Carbon Neutral Roadmap

Carbon Neutral Roadmap as amended

Approved by the States Assembly on 29 April 2022

Climate Emergency JSY

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Minister's Introduction

The Carbon Neutral Roadmap is the culmination of a three-year work programme that started in May 2019 when the States Assembly made a bold and ambitious commitment to respond to the climate emergency and to 'aim to be carbon neutral by 2030'.

I believe we should mark this important waypoint on the journey of transition towards a sustainable future which we as an Island have embarked on. We are not sheltered from the significant global and geopolitical events that have shaped our journey so far and will need to continue to adapt over the coming years as the Roadmap is implemented.

Recent world events are causing energy market volatility and geopolitical tensions that reiterate the need for us to consider the security, affordability, and sustainability of our energy supply. The very latest Intergovernmental Panel on Climate Change Sixth Assessment Report (published 28 February 2022) warns us that climate breakdown is happening faster than expected and the window to act is closing fast. These events, combined with the scientific evidence, are sobering and reinforce why we need to respond now to address the climate emergency.

The States Assembly mandated a truly people-powered approach which has greatly enriched the policy making process. We used novel methods and processes to engage and mobilise all segments of our diverse population. This all happened during the coronavirus (COVID-19) pandemic, which challenged our thinking, frustrated our original plans, and meant that we had to create innovative solutions and adapt to changes quickly.

Nonetheless, a very significant level of engagement was achieved, supported by extensive evidence gathering and policy making. Stakeholders and the public have given rich feedback and indicated an unprecedented level of support for the Roadmap. I am especially delighted with the input from the Youth Parliament whose participation has provided unique insight and challenge to our thinking. This sobering comment from the Youth parliament says it all:

'In this climate crisis, we need to do everything we can.'

The combined voices from all these different sources will continue to inform the next stage of development and design of the measures proposed as they go into early implementation. I would like to extend my thanks to all those who have engaged in this process, the lessons from which I hope will set a model for future policy making processes.

The Roadmap provides a structured framework and a process that we can all be proud of and can commit to. It stands as a legacy of the journey so far. It is ambitious, whilst also being deliverable and pragmatic, with a determination to accelerate actions in the short term which start to attack the climate

emergency. The journey to produce the Roadmap has not been easy, and hard work is ahead of us to put this into action.

The evidence tells us that this is the time for the Roadmap to start us on our way. It gives a commitment that future governments will uphold through the creation of a new Ministerial portfolio covering energy and climate change.

Deputy John Young
Minister for the Environment
March 2022

Assistant Minister's Introduction

This Roadmap commits us to an ambitious, science-led emissions reduction trajectory that aims to meet our desire to become carbon neutral by 2030 and, also, aligns with the widely held global ambition of net-zero by 2050 as set out in the Paris Agreement.

The policies within the Roadmap focus on how we can move away from burning fossil fuels and so reduce our on-Island greenhouse gas emissions to net-zero by 2050.

Crucial to the success of the Roadmap will be the establishment of a new ministerial portfolio which will ensure that the issue of climate change is given the recognition needed to reach our ambitious targets.

Decarbonising our economy will be difficult. Indeed, it is likely to be one of the most difficult things that our Government, and Governments all around the world, have ever had to face.

The Carbon Neutral Roadmap should not adversely affect the most vulnerable in our community. In reducing our contribution to climate change, we will be helping everyone to enjoy a better quality of life. The policies to tackle greenhouse gas emissions come with the added benefits of supporting biodiversity, improving air quality and Islanders' health, amongst other things.

We cannot shy away from the fact that it will have significant financial implications for the Island, and we will have to work hard to ensure that we avoid unintended consequences of the policies that are implemented.

We are committed to ensuring a Just Transition throughout the decarbonisation of our economy. The interests of both future generations, and those currently reliant on polluting industries for employment, will continue to be considered. Neither group should be actively disadvantaged by being left to live with the impacts of inaction now or to bear a disproportionate burden of the costs to mitigate and adapt to climate change.

The Carbon Neutral Roadmap policies are designed as a pack to complement each other. These will work together to encourage and incentivise voluntary behaviour change towards low carbon activities over the short-term, with disincentives discouraging carbon intensive activity over the medium-term and mandatory changes brought in through legislation changes over the long-term. There will be consequences in terms of budget and the pace of decarbonisation if certain policies are taken forward without the whole package.

The last decade has emphasised the environmental realities of climate change; storm events, extreme weather, changes in polar ice flows and species extinction being just a few examples of how the natural

environment is reacting to our neglect. However, as the situation becomes more urgent, we are seeing a shift in public attitudes largely driven by to the inspiring leadership shown globally by young people.

Direct action by young people in Jersey, in May 2019, and the work of environmentally conscious members of the Assembly, lead the States Assembly to declare a climate emergency which, in turn, initiated this crucial area of policy work.

Difficult decisions are needed but we should not shy away from making them. The success of COP26 in Glasgow in autumn last year showed how nations from around the world are now coming together to tackle this and we should be reassured that we are not facing these difficult decisions alone.

The time to act is now and we cannot delay.

Deputy Jess Perchard
Assistant Minister for the Environment
March 2022

Why Jersey?

Responding to the climate emergency is a global challenge that no one country can address alone. Jersey is small, but it still has its role to play. Just because we can't do it all on our own doesn't mean we shouldn't try to do what we can.

Here are 10 reasons why Jersey should do its bit:

1 There is a climate emergency

In 2019, the States Assembly declared a Climate Emergency that is likely to have a profound effect on Jersey. The emergency hasn't gone away, even if we've had something else to worry about in the meantime.

2 A low carbon Island is a fairer Island

Through our climate policies, we can create fair access to clean and affordable energy, warmer homes, new jobs and re-skilling opportunities, less congestion in town and a chance for everyone to do their bit.

3 A low carbon Island is a better, more beautiful Island

Decarbonising our Island means cleaner, safer, quieter roads, reduced air pollution, more space for wildlife and to play outdoors, improved public health from active travel, cleaner beaches and a greater sense of community.

4 China's emissions are (in part) our emissions

Our consumption drives emissions across the globe. While our annual on-Island emissions are 3.8 tonnes per person, an average European is responsible for almost 13 tonnes per year. As an example, about 14% of China's emissions result from consumption elsewhere.

5 Climate change is affecting Jersey and will get worse

Jersey may feel protected from the worst impacts of climate change, but we already see more extreme weather and have the real threat of coastal flooding. Across the world, people are losing their homes to flooding and wildfires, and suffering food shortages. As impacts increase, mass migration grows and battles for scarce resources escalate, the effects will end up on our shores.

6 We have our reputation to think of

Jersey trades on its reputation as an open, international and well-run jurisdiction. When countries and businesses across the world have committed to action on climate change, we don't want to be the odd one out.

7 Everyone has their own reasons

We're taking a people-powered approach. We'll make more progress when everyone finds their reason to take action, to get involved and make sustainable choices, about how we travel, what we eat and how we use energy. Some people have their reason now, others will find it, but everybody's reasons counts.

8 The citizens of Jersey want action

The Citizens' Assembly on Climate Change met in Spring 2021. They spent over 1500 hours debating, learning and collaborating to write recommendations on how we might reach carbon neutrality in Jersey. As representative group of Jersey citizens they were ambitious and want to see action.

9 All communities are small communities

There are over 100 towns in the UK with a population less than that of Jersey. If Jersey is too small, surely they are too.

10 We owe it to future generations

78% of young people surveyed in Jersey were 'worried' or 'very worried' about climate change. A child born today faces multiple and lifelong health harms from climate change — a warmer world with iaancreased risk of food shortages, infectious diseases, floods and extreme heat. If urgent action is not taken its impacts will be felt by our children and generations of their children living in Jersey.

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Part A

The Foundations

1. Introduction: Building the Foundations

1.1. On 2 May 2019, 40 elected members in the States Assembly voted to declare, 'that there exists a climate emergency likely to have profound effects in Jersey'[1].

1.2. Much has changed in the two and a half years since that vote. In 2021, the World Meteorological Organisation recorded that the past seven years are on track to be the seven warmest on record[2]. In the same year, the North America 'heatdome' is estimated to have killed 1 billion animals and caused hundreds of human fatalities; the largest single California wildfire on record started in Dixie on 13 July and had burned about 390,000 hectares by 7 October; the city of Zhengzhou, in China, received more than its annual average rainfall in a single day on 20 July; flash floods were linked to reported economic losses of US$17.7 billion across the world; and scientific research has continued to reinforce the fact that human activity is heating the planet and that more drastic action is needed now, in order to seek to constrain global temperature rises to around 1.5ºC.

1.3. On 27 February 2022 the Intergovernmental Panel on Climate Change (IPCC) published 'Climate Change 2022: Impacts, Adaptation and Vulnerability[3]. It unequivocally states that *'Human-induced climate change, including more frequent and intense extreme events, has caused widespread adverse impacts and related losses and damages to nature and people, beyond natural climate variability. Some development and adaptation efforts have reduced vulnerability. Across sectors and regions the most vulnerable people and systems are observed to be disproportionately affected. The rise in weather and climate extremes has led to some irreversible impacts as natural and human systems are pushed beyond their ability to adapt.'*

1.4. Perhaps most significantly, the COVID-19 pandemic has dominated our lives, caused wide-spread harm and suffering and given rise to global social and economic shifts that will take many years to fully understand. The pandemic was, at the same time, both a giant distraction from the issue of climate change – requiring the full attention of government, business and community leaders, and the allocation of massive resources – and a stark reminder of the inter-connectedness of our world, of the power of collective action and a chance for many to reassess long-established attitudes and beliefs.

1.5. The intervention of the COVID-19 pandemic is a reminder that there will always be other issues that require immediate attention. Staying focused on tackling long-term climate change is

[1] Votes (gov.je)
[2] State of Climate in 2021: Extreme events and major impacts | World Meteorological Organization (wmo.int)
[3] Climate Change 2022: Impacts, Adaption and Vulnerability: Summary for Policymakers (IPCC)

difficult in the face of urgent challenges; recognising this validates the focus of the Carbon Neutral Strategy[4] '*aim(ing) at creating the foundations for long-term social and economic change*'.

1.6. Building the foundations for long-term change may appear counter-intuitive in an 'emergency' situation, but it recognises that the emergency response will last several decades and require change in almost every aspect of how we live, that the commitment of our community to that change will be contested and progress will not be linear. Major social, economic and environmental events will occur – in Jersey and elsewhere – and, at times, these will need to take precedence, for a while. During these periods, the capacity of our government and our economy to continue to decarbonise at pace will be tested and will need to rely on the strength of its foundations.

1.7. Whole-Island ownership of this Carbon Neutral Roadmap (the Roadmap) is critical to its success. The climate emergency is a global challenge, but action at a global level alone will not be enough. The choices we each make on a daily basis – as families; in our businesses and organisations; and together as members of local communities – drive the political and economic forces to which global actors respond. In a free society, changing our personal and shared behaviour at the local level is the only reliable route to living more sustainably and slowing the rate of climate change.

1.8. At the same time, the Roadmap recognises the need for Government and the States Assembly to show leadership in updating Island policy to ensure that more sustainable behaviours are achieved, and that the responsibility to decarbonise is shared equally and fairly.

1.9. Islanders' views are at the heart of this Roadmap, and will remain so, ensuring that future delivery plans respond to the will and experience of people in Jersey.

A Roadmap for the future

1.10 Our future response to climate change will look different to our current approach. Tackling the climate emergency is the focus of a huge global research and innovation effort, and public understanding and views are continually evolving. These forces will present – and require – new solutions and new policies over time.

1.11 Setting a Roadmap recognises that the Government of Jersey and the States Assembly will need to continually update delivery plans to take account of what is working – in the Island and elsewhere – and what we need to do more, and less, of to reduce our carbon emissions in line with our commitments.

[4] Carbon Neutral Strategy (gov.je)

1.12 This Roadmap sets out the first of these delivery plans, with a suite of policies presented in in Part C, following comments and feedback from Islanders.

Funding a Just Transition

1.13 The definition of Just Transition (as provided to the Citizens' Assembly on Climate Change) was *'The process of shifting to a low or zero carbon economy in a fair and just manner so that no sector of the community is disproportionately impacted.'* The Distributional Impact Assessment[5] report explains it as follows: *'In the context of the global transformation to net zero, the concept of a 'just transition' in which no societal group bears a disproportionate burden of the costs, and in which the benefits of a zero carbon and resilient economy are shared fairly, is critical.'*

1.14 Without significant and sustained increases in funding for decarbonisation policies, nothing will change. There is no free-pass to a low-carbon future – it is difficult work and will require a rebalancing of budgets for governments, businesses, and households. Too many of the things we rely on in our daily lives are cheap because the pollution they create does not affect their price. It is too easy to do the wrong thing and too hard – and often too expensive – to do the right thing.

1.15 The Climate Emergency Fund ring-fences money to help rebalance these economic realities, which means that money for climate change is protected when other pressing priorities emerge. Without this investment, at best, only the wealthy will be able to decarbonise their lifestyles and businesses; at worst our attempts to reduce our emissions will stall. Funding the transition could be particularly challenging for lower-income households in Jersey. This Roadmap commits to a Just Transition, where the costs do not disproportionately fall on people on lower incomes, or on those currently employed in carbon-heavy industries. The impacts of the transition, when considered in the round, should be distributed fairly, and Carbon Neutral Roadmap delivery plans will need to continue to consider relevant socio-economic criteria, including the impact of policies on employment and how acceptable they might be to the public overall.

1.16 Distributional impacts can only be balanced over the period of transition. We can mitigate unfairness but we can't make the policy package fully progressive given the fact that richer households can better adopt new technologies that will take them out of polluter pays charges. The example here is that is becomes even more important to make the bus service more accessible to all in order to further mitigate the impact on Carbon Neutral Roadmap policies. The alternative is we seek to iron out all unfairness at the start, which results in us doing very little in practice. That means testing is key to targeting public investment in a fair way.

1.17 The findings and recommendations from the distributional impact assessment have highlighted where policies will impact different population segments and marginalised groups. The

[5] Distributional Impacts of Jersey's Carbon Neutral Roadmap (gov.je)

recommendations have informed the policy development process and will form an important element of the design of delivery phase 1.

1.18 The implementation schedule (Appendix 3) identifies how further impact assessments will be carried out in order to ensure compliance with principle 5 of the Carbon Neutral Strategy[6].

[6] Carbon Neutral Strategy (gov.je)

2. Listening to Islanders and the evidence

2.1 The Carbon Neutral Roadmap is based on wide-ranging expert evidence, and extensive consultation with and consideration by Islanders, as set out in Figure 1. The process of gathering this evidence has been transparent and publicly scrutinised, and the findings are published on www.gov.je/climateemergency[7].

2.2 The development of the Carbon Neutral Roadmap has not just been limited to professional research and analysis but has sought to apply – and further develop – a people-powered approach. The Carbon Neutral Strategy describes this as an approach that *'explore(s) opportunities to put individual citizen and community action at the heart of our response, creating the conditions in which bottom-up initiatives flourish and Islanders support each other to change their behaviours and adapt to lower carbon lifestyles.'*

2.3 Many engagement events have been held throughout the process – led by the eco active partnership – to help inspire Islanders to understand and engage with the issue of climate change, and to help build Islanders' confidence and capacity to both act as individuals and to make their voices heard in the debate about how Jersey should act collectively.

2.4 Work has also continued with partners and stakeholders, such as the Energy Forum, and with Parish action groups that are leading the local response to the climate emergency. Many of the policies set out in this Roadmap aim to sustain, strengthen and grow the people-power that is already on display in Jersey, and to invest in creating new opportunities for everyone to play their part.

[7] Climate Emergency (gov.je)

Carbon Neutral Roadmap: timeline

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Figure 1: Timeline for the development of the Carbon Neutral Roadmap.

The Carbon Neutral Strategy

2.5 The States Assembly, in February 2020, agreed the Carbon Neutral Strategy[8], which provided the preparatory work to enable the development of the Carbon Neutral Roadmap. In particular, the Carbon Neutral Strategy established:

- The people-powered **process**, (see Figure 2), that has been followed to develop the Roadmap, including the mandate within the Carbon Neutral Strategy to establish Jersey's Citizens' Assembly on Climate Change
- A **definition** of carbon neutrality, established in five principles that are reprised in strategic policy 5, below, and
- High-level analysis of **policy options** to reduce carbon emissions in Jersey's highest polluting sectors, including initial analysis of potential costs and benefits.

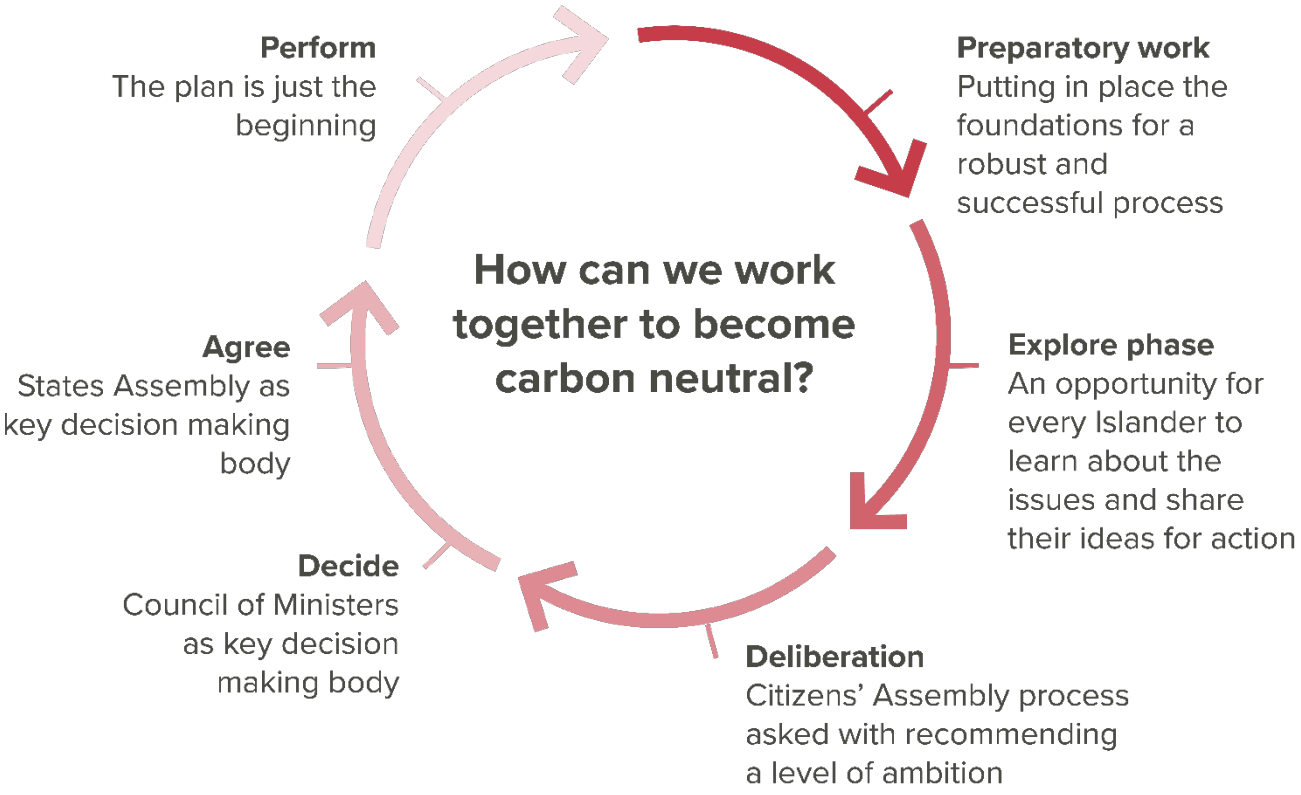


Figure 2: The people powered process to develop a Carbon Neutral Roadmap.

Explore phase

2.6 In early 2021, Jersey's Climate Conversation[9] began, involving a wide-ranging exploration of Islanders' views and suggestions about climate change. This 'explore phase' was a six-week

[8] Carbon Neutral Strategy (gov.je)
[9] Jersey's Climate Conversation

campaign running from 1st February 2021, leading up to the first Citizens' Assembly meeting. It provided a chance for all Islanders to get involved and share their views, learn from their peers, and act.

2.7 Each week consisted of a number of activations to generate interest and engage the public and media on a specific topic. The Government of Jersey provided a selection of background reading and used both online and offline participatory methods to ensure people were given the opportunity to get involved and find out more about the week's themes.

2.8 Over the six-week period, 153 ideas and 356 comments were shared on the online platform by 110 unique contributors[10].

2.9 A social media campaign accompanied Jersey's Climate Conversation, featuring a set of films created by Jersey's Climate Conversation Ambassadors (a range of Jersey influencers, from politicians like Deputy Jess Perchard, to the children of St Lawrence Primary School, and radio DJ Peter Mac.)[11]

2.10 Some of the most effective activations included:

- Wool on Wheels and members of the public knitting wool scarves and hats in the climate conversation colours, and these being placed on statues around the Island to highlight heating week
- a 12 Parish challenge[12] cycle route for transport week, complete with QR codes to provide information on relevant environmental topics, and
- a public living room set up in Royal Square with Acorn social enterprise, to encourage climate conversations and to discuss the changes we all can make to reduce our consumption emissions.

2.11 The comments and ideas collected via the online platform over the six weeks of the Explore phase of the Climate Conversation are summarised in the graphic at Figure 4.

[10] Jersey's Climate Conversation (comment.gov.je)
[11] Jersey's Climate Conversation Playlist (YouTube)
[12] 12 Parish Challenge (Jersey's Climate Conversation)

Figure 3: This photo montage shows some of the events and campaigns run by Government of Jersey,.

Jersey's Climate Conversation invited everyone in Jersey to share their ideas, comments and suggestions on how everyone can work together to become carbon neutral. This six week idea gathering campaign ran between 1st February and 12th March 2021, predominantly on social media with inputs collected via a website. The ideas above provide some highlights of the conversation, which focused on a different climate-related theme each week. For more information visit climateconversation.je

Figure 4: Encapsulates the ideas generated by Jersey's Citizens' Assembly on Climate Change.

Deliberation - Citizens' Assembly on Climate Change

2.12 The Citizens' Assembly on Climate Change ran from mid-March to mid-May 2021, and brought together 45 randomly selected members of the public to consider the question, 'How should we work together to be carbon neutral?'

2.13 The 45 Participants, from all ages and backgrounds and representing the full range of views on climate change, met for 15 professionally facilitated online sessions. The content of the sessions was overseen and approved by an expert Advisory Panel. Further information on the Advisory Panel, and minutes from their meetings, is available on Jersey's Climate Conversation website[13].

2.14 Assembly participants were presented with background fact sheets and listened to 31 expert speaker presentations.[14] They had the chance to pose questions to the speakers and discuss what they had heard as a group.

