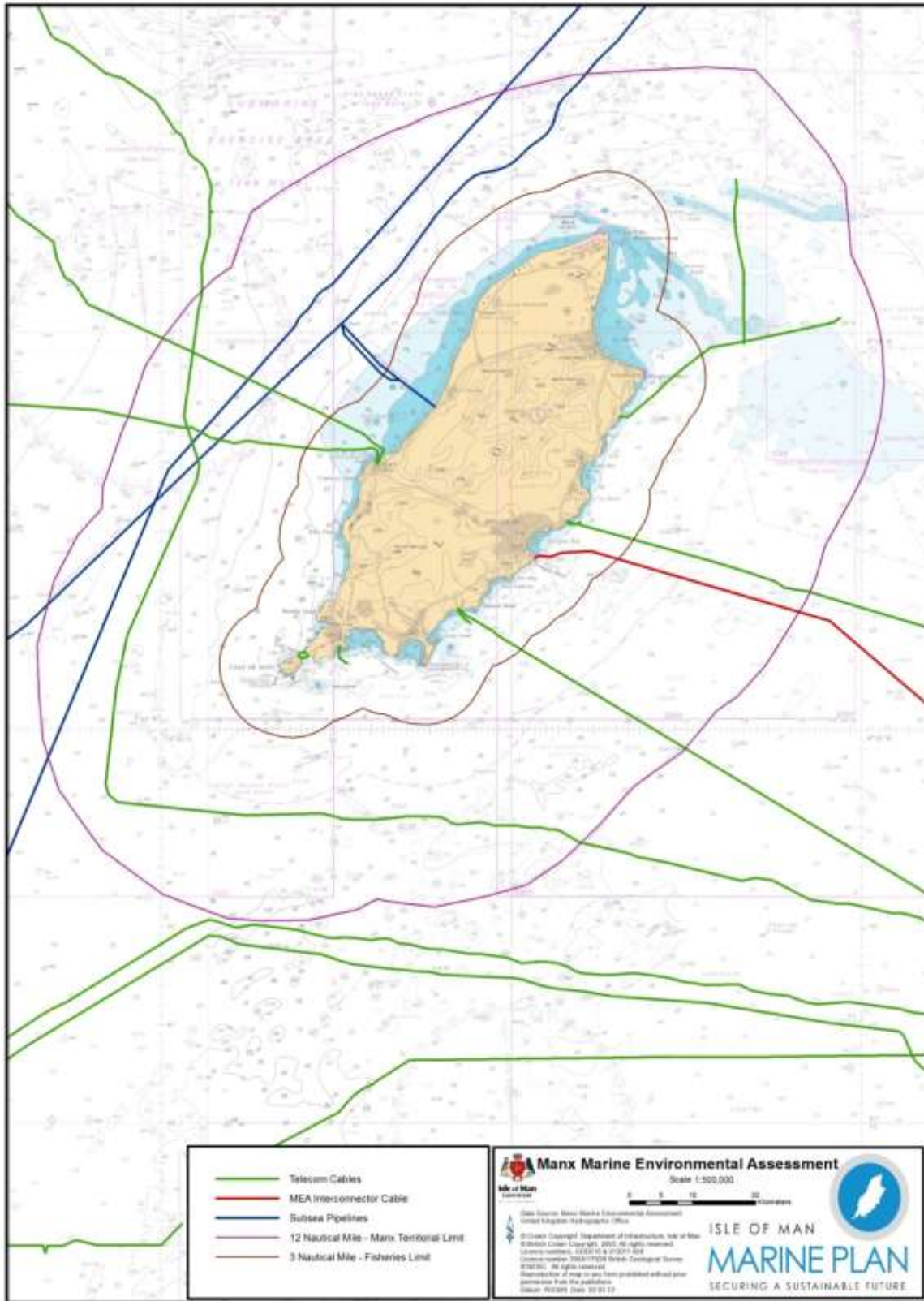


Figure 1. Submarine cables and pipelines in Manx waters. Source: UKHO 2012.

