

**WRITTEN QUESTION TO THE MINISTER FOR THE ENVIRONMENT
BY DEPUTY P.D. MCLINTON OF ST. SAVIOUR
ANSWER TO BE TABLED ON TUESDAY 2ND MAY 2017**

Question

In light of the objectives of 'Energy Plan: Pathway 2050' (R.37/2014), will the Minister inform the Assembly what steps, if any, his Department is taking in relation to each of the areas specified below to ensure the public are encouraged to take up the use of sustainable energy sources?

- (a) Offering incentives for the installation of solar panels –
 - (i) by private residential properties; and
 - (ii) by businesses.

- (b) Offering incentives to encourage road users to move away from diesel- or petrol-driven vehicles and toward electric or hybrid options –
 - (i) in relation to private vehicles; and
 - (ii) in relation to commercial vehicles.

Where steps are being taken, will the Minister supply an outline of his plans (including timelines), and where none are currently being taken, will he explain his rationale for not pursuing such measures?

Answer

Delivery of the Energy Plan, Pathway 2050 is overseen by a Ministerial oversight group, the Energy Executive. Specific areas of policy related to energy still remain within Departments whilst working within the framework of agreed actions in Pathway 2050.

The Minister for Environment has responsibility for the Action Statements in relation to buildings to which part (a) of the question refers. The Minister for Infrastructure holds responsibility for transport to which part (b) of the question refers. The respective Ministers have provided answers to these questions.

Answer Part (a) answered by the Minister for the Environment

Pathway 2050 outlines a plan to achieve secure, affordable and sustainable energy for Jersey alongside a reduction in carbon dioxide emissions of 80% by 2050 compared to a 1990 baseline. In P.38/2014, the States were asked to approve the following policies to deliver the plan:

1. Demand management
2. Energy security and resilience
3. Fuel poverty and affordability of energy

There are 27 Action Statements that provide costed and timed actions to deliver specific policy outcomes within an overall framework of secure, affordable and sustainable energy for Jersey. The Plan is clear that in the first instance the most cost-effective way to deliver carbon reductions and to meet the affordability and security of supply goals is to manage energy demand. Therefore, increasing the uptake of micro-renewable energy via solar panels (or other micro-renewable energy technologies) is not a priority action in the early stages of the Energy Plan. This long term approach is deliberate as micro-renewables are

factored in for the future when more favourable market conditions are expected to drive behaviour change rather than relying on financial incentives to drive consumer behaviour. Elsewhere to date, generous financial incentives have been needed as many of the micro-renewable technologies are not at price-parity with traditional solutions and require significant upfront investment with many years of pay-back required.

Action Statement 4 in the Plan outlines the approach to micro-renewable energy in the domestic sector over the longer term. It makes the assumption that by 2030, due to advances in technology and price-parity, replacement boilers in houses that currently using hydro carbon fuel sources, be replaced with micro-renewable systems e.g. solar thermal, ground source heat pumps when they reach the end of their lifespan¹.

Despite the longer term approach, there are still some immediate incentives / measures in place to drive the uptake of micro-renewables in the shorter term for those that are able to make the initial capital investment. The Deputy's question asks about incentives for the installation of solar panels in both the residential and business sector. Before I go on to answer this part of the question, depending on the type of solar panels installed, the energy generated and therefore the impact of this energy in meeting the Pathway 2050 objectives are different. They can be summarised as follows:

1. **Photovoltaic panels** take energy from the sun and convert this into electricity for use by the home or business owner or to be sold back into the grid for onward sale by Jersey Electricity. Locally generated renewable energy from PV panels partially meets the security goal of the Energy Plan goals by providing non-imported electricity so adding diversity to the electricity grid. However depending on the installation costs of the PV system this electricity may not be as affordable as Jersey Electricity supplied electricity although, it is worth noting that the costs of purchasing and installing PV systems have dropped significantly in recent years which has increased uptake. Finally, the impact of locally generated PV electricity in supporting the Energy Plan's sustainability goal is slightly more complex. If we define sustainable as 'low-carbon', then locally generated PV electricity is undoubtedly low-carbon. However, Jersey Electricity-supplied French nuclear-hydro mix electricity is also relatively low-carbon too. Therefore in the scenario of PV panels generating local energy, very low carbon PV electricity is displacing relatively low-carbon Jersey Electricity-supplied electricity and the overall gains from a global carbon perspective are small.
2. **Solar Thermal Panels** take the sun's energy and use it to heat water which is then used to heat the space of residential or business premises. In this instance the security and affordability goals of the Energy Plan are the same as in the PV scenario but the sustainability goals are different. If the solar thermal panels are generating energy to heat spaces that would otherwise have been heated by oil or gas central heating systems then a very low-carbon energy source is displacing high-carbon energy systems and the overall carbon reduction gains are much more significant.

