

Climate Change Mitigation Strategy 2020-2030

Overview

Tynwald agreed on a Climate Change Mitigation Strategy in 2016, outlining steps towards the 2050 target to reduce greenhouse gas emissions by 80% compared to 1990 levels. Progress has been made since 2016 but much work is still to be done. We are now consulting on the options for possible inclusion in a new climate change mitigation strategy for 2020-2030 and interim targets.

Why we are consulting

This is your opportunity to help Government make the right decisions to implement local solutions which deliver the climate change mitigation strategy.

Introduction

The United Nations has stated that Climate Change is the defining issue of our time and that urgent action must be taken now.

The Intergovernmental Panel on Climate Change (IPCC) report on Climate Change in 2018 found that limiting global warming to 1.5°C would require “rapid and far-reaching” transitions in land, energy, industry, buildings, transport, and cities. Global net human-caused emissions of carbon dioxide would need to fall by about 45 per cent from 2010 levels by 2030, reaching ‘net zero’ around 2050. A copy of the report can be viewed at **Summary for Policymakers of IPCC Special Report on Global Warming of 1.5°C approved by governments** <<https://www.ipcc.ch/2018/10/08/summary-for-policymakers-of-ipcc-special-report-on-global-warming-of-1-5c-approved-by-governments/>> .

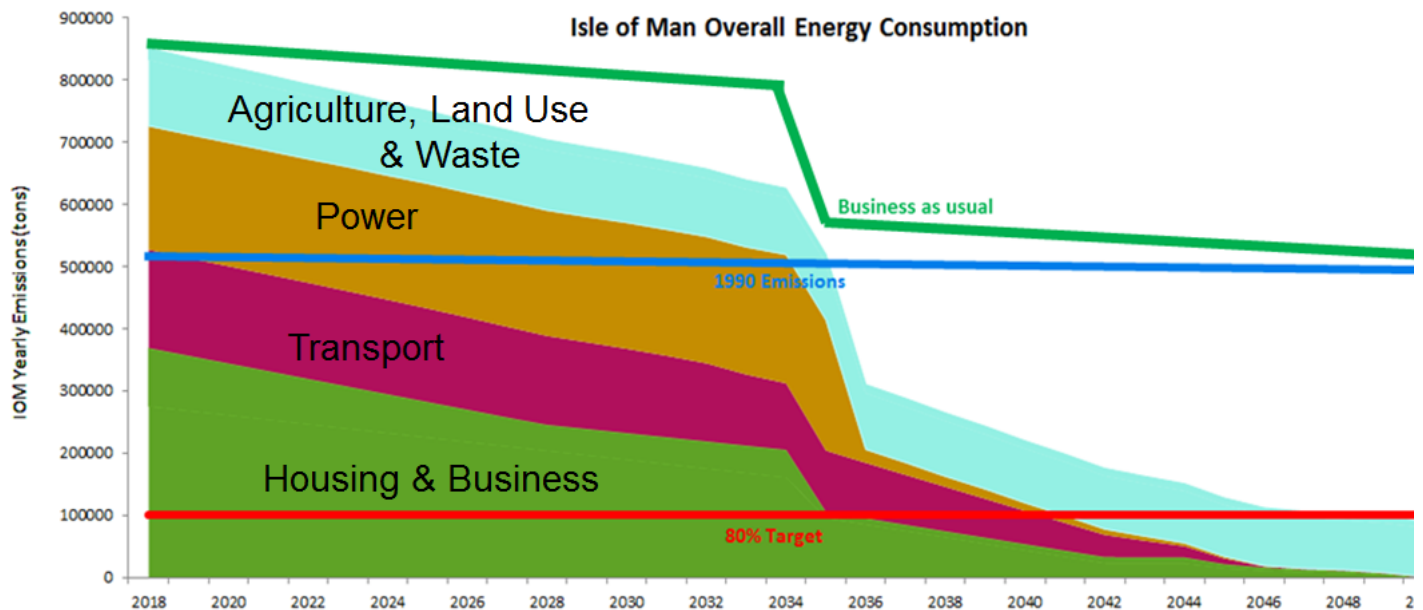
In 2015, Tynwald agreed to a Climate Change Adaptation policy to reduce risks and maximise benefits Government will both promote and undertake appropriate proactive adaptation to the current and projected climate.

Tynwald agreed to a Climate Change Mitigation Strategy in 2016, outlining steps towards the 2050 target to reduce greenhouse gas emissions by 80% compared to 1990 levels. Progress has been made since 2016 but much work is still to be done. We are now consulting on the options for possible inclusion in a new climate change mitigation strategy for 2020-2030 and interim targets.