2.15 The Minister for the Environment, on behalf of the Council of Ministers and all members of the States Assembly, has put on record his thanks for the remarkable contribution of over 1500 hours of collective time and effort contributed by the participants. The high quality and diligence of the considerations clearly demonstrates the level of commitment they brought to the task. Islanders can be proud of the manner in which they were represented through this process.

2.16 In early June 2021 the Citizens' Assembly published a report[15] of their work, including recommendations that they asked ministers and the States Assembly to consider. Accordingly, in July the States Assembly held an in-committee debate on the recommendations of the Citizens' Assembly[16].

2.17 Ministers subsequently provided an initial response to the recommendations of the Citizens' Assembly in their Preferred Strategy[17], published in November. A further updated response will be published alongside this Carbon Neutral Roadmap.

Listening to children and young people

2.18 As part of the people-powered approach, children and young people have been involved throughout the development of the Carbon Neutral Roadmap. This engagement has been through focused sessions with the Jersey Youth Parliament and through less formal mechanisms such as practical projects, workshops, and educational opportunities.

[13] Advisory Panel - Jersey Climate Conversation
[14] Jersey's Climate Conversation
[15] Achieving Carbon Neutrality – Report of Jersey's Citizens' Assembly on Climate Change (gov.je)
[16] Carbon Neutral Jersey: in-committee Debate (gov.je)
[17] Carbon Neutral Roadmap Preferred Strategy (gov.je)

2.19 Climate change and the delivery of the Carbon Neutral Roadmap will have many direct and indirect impacts on the rights of children, and a full Children's Rights Impact Assessment[18] was produced to accompany the Carbon Neutral Roadmap Preferred Strategy. It has been updated to reflect the full draft of the Carbon Neutral Roadmap and will be further updated at key points in the process. The Children's Rights Impact Assessment seeks to assess what impact the proposals in the Carbon Neutral Roadmap might have on children and the enjoyment of their rights as stated in the United Nations Convention on the Rights of the Child.

Listening to the evidence

2.20 A detailed evidence base has been developed alongside the people-powered process. This ensures that the Carbon Neutral Roadmap is based both on Islanders' views and aspirations *and* an accurate technical understanding of the opportunities and challenges that face Jersey in its transition to carbon neutrality.

2.21 The currently available evidence base, including reports that have informed both the development of the Carbon Neutral Strategy and the Citizens' Assembly, can be found at www.gov.je/climateemergency[19] and a list is enclosed at Appendix 1 to this report.

Listening to the public

2.22 Consultation on the draft Carbon Neutral Roadmap ran from 17 December 2021 to 31 January 2022. It was promoted across local media channels including radio adverts and social media, a shop window display, and was sent to stakeholders through email distribution lists.

2.23 The consultation included:

- a survey (completed by 1,925 people),
- 28 engagement events (online and in person),
- 5 focus independently run groups (detailed outcomes are in a separate report),
- inviting written submissions (50 organisations sent through written submissions and 14 individuals).

2.24 The full Consultation Report[20] details Islanders' views on the 5 strategic policies; including the policy programme set out in strategic policy 4.

[18] Impact Assessment - United Nations Convention on the Rights of the Child (gov.je)
[19] Climate Emergency (gov.je)
[20] Carbon Neutral Roadmap Consultation Report (gov.je)

Analysis of the consultation responses

Analysis of the survey

2.25 The survey was made up of 21 questions which were:

13 multiple choice questions (quantitative)

- the total number of respondents who responded to the question,
- for multiple choice questions, how many responses were received to each option,
- the number and percentage each response option received as a proportion of the total number of responses to that question,
- pie charts have been used to visualise how the responses to each question have been broken down.

It was possible to further analyse the responses by age bracket, Parish, and place of birth.

Two questions to rank pre-determined answers by preference (quantitative)

There were two ranking questions that allowed Islanders to sort the pre-determined answers into their order of preference. This allowed for analysis as follows:

- the total number of respondents who responded to the question,
- the total score of an option,
- pie charts have been used to visualise how the responses were broken down.

It was possible to further analyse the responses by age bracket, Parish, and place of birth. However, some respondents reported difficulties in using the ranking system in these questions. This included confusion as to whether ranking 1 was high or low. As a result of these issues, the results from these questions cannot be considered conclusive.

Free text questions (qualitative)

There were six questions which allowed free text responses. A seventh question combined a multiple-choice question with a 'please specify' text box for one answer option. All comments added to free text questions were read, summarised, and then categorised by topic. Frequently raised points or themes or specific comments which raised key issues were identified.

2.26 In compliance with the Carbon Neutral Roadmap consultation privacy notice[21], the survey, including general comments, went through a redaction process to ensure that it was not possible to identify who has completed the survey. There was no obligation to complete the survey or to answer the free text questions. The redacted responses were provided to Scrutiny.

[21] Carbon Neutral Roadmap consultation privacy notice

Analysis of stakeholder engagement events

2.27 There were different stakeholder engagement events designed to understand the views and thoughts of the different stakeholders. The conversations in these sessions were summarised into key themes and pertinent points were noted and used.

2.28 Some stakeholder engagement events were structured and facilitated by co-creators such as industry bodies who collated notes which were used to formulate their own written submissions. Others were facilitated by Government of Jersey officers.

2.29 All participants at stakeholder sessions were reminded of the survey and invited to make a written or individual submission as appropriate.

Analysis of written submissions and individual submissions

2.30 All submissions were put through a redaction process. For individuals and sole traders, this included redacting their name and issuing a reference number. Each submission was read in detail and key points of feedback were noted against each policy by theme in a spreadsheet. These submissions were all published in the Consultation Report[22] and provided to Scrutiny.

Consideration of the consultation responses

2.31 The Consultation Report and the spreadsheets summarising key points and issues formed the basis for the Consultation Response Statement[23]. Key themes across the different consultation routes were identified for each policy, with consideration given to the number and strength of responses made on each point. Policy officers considered each point and highlighted any salient issues supporting, or otherwise, of the feedback. Officers then went through each policy with the Assistant Minister for the Environment explaining the key feedback received and any relevant considerations, including impact on budget and resources. The Assistant Minister considered each policy and decided where amendments to the policy pack were required. This process is summarised in the Consultation Response Statement .

[22] Carbon Neutral Roadmap Consultation Report (gov.je)
[23] Carbon Neutral Roadmap Consultation Response Statement (gov.je)

3. The context for decarbonisation

3.1 The Carbon Neutral Strategy[24] set out a comprehensive summary of the strategic context for decarbonisation. This included the scientific basis for anthropogenic climate change, key concepts such as emissions scope and reporting arrangements, and the local policy context as set out in public policy documents including the Common Strategic Policy[25], Government Plans[26], the Island Plan[27] and Pathway 2050: An Energy Plan for Jersey[28].

3.2 This section does not revisit all aspects of the strategic context, as these were understood and accepted when the States Assembly voted to adopt the Carbon Neutral Strategy in 2020. It does though provide a small number of updates in relation to the global and local strategic context where matters have progressed in recent years.

3.3 Particularly relevant is the backdrop of post-pandemic volatility in global energy markets; this is especially notable for natural gas (not a product that Jersey buys directly). Energy market instability has had a significant indirect impact on global inflation of a variety of goods and services and a direct impact globally on energy prices. Further geopolitical instability and the Russian invasion of Ukraine are causing further uncertainty and this uncertainty will grow if this situation is sustained.

3.4 Jersey's unique energy market has some factors that have (so far) somewhat protected the Island from the worst of the impacts we are seeing in other jurisdictions. However, it seems that the interplay between energy security, sustainability and affordability is more relevant than ever.

Global context

3.5 Jersey has always taken its responsibility to tackle climate change seriously. We have sought to demonstrate the Island's commitment as part of a global effort by aligning with international standards and agreements.

3.6 The United Nations Framework Convention on Climate Change[29] (UNFCCC) established an international environmental treaty to combat '*dangerous human interference with the climate system*'. It was signed by 154 states, including the UK, at the United Nations Conference on Environment and Development - the Earth Summit - held in Rio de Janeiro in 1992. By 2020, the United Nations Framework Convention on Climate Change had 197 states parties and its

[24] Carbon Neutral Strategy (gov.je)
[25] Common Strategic Policy 2018-22 (gov.je)
[26] Government Plan (gov.je)
[27] Island Plan (gov.je)
[28] Pathway 2050: An Energy Plan for Jersey (gov.je)
[29] United Nations Framework Convention on Climate Change

supreme decision-making body, the Conference of the Parties (COP), meets annually to assess progress in dealing with climate change. Most recently COP26 was held in Glasgow in November 2021.

3.7 The treaty called for ongoing scientific research and regular meetings, negotiations, and future policy agreements designed to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and, to enable economic development to proceed in a sustainable manner.

3.8 In 1997 The Kyoto Protocol[30] was signed and was the first implementation of measures under the United Nations Framework Convention on Climate Change. In March 2007, the UK's ratification of the Kyoto Protocol was extended to the Bailiwick of Jersey. The protocol requires Jersey to reduce its carbon emissions by 80% by 2050, relative to 1990 levels. In 2014, the States Assembly adopted Pathway 2050: An Energy Plan for Jersey[31] which detailed a set of actions designed to help Jersey achieve the 80% emission reduction target.

3.9 The Kyoto Protocol ran from 2005 to 2020 and was superseded in 2016 by the Paris Agreement[32]. The goal of the Paris Agreement on Climate Change is to limit global warming to well below 2ºC, preferably to 1.5ºC, compared to pre-industrial levels. To achieve this long-term temperature goal, countries aim to reach global peaking of greenhouse gas emissions as soon as possible to achieve a climate neutral world by mid-century.

3.10 In Glasgow, 2021, Jersey was represented at a Conference of Parties for the first time. This was a pivotal conference where global ambition was focused and challenged given the scientific evidence of the increased severity of climate degradation since Paris.

3.11 The Minister for External Affairs, Senator Ian Gorst, attended and there was formal recognition of the intention of the UK to extend the Paris Agreement to the Island. This aligns Jersey with the International community. The basis on which Jersey is considered eligible is the adoption of an emissions reduction pathway that is steered by the science in order to limit warming to well below 2ºC. This pathway is further explained in strategic policy 1. The link between the Paris Agreement and carbon neutrality is set out in strategic policy 5.

3.12 On 27 February 2022 the Intergovernmental Panel on Climate Change (IPCC) published 'Climate Change 2022. Impacts, Adaptation and Vulnerability'[33]. Hans-Otto Pörtner, co-chair of the working group behind the report, states that '*The scientific evidence is unequivocal: climate*

[30] Kyoto Protocol
[31] Pathway 2050: An Energy Plan for Jersey (gov.je)
[32] Paris Agreement (United Nations)
[33] Climate Change 2022: Impacts, Adaption and Vulnerability: Summary for Policymakers (IPCC)

change is a threat to human wellbeing and the health of the planet. Any further delay in concerted global action will miss a brief and rapidly closing window to secure a liveable future'.

Figure 5: The Minister for External Relations, Senator Ian Gorst (far left), the UK's Minister of State for Energy, Clean Growth and Climate Change, Greg Hands (second from right), at the Conference of Parties in Glasgow 2021. Pictured also are External Affairs Minister for Guernsey, Jonathan Le Tocq (second from left) and Member of the House of Keys of the Isle of Man, Daphne Caine (far right).

Local context

3.13 Since the declaration of the Climate Emergency in 2019 there have been some significant strategic movements that have impacted on the way that this Roadmap has been developed.

Bridging Island Plan

3.14 The draft Bridging Island Plan[34] proposition was lodged on 19 April 2021. Note that the information provided in this document reflects the position regarding the Bridging Island Plan as of 2 March 2022. The debate is scheduled for 14 March 2022 and therefore the final policies adopted in the Bridging Island Plan will be subject to the outcome of that debate.

3.15 The draft Bridging Island Plan introduces new planning policies to seek to reduce emissions using development controls. It aims to ensure carbon emissions are reduced throughout the life cycle

[34] P.36/2021 Island Plan 2022-2025 as lodged (gov.je)

of new development (from design through to deconstruction). Policies include increased environmental design standards for new developments and support for carbon sequestration schemes and ground mounted solar arrays, where appropriate.

3.16 The draft Bridging Island Plan also notes that protecting and improving the natural environment is a key part of the Island's transition to net-zero and reflects the importance of biodiversity throughout the Island. It seeks to ensure that new development protects and improves green infrastructure and networks.

3.17 The draft Bridging Island Plan also integrates the Sustainable Transport Policy[35] and provides support for related initiatives and strengthens the requirement for contributions to support bus services and to deliver new walking, cycling and wheeling infrastructure as part of new developments.

3.18 The draft Bridging Island Plan will be debated by the States Assembly in March 2022, with the Carbon Neutral Roadmap in April 2022. Should the States Assembly agree the emissions policies that have implications on development, then these will need to be fully reflected back into the Island Plan, to be bought forward for the period after 2025.

Sustainable Transport Policy

3.19 Shortly after the States Assembly agreed the Carbon Neutral Strategy[36] in early 2019, a Sustainable Transport Policy was also agreed. The Sustainable Transport Policy outlined a programme of work to investigate a set of 'big questions' that underpin how we will transform the local transport system, guided by a set of agreed decision-making principles for sustainable transport. A programme of 'Strong Start' delivery projects was also agreed. A key theme of the Sustainable Transport Policy is the overlap between sustainable transport and decarbonisation, which is evident in the significant transport focus of the Carbon Neutral Roadmap.

3.20 Four rapid plans were required by the Sustainable Transport Policy:

1. an Active Travel Plan,
2. a Bus Service Development Plan,
3. a Parking Plan and
4. investigation into Mobility as a Service.

3.21 An interim update on this work was published in November 2020[37], with the second interim report published in December 2021[38], and work has progressed in each of these areas

[35] Sustainable Transport Policy (gov.je)
[36] Carbon Neutral Strategy (gov.je)
[37] Sustainable Transport Policy update (gov.je)
[38] Second Interim Report on the Sustainable Transport Policy (gov.je)

throughout 2021. A final Sustainable Transport Roadmap will be published in 2022 as set out in policy TR8 in Part C.

Population and Migration Policy

3.22 Local emissions are heavily influenced by the number of people living in Jersey. Growth in the resident population above that modelled, is one of the reasons we did not achieve the emissions reduction trajectory proposed in Pathway 2050: An Energy Plan for Jersey[39], our first energy and emissions reduction plan.

3.23 In March 2021, the States Assembly agreed a new Migration Control Policy[40] to replace the current graduation system, with one that restricts the number of permits that would lead to permanent settlement in the Island. The migration policy will pave the way for the development of a population policy, which will provide more detail on the levels of migration the Island can accommodate moving forward. The Council of Ministers considers that the aim of its Common Population Policy (lodged December 2021[41]) is to achieve a stable population position for Jersey, where reliance on inward migration has been significantly reduced in the longer term. Given the lack of robust data, Ministers concluded that it was premature to set a specific population target. The target date for achieving population stability will be set during the term of the next Council of Ministers.

3.24 Modelling for the Carbon Neutral Roadmap is based on the planning assumption developed for the draft Bridging Island Plan and published by ministers in October 2020[42]. Should future population policy or new data (including the census) entail a change from this assumption, emissions models will be re-cast accordingly.

Adaptation and the Shoreline Management Plan

3.25 Regardless of global and local efforts to reduce emissions and to mitigate further climate change, Jersey will have to adapt to its existing inevitable effects. These include:

- increased flood risk,
- temperature increases resulting in overheating,
- changes to weather patterns,
- and the arrival of new non-native or invasive species.

Adapting to these impacts will be addressed by a range of other strategies and policies.

[39] Pathway 2050: An Energy Plan for Jersey (gov.je)
[40] Migration Control Policy (gov.je)
[41] Common Population Policy (gov.je)
[42] Island Plan preferred strategy announced (gov.je)

3.26 In January 2020, work was completed on a Shoreline Management Plan for Jersey[43]. This plan aims to ensure that our coastal defences continue to protect the Island over the next 100 years in the light of unavoidable climate change. Rising sea levels and more rainfall will increase the risk of flooding in some areas of Jersey and this plan outlines how we intend to manage our existing sea defences and drains to continue to protect us from flooding during storms, high tides and heavy rainfall.

3.27 The threat of inland flooding has also been studied in a Strategic Flood Risk Assessment[44], and new flood risk management policies were introduced in the draft Bridging Island Plan[45].

Energy markets and Brexit

3.28 Since 2019, global price insecurity, geopolitical impacts, mismatches in supply and demand, the rise of renewables and the implementation of Brexit have put pressure on European and global energy markets affecting prices and security of supply. The local energy market has not been immune to these factors, with recent substantial increases in the price of all energy types.

3.29 There are some notable and unique factors that shape our local market. Our electricity supply is a nuclear hydro mix that originates from Europe which is well hedged in the short term and also less directly linked to changes in oil and gas prices. A small part of overall consumption locally is LPG (Liquified Petroleum Gas) a different and more niche product than natural gas whose markets have been especially unstable in recent months. Despite the product differences we have still seen price rises before the winter months. The Island's importation and purchasing patterns of fossil hydrocarbon road and heating fuels means we are more directly exposed to fluctuations in global energy markets.

3.30 The future development of the Island's energy market is a key backdrop to decarbonisation and is addressed by strategic policy 2, below. A review of energy mix options for Jersey, which informed the development of the Roadmap, was published recently[46].

[43] Jersey Shoreline Management Plan (gov.je)
[44] Core evidence base documents for the Island Plan Review 2021 bridging plan (gov.je)
[45] P.36/2021 Island Plan 2022-2025 as lodged
[46] Review of energy mix options (gov.je)

4. Strategic policies

4.1. Due to the significance of these strategic priorities, ministers published them in advance of the Carbon Neutral Roadmap, and in greater detail than they are set out here. This information can be found in the Carbon Neutral Roadmap Preferred Strategy[47]. Early development of the strategic policies also provided a framework against which the recommendations of the Citizens' Assembly on Climate Change could be tested and enabled the development of policies based on a consistent strategic direction.

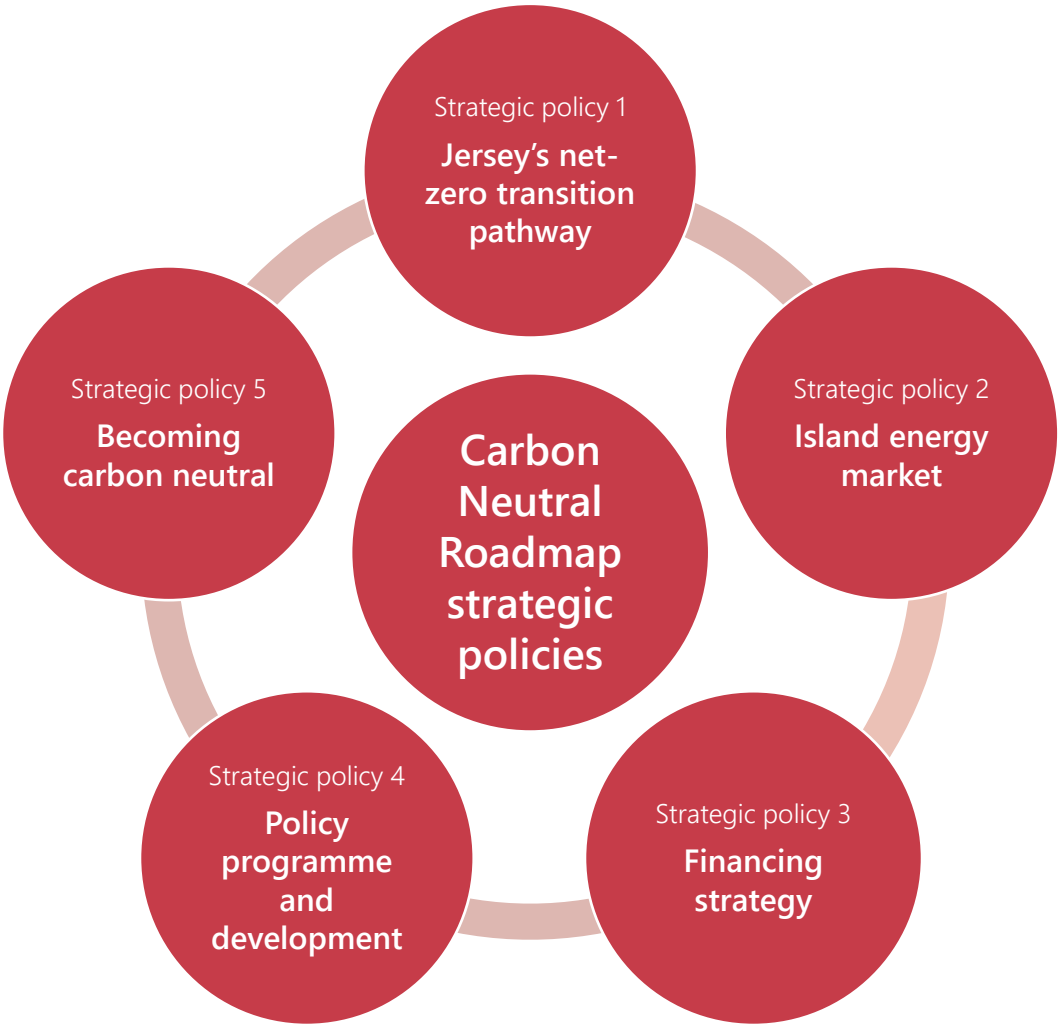


Figure 6: 5 Strategic Policies set out in the Carbon Neutral Roadmap Preferred Strategy.

Strategic policy 1: Jersey's net-zero emissions pathway

4.2. In simple terms, an emissions pathway is a forward projection of the anticipated level of carbon emissions in future years. The pathway is used to show how much carbon is expected to be emitted in each year and is a fundamental building block of the Carbon Neutral Roadmap.

[47] Carbon Neutral Roadmap Preferred Strategy (gov.je)

4.3. The Intergovernmental Panel on Climate Change (IPCC) define net-zero as *'when anthropogenic emissions of greenhouse gases to the atmosphere are balanced by anthropogenic removals over a specified period'*[48]. To achieve net-zero: *'an actor reduces its emissions following science-based pathways, with any remaining green-house gas emissions attributed to that actor being fully neutralised by like-for-like removals (e.g., permanent removals for fossil fuel carbon emissions) exclusively claimed by that actor, either within the value chain or through purchase of valid offset credits'*.

4.4. If carbon emissions are above the agreed emissions pathway, net-zero can be achieved through the purchase of carbon offsets – but only if these offsets arise from projects that remove carbon from the atmosphere (rather than projects that avoid the further release of carbon into the atmosphere)[49].

4.5. This strategic policy establishes the intention to secure the extension of the Paris Agreement on Climate Change to Jersey. This brings several advantages, including showing global and local commitment to a science-led approach to decarbonisation; creating clear targets that help government, Parishes, businesses, and individuals all see the role they will need to play in the coming years; and leaving the door open to become carbon neutral at an early date (as considered in strategic policy 5).

