

## **DOUGLAS BOROUGH COUNCIL RESPONSE TO THE CLIMATE CHANGE MITIGATION STRATEGY 2020-2030 CONSULTATION**

**Questions 1-8 relate to the Consultee – not all are relevant to DBC**

**Question 9 (Education) Should Government develop a policy to encourage change of public behaviour through long term awareness raising and initiatives?**

Strongly agree. Currently not all members of the public see climate change as being a pressing priority. The need for significant action by the Island's Government will need community support which will only be forthcoming if the public are sufficiently informed.

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

Agree. This would be a positive option but should not in itself distract from adopting more conventional forms of renewable energy such as solar and wind power.

**Question 11 (Education) Should Government consider making climate change and energy awareness part of every child's education?**

Agree. This would be a sensible approach for future generations. Many younger people today are more knowledgeable on this subject in any event and therefore education and awareness raising for adults should be equally as important especially if targets are time bound.

**Question 12 (Education) Additional comments on section**

The way people use buildings and transport will inevitably change in the future. More airtight buildings will require care to ensure air quality, and new forms of heating systems will require a different approach to how they are used. The change from fossil fuel modes of transport will also require lifestyle changes. The public will need to be adequately informed of these changes through education and awareness.

Both the construction of new, and the adaptation of existing buildings will increasingly reflect the need for climate change mitigation. Designers and Builders will need new skills in order to meet the challenges of providing suitable buildings. Ideally the training in these new skills will be provided locally, and therefore local training establishments will need to put measures in place to ensure they meet future training needs.

**Question 13 (Eliminating energy demand) 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.

Near Zero-Energy Buildings (NZEBS) have very high energy performance. The low amount of energy that these buildings require comes mostly from renewable sources.

The European Union has issued the *Energy Performance of Buildings Directive* which requires all new buildings to be near zero-energy from the beginning of 2021. All new public buildings built after 1<sup>st</sup> January 2019 must be near zero-energy. The Isle of Man has not adopted this directive and therefore it is very possible that the Island will be the only country within EU borders which will not meet the near zero-energy targets by 2021. This will not sit well with the island's Biosphere status and image.

It should be noted that the question only relates to housing. The reason for only referring to housing is not explained. It would appear strange to limit the near zero-energy requirement to only new housing.

Tynwald has set an ambitious target of reducing greenhouse gas emissions per person by 80% compared to 1990 levels, by 2050. It would seem inconceivable that such a target can be met without requiring all new buildings to be near zero-energy within a very short time frame.

It is acknowledged that retro-fitting existing buildings to meet future standards is difficult and expensive therefore it is important to limit the number of buildings constructed to today's low standards, so as to reduce the need for future retro-fitting. It is important that improved standards are introduced at the earliest opportunity.

The commentary to the question refers to the additional cost of building to near zero-energy standards. This is likely to be only one of a number of drawbacks. It is doubtful that the building industry on the Island is currently in a position to either design or build all new buildings to the necessary standards to meet the requirements. It will be necessary for additional training to be provided. Furthermore, the near zero-energy standard requires that most of a building's energy should be provided by renewable resources. Given the Island's reliance on oil and gas for heating, and gas for energy generation, the requirement for renewable energy seems unlikely to be met.

**Question 14 (Eliminating energy demand) 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.

Disagree. It is common knowledge that all buildings 'leak' air and that generally the older the property, the 'leakier' it is. Requiring expensive air leakage tests on existing buildings to understand how much a building leaks air is of little value. The simple statement that increasing airtightness results in energy savings fails to acknowledge that increasing airtightness also presents its own problems. Increased airtightness results in poorer air quality within buildings, which needs to be addressed. This is likely to require mechanical ventilation which adds to both the initial capital cost and future maintenance and running costs. Increased airtightness also has the potential to damage the building's fabric, unless careful design is incorporated in any airtightness reduction works. Reducing airtightness in existing buildings is usually difficult and expensive to achieve, and can be very disruptive to the building's occupants. By linking the construction of domestic extensions to carrying out extensive work to the existing building will inevitably result in many extensions being financially unviable.