To deliver the agreed scale of emissions reduction by 2050 it will be necessary to ensure the following:

- total greenhouse gas emissions from electricity generated on Island will be close to zero by 2050
- net emissions of greenhouse gasses from buildings will be close to zero by 2050
- all surface transport will be powered by ultra-low greenhouse gas emission technology by 2050, with the exception of machines of cultural importance such as those used on the heritage railways and for motor racing events
- all land use practices will adhere to the principles of sustainable development by 2050 to minimise greenhouse gas emissions

Using the agreed Climate Change Mitigation Strategy it has been possible to model a scenario where greenhouse gas emissions reach around 80% reduction by 2050, compared to 1990 levels:



The above energy consumption model assumes:

- Electric vehicle (EVs) growth of around 30% per year through to the mid-2030s, then a net increase of around 4,000 EVs per year thereafter. Currently, there are over 200 electric vehicles and 400 hybrids. In total there are around 60,000 light vehicles (cars, motorbikes and vans) and around 2,000 heavy vehicles (lorries, buses and machinery)
- The **Standard Assessment Procedure (SAP)** is the methodology used to assess and compare the energy and environmental performance of dwellings. In 2008, the average SAP rating for private sector domestic properties was 53 and by 2018 the rating is estimated to have improved to 60. Further energy efficiency improvements to properties are required to increase the average SAP rating to over 70 by 2050
- new buildings will have an average SAP rating of over 100
- electricity is the preferred source of energy for heating new properties/conversion
- electricity generation assumes 90% reduction by 2035 (gas power plant is no longer the main source of power generation), followed by elimination of the remaining 10% by 2046

Link to Government Policy

The Strategy aligns with the Programme for Government, across a range of themes and policy statements

Theme	Policy Statement(s)
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Enterprise & Opportunity Island	Support the three goals of energy security, the 2050 Emissions Reduction target and affordability to ensure an effective, secure and appropriate long term energy plan
	Support and promote healthy, safe and cost-effective travel and encourage the uptake of low carbon transport
	Maximise the social and economic value of our Territorial seabed
Responsible Island	Deliver against our commitment to reduce our carbon emissions
Sustainable Island	Consider innovative approaches to supporting people to make their homes and businesses more energy efficient

Why we are consulting

This is your opportunity to help Government make the right decisions to implement local solutions which deliver the Climate Change Mitigation Strategy.

The Isle of Man is faced with an energy trilemma, of balancing energy security, affordability and minimising the impact on the environment.

Any new initiatives to reduce greenhouse gas emissions will require funding. This can either come from Government incentives (funded by tax receipts) and/or regulation and consumption taxation on consumers (directly or via additional costs passed on by businesses). It is therefore imperative that the most cost-effective initiatives are progressed in order to limit the financial impact on the Isle of Man residents.

Some of the key ideas being explored are:

- education and modification of consumer behaviour
- improving energy efficiency in buildings
- electrification of the heating and transport sectors
- planning for when existing fossil fuel power generation is decommissioned so it will be replaced with low emission and sustainable generation
- improve efficiency and sustainability in land use and waste sector

It should take approximately 20-30 minutes to complete the online survey.

Reasonable adjustments and alternative formats

The Department is committed to equal opportunities and our aim is to make our documents easy to use and accessible to all of our customers. We will take reasonable steps to accommodate any reasonable adjustments you may have to enable you to access this document or receive responses in other formats and provide such assistance as you may reasonably require.

If you would like a response in another format please contact ken.milne@gov.im or telephone +44 1624 687142.

Storage of personal data

Following the publication of the consultation summary the Department will delete all personal data.

Foreword by the Minister of the Department of Environment, Food and Agriculture

When the Climate Change Mitigation Strategy was published in 2016, we acknowledged the significant challenge faced with reducing our greenhouse gas emissions during the transition to a low carbon economy. Our focus in the first action plan 2016-2020 was to improve property energy efficiency and reduce the role of fossil fuels in both property heating and transport, whilst also reducing demand wherever possible.

Our current strategy has been quite explicit that we do not expect to address the electricity generation at this stage, as we have a relatively efficient gas turbine system. It is expected that at the end of its life in the 2030s, this would be replaced with a renewable generation which means we will see a step change in emissions at that point.

In many ways reducing our emissions by lowering our energy consumption saves money and often makes us more comfortable, healthy and profitable. Therefore, I strongly believe that energy efficiency and emissions reduction is a win-win for us, providing we are sensible about how we go about it.