**Table 1. Summary of submarine cables and pipelines in Manx waters.**

a) In current use:

<b>Cable/ Pipeline</b>	<b>Location</b>	<b>Summary</b>
Manx Utilities Electricity Interconnector	UK-IOM Landfall at Douglas Head	60MW, 90kV AC Bi-directional
Gas Pipeline – Interconnector 1	SW Scotland (Brighthouse Bay, Dumfries & Galloway) to Ireland (Loughshinny, Co. Dublin).	Natural gas
Gas Pipeline – Interconnector 2	SW Scotland (Brighthouse Bay, Dumfries & Galloway) to Ireland (Gormanston, Co. Meath)	Natural gas
Gas Spur Pipeline	Connecting Gas Pipeline – Interconnector 2 to the Isle of Man at Glen Mooar	Natural gas
Cable & Wireless cable	Landfall at Port Grenaugh from UK	Telecommunications, data
Cable & Wireless cable	Landfall at Peel from Northern Ireland	Telecommunications, data
British Telecom cable	Landfall at Peel from Northern Ireland (Ballyhornan, County Down)	Telecommunications, data
British Telecom cable	Groudle	Telecommunications, data
Telecommunication cables (Laid with the Manx Utilities Electricity Interconnector)	Douglas to UK	Telecommunications, data

b) Out of service, remnant:

<b>Cable/ Pipeline</b>	<b>Status/ notes</b>
Port Cornaa	Out of service / historic
Port Grenaugh	Remnant of an old cable that has been removed.
The Sound	Two short cables, possibly a long disused telephone link to the Calf.
Perwick Bay	Disused inshore remnant of an old cable.
Groudle	Presently there is a British Telecom telecoms cable from the UK but this beach was also used previously for a cable landing. Historic chart available showing a cable to southern Scotland from Groudle. The remnant that projects out to the north of the present cable is probably the last remnant of that cable to Scotland, the rest having been removed.

**Note:** As of October 2018 surveys are being conducted in Manx waters on behalf of Alcatel's Havhingsten subsea cable system project, which is expected to provide a telecommunications cable linking Ireland and England (and onwards to Denmark), with two spurs linked into the Isle of Man. See: <https://www.gov.im/media/1363216/havhingsten-cable-route-survey-18-october-2018.pdf>

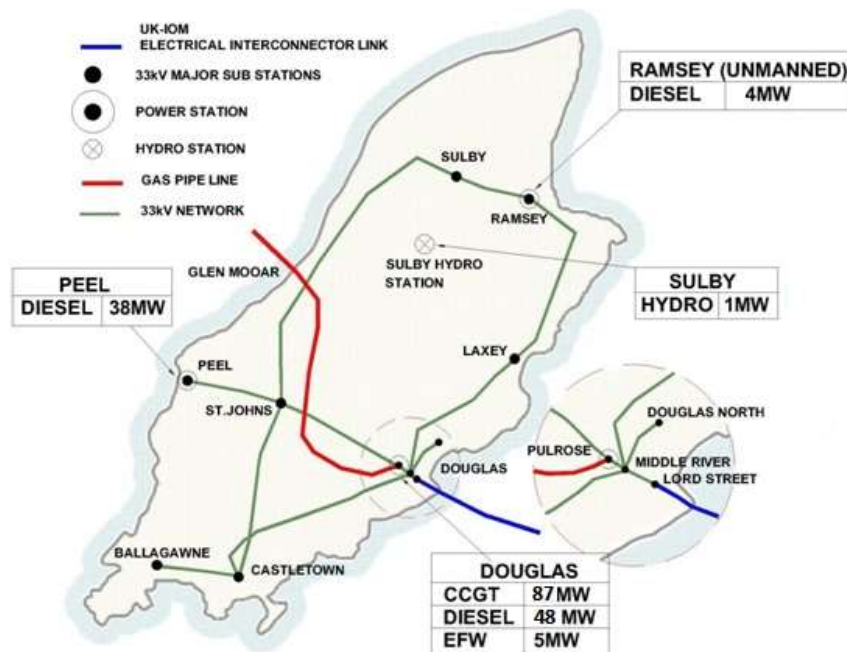


## Existing power supply, generation and connectivity

### Generation Assets

Manx Utilities has a range of generation assets including an 87MW Combined Cycle Gas Turbine (CCGT) power station in Pulrose, fuelled by natural gas with Ultra Low Sulphur Diesel available as an alternative fuel. Other generation assets include five Diesel Engines in Pulrose with a combined capacity of 48MW, four Diesel Engines in Peel with a combined capacity of 38.4MW, two Diesel engines in Ramsey with a combined capacity of 4MW and a Hydro-electric installation in Sulby with capacity of 1MW. Together, these assets yield a maximum generation capacity of over 178MW.

In addition, the Island's Energy from Waste (EfW) plant operated by Sita IOM is capable of generating up to 7MW of electricity and typically supplies approximately 3MW to the Manx Utilities network.