A more sensible approach is to use improvements to the thermal efficiency of the existing dwelling to off-set the thermal requirements for the extension. Currently by requiring higher thermal standards for extensions limits design choices and results in expensive thermal insulation products being specified and installed in the extension, while ignoring the potential to improve thermal standards in the existing dwelling. Improving the thermal performance of the existing building as a trade-off for the thermal performance of the extension is both less expensive and easier to achieve.

The current Building Regulations on the Island still rely on old elemental thermal resistance calculations rather than the more modern CO<sub>2</sub> emission rate calculations used throughout adjacent jurisdictions. Adopting the same thermal calculation method used in the neighbouring jurisdictions (and indeed throughout Europe) would be a significant step forward.

**Question 15 (Eliminating energy demand) 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?**

Strongly Agree. This is already covered in the Manual for Manx Roads, Clause 11.10.3.

**Question 16 (Eliminating energy demand) any additional comments.**

National and local government should lead by building to near zero emissions standards wherever practicable and feasible, recognising that at least in the short term there may be difficulties in doing so because of the need to develop awareness, knowledge and skillsets on the part of local designers and builders.

**Question 17 (Improving energy efficiency) 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.

Strongly agree. In order to increase the thermal efficiency of the majority of existing buildings, which will be required to meet the climate change mitigation targets set, Government support will be essential.

Improving thermal efficiency can be technically challenging and expensive therefore both technical and financial support will be needed in order to address the inefficiency of older buildings.

While heat pumps are an efficient means of generating heat they are only really effective if the building in which they are installed is already energy efficient. Simply adding a heat pump to an existing thermally inefficient building is likely to result in higher running costs and user dis-satisfaction, which may give heat pumps a bad name.

The capital cost of heat pumps when compared to oil and gas boilers is high. It is questionable if this additional initial cost would be recouped over the lifetime of the pump. This combined with the comparatively high cost of electricity on the Island is likely to dissuade many property owners from installing heat pumps.

Currently heating buildings by electricity is unpopular due to the running costs involved, and unless a worthwhile percentage of the electricity is produced from renewable sources the environmental benefits are questionable. Encouraging the use of heat pumps (and electrical storage heaters) is likely to

be difficult unless the cost of electricity is reduced or the availability of alternative sources of energy is increased.

Photovoltaics and solar heating has not been considered as part of this question and the Government should be looking at all forms of energy efficiency.

**Question 18 (Improving energy efficiency) 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.

Yes – grants capped at a maximum amount. Please also see responses to Question 17. In addition, there is an existing Energy Efficiency Grant available from the Isle of Man Government. To be eligible for the grant an applicant's taxable income should not exceed £15,000 per year. Given that someone working for 37 hours a week on a minimum wage would earn more than £15,000 per year, it is doubtful many working householders would qualify for the grant. Criteria will therefore need to be carefully considered to ensure any grant is within reach of most working households.

**Question 19 (Improving energy efficiency) 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.

Agree, however, the additional costs relating to improving the energy efficiency of Registered Buildings and buildings in Conservation Areas would generally only relate to the upgrading of windows and doors. Improvements to thermal insulation, energy efficient lighting, more efficient building services, and draught proofing would appear to be little different to other buildings. Care should be taken to ensure that improvements to energy efficiency are encouraged for *all* older buildings and not just those which are Registered or in Conservation Areas.

**Question 20 (Improving energy efficiency) 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.

Agree. The meaning of this question has not been explained and it has been assumed it means Government negotiated frameworks being accessible by private sector property owners, including private landlords and homeowners.

**Question 21 (Improving energy efficiency) 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.

Yes for all buildings. However, there is no provision for the issuing of Energy Performance Certificates on the Island; therefore virtually no infrastructure exists for making EPC assessments. Suitably trained Energy Assessors would need to be in place before making EPC a requirement, and enforcement of any legal requirements would need careful thought.