The efficiency and consumption reduction are the hardest and slowest aspects which is why we have focused on these, initially. However, the progress is slow and we have much more to do.

We are consulting on a number of options being considered for inclusion in the future Climate Change Mitigation Strategy for 2020-2030. Your input in the consultation is invaluable to ensure we make the right decisions to deliver the climate change mitigation strategy while balancing energy security, affordability and minimising any negative impacts on the environment.

Hon Geoffrey Boot

Minister of the Department of Environment, Food and Agriculture

Background Questions

1 What is your name?

Name

2 What is your email address?

If you enter your email address then you will automatically receive an acknowledgement email when you submit your response.

Email

3 Are you responding on behalf of an organisation?

Please select only one item

Yes No

If yes, what is the name of your organisation?

Organisation

4 Are you a resident in the Isle of Man?

Please select only one item

Yes No

If yes, please state the first 3 digits of your postcode.

First 3 digits of your postcode...

5 What is your age?

Please select only one item

<18 18-34 35-44 45-54 55-64 >65

6 May we publish your response?

Please read our **Privacy Policy** [</privacy_policy/>](#) for more details and your rights.

More information

- Publish in full – your first name and surname, organisation name, along with full answers **will** be published on the hub (your email will **not** be published)
- Publish anonymously – only your responses **will** be published on the hub (your name, organisation and email will **not** be published)
- Do not publish – **nothing will** be published publically on the hub (your response will only be part of a larger summary response document)

(Required)

Please select only one item

- Yes, you can publish my response in full
 Yes, you may publish my response anonymously
 No, please do not publish my response

7 What is your total household income?

Please select only one item

- <£20,000 per annum
 £20,000 – 40,000 per annum
 £40,000 – 60,000 per annum
 £60,000 – 80,000 per annum
 £80,000 – 100,000 per annum
 >£100,000 per annum

8 About your home...

Please select all that apply

- Private sector tenant
 Public sector tenant
 Owner-occupier
 Flat – purpose built
 Flat – converted
 Detached or semi-detached house
 Terraced house
 Oil heated
 Gas heated
 Electric / electric storage heating
 Heat pump
 Conservation area / registered building

Section 1: Education

Education and promotion of energy efficiency is the most cost-effective way to deliver energy efficiency. Some simple, relatively cheap measures can save households and businesses money and dramatically reduce their energy consumption.

9 Should Government develop a policy to encourage modification of public behaviour through long term awareness raising and initiatives?

Please select only one item

- Strongly agree
 Agree
 Disagree
 Strongly disagree
 Don't know

10 Should Government consider using the potential benefit of the UNESCO Biosphere to trial more sustainable energy alternatives and showcase the results to the world?