**Figure 2. Manx Utilities major asset map. Locations of key features of the Manx Utilities' electricity generation and transmission infrastructure including the cross Island high pressure natural gas transmission pipeline.**

### Connectivity and capacity

The Island's electricity system is connected to that of the UK by Manx Utilities' 60MW, 90kV AC interconnector which runs from Lord Street in Douglas to Bispham in the UK. Power can flow in either direction on the Interconnector, meaning that it can be used to supply electricity to the Island or can be used to export electricity to the UK. By exporting excess electricity to the UK, the Manx Utilities can optimise the thermal efficiency of the CCGT power station by running at maximum output. Manx Utilities also sells reserve and capacity services to the UK, taking advantage of spare interconnector and generation capacity.

Including the Interconnector's import capacity to the Island, the total capacity for on Island electricity supply is 238MW. However, it is normal practice within the industry to define firm capacity as the maximum capacity in the event of a plant fault coinciding with planned maintenance work, meaning that two major assets would be unavailable at the same time. Under these circumstances, the firm capacity for the Isle of Man is approximately 130MW. This is significantly more than the Island's maximum winter demand of approximately 90MW.

Within the Island, there are also a number of small privately owned generation facilities consisting primarily of Combined Heat and Power (CHP) plant and a growing number of solar PV schemes that are connected to the Manx Utilities network. The total capacity of these generators is less than 2MW but is expected to grow as renewable energy schemes become more price competitive.

### **Demand**

The Island's demand for electricity follows daily, weekly and seasonal patterns with extremes occurring at night during the summer (low of approximately 26MW) and late winter afternoons (high of approximately 80MW). Day time demand typically ranges between 45MW (summer) and 65MW (winter).

### **Transmission and Distribution networks**

Manx Utilities owns and operates the Island's electricity transmission and distribution networks. The transmission network operates at 33kV while the distribution network operates at 11kV, 3.3kV and 240V. As with generation, network capacity is designed to provide fault tolerance and to facilitate planned maintenance without interruption to supplies.

The security of the Island's electricity supply is demonstrated by the low number of supply interruptions per year reported as customer minutes lost (CML) which is consistently better than all of the UK distribution networks.

### **Overhead Power Lines & Existing Substations**

Manx Utilities' networks (transmission and distribution) are comprised of both overhead lines and underground cables. There are nine primary substations located around the Island connecting the distribution network to the higher voltage transmission network.

## **Regulation - Maintenance and Monitoring & Responsibility**

Permission and a lease of easement is required from the Department of Infrastructure, as owner of the seabed prior to the laying and maintenance work of any cables or pipelines within our territorial waters. All of the owners of the various cables and pipelines are

responsible for the maintenance and integrity of their infrastructure. They are therefore entirely responsible for any associated monitoring and surveys.

Manx Utilities regularly undertake survey work to verify the condition of their interconnector to the UK using a variety of marine survey techniques.

Gas Networks Ireland (GNI) undertake planned survey work every 2 years to verify the condition of their subsea pipelines. A variety of techniques are called upon dependent upon the scope of works for each survey.

## Other:

### The Western High Voltage Direct Current Link

The Western High Voltage Direct Current (HVDC) Link is a major electricity transmission project jointly developed by National Grid Electricity Transmission (NGET) and SP Transmission (SPT). Initial commissioning commenced on 7<sup>th</sup> December 2017 and is currently operating at reduced capacity. Full capacity is expected by June 2018. The subsea HVDC cable runs down the western side of the Island, connecting Scotland with England and Wales. The Western HVDC Link provides much needed additional capacity on the Great Britain Transmission System and will support the continued growth and expansion of renewable energy as the UK works towards becoming a low-carbon economy.

The marine cable route is routed from Ardnail Bay in North Ayrshire, Scotland, to Leasowe/Dove Point on the Wirral, in the north-west of England. The marine cable route is approximately 370km long and passes through Scottish, Northern Irish, Isle of Man, English and Welsh territorial waters. 72km of the cable passes the Isle of Man's territorial waters. Appropriate environmental assessments have accompanied the application to the Department of Infrastructure regarding permission to lay the cable in the Isle of Man's territorial waters. A similar process is being undertaken for the other sections of this cable in UK territorial waters. For further details see [www.westernhvdclink.co.uk](http://www.westernhvdclink.co.uk).

## Initial considerations for future marine development

The following generic impacts are provided as a guideline to assist initial pre-planning discussions, environmental scoping and environmental impact assessment undertakings.