[48] IPCC Glossary of terms

[49] This requirement is similar to https://www.smithschool.ox.ac.uk/publications/reports/Oxford-Offsetting-Principles-2020.pdf established by the Smith School at the University of Oxford, which are currently accepted as international best practice.

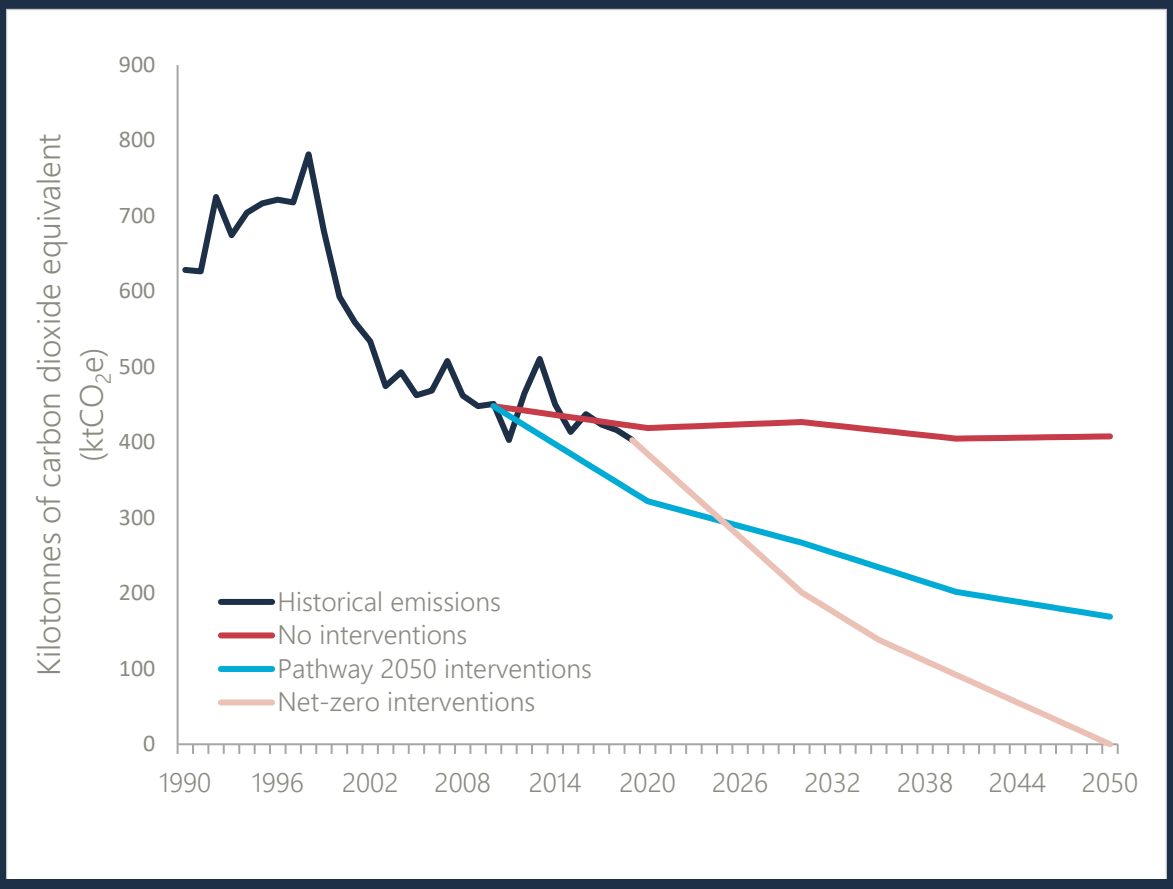
Jersey's Net-Zero Emissions Pathway

Carbon Neutral Roadmap: strategic policy 1

To ensure the international integrity of our environmental targets, and aspire to the highest level of ambition, Jersey will follow an emissions reduction pathway in line with our commitments under the Paris Agreement. This pathway will:

- as a minimum, reduce emissions by 68% compared to our 1990 baseline by 2030; and reduce them to 78% from baseline by 2035,
- deliver net-zero emissions by 2050, and
- stay in line with, and respond to further evidenced change in, science-based global emissions reduction targets that are needed to limit global warming to 1.5°C.

The pathway is indicated in the graph below.



Strategic policy 2: Island energy market

4.6. Jersey's energy market is well served by a range of products, and a landscape of providers that manage some relatively complex supply chains and logistics for our small marketplace of c.45,000 homes and population of c.108,000 people.

4.7. Energy supply and distribution is expensive, involving multi-million-pound investment decisions in infrastructure that lasts decades. Many investments in Jersey are also linked closely to Guernsey as we share Channel Island distribution networks and suppliers for electricity, liquid petroleum gas (LPG), and oil products.

4.8. The Carbon Neutral Roadmap Preferred Strategy sets out a more comprehensive energy policy statement, that considers in some detail: electricity and the potential future for decarbonisation (including renewable generation) and decentralisation; and the role that other low-carbon products could play in the energy market, including biogas, biofuels and hydrogen.[50]

4.9. This strategic policy sets the framework for establishing whole-of-market transition plans over the coming years to respond to the urgent need to decarbonise our energy supply while ensuring our market is able to flex, respond and adapt over this relatively short period.

The energy 'trilemma'

4.10. This framework is informed by the need to balance energy affordability and security with decarbonisation, as recognised in the 'energy trilemma' diagram at Figure 7 and expanded on in Figure 8.

Figure 7: The energy trilemma.

[50] Carbon Neutral Roadmap Preferred Strategy (gov.je)

Energy Market consideration	Summary of the Jersey context
Sustainability	Jersey currently enjoys access to low-carbon electricity from France, which has proved a mature and economically viable source that makes a significant contribution to meeting decarbonisation and sustainability targets. The Carbon Neutral Strategy confirms that '*any…viable route to carbon neutrality by 2030…will require the rapid electrification of a large proportion of road transport and space heating in Jersey.*'[51]. The pathway for delivering cost-effective decarbonisation with alternative technologies is more uncertain, as it requires the technologies to mature to the point of having large-scale commercial deployment potential, and for greater levels of enabling infrastructure investment to be undertaken.
Security and resilience	Relying entirely on electricity imports from France (or other parts of the European energy market) does not, however, provide Jersey with energy sovereignty, and may be exposed to new risks if energy markets become more volatile in the future. To diversify its energy mix, Jersey could consider other sources of large-scale generation, and support this with increased use of smaller scale energy generation as technologies mature. Security of supply concerns also arise for alternative technologies. Jersey is unlikely to produce sufficient biogases, biofuels, or hydrogen on-Island to fully decarbonise transport and heating systems, even if the technologies become commercially competitive. This is because of the limited availability of feedstock and crops necessary for biogases and biofuels respectively; and insufficient sources of green power generation necessary to meet the production needs of green hydrogen.
Affordable and available	It is important to recognise that our current electricity model has served the Island well, and provides an affordable, low-carbon, reliable and secure product with strong investment and a good return to shareholders (the Government of Jersey is a 62% shareholder). It is recognised though that the price-premium of the decarbonised electricity supply that Jersey currently enjoys, may increase in future. Diversifying the Island's energy mix is likely to create additional costs in the short-to medium-term, although it could lead to lower overall costs over the longer-term. Diversification could also pose network management challenges that might manifest as increased intermittency, depending on the nature and pace of transition.

Figure 8: Energy Market considerations in the Jersey context.

4.11. Balancing these related, but at times, competing interests in a small jurisdiction is a delicate challenge, but one that Jersey's energy market has successfully achieved in recent decades.

[51] Carbon Neutral Strategy (gov.je) (p.69)

Going forward, the decarbonisation policy will continue to evolve in a measured way that recognises the interplay with energy sovereignty and security, and end-user affordability.

4.12. Recognising the significance of energy market policy, the draft Bridging Island Plan[52] includes a strategic proposal to undertake a review of long-term energy requirements that, amongst other things, will consider regulatory or other economic requirements, along with infrastructure and land use requirements linked to future energy use.

4.13. The review will need to consider how we might ensure that those working in the energy sector can flex and enhance their skills to accommodate new products or market structures. Similarly, those whose living relies on selling or maintaining vehicles will also need to be considered, and support offered to ensure people can gain the necessary skills to support decarbonisation and take advantage of the creation of new green jobs.

Energy market summary

4.14. There are a number of available and emerging non-fossil hydrocarbon products and new energy sources that are entering the marketplace in all sectors. They will reach maturity and commercial availability over the next three decades and have the potential to contribute to Jersey's decarbonisation journey. Some new products, particularly biofuels, are direct substitutes for existing fossil-hydrocarbons making transition simpler assuming supply and demand align, and prices are competitive enough to encourage uptake.

4.15. There will be a need to accommodate changes to our energy system in the future, as products change and with increased potential to democratise power generation, distribution, and storage.

4.16. There are challenges to bring new energy sources to the Island where they require new infrastructure and supply lines (for example, hydrogen).

4.17. We expect to see a decentralisation of electricity generation in the forthcoming decades, and we will need to consider the impact of this on our current electricity market and infrastructure.

4.18. As the cost of generating utility scale (offshore) renewable energy falls, we might want to consider investment to provide the Island with energy sovereignty and resilience. Jersey participates in the British Irish Council energy work stream where it is represented alongside England, Ireland, Scotland, Wales and the other Crown Dependencies. Jersey is represented on a number of French working groups e.g., Ille et Vilaine, La Manche, where renewable energy is a key topic due to the development of the St Brieuc windfarm in French territorial waters. There will be increased coordination across the Channel Islands with recent discussions seeking to re-

[52] P.36/2021 Island Plan 2022-2025 as lodged (gov.je)

establish a Ministerial working group that will identify opportunities to work across the Islands to explore the opportunities for marine renewable projects.

4.19. Responding to these related challenges requires a clear and long-term government led energy strategy with clear and accountable political leadership. A new ministerial portfolio for energy and climate change is recommended to oversee the planned energy market review, which will need to ensure our statutory and regulatory framework remains fit-for-purpose in a new energy future to balance energy affordability, sustainability, and security of supply issues.

Island Energy Market
Carbon Neutral Roadmap – strategic policy 2

Jersey's energy market currently supplies a variety of energy products to consumers with a reasonable level of resilience and security considering the Island's small size and logistical challenges.

Globally, energy markets are rapidly decarbonising and, to some degree, decentralising.

The future for Jersey requires significant electrification, particularly in transport; the replacement of some fossil-hydrocarbon fuels with non-fossil hydrocarbons, and potentially hydrogen, will also be required.

The Carbon Neutral Roadmap will include policies in the first stage of delivery that:

- seek to support faster adoption of low-carbon electric solutions in key emissions sectors, and non-fossil hydrocarbons, such as second-generation renewable diesel, and
- invest in the skills needed in the future decarbonised economy.

At the same time (and as proposed in the draft Bridging Island Plan) we will undertake a strategic review of Jersey's long-term energy requirements to inform a future government-led energy strategy. This work will consider, amongst other things, economic, regulatory infrastructure and land use requirements linked to future energy use; and will provide a process – and appropriate political governance – to develop energy market policy in a joined-up and evidence-based way.

To support this work, government will establish new research and advisory partnerships with energy systems experts; explore opportunities to trial, appropriately, new and emerging energy solutions in Jersey; and work with the Energy Forum to solicit decarbonisation transition plans and market insights from all current Island energy providers. A new ministerial portfolio for energy and climate change is also recommended.

As part of the strategic energy market policy, we will work with our sister Islands. We will work across the Islands and examine the options for utility scale renewable energy generation, to ensure a diverse, safe and resilient supply of energy to meet the Island's future needs.

Strategic policy 3: Financing strategy

4.20. The transition to a decarbonised economy is a major macro-economic challenge. It requires an investment by current generations in measures that will benefit future generations.

4.21. While the decarbonisation challenge is relatively clear in Jersey – with a need to focus on transport and heating, cooking and cooling – there are many different ways that this might be approached. This Roadmap sets out an initial set of costed policies, but it will take longer to understand the right steps to take in later years because decisions will need to allow for progress to be made in, for example, energy technologies.

4.22. As such, it is not possible to put a single 'cost' on delivering against the net-zero pathway, or an early transition to carbon neutral (although those aspects of cost and benefit that can be considered are explored in Part B). This was recognised in the report of the Citizens' Assembly[53], which says, *'We are aware that there is a cost implication to our recommendations…and we have allowed for exceptions where the technology is not yet available to transition.'*

4.23. This strategic policy describes how the first stage of the Carbon Neutral Roadmap will be supported with investments made from the Climate Emergency Fund. It also sets out the research into additional fiscal levers that ministers have endorsed and frames the longer-term financing challenge that will need to be addressed in the coming years.

[53] Achieving Carbon Neutrality – Report of Jersey's Citizens' Assembly on Climate Change

Financing Strategy
Carbon Neutral Roadmap – strategic policy 3

The Climate Emergency Fund will maintain a hypothecated revenue stream to fund Jersey's decarbonisation.

Additional funding will be required to fully decarbonise Jersey's economy. Three stages are proposed to identify this funding:

- **Short-term:** the Carbon Neutral Roadmap will fully allocate the resources currently available in the Climate Emergency Fund to support policies in the first stage (2022-2026),
- **Medium-term:** government will bring forward in 2022, in time for potential inclusion in the Government Plan 2023, proposals for new economic instruments that generate income ring-fenced to the Climate Emergency Fund (in whole or in part) in the following areas:
    - Road user charges
    - Reinvestigation of commercial solid waste charges
    - Car parking charges
    - Travel duty, and
- **Longer-term**: bring forward in 2023, in time for potential inclusion in the Government Plan 2024, a long-term financing strategy that considers all available options to continue to fund the decarbonisation of the economy at the pace required to achieve the emissions trajectory established in Carbon Neutral Roadmap – strategic policy 1.

At each stage, work to develop the financing strategy will:

- accord with Principle 5 of the Carbon Neutral Strategy, so that carbon neutrality policies do not overall increase income inequality,
- ensure that those most affected by the transition are included in the process, and that the impacts of all carbon neutral policy options are assessed to ensure a just transition, and
- proceed within established governance and Treasury and Exchequer systems and processes.

Strategic policy 4: Policy programme and development

4.24. This strategic policy establishes a robust, staged approach to policy development and prioritisation, building on the people-powered approach established in the Carbon Neutral Strategy[54]. This helps ensure that policy prioritisation makes best use of available resources, is informed by evidence and experience, and establishes a foundation that can scale up in coming years as the decarbonisation process gathers pace.

4.25. The policies were developed as a pack, with a mixture of 'carrots' and 'sticks' designed to work together to encourage and incentivise voluntary behaviour change towards low carbon activities over the short-term, with disincentives discouraging carbon intensive activity over the medium-term and mandatory changes brought in through legislation changes over the long-term. It should be noted that there are consequences in terms of budget and the pace of decarbonisation if certain policies are taken forward without the whole package.

4.26. The policy also requires steps to seek to ensure a Just Transition, in which the interests of both future generations, and those currently reliant on polluting industries for employment, are considered. Neither group should be actively disadvantaged by being left either to live with the impacts of inaction now, or to bear a disproportionate burden of the costs to mitigate and adapt to climate change.

4.27. A programme office will be established in SPPP to provide overall coordination and management of the design of the Carbon Neutral Roadmap programme, and assurance of programme delivery, including spend. A full review will be carried out by the end of 2025 to evaluate the impact of the policy measures. Revisions will form part of the second delivery plan to be agreed in 2026.

[54] Carbon Neutral Strategy (gov.je)

Policy Programme and Development
Carbon Neutral Roadmap - strategic policy 4

The Carbon Neutral Roadmap will include carbon reduction policies for the period 2022-2026.

Policies funded from the Climate Emergency Fund will be developed and prioritised in a staged process, drawing on:

- the ideas generated in Jersey's Climate Conversation,
- the recommendations of the Citizens' Assembly on Climate Change and other available evidence and advice,
- an understanding of carbon abatement potential,
- an analysis of potential costs and co-benefits,
- a distributional analysis of the impacts of policies on different sectors of the Island's community,
- input from stakeholders, and
- appropriate political guidance.

The Policy Programme set out in the Carbon Neutral Roadmap and subsequent associated delivery plans will:

- take a people-powered approach, supporting people in Jersey to respond as citizens – with an active part to play in the transition to net-zero – not just as consumers,
- ensure a Just Transition, and
- not, overall, increase income inequality.

Strategic policy 5: Becoming carbon neutral

4.28. Strategic policy 1 of the Carbon Neutral Roadmap commits us to a science-led emissions reduction trajectory that aligns with the widely held global ambition of net-zero by 2050. The policies within Appendix 2 focus on how we can move away from burning fossil fuels in the Island and so reduce our on-Island greenhouse gas emissions to as close to zero as possible by 2050.

4.29. In 2030 we will only be part of the way through decarbonising our local economy and it is unlikely that local carbon sequestration will be at a scale that balances our remaining greenhouse gas emissions. In order to obtain carbon neutral status, we will need to purchase carbon offsets, on an annual basis, that support the removal of carbon from the atmosphere in other jurisdictions.

4.30. This strategic policy explores the relationship between carbon neutral and net-zero – and specifically the role that offsets could play in becoming carbon neutral. It details the work that is needed to fully understand the associated costs and benefits to the Island of carbon neutrality ahead of a decision being taken around the purchase of carbon offsets in the next term of government.

Defining carbon neutral

4.31. The Carbon Neutral Strategy[55] sets five defining principles of Jersey's approach to achieving carbon neutrality and tackling the climate emergency. These are set out in Figure 9 and are incorporated into the Carbon Neutral Roadmap in this policy.

3.1 Principle 1

We will adopt a strategic focus on all emissions

This carbon neutral strategy, and the long-term climate action plan that we will develop together in 2020, will recognise and have a strategic focus on Jersey's scope 1, 2 and 3 emissions.

It is important that we understand the impact our local choices have across the world, including recognising the impact that Jersey based businesses can have.

3.2 Principle 2

We will work within a definition of carbon neutrality

Carbon neutral is defined as balancing the scope 1 and 2 emissions we produce against any activity that captures, absorbs or reduces global emissions so that they are equal. By including scope 2 emissions we are exceeding our international legal obligations.

Scope 3 emissions are recognised, and the long-term climate action plan will include policies and programmes to support people, businesses and government to make more sustainable choices that reduce Scope 3 emissions created on our behalf across the world, but Scope 3 emissions do not form part of the baseline for carbon neutrality.

[55] Carbon Neutral Strategy (gov.je)

3.3 Principle 3

We will require high standards in the use of carbon offsetting

It is appropriate to use carbon offsetting where emissions cannot be abated, but offsets on their own are not a route to carbon neutral and should only be used where they are accompanied by a robust and ambitious measures to reduce emissions.

As a responsible and ambitious jurisdiction any offset arrangements that Jersey enters into will be of the highest recognised standards.

3.4 Principle 4

We will make sure that everyone can play their part

Whole Island ownership of the climate challenge is critical to its success. Government will use all available options to deliver the long-term climate action plan, but government action must form part of a wider, collaborative approach.

3.5 Principle 5

We will make sure that carbon neutrality policies do not overall increase income inequality.

The impacts of all carbon neutral policy options will be assessed to ensure a just transition to carbon neutrality. A quantification of the economic impact assessment of the policy proposals will be carried out as part of the process of developing the long-term climate action plan.

Figure 9: The defining principles of the Carbon Neutral Strategy.

4.32. The definition of carbon neutral set out in the Carbon Neutral Strategy[56] remains robust. The principles it establishes are well considered and evidence-led; they are stricter than many situations in which the term 'carbon neutral' is used. Based on this definition becoming carbon neutral remains a legitimate milestone on the pathway to net-zero.

4.33. Offsets would be required as part of an early transition to carbon neutrality, for example in 2030. By 2050 the intention is that the decarbonisation of the economy will be further advanced and carbon offsets will only be required to counter the residual emissions remaining from the areas that have been most difficult to decarbonise. The use of offsets remains a contentious issue and is likely to impose significant costs for currently uncertain local benefits. These issues are further explored in policy EN6.

[56] Carbon Neutral Strategy (gov.je)

Becoming Carbon Neutral

Carbon Neutral Roadmap – strategic policy 5

International markets in offsets are still evolving, and the costs, potential benefits and availability of offsets that would fulfil local aspirations are currently uncertain.

Having committed to a science-led emissions trajectory (Carbon Neutral Roadmap – strategic policy 1), becoming carbon neutral in 2030 (or at a different date) remains a legitimate step on the pathway to net-zero.

The Carbon Neutral Roadmap will:

1. set out the steps that government will take to ensure that Jersey can become carbon neutral
2. provide support for sequestration projects that use local carbon sinks in the terrestrial or marine environment (blue carbon), before the purchase of off-Island offsets; and require funded sequestration projects to contribute to improvements in biodiversity.

Part B

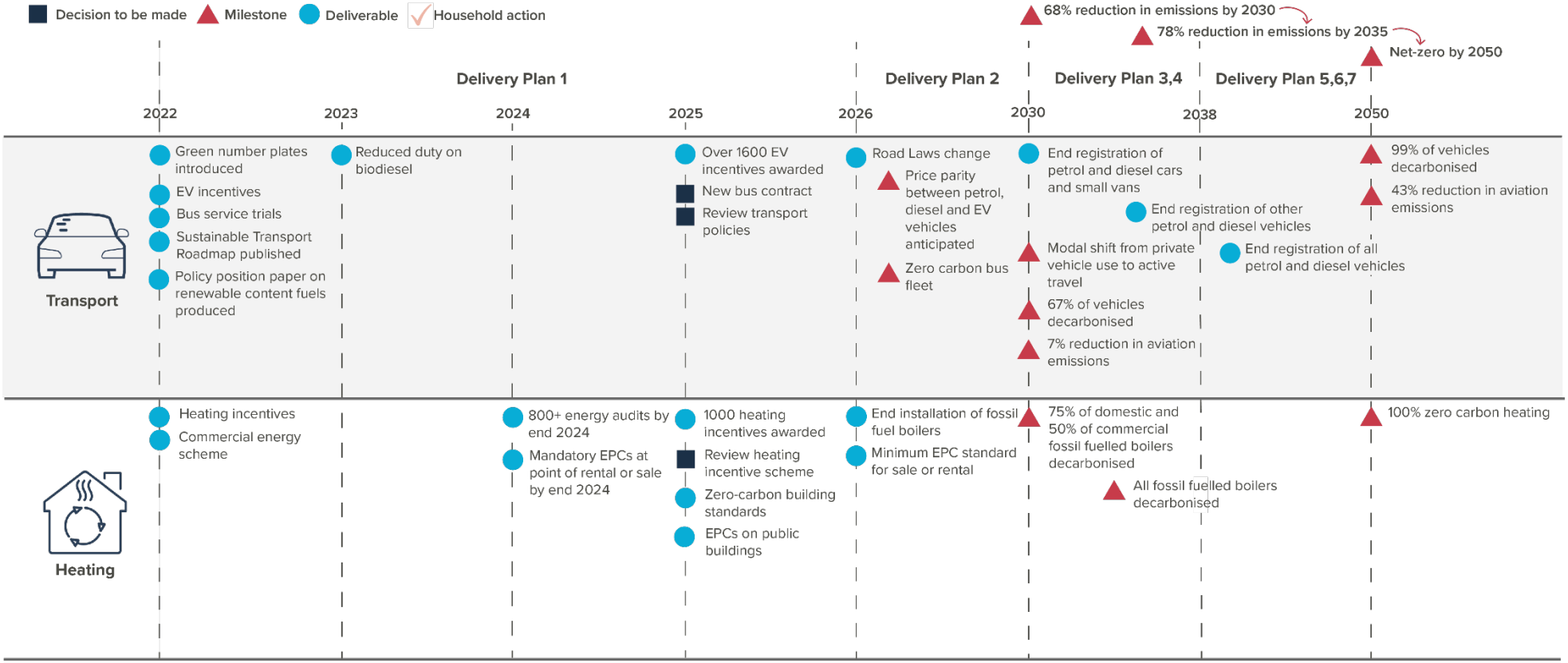
The Roadmap

5. Carbon Neutral Roadmap

5.1. In planning for major long-term change, a balance must be struck between taking early decisions that give certainty and create the context for action, and the need to take time to get decisions right and to respond to events and new evidence and understanding. A Roadmap approach has been used to provide the right balance between the competing objectives of certainty and responsiveness.