Please select only one item

- Strongly agree
 Agree
 Disagree
 Strongly disagree
 Don't know

11 Should Government consider making climate change and energy awareness part of every child's education?

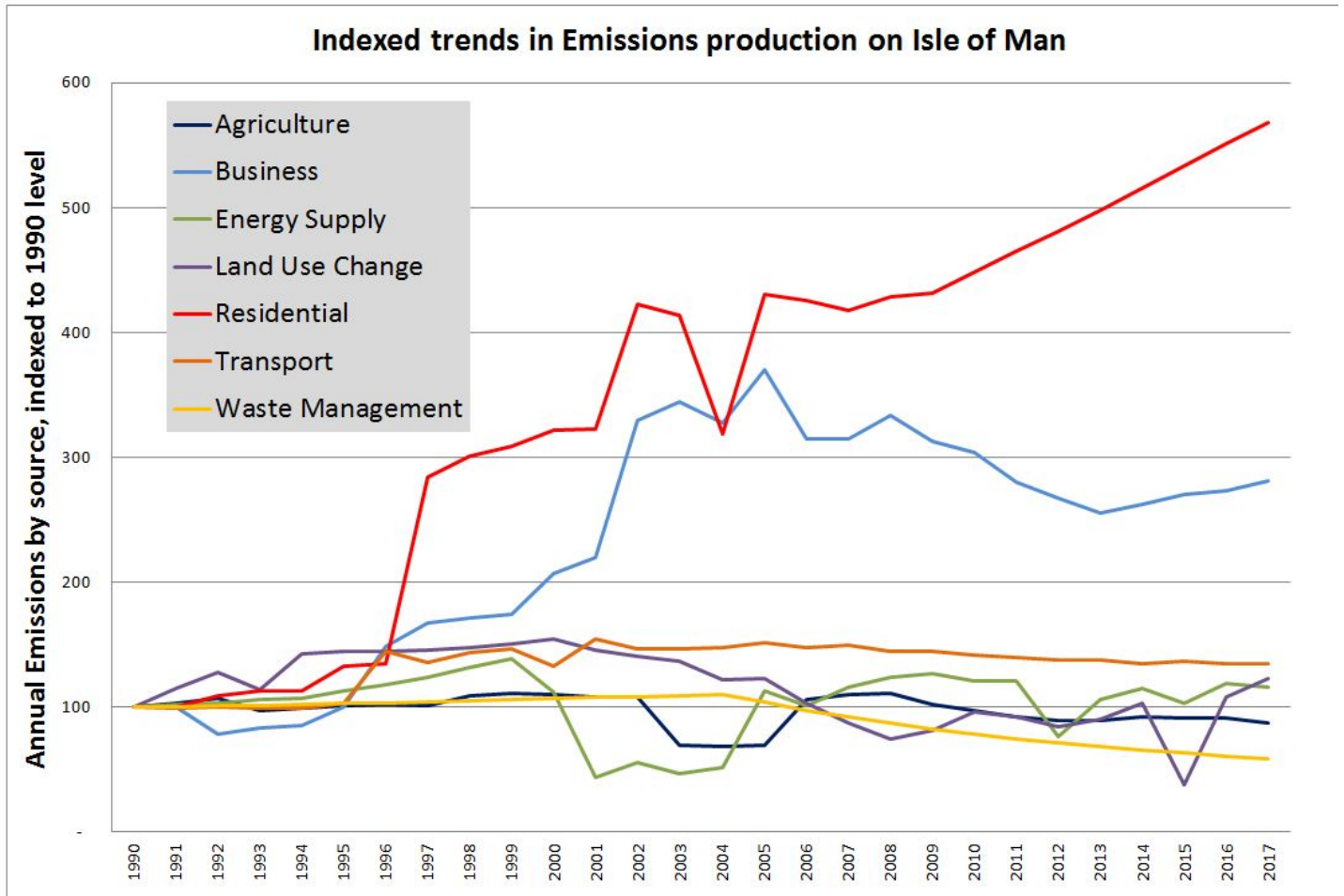
Please select only one item

- Strongly agree
 Agree
 Disagree
 Strongly disagree
 Don't know

12 Let us know your comments regarding 'Section 1: Education'.

Section 2: Residential/Business properties

There are around 43,000 homes and 5,000 commercial properties on the Island. Residential and Business properties are responsible for over 40% of our total greenhouse gas emissions and the reason for most of our increased emissions since 1990 as shown in the graph below.



It is important to acknowledge that around 80% of the homes which we expect to use in 2050 have already been built, so we must focus on improving existing buildings, as well as building new energy-efficient homes. We, therefore, need to both improve energy efficiency in our properties and reduce our usage of fossil fuels

To deliver the agreed scale of emissions reduction it will be necessary to ensure that net emissions of greenhouse gases from buildings will be close to zero by 2050. This can only be achieved by eliminating energy demand, improving energy efficiency and substituting fossil fuels with sustainable alternatives.

Section 2a: Eliminating energy demand

13 Should Government ensure all future housing is built to a 'nearly zero emissions' standard?

It is currently more expensive to build 'nearly zero emissions' homes than to build properties meeting minimum building regulations however, they require less energy to heat and save money over the lifetime of the building.

Please select all that apply

- Yes – all new buildings of all types Yes - all new homes Yes – all public sector housing / affordable homes only
 Yes – all private sector housing only No

14 Should Government consider further Building Regulation amendments for extensions to existing homes to also include a requirement of air tightness testing and suitable insulation throughout the property?

Air tightness testing of a building gives an indication of the amount of air that can escape from the envelope of the building at a cost of around £300 (cost is dependent on the size of property). As air escapes it takes the heat with it. Increasing the airtightness, therefore, reduces the potential for heat to be lost, resulting in energy savings.

Please select only one item

- Strongly agree Agree Disagree Strongly disagree Don't know

15 Should there be a requirement for all new public and business buildings to be active travel-friendly i.e. have facilities such as bike storage and showers for employees to use?

Please select only one item

- Strongly agree Agree Disagree Strongly disagree Don't know

16 Let us know your comments regarding 'Section 2a: Eliminating energy demand'.
Section 2b: Improving energy efficiency**17** Should Government consider a finance package to fund home energy efficiency surveys, insulation/draft proofing and installation of heat pumps?

This year, Manx Utilities will be supplying 50 air source heat pumps to customers with the initial costs spread over ten years.