We can therefore see that there are different objectives that would be fulfilled depending on which type of solar technology is installed. Increased uptake of locally generated energy are incentivised in the following ways:

With reference to Action Statement 2 of the Energy Plan, in 2016 the Department of the Environment consulted upon and introduced more stringent Building Bye Laws. They included: energy targets for all new buildings up to 30% higher than the previous 2011 standards; new fabric efficiency standards to reduce the need for space heating; requirements to make improvements to the energy performance of existing dwellings when extension works are proposed; higher standards for replacement windows and doors and improved insulation when renovating the external fabric. The new BBLs are underpinned with calculations that require new dwellings to pass or fail when measured against energy targets obtained from a highly insulated reference building that uses low carbon electricity for space heating. The effect of this change means the new target is more demanding for dwellings that choose to use higher carbon fuels, such as oil and gas, for space heating and means they are more likely to use renewable energy options to obtain a

¹ Action Statement 5 proposed a States of Jersey co-funded pilot project for community scale micro-renewable demonstration project. Due to budget reductions as a result of the MTFP2 process, this funding is now no longer available.

complaint building. In respect of commercial buildings, the 2011 Island Plan has a requirement for developments with a gross floor space of 1,000 m², whether new build or conversion, to incorporate on-site low carbon or renewable energy production equipment to off-set predicted carbon emissions by at least 10%, unless exceptional circumstances apply.

Furthermore the Minister for Environment has incentivised the uptake of solar panels and photovoltaic panels by exempting them from planning control, subject to certain criteria. In general, up to 90% of a roof plane can be covered in PV panels, except on Listed Buildings and within the final approaches to the runway and other specific instances.

These incentives combined with the lowered installation costs are intended to increase the natural uptake of these technologies. Jersey Electricity are standardising their buy-back tariffs for the sale of micro-generated PV electricity back into the grid which from later in 2017 will be flat rate of 6 p/pW which further adds to the financial case for installing electricity generating micro renewables like PV.

It is currently believed that a combination of these factors alongside the fall in purchase and installation costs mean that direct financial incentives are not required. This is in line with many other jurisdictions where previously generous financial incentives have fallen away as cost parity is achieved. Progress of the Energy Plan against the targets outlined in the Plan is monitored and reviewed annually and there is a five year review period for the entire Plan. These mechanisms provide and an opportunity for the political oversight group (the Energy Executive) to review progress and alter policies that are not delivering the anticipated outcome. The uptake of renewable energy is a key area that will be discussed at the review period. The Deputy is invited into the Department to discuss this matter in further detail if he would like.

Answer Part (b) Answered by the Minister for Infrastructure

In relation to Part B of the above question, the Department for Infrastructure (DfI) are undertaking the following work/projects to assist with meeting the objectives of 'Energy Plan: Pathway 2050' (R.37/2014).

Although not explicitly covered in detail below, DfI undertake a wide range of projects and activities that are designed to complement the objectives of the Energy Plan Pathway by reducing the amount of diesel or petrol driven vehicles on the Island's roads. The department focusses its efforts on reducing trips being undertaken by these vehicles by promoting alternative modes of travel such as walking, cycling and public transport.

DfI are making sustainable travel more accessible by increasing, promoting and investing in infrastructure. There are many examples of this throughout the Island, ranging from cycle paths and cycle parking to bus services and bus infrastructure. All of these projects are important elements and part of a wider offering that goes towards encouraging users to move away from private vehicle travel.

DfI recognise that a shift to more sustainable modes of travel is not always appropriate for everyone and therefore has a range of incentives and measures for encouraging the uptake of less polluting vehicles by encouraging hybrid and electric vehicles. These are explained at length below.

A summary of the measures being undertaken is given below, broadly categorised into three areas, those affecting trips or ownership of private vehicles, those affecting trips or ownership of commercial vehicles and those which affect the ownership of both private and commercial vehicles.

Private Vehicles

Eco-Permits

The existing eco-permits scheme has been successful in encouraging the use of smaller, less polluting vehicles. At present, in excess of 767 vehicles have been issued an eco-permit. The scheme works by enabling drivers to park in the States' car parks and on street at half price. This means that transport users who genuinely want to undertake journeys via car have an incentive to use a more efficient vehicle, which will assist in meeting the targets outlined in *Pathway 2050*.