5.2. Jersey's Carbon Neutral Roadmap is summarised in the diagram at Figure 10 below. It establishes a staged pathway, sets milestones for future key decisions and the introduction of future policies and requires that an updated delivery plan be set out at the start of each new term of government. Part C of this document provides the first Introducing delivery plan, for the period (2022-25), with supporting investment from the Climate Emergency Fund.

5.3. The Roadmap will only be effective if action continues to be taken to stick to it in the coming years. To help achieve this, a framework of 'commitment devices' is proposed, as set out in Figure 11. These proposed actions create the context in which the Carbon Neutral Roadmap can evolve in order to remain relevant, and in which up to date delivery plans will be developed following each general election.


Decision to be made
Milestone
Deliverable
Household action
68% reduction in emissions by 2030
78% reduction in emissions by 2035
Net-zero by 2050
Delivery Plan 1
Delivery Plan 2
Delivery Plan 3,4
Delivery Plan 5,6,7
2022
2023
2024
2025
2026
2030
2038
2050
Transport
Green number plates introduced
EV incentives
Bus service trials
Sustainable Transport Roadmap published
Policy position paper on renewable content fuels produced
Reduced duty on biodiesel
Over 1600 EV incentives awarded
New bus contract
Review transport policies
Road Laws change
Price parity between petrol, diesel and EV vehicles anticipated
Zero carbon bus fleet
End registration of petrol and diesel cars and small vans
End registration of other petrol and diesel vehicles
End registration of all petrol and diesel vehicles
Modal shift from private vehicle use to active travel
67% of vehicles decarbonised
7% reduction in aviation emissions
99% of vehicles decarbonised
43% reduction in aviation emissions
Heating
Heating incentives
Commercial energy scheme
800+ energy audits by end 2024
Mandatory EPCs at point of rental or sale by end 2024
1000 heating incentives awarded
Review heating incentive scheme
Zero-carbon building standards
EPCs on public buildings
End installation of fossil fuel boilers
Minimum EPC standard for sale or rental
75% of domestic and 50% of commercial fossil fuelled boilers decarbonised
All fossil fuelled boilers decarbonised
100% zero carbon heating

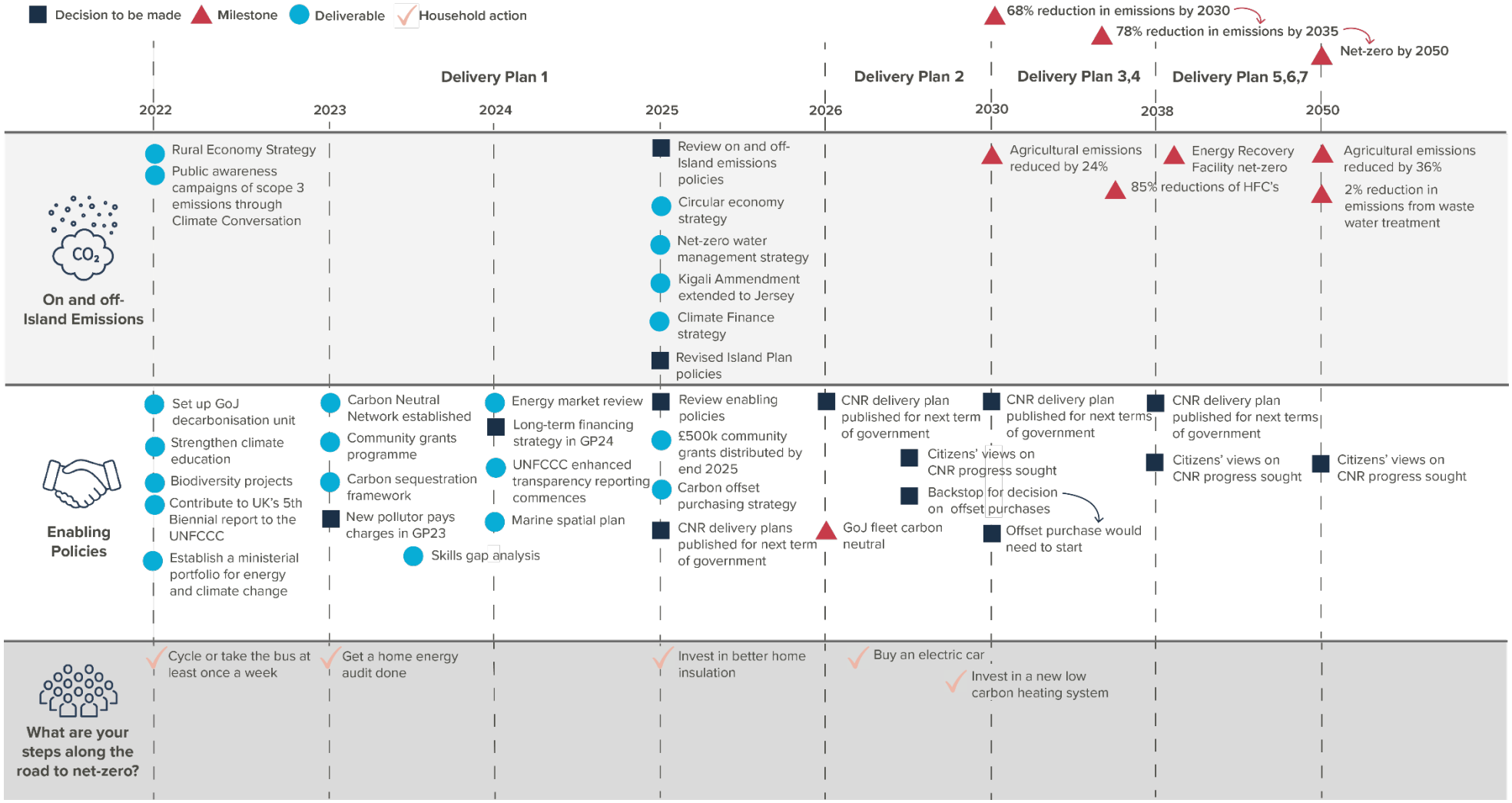


Figure 10: The Carbon Neutral Roadmap for Jersey.

Committing to the Carbon Neutral Roadmap			
Transparent reporting	**International commitment**	**Leadership from Government**	**Strengthening civic voice**
Greenhouse gas emissions published annually with commentary on progress against trajectory	Extension of the UK's ratification of the Paris Agreement on Climate Change to Jersey	Establish a Ministerial portfolio with responsibility for Energy and Climate Change	Establish a mechanism to take a representative snapshot of citizens' views about progress in delivering the Roadmap, no later than 2028 and at least once a decade until 2050
Improved sustainability reporting for Government and public sector agencies	Continued compliance with existing international agreements	Commitment to meet the identified milestones and take the preparatory steps needed to meet future milestones, and to publish a projection of progress	Invest in building civic and business capacity and leadership on decarbonisation
Commitment to high quality Environmental, Social and Governance reporting by Jersey businesses	Extension of other relevant treaties (including Kigali amendment to Montreal Protocol)	Commitment to publish an updated delivery plan after each general election	Introduction of a small grants scheme to invest in grassroots action to tackle climate change
Underpinned by a new Standing Scrutiny Review Panel on Energy and Climate Change			

Figure 11: Summary of proposed commitment devices required for the Carbon Neutral Roadmap.

6. Understanding our emissions pathway

6.1. Jersey has a good record of tackling its contribution to global climate change, although progress appears to have slowed in recent years and the Island will need to take significant action to decarbonise faster in the coming years. Steps to date have successfully reduced on-Island carbon emissions[57] by over a third since 1990 and the Island continues to take its global responsibilities seriously, acting in accordance with ratified international treaties on climate change.

6.2. To provide context, a comparison of emissions reductions for each Crown Dependency, France and the UK, relative to their 1990 baseline, as well as their projected decarbonisation pathways, is set out at Figure 12.

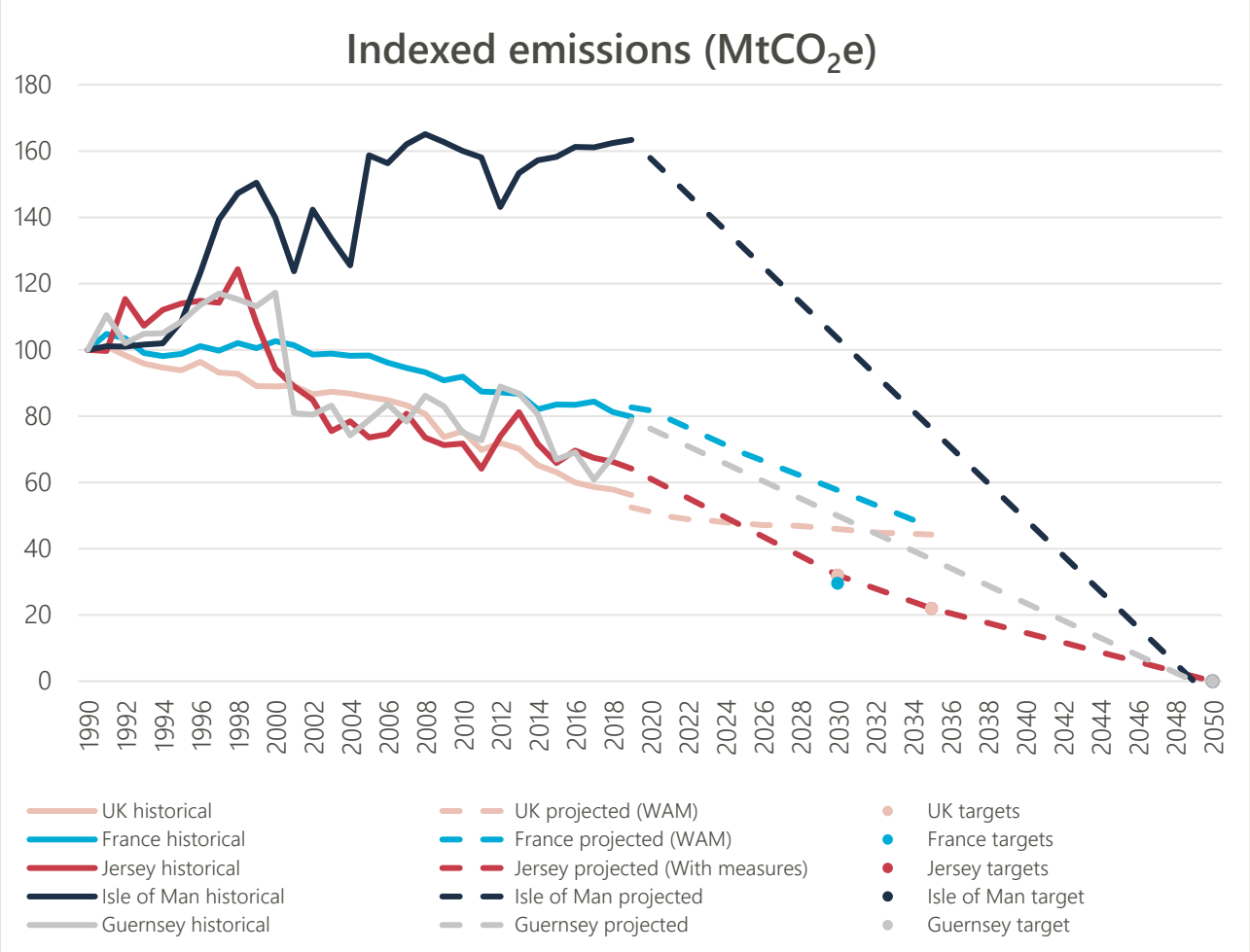


Figure 12: Indexed emissions: Crown dependencies, France, and UK.

[57] Carbon emissions is used throughout to refer to the bundle of six greenhouse gasses as defined in Carbon Neutral Strategy (gov.je)

6.3. Jersey's planned emissions trajectory is established by strategic policy 1 (set out in Part A) and is shown in Figure 13 below. It requires, as a minimum, a 68% reduction in emissions compared to our 1990 baseline by 2030: a further reduction to 78% from baseline by 2035, and net-zero emissions by 2050.

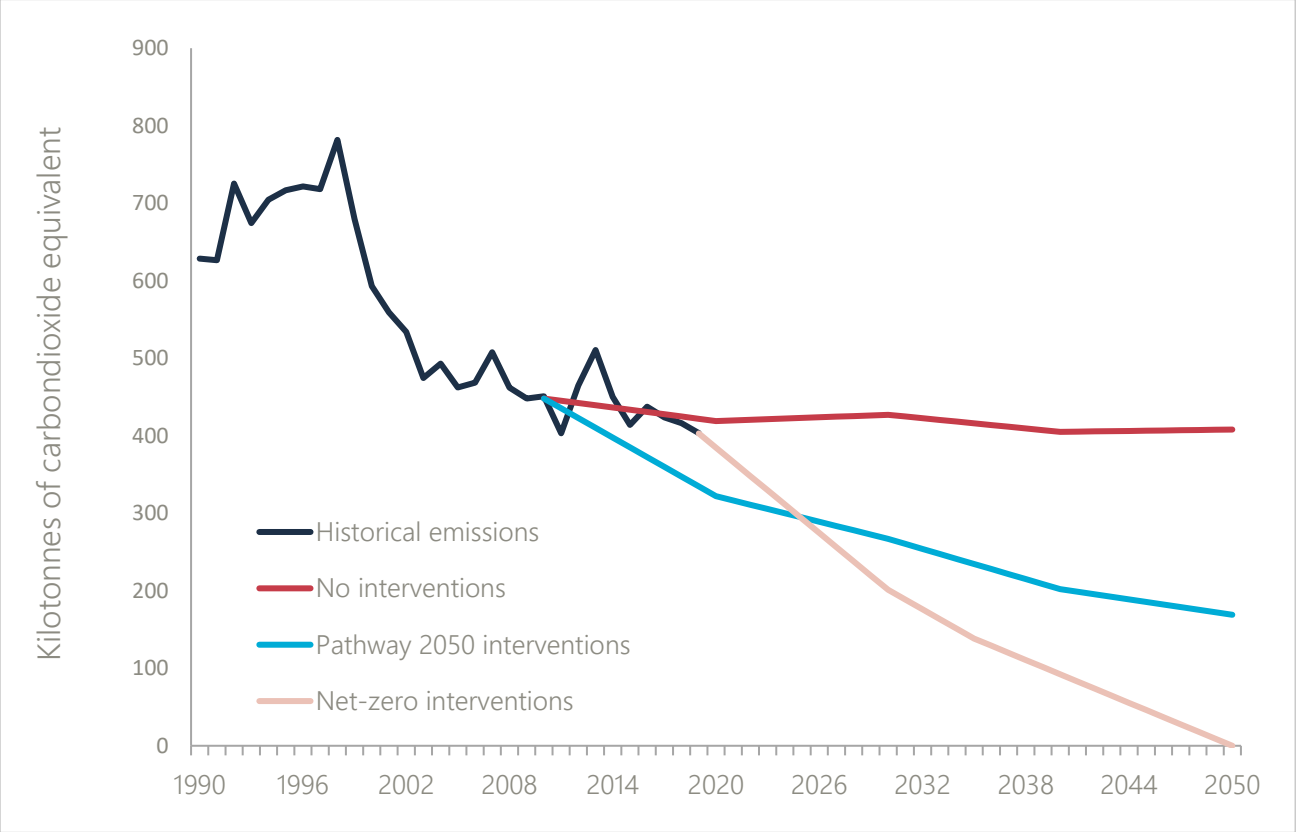


Figure 13: Jersey emissions reductions pathway.

6.4. The majority of scope 1 emissions in Jersey come from on-Island road transport, fossil fuel heating systems in our homes, business and government buildings and transport to and from the Island by ferries and planes. Smaller emissions sources include agriculture, the treatment of solid waste in the energy from waste facility to produce electricity, air conditioning units and changes in land use. The most recent emissions estimate for each source of emissions are shown in Figure 14.

6.5. The policies set out in Part C have been designed to make rapid progress towards achieving the required emissions trajectory. At this stage though, as recognised by the financing strategy set out in strategic policy 3, there is insufficient funding available to apply all policies to their fullest extent. There are also significant learning points about the administration and impact of some policies, and about market transitions, that may impact on the manner and extend to which these policies need to be applied in future years.

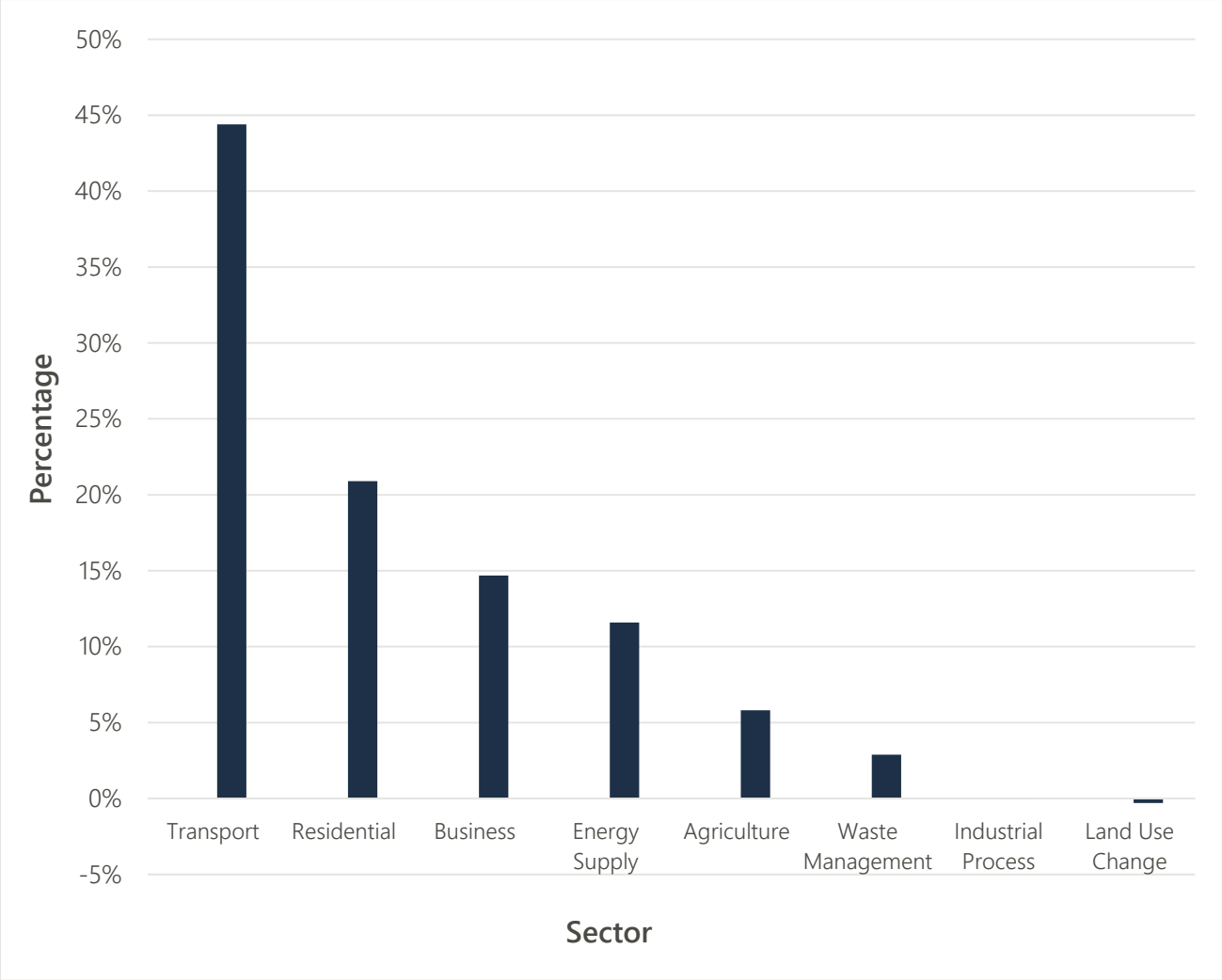


Figure 14: Scope 1 emissions by inventory reporting sector[58].

6.6 Figure 15 provides a comparison of emissions forecasts under four different situations:

- Business as usual (red line),
- Identified policies using current Climate Emergency Fund funding 2022-2025 (bars),
- Identified policies fully funded and implemented (blue line),
- Paris emission reduction targets (red X).

6.7 Note that the minimum direct costs to the government for fully implementing the identified policies (red line) is £215M. Note that if a decision is taken to purchase carbon offsets in order to become carbon neutral this would be an additional annually reoccurring cost.

6.8 The shape of scenario pathway is a product of modelled assumptions about impact dates and, in practice, progress along the pathway would follow a similar trend line but the exact shape would be different.