Please select only one item

- Strongly agree Agree Disagree Strongly disagree Don't know

18 Should Government consider Grants and Loans for Energy Efficiency improvements and insulation materials for domestic properties?

Most domestic properties can be improved with loft insulation, cavity wall insulation, replacing existing lighting with LEDs, draught proofing, hot water tank insulation and installation of heating controls at a cost of up to £3,000.

Please select all that apply

- Yes – 0% interest loans Yes – low interest loans Yes – grants capped at a maximum amount
 Yes – grants which contribute to a percentage of the cost of the works Yes – loans for landlords but not grants
 Yes – grants and loans for landlords Yes – tax relief No

19 Should Government consider Grants and Loans for 'building improvement' in registered buildings and those in conservation areas to tackle damp issues, repair windows and improve energy efficiency?

Owners who live in conservation areas and registered buildings may have to pay for damp issues, window repairs and energy efficiency improvements which are more expensive because of their listed status.

Please select only one item

- Strongly agree Agree Disagree Strongly disagree Don't know

20 Should Government allow negotiated Framework Agreements to be used to benefit private sector property owners undertaking home improvements?

This could allow private sector properties to benefit from increased economies of scale and to more cost-effectively install energy efficiency measures.

Please select only one item

- Strongly agree Agree Disagree Strongly disagree Don't know

21 Should Government consider the introduction of a minimum energy efficiency standard required for renting or selling properties?

In the UK, there is a requirement for any homes in the private rented sector to meet a minimum energy performance rating for new lets and renewals of tenancies. There is also a requirement for any properties for sale in the UK to have an energy performance rating. Most homes can be improved with loft insulation, cavity wall insulation, replacing existing lighting with LEDs, draught proofing, hot water tank insulation and installation of heating controls at a cost of up to £3,000.

Please select all that apply

- Yes – energy performance rating for new build homes Yes – energy performance rating for existing homes when they are sold
 Yes – energy performance rating for existing homes when they are rented out
 Yes – energy performance rating for commercial property when it is sold
 Yes – energy performance rating for commercial property when it is rented out No

22 Should Government consider the introduction of a Manx Standard Assessment Procedure (SAP) rating?

The Standard Assessment Procedure is a methodology used to assess and compare the energy and environmental performance of dwellings. The SAP Calculations establish an energy cost based on the construction of the home, its heating system, internal lighting and any renewable technologies installed.

The SAP number can give people an easy indication of how energy efficient a building is, similar to how we display the efficiency rating of an appliance such a washing machine. 0 SAP point = extremely inefficient. 100+ SAP points = the most efficient.

Please select only one item

- Strongly agree Agree Disagree Strongly disagree Don't know

23 Should Government consider the introduction of an Energy Efficiency Capital Fund to pay for future energy efficiency improvements in Government buildings?

The return on investment for energy efficiency improvements can be significant over their life span.

Please select only one item

- Strongly agree Agree Disagree Strongly disagree Don't know

24 Should Government encourage the construction sector to explore options for increasing the use of locally produced building construction materials i.e. Straw, etc?

Please select only one item

- Strongly agree Agree Disagree Strongly disagree Don't know

25 Should Government consider introducing a scrappage scheme for removal of old fridges and freezers?

Annually it costs over £50 to run a fridge or freezer, however, homes are retaining old fridges and freezers for use rather than pay the £15-50 for disposal at civic amenity sites.

Please select only one item

- Strongly agree Agree Disagree Strongly disagree Don't know

26 Should Government encourage community renewable energy projects?

Please select only one item

- Strongly agree Agree Disagree Strongly disagree Don't know

27 Let us know your comments regarding 'Section 2b: Improving energy efficiency'.
Section 2c: Substituting fossil fuels with sustainable alternatives**28** Should Government consider allowing Planning Permitted Development Orders for installation of air source heat pumps in non-conservation areas?

Please select only one item

- Strongly agree Agree Disagree Strongly disagree Don't know

29 Should Government consider the introduction of a Climate Change Levy on installation of new fossil fuel boilers?

Please select only one item

- Strongly agree Agree Disagree Strongly disagree Don't know

30 Should Government consider phasing out the installation of fossil fuel boilers?

The IPCC report on Climate Change in 2018 recommended that installation of fossil fuel boilers are phased out by 2030. A copy of the report can be viewed at **Summary for Policymakers of IPCC Special Report on Global Warming of 1.5°C approved by governments**

<https://www.ipcc.ch/2018/10/08/summary-for-policymakers-of-ipcc-special-report-on-global-warming-of-1-5c-approved-by-governments/> .