**Please note:** This list is not comprehensive and effects and relevance will vary greatly depending on the nature of any proposed development, area of a development, and footprint. Therefore the following summary does not remove any requirements from a potential developer to consider effects, and carry out risk assessment as part of an

appropriate Environmental Assessment, in conjunction with early discussions with key stakeholders and competent authorities.

## **Interactions with existing cables**

Subsea cables have been laid on the seafloor since the 1850's and in most recent cases installed cables are buried to a target depth of 1m in all areas of the Isle of Man's territorial waters to reduce potentially dangerous interaction with scallop fishing (Kingfisher 2012). Unfortunately however, there remains unburied cable in Manx waters as cables can be scoured out by tides, currents or moved by anchors and fishing gear.

There is a risk that deployment, operation and maintenance of renewable energy devices and associated cables will cause interference with or damage to existing subsea infrastructure. Similarly as cables and pipelines make landfall there is a further risk of clashes with existing services and other infrastructure.

Out of service/redundant cables continue to pose risk to marine activities and cable tracks on charts may have reduced accuracy. It is important that any marine installations are planned and situated to avoid interference with other subsea and coastal infrastructure and recognise the need for appropriate sea room to allow existing cables to be repaired using ship-based repair methodologies. Crossing existing cables and pipelines with new infrastructure should be avoided if at all possible since crossing points and their associated protection methods present hazards to both existing and new cabling and fishing activity.

Under a lease of easement granted by the Department of Infrastructure a developer is required to seek agreement with existing cable and pipeline owners in respect of a new crossing and notify the Department, accordingly.

### **- Telecommunications**

The Isle of Man possesses a sophisticated telecommunications infrastructure. In general terms, damage to a single cable is unlikely to lead to a loss of service since operators have constructed redundant systems. Any such damage would however activate a cable repair agreement and involve significant costs to those responsible for the damage.

### **- Electricity**

There is a single power cable linking the Isle of Man to the UK which has a landfall at Douglas Head. The UK end of the cable has a landfall near Blackpool.

### **- Spur Pipeline**

The spur pipeline, which supplies natural gas to the Isle of Man has a landfall at Glen Mooar. It extends from the interconnector 2 pipeline owned by GNI which runs from Brighthouse Bay in South West Scotland to a landfall at Loughshinny, Co. Dublin, Ireland. The connection and valve assembly at the interconnector is protected by a steel cage and rock armouring. Damage to this valve assembly or the spur pipeline would have a very significant adverse effect as it provides gas for the Island's main power station as well as many commercial and domestic properties.

## Landscape and Visual Impacts

Landscape and visual intrusion from onshore substation and any new overhead lines from potential developments would have landscape and visual impact to key viewpoints and residential properties.

## Biodiversity Impacts

Operating safe and reliable electricity and gas networks requires maintenance of cables and pipelines which often pass through a variety of terrestrial, coastal and marine landscapes and habitats, including areas designated for their conservation value e.g. Areas of Special Scientific Interest (ASSIs).

The main impacts of subsea cables on biodiversity include:

- Cable laying which temporarily disturbs habitats, increases underwater noise and provides an artificial hard substrate.
- Operation of power cables may also disturb electromagnetically sensitive or temperature adapted species.

For further generic information about the impacts of subsea cables please refer to OSPAR reports via: [qsr2010.ospar.org/en/qsr\\_assessments.html](https://qsr2010.ospar.org/en/qsr_assessments.html) and references therein.

Further information is also provided in the following chapters

- MMEA Chapter 4.1 (Commercial Fisheries and Sea Angling)
- MMEA Chapter 3.2 (Coastal Ecology)
- MMEA Chapter 3.3 (Subtidal Ecology)
- MMEA Chapter 3.7 (Marine and Coastal Conservation).

## Land Use (Land Take)

Cable and pipeline routing, placement of substations and any overhead transmission lines may impact upon Coastal, Agricultural, Recreation, and Development Land. Such impacts are mainly associated with on land development including the footprint of substations or any towers used to support overhead transmission lines where required. In forested areas, the routing of overhead power lines could result in the tree removal to obtain the necessary safety clearances from electrical infrastructure. Cables and pipelines may also require routing under roads and pavements and through residential areas.

## Hydrological Impacts

Substations pose a water pollution risk to watercourses and groundwater. See also MMEA Chapter 2.4 (Marine Pollution).

## **Historic Environment Impacts**

Impacts including damage to or loss of artefacts from cable and pipe routing and new structures must be considered e.g. Conservation Areas, Registered Buildings, Prehistoric remains, Scheduled monuments. See also MMEA Chapter 5.1 (Marine and Coastal Historic Environment).