[58] Jersey Greenhouse Gas Emissions 1990-2019 (Aether)

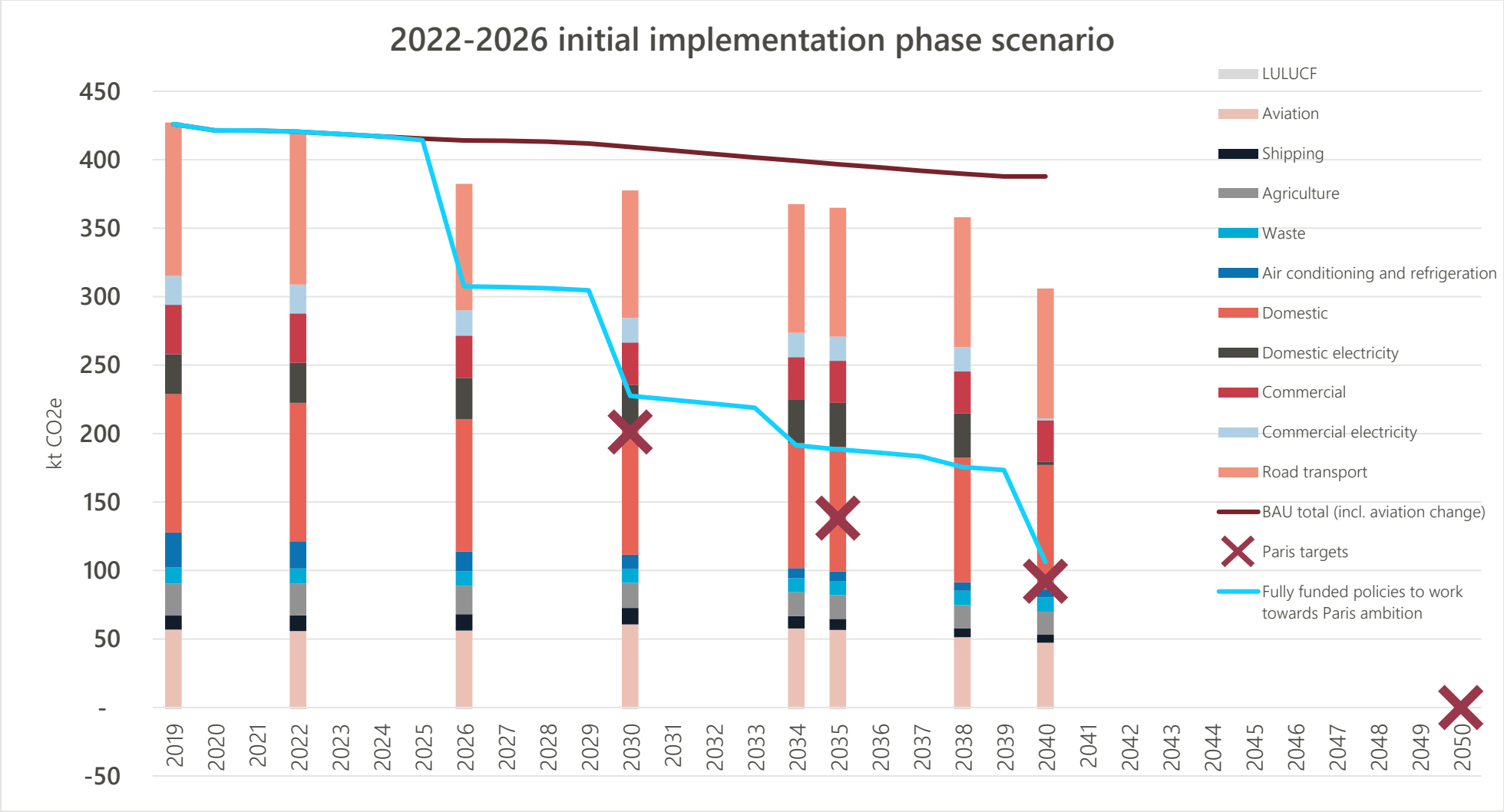


Figure 15: Graph comparing emissions forecasts for: business as usual (red line); the Climate Emergency Fund funded policies 2022-2025 (bars); fully funded policies (blue line); and the Paris Agreement emission reduction targets (red X). Emissions not modelled after 2040 due to uncertainties around future technology.

7. Understanding our sources of emissions

7.1. This section provides an overview of what is causing carbon emissions in Jersey and imagines what the future might bring in these areas over the coming 30 years.

Emissions from travel and transport

7.2. The transport sector is the largest source of on-Island greenhouse gas emissions in Jersey. It produces 44% of emissions at a time when vehicle ownership levels are increasing and there are more cars on the Island than people. As a result, transport is a priority area for action. The good news is that solutions already exist for a large proportion of transport emissions and transitioning to more sustainable modes of transport can reduce congestion, improve air quality and help us all live healthier lifestyles.

7.3. The transport sector includes emissions from road transport, domestic aviation and domestic shipping. Domestic aviation and navigation refer to activities that occur within Jersey and between Jersey and the UK. This includes, for example, take off, landing and internal, recreational flights and shipping activity that occurs within Jersey waters.

7.4. Figure 16 shows that between 1990 and 2019, emissions in the transport sector have decreased by 11% from 201,449 to 179,078 tCO_2eq[59]. The overall trend is dominated by emissions from passenger cars and domestic aviation. Passenger car emissions have decreased by 36% between 1990 and 2019 and by 2% between 2018 and 2019. Between 1990 and 2019, all sources of transport emissions decrease except for domestic aviation and heavy-duty trucks and buses.

[59] tCO_2eq means tonnes of carbon dioxide equivalent. This is the standard unit for measuring greenhouse gas by expressing the total impact of all different greenhouse gases in terms of the amount of carbon dioxide that would create the same amount of warming.

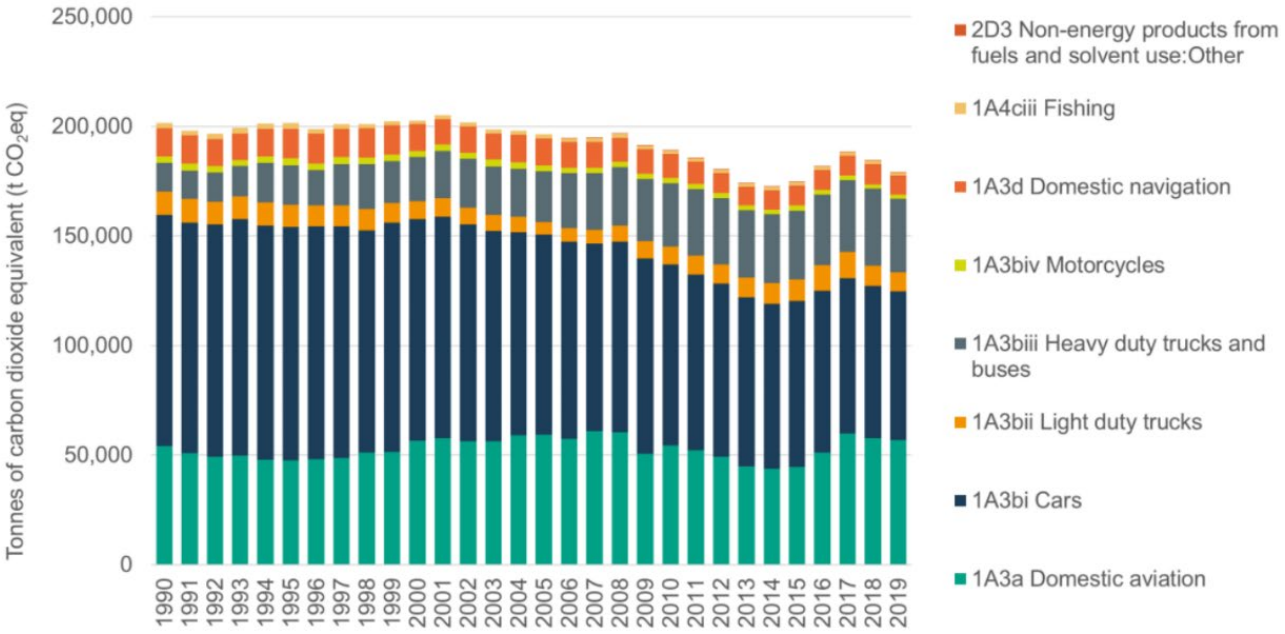


Figure 16: Transport sector emissions by sub-sector 1990-2019[60].

7.5. There are three broad ways to reduce the greenhouse gas emissions associated with transport, which are considered below.

Reduce the need to travel

7.6. This approach focuses on the essential journeys that we all make every day, which we would happily choose not to undertake if there was a suitable alternative, such as the school run or the daily commute. There is potential to reduce the need to travel at minimal cost, building on new ways of working and new distribution services adopted during the COVID-19 pandemic.

7.7. Services might be provided closer to our homes, for example by:

- locating more day-to-day facilities (such as shops, hairdressers, medical facilities etc.) in local centres that are accessible by walking and cycling,
- Continuing to accommodate the majority of new homes close to services within existing urban areas,
- Supporting people to work closer to home by providing hot-desk work hubs in different locations and continuing to promote working from home.

7.8. Supporting working from home, or close to home, could play a key role in reducing travel and associated peak hour congestion, and future business engagement will include a focus on looking to the Island's employers to support this transition through flexible working policies and

[60] Guide to the Jersey Greenhouse Gas Inventory (gov.je)

the promotion of sustainable workplace travel plans. Continued investment in the Island's digital infrastructure will also be required in the coming decades.

7.9. Increasingly, services may also be able to come to you. Intelligent delivery services, which allow journeys to be geographically managed, can provide a significant reduction in vehicle mileage.

Shift journeys to less carbon intensive forms of travel

7.10. Even with improvements in the areas identified above, the need for many everyday journeys will remain. As many of these journeys as possible should be made by sustainable modes of transport, including active travel and public transport.

7.11. As set out in Part A, the Sustainable Transport Policy 2020-2030[61] was adopted by the States Assembly in 2020. Implementing the Sustainable Transport Policy will take many years and require increased investment to deliver the wide range of benefits it can offer. In adopting the principles set out in the Sustainable Transport Policy framework though, the States Assembly recognised that future Sustainable Transport Policy delivery plans will need to:

- make active travel and public transport easier, safer, cheaper, and more convenient to use, and
- reflect the true environmental and social cost of private car journeys through increasing the relative cost of car ownership and usage

Improve the emissions performance of the vehicles we use

7.12. Even having reduced the need to travel and increased the number of journeys via sustainable modes of transport, there will still be a need for many journeys to be by private vehicle. These journeys will need to be in low emissions vehicles.

7.13. Presently, electric vehicles (EVs) are the only widely commercially available alternative to petrol or diesel engine vehicles, with all global automotive manufacturers now selling passenger electric vehicles. Electric vehicles are classed as low-carbon emission vehicles, but it is important to remember that the carbon emissions associated with these vehicles depend on the carbon intensity of the electricity supply. In Jersey, where we have a low-carbon electricity supply, replacing petrol and diesel vehicles with electric vehicles results in lower carbon emissions. Hybrid electric vehicles also exist. These vehicles combine petrol engines with battery technology to reduce carbon emissions, but their emissions are higher than electric vehicles.

7.14. The transition to electric vehicles will take time, as vehicles are replaced as they come to the end of their lives. In order to achieve the required level of emissions reductions at the pace needed to

[61] Sustainable Transport Policy (gov.je)

limit the worst impacts of climate change, lower carbon petrol and diesel alternatives are also likely to have a significant role to play.

7.15. There are a number of different low-carbon alternatives to traditional petrol and diesel now available on the market. Second generation renewable diesel (SGRD) is a high-quality fuel made from hydrotreated vegetable oils, waste food and meat processing by-products. Second generation renewable diesel can be used as a direct replacement for fossil diesel. Three aspects of renewable diesel need to be carefully considered when purchasing, to ensure:

- it is made 100% from renewable non fossil fuel materials,
- it isn't made from crops that would otherwise be used as a food source, and
- the broader sustainability credentials of the product and its supply chain can be validated.

7.16. The table (Figure 17) paints a picture of how the journey towards decarbonised travel in Jersey might unfold. These are imagined scenarios, not predictions; some may happen, others may not.

2020-2030	2030-2040	2040-2050
• People will begin to make their journeys more sustainable, and to travel less. • New technology will support low-carbon, higher occupancy travel such as car sharing/pooling. • 50% of our journeys will be replaced with low-carbon options – electric vehicles, public transport, increased walking and cycling. • It will become increasingly expensive to buy and run a petrol or diesel car. • People will be using second-generation renewable diesel where they still have old cars.	• You will no longer be able to import a petrol or diesel vehicle into the Island and most of the major car manufacturers will have stopped producing them. • Electric vehicles cost the same or less than petrol or diesel alternatives. • We will have a demand responsive public transport system and Mobility as a Service technology will be the default decision making tool when considering how to make a journey. • Legislation and regulation will mean micro-mobility and shared transport will become the norm.	• There will be virtually no residual carbon emitting transport on the Island. Use of petrol and diesel will be very expensive. • We will have adopted new forms of energy to power our largest transport modes which include hydrogen alongside electric power, not just for road transport, but also aviation and maritime operations. • We will have reduced the number of everyday journeys we make by car and several of St Helier's car parks will have been turned into parks with extensive tree planting.

Figure 17: Vision for transport in Jersey 2020-2050.

Emissions from heating, cooling and cooking

7.17. When fossil fuels, such as gas or oil, are burnt in boilers and ovens to heat water for our radiators or showers, or to cook our dinner, greenhouse gas emissions are produced. Heating, cooling and cooking in homes and businesses is the second largest emissions source in Jersey. It is a priority area for the Carbon Neutral Roadmap. It represented approximately 35% of our total greenhouse gas emissions.

7.18. There are currently approximately 2,350 commercial properties relying on oil and 1,126 on gas for heating. The estimated total figure for boilers in residential properties running on fossil fuels is approximately 20,000 (~45% of all residential properties).

7.19. There are two main ways in which the greenhouse gas emissions associated with our buildings can be reduced – we can reduce our demand for the energy by improving the energy efficiency of our buildings and appliances, or switch to a low-carbon energy source for the energy that we use. We will need to do both to meet our carbon emissions reduction targets.

Reduce demand for energy

7.20. Energy efficient buildings require less energy to heat and cool them. New buildings need to be designed and built to the very highest standards of energy efficiency to ensure that heating and cooling demand is minimised. However, the existing building stock will continue to be the biggest source of emissions and is where the real challenge lies. Existing properties can have energy efficiency improvements made to them, such as improved loft and wall insulation and high-efficiency glazing.

7.21. The more energy-efficient a building is the cheaper it is to heat. For Islanders that cannot currently afford to heat their homes properly, making their properties more energy efficient will also make them more comfortable.

7.22. More energy efficient appliances also use less energy and have lower running costs. For example, the more efficient your oil boiler or your gas oven the less fossil fuel will be burnt to do the task you want it to do.

7.23. The way in which people use energy also has a large impact on emissions, for example, having the heating thermostat on high rather than putting on additional clothing or not adjusting the timing of the hot water so that you only have it when you need it. As well as improving the energy efficiency of our buildings and appliances we need to learn to be smarter in our use of energy. New technology can help us do this.

7.24. Reducing demand for energy in buildings can be driven forward in a number of different ways, for example:

- **New buildings** - increasing the strength of the energy efficiency and carbon emission requirements of buildings standards for all new domestic and non-domestic buildings through changes to the Building Regulations,
- **Existing buildings** - increasing the strength of the energy efficiency and carbon emission requirements as part of consequential improvement or notifiable work on existing buildings,
- Introducing new legislation to make energy efficiency and carbon emissions assessments and minimum standards mandatory at the point of sale and rental of all buildings.

Switch to low-carbon energy sources

7.25. Even in the most energy efficient buildings, with the most energy-efficient appliances, we will continue to use some energy. If this energy is generated through the burning of fossil fuels it will continue to generate greenhouse gas emissions.

7.26. If we are to meet our target of having no on-Island emissions from domestic or commercial buildings by 2050, we need to establish a plan to phase out traditional fossil fuel use. With expected life spans of over 15 years, this means that we need to stop the installation of any new fossil fuel boilers by 2030 at the latest.

7.27. There are a number of currently available heating technologies that are energy efficient and compatible with net-zero with a decarbonised electricity supply. These includes biomass and liquid biofuels, heat pumps and hybrid heat pumps, electric flow boilers and solar technologies.

7.28. It should be noted that this is a rapidly evolving field which will need to be closely monitored and evaluated over the coming years to ensure that the right solutions are found for the Island and no future options are discounted before they become viable.

7.29. Heat pumps offer perhaps the best potential to get the majority of buildings off fossil fuels. However, not all properties will be suitable for a heat pump due to high heat losses that cannot be brought down cost-effectively through energy efficiency improvements. For other properties other electric heating options, such as electric radiators or electric flow boilers may be preferable.

7.30. For hard-to-treat properties, there are other heating systems that may be considered including biomass boilers. Consideration must be given to the sustainability of the supply chain. Hybrid systems where a heat pump is accompanied by a biofuel boiler provide another option. Liquid biofuels are starting to enter the market. They may have a role as a transition fuel, and the opportunities and costs to modify existing fossil fuel boilers to run on them or for new specifically designed biofuel boilers to come into the market are likely to develop over coming years. Consideration needs to be given to the sustainability of their supply chains and their market availability and whether liquid biofuel supplies need to be reserved for sectors in which there is no low-carbon alternative.

7.31. For a number of the low-carbon heating systems mentioned, the upfront costs of installation are currently higher than reinstalling a fossil fuel system. This may be particularly the case if extensive building work is required to modify the plumbing system or upgrade the electricity supply.

7.32. Running costs also need to be carefully considered to ensure that we are meeting the principle of a Just Transition and that the least well off in society are not driven further into fuel poverty by the Island's decarbonisation plans. Fuel costs globally are constantly changing and therefore it is difficult to predict the relative running costs of different fuel types in the future. A key part of ensuring a Just Transition will be ensuring that properties are as energy efficient as possible at the time that they switch to a low-carbon heating type.

7.33. Switching to a zero-carbon heating source in buildings can be driven forward in a number of different ways, for example:

- Changes to the building regulations to prevent fossil fuel boilers being installed in new properties,
- Changes to the building regulations to prevent fossil fuel boilers being replaced in existing properties; and
- Financial incentive to cover the difference in upfront costs between fossil fuel and low-carbon heating system replacement as part of the transition.

7.34. Figure 18 paints a picture of how the journey towards decarbonised heating, cooling and cooking systems might unfold in Jersey. These are imagined scenarios, not predictions; some may happen, others may not.

2020-2030	2030-2040	2040-2050
• All new buildings are built to energy efficient designs, with zero carbon heating systems. • First affordable homes built to Passsivhaus standard. • All properties getting sold or rented have Energy Performance Certificates. • Significant number of existing properties are upgraded to be more energy efficient. • When needing to replace fossil fuel boilers Islanders move to zero carbon heating systems. • Some Islanders start using replacement renewable fuels for heating in their existing boilers.	• All new buildings will have renewable energy generation capability. • All existing commercial properties switched to zero carbon energy systems. • The small number of remaining domestic fossil fuel boilers will have switched to using replacement renewable fuels.	• All buildings will have zero carbon heating systems and the use of fossil fuels will be completely phased out.

Figure 18: Vision for heating in Jersey 2020-2050.

Other emissions

7.35. There are a series of policy statements set out in Part C of the Carbon Neutral Roadmap that describe the current position and suggested ways forward on other sources of emissions in Jersey.

7.36. Figure 19 paints a picture of how the journey towards decarbonisation in these other sectors might unfold in Jersey. These are imagined scenarios, not predictions; some may happen, others may not.

	2020-2030	2030-2040	2040-2050
Aviation and marine transport	Consider developing market for sustainable aviation fuel and identify potential operational and infrastructure improvements to reduce carbon emissions	Infrastructure and operational improvements to increase efficiencies. Increase deployment of sustainable aviation fuel (both synthetic and bio).	Air travel will be transformed, and the fuel used will be decarbonised. Use of future technologies such as electric and hydrogen will be starting to embed within the market.

	2020-2030	2030-2040	2040-2050
	within aviation delivery service. Widespread market use of high-quality carbon offsets for flight emissions. Align with international developments on reduced carbon marine fuel.	Continued requirement for high quality carbon offsets for flight emissions. Zero carbon renewable/synthetic marine fuel use widespread.	Reduction in use of high-quality offsets for flight emissions. All marine transport now zero carbon.
Blue carbon	Continue exploring the potential for blue carbon sequestration in Jersey's waters.	Projects to protect, enhance and expand marine sequestration and biodiversity in the Island's territorial waters start.	Continued support for existing projects and expansion of marine sequestration projects to realise the full carbon potential of our territorial waters.
Trees	Increase protection for existing trees within the Island. New areas suitable for tree planting identified and planting projects initiated.	Continued protection, maintenance and care for all existing trees in the Island. All potential areas for tree planting in the Island identified and planting projects completed.	Continued protection, maintenance and care for all existing trees in the Island. Replacement planting ongoing as needed.
Carbon capture from waste	Continue to generate greenhouse gas emissions from the burning of waste for the rest of the viable life of the Energy from Waste plant.	New waste facility commissioned with carbon capture capability or equivalent.	Zero carbon emissions from waste disposal on the Island.
Agriculture	Continue research into agricultural practices that result in reduced greenhouse gas generation or their capture and storage.	Implementation of new agricultural practices to reduce/capture greenhouse gas emissions. Consider the use of high-quality offsets for residual emissions in this sector.	Agricultural practices modified to become very low-carbon. Minimal use of high-quality offsets for residual emissions.

Construction	Sector starts to measure the carbon footprint of construction materials and to actively select low-carbon options.	Information on life-cycle carbon of construction materials widely available and carbon assessments required as part of planning process.	First cradle-to-grave zero carbon building built in the Island.
Scope 3 emissions	Increased information and awareness of the life-cycle carbon of the products and services we buy. Consumers increasingly considering the carbon footprint of food when making purchasing decisions.	Increasing carbon labelling of products. Significant number of Islanders switched to low-carbon diet.	Full transparency on the carbon intensity of all products and services we buy. Consumers increasingly choosing low-carbon options. Low-carbon diet the norm.
Large scale renewables	Agree scope and funding of a utility scale renewables project.	Work starts on the Island's offshore wind farm/tidal system.	50% of Jersey's electricity comes from renewable energy generated in the Island/the Island's territorial waters.
Offsets	Start buying high-quality verified offsets.	Very few offsets need to be purchased as on-Island emissions low.	No longer need to purchase offsets as on-Island emissions matched by local sequestration.

Figure 19. Vision for other sources of emissions in Jersey 2020-2050.

8. Costs and benefits

8.1 The costs and benefits of the Carbon Neutral Roadmap depend on what policies are put in place and when and how this is done; what new challenges and opportunities present themselves in the coming years; and how global markets and actors respond to these.

8.2 The Carbon Neutral Strategy[62] considered the direct cost to government of paying for emissions reduction policies, and recurrent costs arising from offsetting residual emissions. That analysis, which formed part of P.127/2020, as adopted by the States Assembly, suggested an indicative cost to government of up to £300M, based on a specific set of policy options, plus an estimated recurring cost of £2-5M per annum for offsets[63].