Please select only one item

- Strongly agree Agree Disagree Strongly disagree Don't know

31 Should Government consider introduction of a Climate Change Levy on all domestic and commercial heating fuels based on the carbon intensity of the fuel i.e. heating oil, gas, electricity etc.?

In the UK a Climate Change Levy is charged at the point of supply and is added to all business energy bills.

Please select only one item

- Strongly agree Agree Disagree Strongly disagree Don't know

32 Should Government consider phasing out the sale of coal and peat for heating?

Please select only one item

- Strongly agree Agree Disagree Strongly disagree Don't know

33 Where possible should Government policy be a preference for heating public sector homes with renewable technologies e.g. heat pumps?

An air source heat pump extracts heat from the outside air in the same way that a fridge extracts heat from its inside. It can get heat from the air even when the temperature is as low as -15° C.

The more energy efficient a heating system is, the cheaper it is to run. Heat pumps are highly energy efficient and deliver around 3 units of heat from every unit of electricity (known as coefficient of performance).

Please select only one item

- Strongly agree Agree Disagree Strongly disagree Don't know

34 Should Government reaffirm a commitment and policy for use of biomass woodchip heating and encourage further use in suitable buildings?

Currently, six Government buildings are heated by woodchip boilers using locally sourced biomass material which ensures Government involvement in the supply chain and greater control of the lifetime energy costs for operating the building.

Provided wood is grown sustainably, that is the trees that are harvested for wood fuel are constantly replaced by planting new trees, using wood fuel can be termed renewable energy. That's because while trees are growing, they absorb the same amount of carbon as the burned trees emit.

In the UK, only clean-burning 'ecodesign ready' wood burners/stoves are permitted to be installed.

Please select only one item

- Strongly agree Agree Disagree Strongly disagree Don't know

35 Let us know your comments regarding 'Section 2c: Substituting fossil fuels with sustainable alternatives'.

Section 3: Transport

There are currently around 60,000 light vehicles (cars, motorbikes and vans) and around 2,000 heavy vehicles (lorries, buses and machinery) on the Island. Transport is responsible for around 20% of our greenhouse gas emissions. The Isle of Man Government needs to show innovation, leadership and vision in encouraging the widespread adoption of low emission vehicles, by leading in the development of appropriate policies, infrastructure and regulations, so that by 2050 all surface transport will be powered by ultra-low greenhouse gas emission technology with the exception of machines of cultural importance such as those used on the heritage railways and for motor racing events

36 To facilitate the change to electric vehicles (EV) should Government consider providing Grants and Loans for EV charging points?

The uptake of electric vehicles (EVs) is anticipated to accelerate as manufacturers switch investment from fossil fuel combustion engines to zero-emission vehicles. There are currently over 200 electric vehicles registered on the Island.

Please select all that apply

- Yes – 0% loans Yes – low interest loans Yes – only means-tested grants Yes – grants No

37 Should Government consider Grants and Loans for purchase of new electric vehicles?

The up-take of electric vehicles (EVs) is anticipated to accelerate as manufacturers switch investment from fossil fuel combustion engines to zero-emission vehicles. There are currently over 200 electric vehicles and 400 hybrids registered on the Island. In the UK a maximum grant of £3,500 is available to assist with the purchase of electric cars.

Please select all that apply

- Yes – 0% loans Yes – low interest loans Yes – only means-tested grants Yes – grants No

38 Should Government consider a scrappage scheme for petrol and diesel vehicles to encourage their removal from the roads?

In the UK there has been a vehicle scrappage scheme providing a £1,000 payment towards the purchase of a new car.

Please select only one item

Strongly agree Agree Disagree Strongly disagree Don't know

39 Should Government consider phasing out the sale of new petrol and diesel cars?

Britain is to ban the sale of all new diesel and petrol cars and vans from 2040.

Please select only one item

Strongly agree Agree Disagree Strongly disagree Don't know

40 Should Government consider an increased new vehicle registration fee for petrol and diesel cars?

Please select only one item

Strongly agree Agree Disagree Strongly disagree Don't know

41 Should Government explore the feasibility of a supplement on the Road Tax for petrol and diesel vehicles?

Please select only one item

Strongly agree Agree Disagree Strongly disagree Don't know

42 Should Government consider the introduction of a vehicle emission test to clean up the most polluting vehicles on the road?

In the UK, a vehicle cannot get an MOT certificate if exhaust emissions are too high.