## **Initial considerations for handling potential effects from future marine development**

With the use of expert local knowledge and experience through appropriate consultation with relevant Government Departments and organisations, it is accepted that many potential impacts outlined may be avoided i.e. through appropriate assessments, careful routing, site selection exercises and the implementation of industry best practice and construction standards. The following generic mitigation measures are provided as a guideline to aid initial discussions. The list is not comprehensive.

## **Interactions with existing cables and pipelines**

### **Geographic areas for development**

The Kingfisher Cable Awareness Chart and the data provided by the UK Hydrographic Office (Figure 1) illustrate that only a relatively small area of seabed is unavailable for development by reason of potential interference with existing infrastructure. In all cases the most sensible risk mitigation strategy is to avoid positioning new infrastructure in close proximity to existing infrastructure. This constraint should be considered for all future potential areas. Where there is an apparent need to do otherwise then in all cases the operators of the existing infrastructure should be contacted for advice at an early stage of the planning process.

### **Potential Cable and Pipeline Routes**

Cable and/or pipelines that may be laid to connect potential marine renewable structures are anticipated to be of significant cross section and weight and potentially will require to be buried in order to reduce the risks to both the infrastructure from fishing and shipping activity and vice versa. In all cases the nature of potential landing sites will require appropriate survey activity and operational planning. Potential landing sites are available around the Isle of Man. Where cables cannot be buried, for example, in areas of exposed bedrock, they are laid directly on the seabed and may be (partially) covered with mechanical protection (for example, rock armour).

Cable and/or pipeline routes across the entrance to harbours are to be particularly avoided since any cable laying and repair operations that may be necessary risk interference with harbour operations. In any case installing pipelines and cables close to harbours significantly increases the risk of damage from shipping activity, particularly anchors.

### **Recommendations for Surveying and Monitoring**

Developers will be required to undertake electrical system studies in association with the existing operating authorities to demonstrate the suitability of any proposed connections.

## **Landscape and Visual**

In planning, activities requiring substations or overhead power lines, advice should be sought from Department of Infrastructure, Planning and Building Control to minimise as far as practicable any adverse impacts that activities could have on landscape and visual amenity. Appropriate Seascape and Visual Impact Assessment at regional scale may also be required during Environmental Impact Assessment stages dependant on the nature of the proposed development. Manx National Heritage also has statutory responsibility for landscape amenity and should be involved in pre-planning consultation.

## **Environmental Considerations**

### **Ecology/Biodiversity**

In planning development activities, advice should be sought from the Department of Environment, Food and Agriculture (<https://www.gov.im/about-the-government/departments/environment-food-and-agriculture/>) to minimise as far as practicable any adverse impacts that activities could have on species and habitats, particularly of species and habitats protected under Wildlife Act 1990 and International Obligations to which the Isle of Man is signatory e.g. OSPAR.

### **Environmental Impact Assessments**

Appropriate Environmental Impact Assessment surveys will be required dependant on the nature of the proposed development and it is recommended that Environmental Impact Assessments follow best practice standards and industry guidelines e.g. EIA as recognised by IEEM (Institute of Ecology and Environmental Management) and other industry standards. See guidelines at: [www.ieem.net](http://www.ieem.net).

### **Environmental Management**

Environmental management systems of all operations are recommended to follow standard quality, health, safety and environmental (QHSE) management with systems developed to meet the requirements of the internationally recognised environmental standards e.g. ISO 14001 (see: [www.iso.org/iso/iso14000](http://www.iso.org/iso/iso14000)).

### **Hydrological Effects**

Advice should be sought from Department of Environment, Food and Agriculture to minimise as far as practicable any adverse impacts:

- Isle of Man Government Laboratory: [www.gov.im/about-the-government/departments/environment-food-and-agriculture/government-laboratory](http://www.gov.im/about-the-government/departments/environment-food-and-agriculture/government-laboratory)
- Environmental Protection unit: <https://www.gov.im/about-the-government/departments/environment-food-and-agriculture/environment-safety-and-health-directorate/environmental-protection-unit/>

### **Historic Environment**

Advice should be sought from Manx National Heritage to minimise as far as practicable any adverse impacts (see: <https://manxnationalheritage.im/>).