8.3 These costs need to be weighed against the global and local benefits that come from reducing carbon emissions. In line with strategic policy 4, the carbon abatement potential and the opportunity for wider co-benefits has been assessed for each policy in the first delivery plan 2022-25. This analysis is set out in the multi-criteria analysis report and has been used to inform both the Children's Rights' Impact Assessment[64] and the Distributional Impact Assessment which focussed on the policies with the most significant potential for impact on income inequality. The report is published as part of the evidence base[65]. The findings and recommendations from the impact assessment work will be used in the design of delivery phase 1 to ensure compliance with Carbon Neutral Roadmap principle 5.

8.4 As well as the local co-benefits of the proposed policies set out in the Carbon Neutral Roadmap, the Carbon Neutral Strategy also considered the social cost of carbon, which is a proxy for the negative impacts of carbon emissions that would be avoided. This was assessed to be as high as £600M if no steps were taken to reduce emissions in the areas of transport and heating.

[62] Carbon Neutral Strategy (gov.je)
[63] This assessment is set out in detail in Quantitative Analysis of Carbon Neutrality by 2030 (gov.je)
[64] The reports can be found at www.gov.je/climateemergency
[65] Evidence for the Carbon Neutral Roadmap (gov.je)

Funding the Carbon Neutral Roadmap

8.5 Strategic policy 3 sets out the agreed approach to funding the Carbon Neutral Roadmap. This will require consideration, in future Government Plans, of the likely significant costs of future delivery plans.

8.6 Jersey is not alone in facing this challenge and there are several avenues to explore. A review was commissioned to ensure Jersey is appraised of the full range of potential funding mechanisms being explored globally. The report[66] sets out a range of funding routes that are used in other jurisdictions, as listed in Figure 20 and includes case studies of the more innovative approaches being taken.

Taxation and charges	Monetising assets
General taxation	Privatisation
Hypothecated taxes	Equity issuance of government-owned entities
User fees and charges, including carbon fee and dividend models	Reserves
Borrowing	**Encouraging private investment**
Issuing general bonds	Guarantees and government insurance
Investment-specific bonds	Subsidised loans
Savings schemes	Grants
International financial institutions	Match-funding
Commercial bank loans	Public-private finance
Performance improvement	Crowd and community-based funding
Public services	Regulations and standards
Commercialised services	Carbon offset markets

Figure 20: An analysis of the typology of funding options – these are not presented in any priority, and it is recognised that not all options apply to Jersey.

8.7 The development of a longer-term financing strategy is planned to conclude in 2024, with associated measures incorporated into the Government Plan 2025-28, recognising that any significant shift in the use of major economic instruments, may require legislative change.

[66] Funding the transition to carbon neutrality (gov.je)

Key considerations

8.8 An analysis of different costs and benefits that was undertaken to support the development of the Carbon Neutral Roadmap[67] identified key considerations in six categories:

1. emissions reductions,
2. social and environmental considerations,
3. economic considerations,
4. reputational considerations,
5. practical considerations,
6. cost considerations.

8.9 The relevance and magnitude of these considerations will change depending on the choices set out in future Roadmap delivery plans, but all will play a part in assessing the future costs, benefits and funding of the Carbon Neutral Roadmap.

Emissions Reductions

Reductions in emissions. Any emissions, no matter how minor, contribute to climate change. A net-zero target will allow Jersey to reduce its own emissions and end its contribution to climate change, while possibly encouraging other countries to take action. If more countries contribute to climate action, greater global warming can be avoided.

Social and environmental considerations

Improvements in natural and human environments. Policies to reduce emissions can improve the quality of human and natural environments and can improve biodiversity. For example, increased tree cover in Jersey can improve air quality, increase biodiversity, provide natural flood protection, and provide recreational benefits for citizens.

Health and well-being benefits. Policies to reduce emissions can lead to health and well-being benefits for citizens. These include direct health benefits, for example from improved air quality, and indirect benefits such as more comfortable, liveable buildings from insulation improvements. Climate-related policies and improved physical health can have knock-on impacts on mental health and can contribute to alleviating the growing phenomenon of 'climate anxiety'.

[67] An analysis of the advantages and disadvantages of different Net-zero targets for Jersey (Oxera)

Economic considerations

Economic benefits and opportunities. Achieving net-zero will require investment which can stimulate economic activity and employment. For example, climate action could create jobs in Jersey in the deployment of low-emission technologies.

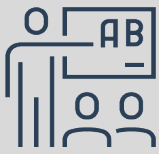
Operating cost savings. Many low-carbon investments and technologies can bring operating costs savings. Households and businesses can benefit from lower energy bills due to improvements in heating systems and the energy efficiency of buildings. Motorists could see cuts in the ongoing costs of driving as they shift to electric vehicles, which have lower operating costs than fossil fuel vehicles.

Stimulation of innovation. The transition to net-zero may stimulate innovation and the development of new ideas in Jersey as businesses and households are encouraged to undertake low-carbon investment. This could decrease the cost of achieving net-zero and could lead to economic opportunities.

Reputational considerations

Reputational benefits and opportunities. The choice of net-zero target will establish Jersey's position on climate action to the international community. An accelerated target may give Jersey a status as a frontrunner in climate action and may help to unlock economic, social, reputational, and diplomatic opportunities. On the other hand, a net-zero targe that is too ambitious to be credibly delivered through emissions reductions where possible could undermine reputational benefits.

Practical considerations



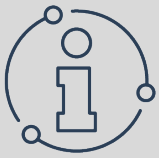
Reskilling of workers. Labour markets must adapt to ensure that workers are qualified to deliver the transition to net-zero and allow workers to benefit from the economic and job opportunities arising from it. For example, workers will require re-training for the successful deployment of low-emission heating technologies.

Practical considerations

Development of infrastructure. The transition to net-zero will require significant changes to existing infrastructure and the development of new infrastructure. The uptake of low-carbon technologies, for example electric vehicles, will be limited or non-existent until the necessary charging infrastructure is in place.

Opportunities to learn what works. It is helpful for policymakers to have the opportunity to trial solutions and policies before committing to them, as well as to learn from what works and what does not in Jersey and other jurisdictions. This can help to identify the most cost-effective and appropriate approaches to achieve net-zero.

Administrative constraints and coordination issues. Coordinating climate policy across different layers of government and across the private and public sectors will be challenging. For example, different groups may not consider each other's interests or may wait for each other unnecessarily, potentially disrupting the transition to net-zero. It will be important to ensure that the transition is well coordinated and that there is a joined-up approach across government and all sectors and levels of society.



Societal changes needed. The transition to net-zero may require considerable lifestyle changes and polices may require significant commitments from citizens in order to be effective. These changes generally take time and can be difficult to achieve.

Public support for the net-zero target. Public and business support will be a vital component in achieving the net-zero target as it will require significant commitments and investments from businesses and households.

Development of supply chains. The transition to net-zero will require significant changes to existing supply chains. It will take time to develop new supply chains, construct the required capacity, and develop new business models for the deployment of low-carbon technologies and the transition to net-zero. It will be challenging to achieve this and will require significant changes to 'business as usual'.

Part C

The Delivery Plan

9. Introduction

9.1 This section sets out a prioritised delivery plan for the period 2022-25. The policies set out here are informed by a wide range of inputs, including:

- ideas generated as part of Jersey's Climate Conversation,[68]
- the recommendations of the Citizens' Assembly on Climate Change,[69]
- recommendations of the Jersey Youth Parliament[70] and from on-going youth engagement,
- practical experience from the delivery of Pathway 2050: An Energy Plan for Jersey[71],
- priorities established in community, Parish, and youth climate action plans,
- the analysis of policy options and choices in other jurisdictions, including that set out in the Carbon Neutral Strategy[72],
- the quantitative analysis of transport and heating, cooling and cooking options published alongside the Carbon Neutral Strategy[73], and
- a range of other published reports that form the evidence base for the Carbon Neutral Roadmap (Appendix 1)
- the outputs from the public consultation process that ran from December 2021 to 31 January 2022. Full details are available in the Consultation Report[74] and Consultation Response Statement [75].

Assessing and prioritising policies

9.2 As required by strategic policy 4, the policies in this delivery plan have been assessed against a series of criteria, including the potential for policies to lead to carbon abatement and a consideration of other potential costs and benefits. These assessments were considered by the Carbon Neutral Steering Group[76] and Council of Ministers when preparing and reviewing the delivery plan.

[68] Jersey's Climate Conversation
[69] Achieving Carbon Neutrality – Report of Jersey's Citizens' Assembly on Climate Change (gov.je)
[70] Appendix 1 in Carbon Neutral Jersey Response to in-committee debate report (gov.je)
[71] Pathway 2050: An Energy Plan for Jersey (gov.je)
[72] Carbon Neutral Strategy (gov.je)
[73] Quantitative analysis of carbon neutrality by 2030 (Oxera)
[74] Carbon Neutral Roadmap Consultation Report (gov.je)
[75] Carbon Neutral Roadmap Consultation Response Statement (gov.je)
[76] The Carbon Neutral Steering was established by the Minister for the Environment, Deputy Young, and Chaired by Deputy Guida, as Assistant Minister for the Environment. The group also included the Minister for Infrastructure (Deputy Lewis) Assistant Minister for Economic Development (Deputy Morel) and Assistant Minister for Treasury and Resources (Deputy Ash) and, reflecting the inclusive approach taken throughout this work, two non-executive States Members: Deputy Johnson and the Connétable of St Lawrence, Deirdre Mezbourian.

Step 1 – Policies and criteria

The policies to be assessed were selected – note the approach was not appropriate for some. The four key criteria were identified – these formed the basis on which each policy was assessed:

1. Carbon abatement,
2. Wider impacts,
3. Costs.
4. Feasibility.

Step 2 – Deciding principles

- Each of the criteria was assigned a weighting, based on their importance to the decision-making
- Various principles of the scoring methodology were established
- The scores varied between qualitative and quantitative values, depending on data availability
- The analysis was normalised across the qualitative and quantitative metrics to a 1 to 5 range to allow comparison.

Step 3 – Scoring

- Workshops were held with experts from across the Government of Jersey who were selected to score the policies against their relevant sub-criteria
- The weighted score for each criteria at the initiative level was aggregated, to analyse overall performance and allow for comparison across initiatives.

9.3 The impacts of the proposed policies on children's rights has also been considered in a Children's Right Impact Assessment[77]; and wider impacts on different groups have been scoped in an initial Distributional Impact Analysis Assessment[78].

[77] Impact Assessment - United Nations Convention on the Rights of the Child (gov.je)

[78] Distributional Impacts of Jersey's Carbon Neutral Roadmap (gov.je)

10. Delivery Plan 2022-25

10.1 The table below sets out the carbon neutral delivery plan for the period 2022-25. The Plan is a mixture of:

- new policy interventions, including new incentive schemes to support Islanders to transition to lower carbon technologies,
- commitments to introduce or amend regulations, such as to require greater energy efficiency in our buildings and heating systems,
- new targets, to focus action across the Island, such as the ambition to make Jersey a centre of excellence for Blue Carbon research and industries, and
- confirmation of futures milestones, such as the requirement to decide, by 2028, if – having made substantial reductions in its emissions - Jersey needs to purchase offsets to reach a carbon neutral position.

10.2 As set out in Figure 21, the policies in the delivery plan are ordered by the source of emissions they seek to address, with a further grouping that includes policies to build our capacity and capability to continue to decarbonise at greater breadth and pace in future years.

10.3 Each policy is supported by a range of detailed analysis and impact assessments, which are summarised in the full policy package at Appendix 2. This includes a summary of the policy context and intent, identified SMART objectives, assumptions and dependencies, and relevant financial information.

Initials	Category	Explanation
TR0	Transport policies	Transport emission reduction policies
HT0	Heating policies	Heating emissions reduction policies
OE0	Other on and off-Island emissions policies	Policies that tackle other on and off-Island emissions
EN0	Enabling policies	Policies that enable delivery and implementation and support the systemic change needed to make a just transition to a low-carbon economy

Figure 21: Summary of the four policies categories.

Transport Policies		
#	Policy title	The Government of Jersey will...
TR1	Speeding up adoption of electric vehicles	• Subsidise the cost of an electric vehicle at the point that it is first registered on the Island (for both new and imported second-hand vehicles) • Continue to offer subsidised public parking until a new parking plan is in place (as required by the Sustainable Transport Policy) • Exempt electric vehicles from planned increases in vehicle emissions duty • Work with Jersey Electricity to agree a scale-up plan for electric vehicle charging infrastructure that: o subsidises the cost of domestic electric charging infrastructure o continues to deliver off-street electric vehicle charging points across the Island o trials on-street charging infrastructure to identify the right solution for Jersey, including exploring consequential amendments to planning regulation where appropriate o improves the visibility of charger availability across the Island.
TR2	~~Vehicle scrappage incentive~~ POLICY REMOVED	THIS POLICY IS NOT BEING PROGRESSED AT THIS STAGE FOLLOWING CONSULTATION RESPONSES.
TR3	Supporting transition fuels	Bring forward a proposal in the Government Plan 2022 to subsidise the rate of fuel duty charged on second generation renewable diesel, by approximately 32ppl.
TR3b	Investigate potential for renewable content petrol and diesel for Jersey	Carry out research and market analysis on the implications and options in order to produce policy position by end of 2022.
TR4	Vehicle Emissions Duty (VED) optimisation	Apply no level of Vehicle Emissions Duty on zero carbon vehicles and increase Vehicle Emissions Duty on all domestic petrol and diesel vehicles each year until at least 2030.
TR5	End the importation and registration of petrol and diesel vehicles that are new to the Island from 2030	Bring into force legislation that prohibits the importation and registration of petrol and diesel cars and small vans that are new to the Island in 2030 at the latest and will seek to extend this to other categories of vehicle at subsequent dates between 2030 and 2040.

TR6	Review Roads Law	Review the legal framework for Jersey's highways to ensure they are fit to safely enable low-carbon, sustainable and modern travel and transport.
TR7	"Green" number plates for electric vehicles	Ensure that, from the 1 January 2023, owners of electric vehicles will have the option to display a number plate that features a green marker as a visible signifier of their contribution tackling the climate emergency.
TR8	Sustainable Transport Roadmap	Complete the rapid plans required by the Sustainable Transport Policy and, drawing on these, publish a Sustainable Transport Roadmap in 2022.
TR9	Bus service development trials	Implement a programme of bus service development trials 2022-2024.
TR10	Active Travel	Implement further active travel initiatives in 2022, ahead of development of the full Sustainable Transport Policy.
TR11	Emissions from aviation and maritime transport	Work with the Ports of Jersey to reduce emissions from aviation and marine transport, in line with the Jet Zero scenario 2 emissions targets and obligations under the MARPOL treaty.

Heating Policies

#	Policy title	The Government of Jersey will...
HT1	Supporting low-carbon heating systems and home insulation	Provide a subsidy to enable both householders and commercial businesses to transition to low-carbon heating systems. The scheme will run from 2022.
HT2	Update building bye-laws	Bring into force legislation that updates current building regulations and sets increased energy efficiency and carbon emission standards of new and existing domestic and commercial buildings and prohibits new fossil fuel boilers being installed in any property after 1st January 2026.
HT3	Energy Performance Certificates	Develop and introduce legislation by the end of 2024 to make both domestic and commercial Energy Performance Certificates mandatory at the point of sale and rental, with minimum standards being brought in sequentially from 2026. Government will also ensure that Energy Performance Certificates are displayed on public buildings by 2025.

Other Emissions Policies

#	Policy title	The Government of Jersey will...
OE1	Promoting low-carbon lifestyles	Develop and deliver an education and engagement programme to help Islanders to reduce their off-Island (scope 3) emissions.

OE2	Construction sector emissions	Work closely with the Jersey Construction Council, Association of Jersey Architects, and others in the industry to drive-down the whole life carbon impact of the Island's construction sector, including considering the use of all available policy levers. Government will also adopt higher construction standards for all public construction projects.
OE3	Agricultural sector emissions	Working with key stakeholders from the agricultural sector, develop and implement a new net-zero Rural Economy Strategy and Marine Economy Strategy, in 2022, that aims to support the agricultural sector to continue to reduce emissions from their activities, and to adapt to the effects of climate change.
OE4	Emissions from waste and water management	Make on-Island solid waste disposal net-zero by 2040. To achieve this, a Circular Economy Strategy will be developed by 2025. Work to explore opportunities for carbon capture from the existing electricity from waste plant will begin in 2022. Work with Jersey Water to prepare a net-zero Water Management Strategy by 2024, which incorporates existing planned work, in order to inform the next Island Plan.
OE5	F-Gas emissions	Seek extension of the UK's compliance with the Kigali amendment to Jersey by 2025.
OE6	Delivering a sustainable finance framework	Continue to develop a sustainable finance framework that supports decarbonisation initiatives in Jersey and around the world, recognising that the way in which Jersey can deliver the biggest impact to global climate change is through its finance sector.
Enabling Policies		
#	**Policy title**	**The Government of Jersey will…**
EN1	Decarbonising government	Reduce its operational emissions in line with the Paris Agreement trajectory established by strategic policy 1. A new decarbonisation unit will be established in 2022 to develop a comprehensive action plan, which will set quantified emissions reduction targets in Departmental Operational Business Plans from 2023. Second Generation Renewal Diesel will be phased into the government of Jersey fleet from 2022, and a range of exemplar projects undertaken.
EN2	Create a Carbon Neutral Network	Work with the Economic Council sustainability working group to support the development of a Carbon Neutral Network of businesses and voluntary, community, social enterprise and faith sector organisations; and establish a £500k Climate Action Fund to support grassroots projects to tackle the climate emergency.

EN3	Developing supply chains and on-Island skills for a sustainable economy	Put the development of on-Island skills at the heart of future economic and skills strategy, including integrating green skills into the Future Economy Programme and Further Education and Skills white paper. Government will also support the development of low-carbon and sustainable supply chains.
EN4	Delivering the COP26 education pledge	Deliver the COP26 education pledge by embedding high quality climate education into education and learning.
EN5	Blue carbon, biodiversity and sequestration	Promote Jersey as a centre of excellence for blue carbon sequestration, with an ambition to double the extent of sea grass beds and recognise that tackling the climate emergency by using nature-based solutions that also address the biodiversity crisis provides multiple benefits for our land, air and sea.
EN6	Carbon offset purchasing strategy	Undertake the necessary work to ensure Jersey can become carbon neutral by 2030, through the delivery of ambitious carbon reductions policies, balanced with purchased offsets.

10.4 Funding for the 2022-25 delivery plan comes from a range of existing government budgets (as identified in the Appendix 2 papers), as well as the full allocation of the available Climate Emergency, as set out in strategic policy 3 and detailed in the table at Figure 22 below. Note that all numbers have been rounded for presentation purposes.

#	Policy name	CEF Total	Deliverables
TR1	Speeding up adoption of electric vehicles	~~£6,255,000~~ £4,855,000*	~~1,600~~ 1,200* electric vehicle incentives 1,000 electric vehicle charger incentives
TR2	~~Vehicle scrappage incentive~~ POLICY REMOVED	~~£410,000~~	~~500 vehicle scrappage incentives~~
TR3	Supporting transition fuels	£3,189,000	10 million litres of subsidised biodiesel
TR3b	Investigate potential for renewable content petrol and diesel in Jersey	Business as Usual (BAU)	Policy position by end of 2022
TR4	Vehicle Emissions Duty optimisation	BAU+	Disincentivising registration of high emission vehicles
TR5	End the importation and registration of petrol and diesel vehicles that are new to the Island from 2030	BAU+	Effective 1 January 2030

TR6	Roads Law Review	BAU+	Provide framework for safe and legal use of personal light electric vehicles, shared transport services etc.
TR7	"Green" number plates for electric vehicles	BAU+	Green registration number plates for all electric vehicle registrations from 2022
TR8	Sustainable Transport Roadmap	BAU+	Delivery of Active Travel, Bus Development Plan, Parking Plan and Mobility as a Service framework
TR9	Bus service development trials	£1,500,000	Increased bus frequency and subsidised fares
TR10	Active travel	~~£300,000~~ £1,700,000*	Total cost to be confirmed in Sustainable Transport Policy
TR11	Emissions from aviation and marine transport	BAU+	
HT1	Supporting low-carbon heating systems and home insulation	£5,706,000	1000 low-carbon heating system switches
HT2	Update building bye-laws	BAU+	Replacement fossil fuelled heating systems stopped from 1 January 2026
HT3	Energy Performance Certificates	£355,000	800 energy audit incentives completed by end of 2024
OE1	Promoting low-carbon lifestyles	£200,000	Sector specific campaigns such as those for agriculture, hospitality and construction
OE2	Construction sector emissions	BAU+	
OE3	Agricultural sector emissions	BAU+	Emission reductions to be set out in Rural Economy Strategy revision, published 2022
OE4	Emissions from waste and water management	BAU+	
OE5	F-gas emissions	BAU+	
OE6	Delivering a sustainable finance framework	£60,000	
EN1	Decarbonising Government of Jersey	£1,260,000	Set up of decarbonisation unit, initial projects and deliver Action Plan

EN2	Create a Carbon Neutral Network	£500,000	Community grants for decarbonisation projects
EN3	Developing supply chains and on-Island skills for a sustainable economy	BAU+	Delivery of sector specific training
EN4	Delivering the COP26 education pledge	£200,000	By 2025 climate integrated into curriculum, resources, materials, teacher training delivered
EN5	Blue Carbon, biodiversity and sequestration	£1,325,000	Delivery of environmental protection projects agreed in Government Plan and blue carbon development
EN6	Carbon offset purchasing strategy	BAU+	
	Policy development (as per Government Plan)	£1,200,000	Policy development including: energy market review (SP2), technology partnership (SP2), future financing strategy (SP3), work on utility scale renewable energy (SP2) and Sustainable Transport Roadmap (TR8)
	Regulatory, Enabling and Programme	£950,000	Series of regulatory and enabling action to support the development of the required legislation and regulatory measures. Reporting and management of the programme (SP4)
	TOTAL	**£23,000,000**	

Figure 22: Summary of policies funded under 4-year Climate Emergency Fund budget 2022-2025.
*Note change made following agreement of second amendment by Deputy Robert Ward[79]

[79] Carbon Neutral Roadmap (P.74/2022): Second Amendment (Lodged Au Greffe on 8 April 2022 by Deputy R.J. Ward of St. Helier)

11. Governance and next steps

Detailed design through to implementation

11.1 Figure 23 seeks to show how the policies set out in the delivery plan will be developed. Building on the feedback received through the consultation to the high-level programme design provided in policy summaries, the background research work and consultation with key stakeholders will continue over the coming months, in preparation for the States debate in April. Following, and depending on, the outcome of the States debate in April the further details of the operational design and delivery will be finalised over the six months (approximately) following the agreement of the Carbon Neutral Roadmap. This is delivery phase 1.