The use of Energy Performance Certificates are common throughout Europe however there is very little evidence to show that the use of such certificates has significantly influenced property buyers, or resulted in property sellers increasing their spending on improving their property's EPC rating in the absence of specific grants such as the 'Green Deal' which existed in the UK.

**Question 22 (Improving energy efficiency) 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 as a washing machine. 0 SAP point = extremely inefficient. 100+ SAP points = the most efficient.

Strongly Agree. SAP ratings are used for a number of purposes including showing compliance with Building Regulations applicable in neighbouring jurisdictions, and for the issuing of Energy Performance Certificates (EPC). Energy Performance Certificates were first introduced across the European Union in 2002 under the *Energy Performance of Buildings Directive*. To date, all 28 member states have formally implemented the directive requirements in their national legislation. However, the Isle of Man has not adopted the directive and therefore is conceivably the only nation within the EU borders which does not have EPCs.

SAP ratings are also used in building design, both for new buildings and work to existing buildings. The Isle of Man Building Regulations are based upon the Building Regulations applicable to England. In 2006 the relevant guidance to the Building Regulations relating to the conservation of fuel and power (Approved Documents L) in England were changed. The technical guidance stopped using the Elemental and Target U value methods of calculating a building's energy performance, and instead adopted an annual CO<sub>2</sub> emission rate for buildings. This rate was calculated using the Standard Assessment Procedure (SAP). The current Approved Documents for Part L in England have been continuously updated including 2018 updates.

The most recent changes to the Isle of Man Building Regulations occurred in 2014, when the English technical requirements relating to the conservation of fuel and power in buildings were adopted. At the same time, the Island adopted the 2010 Approved Documents from England as a means of showing compliance with the Isle of Man regulations relating to Part L. Although England had stopped using the Elemental and Target U value methods of calculating a building's energy performance in 2006, the Island continues to use these calculation methods. The unfortunate result is that the technical guidance to compliance relates to building emission rates (SAP) but the Island calculates a building's energy performance in a completely different way. Therefore the guidance adopted on the Island is largely meaningless.

While it would appear to be relatively simple to adopt SAP on the Island, this will require a specific SAP rating for the Island which currently does not exist. The necessary calculation of a SAP rating will have to be carried out before SAP ratings are adopted on the Island.

**Question 23 (Improving energy efficiency) 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.

It is a matter for Government how it funds energy efficiency improvements in Government buildings, which can either be from top slicing existing budgets or using Government reserves. In addition, Government should consider

opening up such a fund to other public sector bodies to enable those to improve their energy efficiency, and as the public sector across the Island, lead by example and help Government achieve its national targets.

**Question 24 (Improving energy efficiency) should Government encourage the construction sector to explore options for increasing the use of locally produced building construction materials i.e. Straw, etc?**

Although in the past the Island relied almost entirely on locally sourced building materials, times changed and there are very few locally sourced building materials other than stone and aggregate, and local timber for landscaping. A number of concrete products are manufactured on the Island but these still depend on imported cement.

There is likely to be a number of issues with using locally sourced building materials including quality control, cost, and suitable testing and development of products. In many cases even allowing for the cost of importation, locally sourced materials are likely to be more expensive, and the quantities required may not support a commercial operation.

**Question 25 (Improving energy efficiency) 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.

Strongly Agree.

**Question 26 (Improving energy efficiency) should Government encourage community renewable energy projects?**

Agree. This would appear to be sensible, but would require more detail on what would be suitable community renewable energy projects.

**Question 27 (Improving energy efficiency) any additional comments.**

Any grant or financial support for improving energy efficiency must depend on a detailed technical analysis to demonstrate that the specific elements of any scheme can work without unforeseen adverse effects.