DfI is currently reviewing the eco-permits scheme with a view to building on the success of the existing scheme. It is anticipated in the future that the emissions threshold for eco-permits may be changed, encouraging the take up of exclusively electric or hybrid vehicles, which produce fewer emissions and are generally smaller and less polluting.

Car2Cycle Scheme

The Car2Cycle scheme has been popular, with over 500 e bikes being purchased since the scheme's inception. The scheme is designed to reduce the reliance of mostly petrol and diesel vehicles by encouraging the take-up of electric bicycles by providing a subsidy for would-be owners.

DfI has also provided 20 e bike grants to Jersey Post, which will reduce the requirement for van deliveries, an important step in reducing the amount of traffic on Jersey's roads.

Users of the scheme were asked to complete an on line survey. As of 21st April 2017 212 responses had been received. 58% said that the e bike had replaced travel by car/van/scooter/motorbike. Transferring trips to e bikes from these modes will contribute towards reducing Jersey's greenhouse gas emissions and assist with meeting the targets in *Pathway 2050*

The States Sustainable Transport Policy aims to reduce the impact of high levels of private car use in Jersey and encouragement of cycling is a key aspect of that policy. Studies show that "soft" measures (i.e. not hard infrastructure) can be very cost effective.

Electric Car Parking Spaces

Currently there are two car parking spaces for electric vehicles in most of the States' multi-storey car parks. At present to use these spaces you must be charging a vehicle whilst parked. In the future it is intended that a scheme will be rolled out that offers free car parking for electric vehicles. Initially a pilot of this will be trialled at Pier Road car park. This scheme offers the ability for drivers of electric vehicles to park for free and is one of the measures the department is using to encourage the take-up of electric vehicles.

Planning Obligation Agreements

DfI and the Environment Department work together through the planning process, and the consultation responses that DfI submit as a statutory consultee are focussed towards exploring opportunities for improving sustainable transport and promoting the uptake of electric and hybrid vehicles. For example a recent planning application in St Clement included the installation of Electric Vehicle Charging Points (EVCPs) as part of mitigating the highways impact of the site. This work (of securing infrastructure) to enable widespread take-up of electric and hybrid vehicles is ongoing and the requirements for EVCPs are continually revisited by officers when responding to planning applications.

Commercial Vehicles

Commercial vehicles are the most polluting vehicles on Jersey's roads, by virtue of the fact they cover more distance, are larger in size and are used more often than private vehicles. To have the biggest impact on the amount of greenhouse gases emitted by the Island's fleet, tackling commercial vehicles is crucial.

The Environment Department and DfI recently worked together to enable Jersey Post to switch part of their van fleet over to electric vehicles, ensuring that the post will now be delivered by zero emission vehicles in many areas.

The States' are playing their part in ensuring it leads by example and operates a fleet of electric vehicles across several departments and has invested in charging infrastructure to support this.

Vehicle Operator Licencing

DfI is developing a vehicle operator licencing system as a first stage requirement that operators ensure their vehicles are properly maintained and fit for use on the island's highway network. Ensuring vehicle standards are met will ensure that it is more likely older, more polluting vehicles are 'retired' earlier in their working life, as it becomes less economical to maintain them.

Initially vehicle operator licencing will apply to vehicles over 7.5 tonnes and it is intended to be rolled out to all commercial vehicles in the future.

Private and Commercial Vehicles

Vehicle Emissions Duty

The Vehicles Emissions Duty (VED) is an import (excise) duty on vehicles. This includes vehicles already in the Island that have not yet been registered with J plates.

VED directly influences the decision of islanders to buy a 'new to the island' vehicle by introducing progressive rates of taxation relating to the tailpipe emissions. The basis of the scheme is that more polluting vehicles attract a larger duty.

The Minister for Infrastructure and the Minister for Environment worked together to take proposals to the Treasury for consideration to update the scheme at end of 2015, to bring the taxation bands more into line with modern vehicle efficiencies. These changes were approved in the budget for 2016. This included removing the discount rate for older vehicles which were being imported to Jersey.

The Minister for Infrastructure will be reviewing the VED bands again in 2017 to ensure they stay relevant to modern vehicle design and efficiencies. It is anticipated that these will encourage the take up of electric vehicles which do not attract any duty under the existing system.