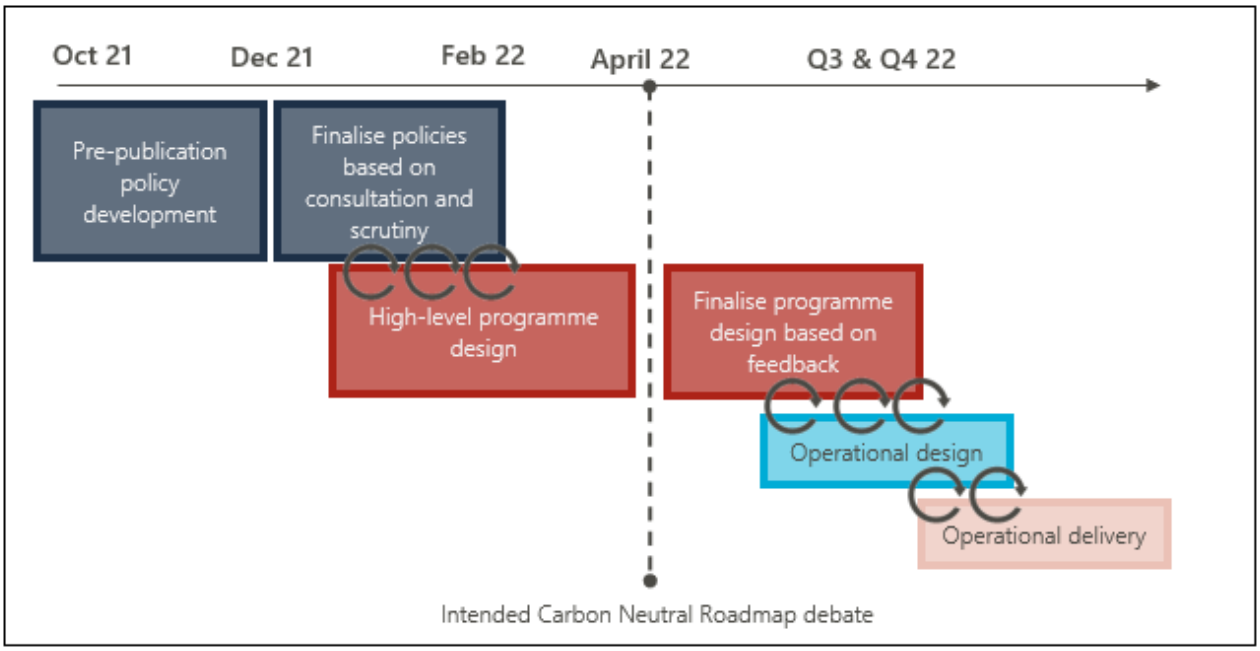


Figure 23: Policy design and implementation process.

11.2 The programme design phase will need to address series of governance issues, including;

- designing incentive payment schemes to high standards and in order that they ensure a Just Transition and are compliant with the Public Finance Manual,
- exploring whether Government should commission or directly deliver many of the policies, particularly the provision of incentives,
- consumption inequality as highlighted in the distributional impact assessment
- data requirements for monitoring, further policy design and impact evaluation
- further distributional impact analysis of policies as they are developed, and, how the proposed small grants scheme might be effectively implemented.

11.3 An implementation schedule for the whole of the Carbon Neutral Roadmap is provided in Appendix 3. Note that most detail is provided for the policies being taken forward in 2022-25 under the agreed Climate Emergency Fund budget. This schedule provides detail on the targets, implementation route and approval type for all the policies. It will be iterated over time as plans progress.

Governance

11.4 The Carbon Neutral Roadmap will have wide-ranging implications across Jersey. Strong governance will be required to oversee the delivery of policies and to continue to anchor and strategically align the many networks and groups that will need to work together.

11.5 The Minister for the Environment, on behalf of the Council of Ministers, has overall policy responsibility for the Climate Emergency Fund. The Carbon Neutral Roadmap proposes a new Ministerial portfolio for Energy and Climate Change to be considered by the new government. If this proposal is accepted, then it is proposed that oversight for the Climate Emergency Fund will move to the new Ministerial portfolio. Until that time it is assumed that the status quo remains and that the Minister for the Environment retains the delegated responsibility for the policy development and Climate Emergency Fund.

11.6 High level Climate Emergency Fund spend is agreed by the States Assembly via the Government Plan or a carbon neutral delivery plan.

11.7 The Minister for Treasury and Resources has ministerial responsibility for setting an appropriate investment strategy for the Climate Emergency Fund, and the Revenue Policy Development Board[80] oversee the review of fiscal levers work to further fund the Climate Emergency Fund and provide recommendations.

11.8 Work to respond to the Climate Emergency has been underway since 2019 in parallel with the development of the Carbon Neutral Roadmap. There is a governance structure for the existing work and expenditure from the Climate Emergency Fund to date. Reporting on the Climate Emergency Super Programme is provided in Perform.

11.9 With the agreement of the Carbon Neutral Roadmap the outputs of the programme and expenditure increase substantially. Accordingly, revised programme governance and management arrangements have been put in place. This includes a new programme office in SPPP and a review planned for 2026.

[80] Revenue Policy Development Board (gov.je)

Climate council[81]

11.10 The Minister for Environment or the new Minister for Energy and Climate Change is requested to:

i. establish an independent, scientific Climate Council for Jersey with a composition, scope and focus that is proportionate to Jersey's size, the full terms of reference and membership of which should be agreed by the States following a detailed proposal brought forward by the Minister before the end of 2022;

ii. bring forward a budget proposal for the Climate Council, to be agreed by the States before the end of 2022, and reviewed every 4 years to ensure that the Council is provided with appropriate funding;

iii. present to the States, on behalf of the Climate Council, a report at the end of every four-year delivery phase for the term of the Roadmap prepared autonomously by the council which reports on and evaluates the Government of Jersey's progress on reducing carbon emissions and the climate change policy initiatives being delivered by the Carbon Neutral Roadmap;

iv. ensure that the membership of the Climate Council shall not include members of the States and must include:
    a) an odd number of members.
    b) a Chair chosen by the membership.
    c) one member with expertise in the field of Energy.
    d) one member with expertise in the field of Economics.
    e) one member with expertise in the field of Climate Technology; and

v. ensure that the focus of the Climate Council includes (but is not necessarily limited to):
    1. providing independent science-based advice on setting and meeting carbon budgets and preparing for climate change.
    2. monitoring progress in reducing emissions and achieving carbon budgets and targets and recommending actions to keep Jersey on track.
    3. conducting independent analysis into climate change science, economics and policy where such information cannot be transposed from other peer reviewed scientific research or analysis.
    4. engaging with a wide range of organisations and individuals to share evidence and analysis.

[81] Following the amendment brought by the Environment, Housing and Infrastructure Scrutiny Panel to the Carbon Neutral Roadmap, and the amendment to that amendment made by the Minister for the Environment, the addition of the Climate Council was agreed in the adopted Carbon Neutral Roadmap.

Appendices

Appendix 1 – List of published evidence base

These are the main evidence-based documents that were used to inform the Carbon Neutral Roadmap.

Evidence Base Documents	
Explore Phase	
Climate Conversations - explore phase ideas and comments submitted through dialogue	
Citizens' Assembly on Climate Change (Minutes from and reports referring to the Citizens' Assembly on Climate Change)	
Block 1 Citizens' Assembly on Climate Changes Minutes	March 2021
Block 2 Citizens' Assembly on Climate Changes Minutes	March 2021
Block 3 Citizens' Assembly on Climate Changes Minutes	April 2021
Block 4 Citizens' Assembly on Climate Changes Minutes	May 2021
Achieving Carbon Neutrality – Report of Jersey's Citizens' Assembly on Climate Change	June 2021
Climate Change Citizens' Assembly process: observers' interim report by Environment, Housing and Infrastructure Scrutiny Panel	July 2021
In-Committee Debate	
Carbon Neutral Jersey (Consideration "in-committee") [Note this includes a read statement from Jersey Youth Parliament on the recommendations made by the Citizens' Assembly on Climate Change]	July 2021
Recording of States Assembly (Morning Session)	July 2021
Core Evidence	
Aether - Analysis of Future Jersey indicators that are at high risk from climate change	March 2018
Carbon Neutral Strategy	December 2019
Developing an approach to Domestic Energy Efficiency Retrofit in Jersey	October 2015
Pathway 2050: An Energy Plan for Jersey	March 2014
Shoreline Management Plan	January 2020
Tackling the climate emergency	July 2019
Review of energy mix options	November 2021
Young people and the climate emergency	April 2020
Greenhouse Gas Emissions	
Aether - Carbon sequestration and the role of soil and crops	October 2020
Aether - Considering the Channel Islands' indirect greenhouse gas emissions	April 2020
Aether - Development of an emission factor for imported electricity	April 2020
Aether - Greenhouse gas emissions from Waste – A guide for Jersey	April 2020
Aether - Greenhouse gas inventory	January 2020
Aether - National emissions of fluorinated gases in Jersey	March 2017
Aether - Technical guide to Jersey's Greenhouse gas inventory	December 2020

Sustainable Transport	
Sustainable Transport Policy	December 2019
Costs and Benefits of Carbon Neutrality	
Revenue Policy Development Board	October 2019
Oxera - Analysis of trade offs of different dates for carbon neutrality	March 2021
Oxera - Carbon Neutrality by 2030 – policy identification	April 2020
Oxera - Quantitative analysis of carbon neutrality by 2030	April 2020
Impact Assessments	
Impact Assessment: United Nations Convention of the Rights of the Child	March 2022
Distributional Impacts of Jersey's Carbon Neutral Roadmap - PwC report	10 March 2022
Additional Government of Jersey Documents	
Draft Bridging Island Plan P.36/2021 Island Plan 2022-2025 as lodged	April 2021
Government Plans	December 2020
Public Realm and Movement Strategy	April 2021
Creating better homes: an action plan for housing in Jersey	June 2021
Housing Strategy	March 2016
Water management plan for Jersey 2017 to 2021	July 2016
Biodiversity Strategy	Year 2020
Integrated Coastal Zone Management Strategy	July 2008
Jersey Integrated Landscape and Seascape Character Assessment	October 2020
Rural Economy Strategy 2017 to 2021; Towards Sustainable Farming	February 2017
Multilateral Agreements	
Bern Convention on the Conservation of European Wildlife and Natural Habitats	
Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)	
Convention on Biological Diversity	
Kyoto protocol to the UN Framework Convention on Climate Change	
Paris agreement to the UN Framework Convention on Climate Change	
Ramsar agreement	
Vienna Convention for the protection of the ozone layer	
Montreal protocol and Kigali amendment to UN Vienna Convention	
MARPOL treaty for the prevention of pollution from ships	
Oslo and Paris Convention for the Protection of the Marine Environment of the North-East Atlantic (OSPAR)	
Evidence Presented to the Citizens' Assembly on Climate Change	
Citizens' Assembly business written submissions	
Presentations	
Welcome. Presentation by Deputy Jess Perchard, Assistant Minister for Environment	18 March 2021
Introduction to the science of climate change and why it's important for us to tackle it in Jersey. Presentation by Professor Liz Bentley, Royal Meteorological Society and Chair of Advisory Panel	18 March 2021

Jersey's changing climate. Presentation by Paul Aked, Jersey Meteorological Department and Sophia Bird (Channel ITV)	18 March 2021
The impact of Jersey's changing climate. Presentation by Willie Peggie, Director, Natural Environment, Government of Jersey	18 March 2021
Overview of how the way we travel; use energy in our homes; consume products contribute to carbon emissions. Presentation by Jonathan Renouf	18 March 2021
Overview of a Just Transition. Presentation by Rebekah Diski, New Economics Foundation and member of Advisory Panel	18 March 2021
Overview of Jersey's Energy Market. Presentation by Dr Louise Magris, Head of Sustainability and Foresight, Government of Jersey	18 March 2021
Jersey's Scope 3 emissions. Presentation by Kathryn Hampshire and Katie King, Aether	18 March 2021
How do we change behaviour to reduce emissions in the Island? Presentation by Toby Park, Behavioural Insights and member of the Advisory Panel	18 March 2021
Paying for carbon neutrality. The different ways of paying for actions that will take us towards becoming carbon neutral. Presentation by Nick Vaughan, Chief Economic Advisor, Government of Jersey	18 March 2021
Scenarios for Carbon Neutrality. Presentation by Matt Shephard, Principal Economist, Oxera	18 March 2021
Jersey's transport sector emissions. Presentation by Kathryn Hampshire, Aether	1 April 2021
Transport in Jersey. Presentation by Rob Hayward, Government of Jersey	1 April 2021
Options for decarbonising transport. Presentation by Chris Sibthorpe, PGA	1 April 2021
Scenarios, costs and trade offs for decarbonising transport in Jersey. Presentation by Matt Shepherd, Oxera	1 April 2021
Fair decarbonisation of transport. Presentation by Rebekah Diski, New Economics Foundation	1 April 2021
Young people's perspectives on transport. Presentation by Abbie Syvret and Hautlieu School	1 April 2021
Disability and transport. Presentation by Jim Hopley, Honorary Chairman Jersey Disability Partnership	1 April 2021
What is a carbon offset? Presentation by Hilary Jeune, Valuemetrix	1 April 2021
Costs of offsetting. Presentation by Matt Shepherd, Oxera	1 April 2021
Context of the Citizens' Assembly on Climate Change. Presentation by Steve Skelton, Government of Jersey	1 April 2021
Emissions from heating, cooking and cooling sector. Presentation by Katie King, Aether	22 April 2021
Opportunities to reduce emissions from buildings. Presentation by Alison Horton and Ian Alder, Association of Jersey Architects	22 April 2021
Current Government of Jersey initiatives to reduce building emissions. Presentation by Dr Louise Magris, Government of Jersey	22 April 2021
Opportunities and impacts for the gas sector. Presentation by David Cruddace, Jersey Gas	22 April 2021

Opportunities and impacts for the oil sector. Presentation by Nigel Blandin, Jersey Construction Council	22 April 2021
Opportunities and impacts for the electricity sector. Presentation by Chris Ambler, Jersey Electricity	22 April 2021
Scenarios, costs and trade offs of decarbonising heating, cooking and cooling*. Presentation by Matt Shepherd, Oxera **The Advisory Panel were asked to consider the accuracy of the statement made around the relative costs of different fuel types. They concluded that there are many different factors that affect the costs of heating a house and that it was not possible to make a blanket statement on the relative overall costs.*	22 April 2021
Introduction to Sustainable Finance. Presentation by Emiko Caerlewy-Smith and Amy King, KIT consulting	22 April 2021
Wrapping up the Citizens' Assembly. Presentation by Rob Hopkins, Author and Transition Network	May 2021
Concluding and prioritising recommendations. Presentation by Steve Skelton, Group Director, Strategy and Innovation, Government of Jersey	May 2021
Factsheets	
Introduction to climate change	18 March 2021
Climate change, the local context	18 March 2021
International response to climate change	18 March 2021
Sources of greenhouse gas emissions	18 March 2021
Jersey's greenhouse gas emissions reporting	18 March 2021
Carbon Neutral Strategy	18 March 2021
An overview of Jersey's energy market	18 March 2021
Biodiversity and climate change	18 March 2021
How do we make decarbonisation fair?	18 March 2021
How do we change behaviour?	1 April 2021
Carbon offsetting	1 April 2021
Carbon sequestration	1 April 2021
Key emissions sector: transport	1 April 2021
Key emissions sector: heating, cooling and cooking	22 April 2021
Renewable energy	22 April 2021
Sustainable finance	22 April 2021

Appendix 2 – Policy Pack

Structure

1. As set out in the table below, the policies in the delivery plan are ordered by the source of emissions they seek to address, with a further grouping that includes policies to build our capacity and capability to continue to decarbonise at greater breadth and pace in future years.

Initials	Category	Explanation
TR0	Transport policies	Transport emission reduction policies
HT0	Heating policies	Heating emissions reduction policies
OE0	Other on and off-Island emissions policies	Policies that tackle other on and off-Island emissions
EN0	Enabling policies	Policies that enable delivery and implementation and support the systemic change needed to make a just transition to a low-carbon economy

Figure 24: Summary of policy categories.

2. Each policy is supported by a range of detailed analysis and impact assessments, which is provided here. This includes a summary of the policy context and intent, identified SMART objectives, assumptions and dependencies, and relevant financial information.

3. The policy detail will be worked up with close engagement with the Disability Working Group to ensure that careful consideration is given to the potential impact of all the policies to people with disabilities and that appropriate measures are put in place to minimise any detrimental impacts.

TR - Transport policies

#	Policy	Summary	Deliverables	4-Year Budget	Carbon	MCA
TR1	Speeding up adoption of electric vehicles	• Up to £3.5k purchase incentive on electric vehicles under £30k • Incentive reduces as cost of electric vehicles reduces	~~1600~~ 1,200* electric vehicles subsidised	~~£5,734,000~~ £4,334,000*	4.2	3.4
		• £350 incentive for chargers • Register of approved installers	1000 chargers subsidised	£521,000	n/a	n/a
TR2	Vehicle scrappage incentive	• Following feedback from the consultation process this policy has been removed from 2022-2025 proposed policies				
TR3	Supporting transition fuels	• Approximately 32ppl subsidy for second generation renewable diesel	10 million litres of subsidised biodiesel	£3,189,000	4	3.42
TR3b	Investigate the potential for renewable content fossil fuels in Jersey	• Carry out research and market analysis to produce a policy position on renewable content fossil fuels by the end of 2022	Policy position report	n/a	n/a	n/a
TR4	Vehicle emissions duty incentive	• Legislation for a phased approach of increasing the level of vehicle emissions duty on all petrol and diesel vehicles	n/a	BAU+	4	2.93
TR5	End the importation and registration of petrol and diesel vehicles that are new to the Island from 2030	• End the importation, registration and sale of petrol and diesel vehicles that are new to the Island from 2030	n/a	BAU+	4.2	3.34
TR6	Review Roads Law	• To provide a framework for safe and legal use of personal light electric vehicles, shared transport services, autonomous vehicles and other sustainable transport solutions	n/a	BAU+	n/a	n/a
TR7	"Green" number plates for electric vehicles	• Visible recognition of switch to low-carbon transport	n/a	BAU+	n/a	n/a

TR8	Sustainable Transport Roadmap	• Active Travel – costed and prioritised plan • Bus service development plan – Bus contact • Parking plan – Revenue Policy Development Board company commuter parking levers • Mobility as a Service - framework	n/a	Government Plan 2023	n/a	n/a
TR9	Bus service development trials	• Incentivise behaviour change and modal shift • Trial projects to inform revised bus contract development in 2024	n/a	£1,500,000	n/a	n/a
TR10	Active Travel	• Active Travel infrastructure improvements • Trial projects to inform delivery of Sustainable Transport Policy rapid plan	Stronger start on active travel items detailed in the Carbon Neutral Roadmap	~~£300,000~~ £1,700,000*	n/a	n/a
TR11	Emissions from aviation and marine transport	• Describes the emissions trajectory for aviation and marine transport and expectations about future technology improvements • Jointly developed with Ports of Jersey	n/a	BAU+	n/a	n/a

*Note change made following agreement of second amendment by Deputy Robert Ward[82]

[82] Carbon Neutral Roadmap (P.74/2022): Second Amendment (Lodged Au Greffe on 8 April 2022 by Deputy R.J. Ward of St. Helier)

TR1 – Speeding up adoption of electric vehicles

The Government of Jersey will:

1. subsidise the cost of an electric vehicle at the point that it is first registered on the Island (for both new and imported second-hand vehicles),
2. continue to offer subsidised public parking until a new parking plan is in place (as required by the Sustainable Transport Policy),
3. exempt electric vehicles from planned increases in vehicle emissions duty,
4. work with Jersey Electricity to agree a scale-up plan for electric vehicle charging infrastructure that:
    - subsidises the cost of domestic electric charging infrastructure,
    - continues to deliver off-street electric vehicle charging points across the Island
    - trials on-street charging infrastructure to identify the right solution for Jersey, including exploring consequential amendments to planning regulation where appropriate ,
    - improves the visibility of charger availability across the Island.

The key aim of this policy is to facilitate and accelerate the shift from petrol and diesel vehicles to electric vehicles. In order to achieve a 68% reduction in the Island's total carbon emissions by 2030 the target is to shift 67% of the Island's fleet away from fossil-fuels by 2030, recognising that the majority of this shift will be achieved through an increase in use of electric vehicles, alongside investment in sustainable transport to support Islanders to travel in other ways.

Transition to electric vehicles in Jersey should be rapid. In Jersey, distances travelled are small and range anxiety will be less than in other jurisdictions, and the Island already benefits from around 100 publicly available charging points in public car parks, Parish Halls and some retail locations.

Electric vehicle purchase subsidy

Electric vehicles currently cost more to purchase than petrol or diesel equivalents. This policy proposes the provision of a subsidy of 35% of the purchase costs of the electric vehicle, or £3,500 (whichever is lower) at the point that it is first registered on the Island (for both new and imported second-hand vehicles, and for both domestic and commercial vehicles). The subsidy will only be available for vehicles with a purchase price under £30,000. For every electric vehicle subsidised, a petrol or diesel vehicle must be deregistered from the Island.

The subsidy is expected to run from 2022 to the end of 2027. The maximum value of the subsidy will be reduced periodically starting at £3,500 in 2022 and expected to reduce to £2,000 by 2027.

Reductions will be informed by evidence of policy impact and market conditions and will be removed before this date if price parity between electric vehicles and petrol/diesel equivalents is reached earlier. The subsidy will be removed no later than the date at which legislation comes into force prohibiting the importation, registration and/or sale of petrol and diesel vehicles new into the Island.

Further details, to be confirmed in the programme design phase following consultation with Islanders, motor industry and others. These include vehicle and other eligibility criteria, application and deregistration processes, and how the scheme will be administered.

Charging infrastructure scale-up plan

One of the cited barriers to the uptake of electric vehicles is range anxiety and lack of charging infrastructure. The barrier is not just the costs of the chargers and their installation but a lack of information/understanding of chargers, how they are installed and operated and who can install them.

Most drivers will be looking to charge where they are parked overnight. For around 65% of the Island this could be in off-street parking areas at private domestic or commercial properties. However, this will not be an option for all Islanders or for those visiting the Island, and the network of public charging points will need to be increased to support this.

The scale-up plan, which Government will develop in partnership with Jersey Electricity, will seek to address the cost by offering £350 towards an electric charger and its installation in existing domestic properties. The incentive will be able to be used to access a Competent Person's Scheme from a register of those suitably qualified to install them in the Island.

It will also address the information gap and the 'hassle factor' of organising a charger installation and of locating and accessing public charging points, and trial on-street charging infrastructure to identify the right solution for Jersey, including exploring consequential amendments to planning regulation where appropriate.

Other incentives

The Government will also:

- exempt electric vehicles from planned increases in vehicle emissions duty (policy TR4),
- continue to offer subsidised public parking for electric vehicles until a new parking plan is in place as required by the Sustainable Transport Policy[83].