### **Land Use (land take)**

Advice should be sought from the Department of Environment, Food and Agriculture, Planning and Building Control to minimise as far as practicable any adverse impacts, see: [www.gov.im/about-the-government/departments/environment-food-and-agriculture/planning-and-building-control](http://www.gov.im/about-the-government/departments/environment-food-and-agriculture/planning-and-building-control)

### **Industry Guidance**

It is suggested that any potential developers follow and refer to recognised guidance to mitigate environmental effects. Industry guidance is available from organisations including the following (but not restricted to):

- The European Subsea Cables Association, an organisation of submarine cable owners, operators and suppliers: [www.escaeu.org](http://www.escaeu.org)
- Oil & Gas: <https://oilandgasukenvironmentallegislation.co.uk/>
- UK National Grid: [www.nationalgrid.com](http://www.nationalgrid.com)
- RenewablesUK: [www.bwea.org](http://www.bwea.org)

### **Other:**

#### **Health and Safety**

On the Isle of Man information guidance for development can be sought from the Isle of Man Health and Safety at Work Inspectorate: <https://www.gov.im/about-the-government/departments/environment-food-and-agriculture/environment-safety-and-health-directorate/health-and-safety-at-work-inspectorate/>



## Key contacts

### **Department of Infrastructure – Head Office**

Sea Terminal, Douglas. IM1 2RF

[www.gov.im/about-the-government/departments/infrastructure](http://www.gov.im/about-the-government/departments/infrastructure)

### **Manx Utilities Authority**

P.O. Box 177, Douglas. IM99 1PS

[www.manxutilities.im](http://www.manxutilities.im)

## Additional Contacts:

### **BT Openreach**

Wayleaves Group, PP01 Ground Floor, Sevenoakes Workstyle,  
160 London Road. Sevenoaks.

Contact: Steve Parker

Telephone: 01743 274253

### **Cable & Wireless UK**

Post Point 20, Waterside House, Longshot Lane, Bracknell. Berks. RG12 1XL

Contact: David Price

Telephone: 01344 713804

### **Department of Environment, Food & Agriculture**

Thie Slieau Whallian, Foxdale Road. St Johns. IM4 3AS

<https://www.gov.im/daff>

### **Department of Infrastructure, Planning and Building Control**

Murray House, Mount Havelock, Douglas. IM1 2SF

[www.gov.im/about-the-government/departments/infrastructure](http://www.gov.im/about-the-government/departments/infrastructure)

### **Hibernia Atlantic**

International Exchange Centre, Clonsaugh Industrial Estate  
Dublin 17. Ireland

Contact Tracey Elliott, Director, Legal & Regulatory

Telephone: 00 353 1 8673600

### **Emerald Express:**

TE SubCom

Contact: Mr Chris Willey

Telephone: 01245 505209

### **Manx Cable Company Limited**

PO Box 177, Douglas. IM99 1PS

[www.manxutilities.im](http://www.manxutilities.im)

### **Gas Networks Ireland**

GNI Headquarters, Gasworks Road. Cork

Contact: Mr W Roche

Tel: 021 453 4000

[www.gasnetworks.ie](http://www.gasnetworks.ie)

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- <http://www.westernhvdclink.co.uk/>. The Western High Voltage Direct Current (HVDC) Link. Last accessed 12/04/2018.

## APPENDIX A

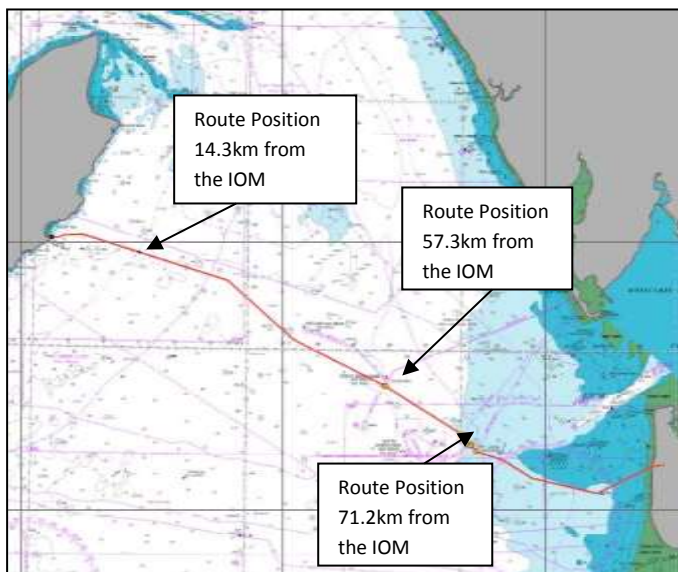
### IOM-UK Interconnector Information



The Manx Cable Company (MCC) a subsidiary of the Manx Utilities Authority (Manx Utilities) own and operate one of the world's longest AC power interconnectors between Douglas in the Isle of Man and Blackpool and is an essential asset in maintaining secure electricity supplies to the residents of the Isle of Man. Therefore, it is essential that fishing vessels, which operate in and around Manx territorial waters, are aware of this sub-sea cable and take measures to minimise the risk from fishing activities in the vicinity of the cable route. The original installation obtained a burial depth of approximately 1 to 2 meters although at a number of points the cable was surfaced laid to facilitate jointing and third-party crossings.