Please select only one item

Strongly agree Agree Disagree Strongly disagree Don't know

43 Should Government specify that only heavy goods vehicles (HGVs) using energy efficient engines (i.e. Euro5 or Euro6) can be used in Government work?

Please select only one item

Strongly agree Agree Disagree Strongly disagree Don't know

44 Should Government encourage employers to provide a company electric vehicle scheme?

A company electric vehicle scheme is available which allows employees on the Isle of Man to benefit from exchanging some of their salary in return for an electric vehicle.

Please select only one item

Strongly agree Agree Disagree Strongly disagree Don't know

45 Should Government encourage trials in public transport such as the use of zero-emission buses (hydrogen, electric etc)?

Please select only one item

Strongly agree Agree Disagree Strongly disagree Don't know

46 Should Government trial a free-for-all bus service to reduce traffic congestion?*Please select only one item*

Strongly agree Agree Disagree Strongly disagree Don't know

The Department of Infrastructure currently only provides free bus travel for senior citizens. Whereas, in **Luxembourg** <https://www.theguardian.com/world/luxembourg> public transport is planned to be free from 2019.

47 Should Government explore opportunities in HGVs and ferries for zero emission transport e.g. hydrogen and biogas?*Please select only one item*

Strongly agree Agree Disagree Strongly disagree Don't know

48 Should Government explore options for recycling electric vehicle batteries on Island including use as energy storage by Manx Utilities?

When electric cars reach the end of their life there could be opportunities for repurposing valuable batteries.

Potential applications include electricity storage in combination with renewables, to provide commercial grid-balancing services, and to support vehicle charging in remote locations

Materials recycling may be important in the longer term, as the stockpile of batteries requiring disposal increases. The risk of cobalt shortages has been identified as a major threat to global EV growth.

Please select only one item

Strongly agree Agree Disagree Strongly disagree Don't know

49 Should Government consider introducing a lower commercial electric vehicle tariff?

Currently Manx Utilities only offer a lower domestic electric vehicle tariff for off-peak charging.

Please select only one item

Strongly agree Agree Disagree Strongly disagree Don't know

50 Let us know your comments regarding 'Section 3: Transport'.**Section 4: Electricity generation**

Electricity generation is responsible for around 25% of our greenhouse gas emissions. In recent years the Isle of Man Government has invested heavily in a natural gas network and Combined Cycle Gas Turbine (CCGT) power plant at Pulrose power station which provides more than 80% of the Island's electricity. The Isle of Man currently has surplus generating capacity and this is expected to remain the case through to the end of the life of the CCGT plant in the 2030s.

51 Should Government consider legislation changes to allow community energy projects to generate and supply power?

The Manx Utilities provide a sustainable generation tariff open to all domestic and commercial customers who wish to install their own renewable energy generation systems and export surplus power back to the network. Currently, the Electricity Act only allows Manx Utilities to be the provider of electricity to customers.

Please select only one item

Strongly agree Agree Disagree Strongly disagree Don't know

52 In addition to providing electricity should Manx Utilities consider developing a business model that provides energy services for customers i.e. providing a broad range of energy services including designs and implementation of energy savings projects, retrofitting and energy conservation?

Please select only one item

Strongly agree Agree Disagree Strongly disagree Don't know

53 Should Manx Utilities explore options to install renewables before 2030s?

Reducing emissions in the power sector is expected to occur in the mid-2030s when existing fossil fuel generation is decommissioned. The cost to replace the existing power plant or import electricity using additional cables is likely to require several hundred million pounds of investment.

Please select only one item

Strongly agree Agree Disagree Strongly disagree Don't know

54 Should Manx Utilities consider installing solar photovoltaic panels and battery storage at their sites around the Island?

Please select only one item

Strongly agree Agree Disagree Strongly disagree Don't know

55 Would you support onshore wind generation in the Isle of Man?

Onshore wind is one of the most cost-effective renewable energy sources available and wind turbines are found widely installed around the British Isles. The Isle of Man is fortunate to have a significant wind resource which could be used for onshore wind generation.

Please select only one item

Strongly agree Agree Disagree Strongly disagree Don't know

56 Would you be supportive of onshore wind generation if you could see the wind turbines from your home?

Please select only one item

Strongly agree Agree Disagree Strongly disagree Don't know

57 Let us know your comments regarding 'Section 4: Electricity generation'.

Section 5: Land Use and Waste

Agriculture, land use and waste contribute around 10% of our greenhouse gas emissions and will be the most difficult sector in which to reduce emissions. To deliver the agreed scale of emissions reduction it will be necessary to ensure that all land use practices follow the principles of sustainable development.