**Question 28 (Substituting fossil fuels with sustainable alternatives) should Government consider allowing Planning Permitted Development Orders for installation of air source heat pumps in non-conservation areas?**

Agreed in principle. Any barriers to the installation of heat pumps are likely to reduce take-up, therefore removing the cost and bureaucracy of having to make planning applications for such installations would be beneficial. However, the operation of the compressors associated with heat pumps generates varying degrees of noise. The positioning of the external unit will require careful management so as not to cause inconvenience to the occupants of adjacent buildings. It should also be remembered that the external unit can be of considerable size and may be considered as unsightly if sufficient control over siting is not in place.

Parameters can be set for application of Planning Permitted Development Orders in to sensitive areas.

**Question 29 (Substituting fossil fuels with sustainable alternatives) should Government consider the introduction of a Climate Change Levy on installation of new fossil fuel boilers?**

Disagree. This may possibly reduce the popularity of oil and gas boilers over heating by electricity, but a one off levy is unlikely to overcome the difference in running costs over the lifetime of the boiler unless the cost of electricity on the Island is greatly reduced.

**Question 30 (Substituting fossil fuels with sustainable alternatives) 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.

The reasons for the popularity of fossil fuel boilers are cost and familiarity. Oil, gas, and solid fuel boilers are generally less expensive to initially purchase and replace, and the running costs are lower. Limiting the future supply of fossil fuel boilers and increasing the cost of providing heating and hot water will be very unpopular, and have a disproportionate impact on the older, potentially less affluent members of our communities. However, any phasing out of fossil fuel boilers is likely to be as a result of actions taken in neighbouring jurisdictions rather than action taken on the Island.

It may also be worth adding that currently almost all the electricity generated on the Island is as a result of burning fossil fuels therefore there is very little alternative at present to fossil fuel generated energy.

**Question 31 (Substituting fossil fuels with sustainable alternatives) 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.

Disagree. Given the high cost of energy on the Island and the lack of viable alternatives in certain locations, any decision to significantly increase costs by imposing a levy will be very unpopular, and have a disproportionate impact on the older, potentially less affluent members of our communities. Clarity is needed on what the purpose of the levy would be and what any income raised would be used for.

**Question 32 (Substituting fossil fuels with sustainable alternatives) should Government consider phasing out the sale of coal and peat for heating?**

Agree. The use of coal and peat for heating is in decline and therefore the phasing out of the sale of such products is more likely to be a commercial decision by importers and suppliers rather than through government policy. The Council still has a very small number of social housing tenants who choose solid fuel for heating. The eventual conversions of the small number of properties involved will have virtually no impact on the Council.

**Question 33 (Substituting fossil fuels with sustainable alternatives) 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).

Agree provided the cost of installation can be recouped from rental income or through Government financial incentives. The experience of Douglas Borough Council as a social housing landlord is that the capital cost of renewable technologies such as heat pumps is much greater than non-renewable heat sources such as gas. While it is acknowledged that heat pumps may be more efficient than conventional heating systems, the initial capital purchase costs spread over the lifetime of the equipment will not be recovered under the present rental income allowances. While the tenant does not pay for the installation of the system, the capital costs would need to be recouped from increases in social housing rental income. Should new build local authority housing be constructed with heat pumps, there would be an immediate impact on the Department of Infrastructure's Housing Deficiency payments to Local Authorities. Government should fund the additional upfront capital cost and there may be an example of such a scheme in Ramsey, which could be

rolled out to other housing authorities. The additional cost should not fall on Local Authorities.

**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.

Agree. Douglas Borough Council has experience of woodchip boilers given that a system has been installed in one of its sheltered housing schemes. An initial problem with the quality of the fuel from DEFA now appears to have been resolved and the system is operating as it should.

As with the comments relating to the installation of heat pumps in question 33, the issue with woodchip boilers concerns the initial capital purchase cost of the system. The capital cost of the equipment is currently far greater than alternative forms of heating systems, and this greater cost cannot be recouped over the lifespan of the system from rental income. As with heat pumps, any difference in financial cost will need to be met through increases in social housing rental income or through Government financial incentives.