To protect the surface laid cable from fishing activity in the vicinity of the cable route protective mattresses were installed at a number of points along the route. Three sections where such mattressing was installed are shown below.

#### Cable Route and Mattresses



#### **Mattresses co-ordinates:**

#### **Route Position: 14.3km**

54° 07.68' N 4° 15.36' W to 54° 07.62' N 4° 15.18' W

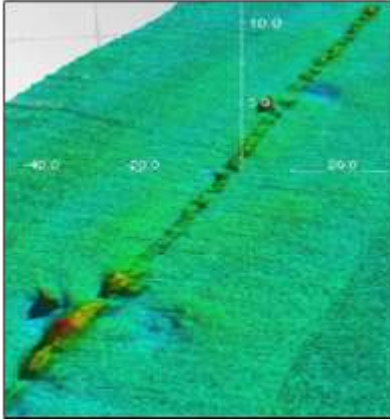
#### **Route Position: 57.3km**

53° 57.24' N 3° 40.80' W to 53° 57.12' N 3° 40.50' W

#### **Route Position: 71.2km**

53° 53.34' N 3° 30.00' W to 53° 53.22' N 3° 29.82' W

Part of the MCC maintenance procedures involves regular surveys of the cable route to confirm that the cable, where buried, remains buried at a suitable depth to provide adequate protection, and to identify any regions of significant scour, third party activity or displacement of mattresses etc. that may have developed.



Recent survey results have indicated movement of a number of mattresses has occurred at Route Position 57.3km from the Isle of Man, which exposes the cable to an increased risk of third-party damage.

To undertake a marine operation to replace the damaged section of mattressing will be a significant cost the Manx Cable Company.

Therefore it would be greatly appreciated if vessels undertaking ground fishing activities could exercise precaution when operating in the vicinity of matted areas identified above to minimise the risk to both vessels and the interconnector in the future.

**For further information relating to the IOM-UK Interconnector, please contact:  
Stephen McGhee, Manx Utilities, Tel: 07624 498792, email:  
[steve.mcghee@manxutilities.im](mailto:steve.mcghee@manxutilities.im)**

**For the latest information & positions of other subsea cables in and around Manx Territorial Waters, please visit [www.kingfishercharts.org](http://www.kingfishercharts.org).**