58 Should Government explore options to further reduce emissions from Agriculture and Land Use?

DEFA is currently consulting on an Agriculture Strategy which is intended to increase sustainability in farming practices in the Isle of Man.

Please select only one item

- Strongly agree Agree Disagree Strongly disagree Don't know

59 Should Government explore options to further reduce emissions from waste?

Government wants to encourage a reduction in the amount of waste produced per head of population.

- a. utilise waste heat from the Energy from Waste (EfW) plant to replace a fossil fuel heat source?

Please select only one item

- Strongly agree Agree Disagree Strongly disagree Don't know

- b. use biomass to prevent unplanned shut downs at the EfW plant?

Please select only one item

- Strongly agree Agree Disagree Strongly disagree Don't know

- c. reduce the carbon miles per tonne of residual waste collected for disposal to the EfW?

Please select only one item

- Strongly agree Agree Disagree Strongly disagree Don't know

- d. compulsory site waste management plans for building construction, demolition and refurbishments?

Please select only one item

- Strongly agree Agree Disagree Strongly disagree Don't know

- e. increase the amount of materials recovered from the residual waste stream for recycling?

Please select only one item

- Strongly agree Agree Disagree Strongly disagree Don't know

60 Should Government introduce Clean Air legislation to regulate pollution i.e. from vehicle emissions and uncontrolled burning of waste in the open?

Please select only one item

- Strongly agree Agree Disagree Strongly disagree Don't know

61 Should Government encourage carbon capture and storage e.g. in peatlands?

We are fortunate in having peatlands on the island, many of which are owned by DEFA and Manx Utilities.

Please select only one item

- Strongly agree Agree Disagree Strongly disagree Don't know

62 Should Government encourage a reduction in the imports of artificial fertilisers and more efficient use of organic fertilisers and leguminous plants such as clover?

Please select only one item

- Strongly agree Agree Disagree Strongly disagree Don't know

63 Let us know your comments regarding 'Section 5: Land use and waste'.
Section 6: Interim Targets**Interim 2025 Targets**

- 3,000 registered or third-party leased electric vehicles
- 3,000 installed heat pumps – both air and ground source
- 2,000 electric storage heating customers
- annual emissions reduction of 100,000 tonnes by 2025 compared to the peak emissions in 2008

Interim 2030 Targets

- 10,000 registered or third-party leased electric vehicles
- 5,700 installed heat pumps – both air and ground source
- 3,700 electric storage heating customers
- 30 MWe installed renewable electricity generation
- average Standard Assessment Procedure (SAP) rating of 65 for private sector homes
- annual emissions reduction of 125,000 tonnes by 2030 compared to the peak emissions in 2008

64 Should Government consider using the proposed interim targets?*Please select all that apply*

- Yes – electric vehicle targets
 Yes – heat pump targets
 Yes – heating electrification targets
 Yes – renewable electricity generation targets
 Yes - energy efficiency rating targets for homes
 Yes – greenhouse gas emissions reduction targets
 No

65 Let us know your comments regarding 'Section 6: Interim Targets'.
Section 7: Funding and other suggestions**66** If the Island needed more money to fund climate change mitigation initiatives, which of the following do you think you would be prepared to accept?*Please select all that apply*

- Yes - Pay through energy bills / Climate Change Levy.
 Yes - Pay more through a separate tax that would go directly to funding climate change mitigation initiatives.
 Yes - Pay more through the taxes I currently pay.
 None

67 How much would you be willing to spend annually from your household income on energy efficiency?*Please select all that apply*

- Up to 1% of household income
 1-2%
 2-3%
 3-5%
 >5%
 None

68 Please provide details of other suggestions for how the Isle of Man could reduce greenhouse gas emissions?

The IPCC report on Climate Change in 2018 found that limiting global warming to 1.5°C would require “rapid and far-reaching” transitions in land, energy, industry, buildings, transport, and cities. Global net human-caused emissions of carbon dioxide would need to fall by about 45 per cent from 2010 levels by 2030, reaching ‘net zero’ around 2050.

Tynwald agreed on a Climate Change Mitigation Strategy in 2016, outlining steps towards the 2050 target to reduce greenhouse gas emissions by 80% compared to 1990 levels. This is a challenging target and total greenhouse gas emissions from electricity generation, buildings and surface transport will need to be close to zero by 2050. However, to meet the latest IPCC report it will be necessary for the Isle of Man to further reduce emissions and reach ‘net zero’ around 2050.

Please give your suggestions

69 Let us know your comments regarding 'Section 7: Funding and other suggestions'.