While woodchip boilers should not be dismissed, the number of buildings which would support such systems is for the Council likely to be limited.

**Question 35 (Substituting fossil fuels with sustainable alternatives)**  
any other comments

Nothing further.

**Question 36 (Transport) 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.

No. Government should provide the infrastructure to ensure commonality of systems across the Island.

**Question 37 (Transport) 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.

Yes, grants or 0% loans

**Question 38 (Transport) 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.

Agree. Any scheme would need to ensure that any vehicle being scrapped was delivered to a specific agency and not abandoned. Any such scheme should be targeted at older vehicles and not simply be a blanket scheme.

It is questionable whether such a scheme would be effective in reducing emissions to as great an extent as might be assumed. Production accounts for a significant proportion of the whole-life emissions of the vehicle so the value of this proposal to the environment is reduced.

**Question 39 (Transport) 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.

Don't know. Hybrid electric vehicles may not operate efficiently due to the Island's small geographical size and short commuting distances and this practicality would need to be factored into any future decision. Support for bringing the date forward from 2040 to 2025.

**Question 40 (Transport) should Government consider an increased new vehicle registration fee for petrol and diesel cars?**

Currently, hybrid and fully electric vehicles are more expensive to purchase than petrol or diesel cars which is a disincentive. Introducing an increased

vehicle registration vehicle fee for petrol and diesel vehicles could disproportionately impact upon the less affluent members of our communities. Reservations are held about whether road tax should be used as an incentive in this way as it is currently based on emissions.

**Question 41 (Transport) should Government explore the feasibility of a supplement on the Road Tax for petrol and diesel vehicles?**

Disagree. This question relates to all vehicles and not just cars. For certain types of commercial/operational/agricultural vehicle there are currently no viable alternatives to petrol or diesel therefore for organisations operating these vehicles the supplement would purely be a penalty and cannot act as an incentive to switch to more sustainable alternatives.

**Question 42 (Transport) 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.

As with Question 41, for certain types of commercial/operational/agricultural vehicle there are currently no viable alternatives.

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

Strongly agree. Some Government tenders already specify this requirement.

**Question 44 (Transport) 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.

Agree.

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

Agree but with the proviso that information and data from trials in other places should also be taken into account in order that the Island is not starting from scratch and repeating what has already been done elsewhere.

**Question 46(Transport) should Government trial a free-for-all bus service to reduce traffic congestion?**

The Department of Infrastructure currently only provides free bus travel for senior citizens. Whereas, in Luxembourg public transport is planned to be free from 2019.

Agree, from a strategic policy perspective, this should be encouraged. However, this will impact upon private and public sector organisations that rely on income from the use of vehicles, such as car park operators, fuel stations, etc. Government should consider transitional support funding to compensate such organisations for loss of income.

Benefits include reduced traffic, reduced demand for parking, and cleaner environment, as well as economic benefit to the people using public transport. Those would outweigh the cost of provision.

There is also a need to ensure that public transport services are properly targeted and scheduled to meet public demand.

**Question 47 (Transport) should Government explore opportunities in HGVs and ferries for zero emission transport e.g. hydrogen and biogas?**

Strongly agree. Government should also explore the supply chain for provision of the necessary fuel for such vehicles, but as with Question 45, there should be regard to work already done in other jurisdictions to save needless research and cost.

**Question 48 (Transport) 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.

Strongly agree.

**Question 49 (Transport) 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.

Strongly agree.

**Question 50 (Transport)** any other comments

Incentives to travel actively should be increased by ensuring that existing policy to provide cycle storage is applied consistently when considering planning applications.

Also that increasing urban density, as opposed to encouraging development of greenfield sites, could reduce transport demand.

**Question 51 (Electricity generation) 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.

Strongly agree.