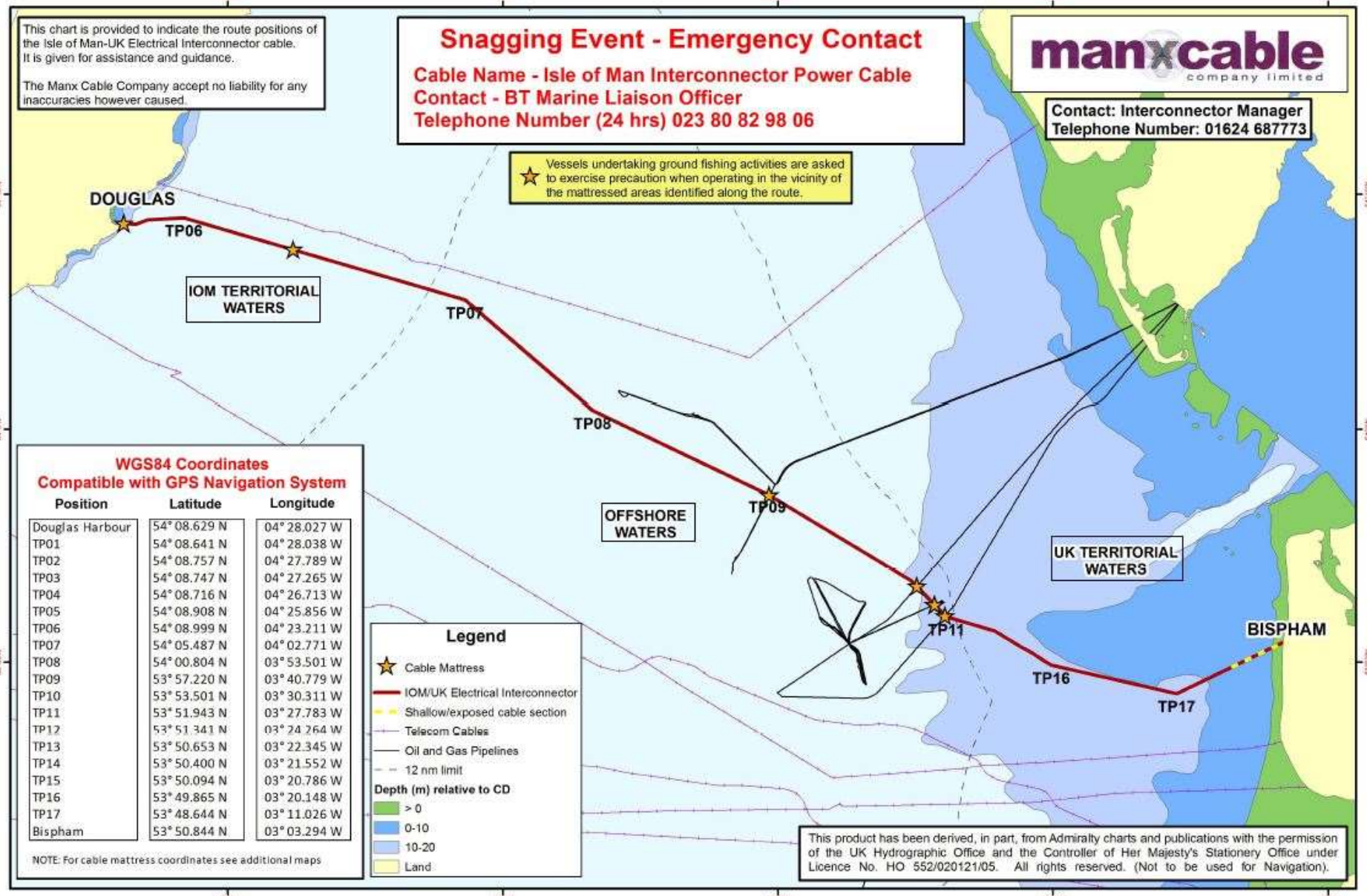
# The Isle of Man/UK Electrical Interconnector - Overview

This chart is provided to indicate the route positions of the Isle of Man-UK Electrical Interconnector cable. It is given for assistance and guidance.  
The Manx Cable Company accept no liability for any inaccuracies however caused.

**Snagging Event - Emergency Contact**  
**Cable Name - Isle of Man Interconnector Power Cable**  
**Contact - BT Marine Liaison Officer**  
**Telephone Number (24 hrs) 023 80 82 98 06**

**manxcable**  
 company limited  
**Contact: Interconnector Manager**  
**Telephone Number: 01624 687773**

★ Vessels undertaking ground fishing activities are asked to exercise precaution when operating in the vicinity of the mattressed areas identified along the route.



**WGS84 Coordinates**  
**Compatible with GPS Navigation System**

Position	Latitude	Longitude
Douglas Harbour	54° 08.629 N	04° 28.027 W
TP01	54° 08.641 N	04° 28.038 W
TP02	54° 08.757 N	04° 27.789 W
TP03	54° 08.747 N	04° 27.265 W
TP04	54° 08.716 N	04° 26.713 W
TP05	54° 08.908 N	04° 25.856 W
TP06	54° 08.999 N	04° 23.211 W
TP07	54° 05.487 N	04° 02.771 W
TP08	54° 00.804 N	03° 53.501 W
TP09	53° 57.220 N	03° 40.779 W
TP10	53° 53.501 N	03° 30.311 W
TP11	53° 51.943 N	03° 27.783 W
TP12	53° 51.341 N	03° 24.764 W
TP13	53° 50.653 N	03° 22.345 W
TP14	53° 50.400 N	03° 21.552 W
TP15	53° 50.094 N	03° 20.786 W
TP16	53° 49.865 N	03° 20.148 W
TP17	53° 48.644 N	03° 11.026 W
Bispham	53° 50.844 N	03° 03.294 W

NOTE: For cable mattress coordinates see additional maps

**Legend**

- ★ Cable Mattress
- IOM/UK Electrical Interconnector
- Shallow/exposed cable section
- Telecom Cables
- Oil and Gas Pipelines
- - - 12 nm limit

**Depth (m) relative to CD**

- > 0
- 0-10
- 10-20
- Land

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