**Question 52 (Electricity generation) 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?**

Agree.

**Question 53 (Electricity generation) 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.

Agree.

**Question 54 (Electricity generation) should Manx Utilities consider installing solar photovoltaic panels and battery storage at their sites around the Island?**

Agree.

**Question 55 (Electricity generation) 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.

Member Comment: Strongly agree, as wind generation is the cheapest form of renewable energy. But other forms of energy harvesting – tidal, solar, etc. – also need to be examined as they might be preferable because of the effect on the landscape.

**Question 56 (Electricity generation) would you be supportive of onshore wind generation if you could see the wind turbines from your home?**

This is entirely subjective and the response will vary from individual to individual.

**Question 57 (Electricity generation) any additional comments**

All new residential property should be fitted with solar panels and consideration should be given to all renewable energy sources at the planning stage.

**Question 58 (Land use and waste) 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.

Agree.

**Question 59 (Land use and waste) 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?**

Strongly agree, provided the Energy from Waste plant can be used for heat recovery.

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

Agree, or other potential fuel sources.

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

Given that there is only one EfW and the centres of population are fixed, it is difficult to answer this question without understanding how the carbon miles could be reduced. There is the possibility of reducing the number of local authorities on the Island undertaking waste collections, however unless recycling increases, the overall tonnage of waste going to the EfW will not reduce. The only saving would be, potentially, the number of journeys by each authority's vehicles.

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

Strongly agree.

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

Strongly agree, provided there is infrastructure on Island to process (where applicable) and available outlets for the collected material.

Incentives to use kerbside recycling should be increased by designing in convenience to do so at the planning stage. The Affordable Housing Standards Design Guide provides policy at Section 2.4.12 Refuse Disposal.

**Question 60 (Land use and waste) should Government introduce Clean Air legislation to regulate pollution i.e. from vehicle emissions and uncontrolled burning of waste in the open?**

Strongly agree.

**Question 61 (Land use and waste) 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.

Strongly agree.

**Question 62 (Land use and waste) should Government encourage a reduction in the imports of artificial fertilisers and more efficient use of organic fertilisers and leguminous plants such as clover?**

Agree.

**Question 63 (Land use and waste) any additional comments**

None.

**Question 64 (Interim targets) should Government consider using the following proposed 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

Yes to all, however, the interim 2025 targets rely almost entirely on electricity generation and supply. Unless the unit cost of electricity decreases or the cost of fossil fuels increase then the targets are not likely to be met. It should also be noted that within this period the generation of electricity will still rely almost entirely upon burning fossil fuels. Therefore while greenhouse gas emissions from individual buildings may decrease, greenhouse gas emissions from electricity generation will increase.

The interim 2030 targets similarly rely on switching from fossil fuels to electricity (see comments above). The targets also include a reference to SAP ratings. To date SAP ratings have not been adopted on the Island, and a previous question sought views on their adoption. Therefore it is by no means certain that such ratings will be adopted. The reference to a SAP rating of 65 would place the dwelling in band D, on a scale of A to G with A being very energy efficient and G being not energy efficient. As there are no Energy

Performance Certificates for properties on the Island it is difficult to know how achievable this target is.

**Question 65 (Interim targets)** any additional comments

None.

**Question 66 (Funding and other suggestions) 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?**

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

See previous comments (Q40) regarding levies disproportionately impacting upon certain sections of society.

**Question 67 (Funding and other suggestions) how much would you be willing to spend annually from your household income on energy efficiency?**

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

Specific question for householders and not applicable to the Council.

**Question 68 (Funding and other suggestions) 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.

The questionnaire has focused on energy efficiency of buildings and vehicles. Very little has been asked about energy efficiency processes of organisations for example agriculture, manufacturing or processing, or of how the carbon footprint of imports, exports and other forms of transport can be reduced.

**Question 69 (Funding and other suggestions)** any other comments

Nothing further.