[83] Sustainable Transport Policy (gov.je)

SMART objectives

1. establish and commence a subsidy for battery electric vehicle sales in Jersey in 2022
2. stimulate the accelerated turnover of the Island's fleet from approximately 900 electric vehicles registered in 2021
3. develop a scale-up plan for electric vehicle charging infrastructure in 2022
4. in 2022, establish a register of Competent Person's Scheme for electric charger installers and/or a register of suitably qualified installers locally
5. in 2022, introduce an incentive scheme offering £350 to householders towards the cost of chargers and their installation in their homes.

Assumptions

- the Jersey Mobility Hierarchy (set out in the Sustainable Transport Policy[84]) seeks to switch many journeys to public transport/active travel but does acknowledge the ongoing role that private vehicles will play
- any incentive for electric vehicles would be discontinued at the point of price parity to petrol/diesel vehicles and/or when the legislation to phase out on the new registration of petrol/diesel vehicles comes in
- price parity between standard electric vehicles and petrol and diesel equivalents anticipated by 2027
- a separate scrappage incentive may be considered in the future.

Dependencies

- that sufficient vehicle charging points will be in place in the Island to service the car fleet
- the motor industry will be able to ensure the supply for electric vehicles meets demand
- the vehicle maintenance industry will pivot to ensure availability of electric vehicle servicing
- appropriate level of skilled workforce to install chargers.

CEF 4-Year budget	Total 2022-2025	Deliverables
Electric vehicle purchase incentive scheme	~~£5,734,000~~ £4,855,000	~~1,600~~ 1,200 electric vehicles subsidised
Charger incentive scheme	£521,000	1,000 chargers subsidised

*Note change made following agreement of second amendment by Deputy Robert Ward[85]

[84] Sustainable Transport Policy (gov.je)
[85] Carbon Neutral Roadmap (P.74/2022): Second Amendment (Lodged Au Greffe on 8 April 2022 by Deputy R.J. Ward of St. Helier)

TR2 - Vehicle scrappage incentive

As a result of consultation feedback on the draft Carbon Neutral Roadmap this policy has been removed from the 2022-2025 delivery plan.

Further information on the consultation responses can be read in the Consultation Report[86] and Consultation Response Statement [87].

[86] Carbon Neutral Roadmap Consultation Report (gov.je)
[87] Carbon Neutral Roadmap Consultation Response Statement (gov.je)

TR3 - Supporting transition fuels

The Government of Jersey will:
Bring forward a proposal in the Government Plan 2022 to subsidise the rate of fuel duty charged on second generation renewable diesel, by approximately 32ppl.

To encourage Islanders to replace traditional fossil-fuel diesel with second generation renewable diesel (SGRD) in road transport. Government will also consider fuel duty in respect of other renewable content fuels, marine and aviation fuels in line with policies TR3b and TR11.

- in Government Plan 2023-2026, include proposal to subsidise fuel duty on second generation renewable diesel and replace lost revenue through the Climate Emergency Fund
- subsidy to be reviewed on an annual basis
- to establish a market for low-carbon transition fuels that will also serve heavier vehicles, and to reduce carbon emissions in the near term without compromising the embedded carbon in existing diesel vehicles.

SMART objectives

1. by 2030, or before, all remaining diesel vehicles assumed to be using second generation renewable diesel
2. by 2022, to agree a subsidy level to increase affordability of second generation renewable diesel to be applied through fuel duty
3. by 1 January 2023, implement changes to fuel duty, to be reviewed on an annual basis to assess uptake, market supply and future costs
4. ahead of Government Plan 2026-2029, review efficacy of the subsidy considering evidence; individual and market behaviour; and progress with related fuels, technologies and sustainable transport options.

Assumptions

- cost of SGRD remains stable
- based on subsidy of approximately 32ppl
- additional annual cost per vehicle of using SGRD anticipated to be £96
- cost of using SGRD will be 10% more than diesel
- currently cost of using SGRD is 36% more than diesel
- based on total of 13.3M litres of diesel per annum and increase in SGRD take up over 7 years:
    - 20% in 2023,
    - 25% in 2024,
    - 32% in 2025,

    - 50% in 2026 to 2030.
- market availability.

Dependencies

- the cost of SGRD doesn't significantly increase to a point where any incentive price provided becomes ineffective
- as the use of SGRD grows, the level of revenue generated from fossil fuels reduces
- policy position on other renewable content fuels to be established through policy TR3b.

CEF 4-Year budget	Total 2022-2025	Deliverables
Second generation renewable diesel subsidy	£3,189,000	10 million litres of subsidised biodiesel

TR3b – Investigate the implications for the Island of renewable content fossil fuels

The Government of Jersey will;

- carry out research and market analysis on the implications, and options regarding the suitability of renewable content fuels for the Island
- produce a policy position paper by the end of 2022.

In response to the consultation responses received, an additional policy has been added to the policy pack. This policy recognises the changes in the EU and UK as they move towards adopting revised standard grades of petrol and diesel e.g., E10 and B7 as part of the EU and UK net zero strategies. As an Island with much lower average mileage and specific infrastructure constraints, additional work needs to be completed to understand the implications for Jersey. The research will produce a policy position on the suitability of renewable content fuels as standard grade in Jersey.

The policy position paper will also establish whether the subsidy applied through policy T3 should also be considered for the renewable content of these fuels.

The Government of Jersey will:

Undertake research and market analysis on the products and suitability for Jersey, considering the financial, infrastructure and spatial implications and other necessary conditions. The research will consider the following:

- the potential impact of widespread use of renewable content fossil fuels on the Island's greenhouse gas inventory,
- the market availability and price point,
- supply and distribution networks throughout the Island,
- identify spatial and infrastructure changes required and the implications for import and distribution networks,
- the possible implementation timescale and cost effectiveness considering the alignment with policy TR5,
- consider options and implications for possibility of a differential fuel duty rate or subsidy through policy TR3.

SMART objectives

1. carry out research and market analysis to produce a policy position paper by the end of 2022
2. the policy details and scope for the research will be worked up with industry stakeholders between April-July 2022.

Assumptions

- consideration of implications for fuel duty will be considered in policy T3 and will be considered by the Revenue Policy Development Board environmental taxes sub-group as part of the environmental taxes and charges workstream.

Dependencies

- Island Plan
- infrastructure plan
- energy market review – strategic policy 2.

CEF 4-Year budget	Total 2022-2025	Deliverables
N/A	N/A	Policy position by end of 2022

TR4 - Vehicle Emissions Duty optimisation

The Government of Jersey will:
Apply no level of Vehicle Emissions Duty (VED) on zero carbon vehicles and increase VED on all domestic petrol and diesel vehicles each year until at least 2030.

In order to incentivise the purchase of electric vehicles, they will continue to attract no Vehicle Emissions Duty (VED).

The level of VED applied to the importation of petrol and diesel vehicles will continue to increase each year in order to become a significant factor in purchasing decisions. Petrol and diesel vehicles will continue to attract VED regardless of how they are fueled once in the Island. Commercial petrol and diesel vehicles will continue to receive the current relevant dispensations from VED. However, as and when low-carbon alternatives for commercial vehicles are available, their uptake will be incentivised through differential rates of VED. Until price parity is achieved between low-carbon commercial petrol and diesel commercial vehicles, consideration of the impact on the economy will be made in applying this policy.

VED bands will be increased at different rates, with larger proportionate increases for more polluting private vehicles. Increases will be set out in the Government Plan and will be based on achieving a range of policy objectives, including:

- incentivising the uptake of low-carbon vehicles by closing the price gap sooner,
- providing a 'backstop' policy to ensure very minimal importation of petrol and diesel vehicles once market alternatives are available but ahead of the date after which new registrations are not allowed.

The excess revenue would be deposited in the Climate Emergency Fund.

SMART objectives

1. substantial annual increases in VED to be set out in each Government Plan.

Assumptions

- the Jersey Mobility Hierarchy (set out in the Sustainable Transport Policy[88]) seeks to switch many journeys to public transport/active travel but does acknowledge the on-going role that private vehicles will play

[88] Sustainable Transport Policy (gov.je)

- a rate of VED sufficient to dissuade purchasers from petrol and diesel engines can be achieved.

Dependencies

- Tax Policy
- Government Plan process.

Support for this work will be required from SPPP, IHE and Treasury departments.

TR5 – End the importation and registration of petrol and diesel vehicles that are new to the Island from 2030

The Government of Jersey will:
Bring into force legislation that phases out the importation and registration of petrol and diesel cars and small vans that are new to the Island from 2030 at the latest and will seek to extend this to other categories of vehicle at subsequent dates between 2030 and 2040.

Transport is the largest source of on-Island greenhouse gas emissions. In order to meet Jersey's ambition to have net-zero greenhouse gas emissions by 2050 we need to phase out the use of all petrol and diesel vehicles from the Island's roads by 2050.

To do this we need to stop vehicles that are new to the Island coming in well in advance of this date, bearing in mind that a car may have a useful life of over 15 years in the Island. The UK has prohibited the manufacture and sale of petrol and diesel vehicles from 2030 (with hybrids from 2035) and the EU from 2035. At COP26 the Glasgow breakthrough statement on road transport agreed by participating nations was that '*Zero emission vehicles are the new normal and accessible, affordable, and sustainable in all regions by 2030*'.'[89] The legislation change is supported by financial incentives and disincentives set out in other policies that will accelerate the natural transition away from petrol and diesel cars.

SMART objectives

1. to prevent the new importation, sale and registration of petrol and diesel cars and small vans that are new to Jersey from 1 January 2030 at the latest
2. legislation to be expanded between 2030 and 2040 to cover the additional vehicle types (including hybrids)
3. to ensure that Jersey does not become a dumping group for new petrol and diesel cars that cannot be sold in the UK or EU due to the bans brought in there.

Assumptions

- the Jersey Mobility Hierarchy (set out in the Sustainable Transport Policy[90]) seeks to switch many journeys to public transport/active travel but does acknowledge the ongoing role that private vehicles will play
- cars and small vans make up approximately 80% of the Island's current fleet.

[89] Zero Emission Vehicle Pledges Made at COP26 (UNFCCC)
[90] Sustainable Transport Policy (gov.je)

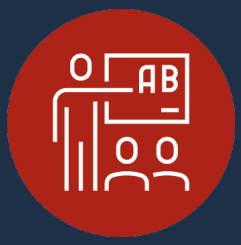
Dependencies

- availability of alternative vehicles
- availability of public charging infrastructure
- incentive scheme to cover the cost differential between petrol and diesel and electric vehicles to the point of price parity.

Support for this work will be required from SPPP, IHE and law drafting departments.

TR6 - Roads Law Review

The Government of Jersey will:
Review the legal framework for Jersey's highways to ensure they are fit to safely enable low-carbon, sustainable and modern travel and transport.



The overall aim of this project is to create a new Roads Law structure that will enable the effective management of the operation of the transport infrastructure for the present and into the future.

The Road Law review will consider ways to facilitate carbon neutrality in Jersey by introducing measures to enable safe walking and cycling and the use of other ultra-low and zero emission vehicles referred to in the Framework for a Sustainable Transport System 2020-2030.

Themes within the review which relate to decarbonisation

Theme 1 – Road Authority Structure, Duties and Powers

- will need to take into account the various workstreams being progressed under the Sustainable Transport Policy, in particular the Road Safety Review and developing Road Safety Strategy and the 'Mobility as a Service' (MAAS) project using technology to integrate different transport modes into personal travel planning.

Theme 2 – Future Proofing

- will look to address the inadequacy of the existing legislation to deal with future needs and enable the accommodation of future technologies and modes of transport crucial to the delivery of the Sustainable Transport Policy and the Carbon Neutral Strategy
- a key purpose of the Law should therefore be to enable safer journeys whatever the mode of transport and provide the ability to share available space equitably between the various modes of transport.

Dependencies

- road user charging, as set out in strategic policy 3.

Delivery targets	2022	2023	2024	2025	2026-2029
Policy development	x	x	x		
Draft, finalise and approve legislation			x	x	
New legislation in place					2026-27

Support for this work will be required from SPPP, IHE and law drafting departments.

TR7 - "Green" number plates for electric vehicles

The Government of Jersey will:
Ensure that, from the 1 January 2023, owners of electric vehicles have the option to display a number plate that features a green marker as a visible signifier of their contribution to tackling the climate emergency.

The green signifier may be extended to number plates for other types of zero emission vehicle in future.

SMART objectives

1. to provide the option of number plate with a green signifier for every newly registered electric vehicle from 2023.

Assumptions

- law drafting resource is available to make required changes to Orders.

Dependencies

- change to legislation to ensure the green plates could only be used for electric vehicles.

Delivery targets	2022	2023	2024	2025
Necessary changes to secondary legislation	x			
"Green" number plates available		x		

Support for this work will be required from SPPP and IHE departments.

TR8 – Sustainable Transport Roadmap

The Government of Jersey will:
Complete the rapid plans required by the Sustainable Transport Policy and, drawing on these, publish a Sustainable Transport Roadmap in 2022 that:

- pulls together available evidence and views from Islanders and stakeholders,
- describes the long-term shifts needed to achieve the States Assembly's vision that, 'by 2030, our transport system will make our everyday lives better, support businesses, encourage us and our children to be healthier and make our Island greener',
- identifies new funding streams to support investment in new sustainable transport infrastructure,
- provides a clear programme of delivery.

Sustainable Transport, as defined in the Sustainable Transport Policy, is:

'A transport system that promotes wellbeing needs to incorporate strong, well-connected neighbourhoods and places, and safe, attractive infrastructure and public transport that makes walking, cycling and taking the bus the obvious choices on a small Island.'

A Second Interim Report on the Sustainable Transport Policy[91] (STP) was published alongside the draft Carbon Neutral Roadmap in December 2021. It provided an update on progress in each area of the STP since the first interim report, issued in November 2020.

Delivery targets	2021	2022	2024	2025
Sustainable Transport Policy Update published	Dec 2021			
Sustainable Transport Roadmap published		X		

Support for this work will be required from SPPP and IHE departments.

[91] Second Interim Report on the Sustainable Transport Policy (gov.je)

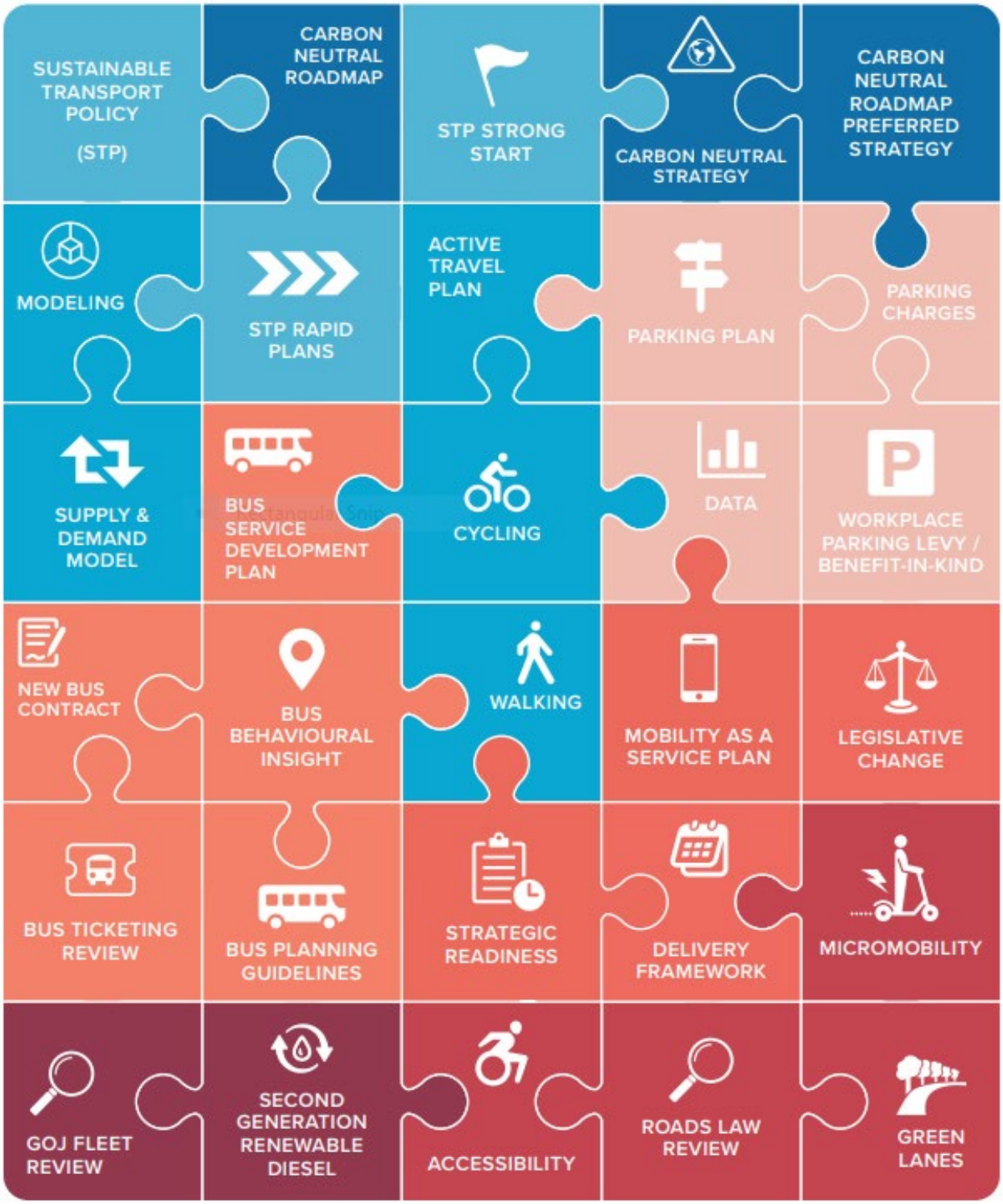


Figure 25: Illustration of different elements of Sustainable Transport work stream.

TR9 – Bus service development trials

The Government of Jersey will:
Implement a programme of bus service development trials 2022-2024.

The trials will be informed by work on the Bus Service Development Plan, which is required by the Sustainable Transport Policy[92] (STP) and will be published in 2022.

That Plan will provide a blueprint for a more comprehensive, accessible and decarbonised public transport system for the Island, which will be reflected in the re-commissioning of the Public Bus Service in 2024.

The programme of trials will be designed in conjunction with Liberty Bus and based on existing insights into why people in Jersey do and do not choose to take the bus. Where necessary, trials will be given effect as contract variations, and may include:

Increased frequency services on some routes

Bus service frequency of under 30 minutes are categorised as 'turn up and go' services that provide a viable alternative to motor vehicle travel. Data will be collected on services that currently operate at a frequency of 30 minutes or more, with feasibility studies carried out to identify the level of unmet demand for increased frequency service in order to target trials to areas with the greatest potential for developing a bus culture.

Demand modelling based on population and trip attractors (such as places of work, leisure, shopping and tourism) will be undertaken to establish existing unmet passenger demand.

Changes to pricing and/or ticketing

Data will be used from the U19 free bus travel initiative being launched in March 2022 to inform potential future fare subsidies and the appetite for people to shift journeys onto bus services. A ticketing review is being undertaken as part of the Bus Service Development Plan which will be incorporated into the new bus operating contract.

Promotion of bus use within workplace travel plans

We will continue to work with government colleagues to raise the awareness of sustainable transport through workplace travel planning, with the development of specific workplace travel planning communications as part of the wider sustainable transport road map development.

[92] Sustainable Transport Policy (gov.je)

Exploration of demand responsive service options

As part of the work to develop the next contract for public transport provision in Jersey, a demand responsive service will be considered as part of the options appraisal. Any future provision will also be informed from the bus development plan rapid plan workstream which is currently underway.

Use of low-carbon energy solutions

This work is already well developed with second generation renewable diesel already being used in double decks buses and funding will be used to enable this to continue.

SMART objectives

1. a programme of bus service development trials that will provide evidenced insights into what changes are likely to deliver the biggest improvements in the bus service, and corresponding increases in bus ridership, will be designed in 2022 and delivered by 2024.

Assumptions

- trials can be accommodated within the existing bus contract and, where necessary, driver and vehicle resources.

Dependencies

- availability of appropriate vehicles and drivers.

Delivery targets	2022	2023	2024	2025
Programme of trials designed	x			
Programme of trials implemented	x	x	x	
CEF 4-Year budget	**Total 2022-2025**			
	£1,500,000			

TR10 – Active travel

The Government of Jersey will:
Implement further active travel initiatives in 2022, ahead of development of the full Sustainable Transport Roadmap.

The Sustainable Transport Strong Start delivery plan[93] has delivered a range of active travel improvements; including covered cycle parking, extensions to and adjustments to existing cycle lanes; provision of new cycle lanes; and *safe routes to school* enhancements.

In addition, an Active Travel Plan is being developed as required by the Sustainable Transport Policy[94] and will be published in 2022. That Plan will provide a blueprint for the Island's future active travel network and associated policies and investment. In advance of this, interim funding is provided to continue the delivery of key projects.

To complement new public realm investment of £1M per year set out in the Government Plan 2022-2025, the following will be funded by the carbon neutral road map active travel allocation:

- an evidence based study to identify what the future Sustainable Transport Policy infrastructure programme should be from 2026 onwards with an identified level of funding and resources required to deliver it. This would consider the whole life value of adapting the Island's Infrastructure to better support active modes of travel, including carbon reduction, casualty reduction, active lifestyles, social benefits in terms of independent living and reduced severance of communities (£100k),
- undertake scheme development to support the upgrade of sections of the western cycle route to improve safety and increase capacity to future proof the network to support increased walking and cycling journeys (£200k).
- additional active travel projects will be identified and implemented utilising the additional £1,500,000 funding allocation agreed in the amendment brought forward by Deputy Robert Ward[95]

SMART objectives

1. implement further active travel initiatives in 2022, ahead of development of the full Sustainable Transport Roadmap, to support the 7.5% modal shift to active travel by 2030.

[93] The Sustainable Transport Policy Strong Start delivery plan (gov.je)
[94] Sustainable Transport Policy (gov.je)
[95] Carbon Neutral Roadmap (P.74/2022): Second Amendment (Lodged Au Greffe on 8 April 2022 by Deputy R.J. Ward of St. Helier)

Assumptions

- larger infrastructure initiatives can be accommodated within capital programme.

Delivery targets	2022	2023	2024	2025
Active Travel initiatives designed	x			
Active Travel initiatives delivered	x			
CEF 4-Year budget	**Total 2022-2025**			
	~~£300,000~~ £1,700,000*			

*Note change made following agreement of second amendment by Deputy Robert Ward[96]

[96] Carbon Neutral Roadmap (P.74/2022): Second Amendment (Lodged Au Greffe on 8 April 2022 by Deputy R.J. Ward of St. Helier)

TR11– Emissions from aviation and maritime transport

The Government of Jersey will:
Work with the Ports of Jersey to reduce emissions from aviation and marine transport, in line with the Jet Zero scenario 2 emissions targets and obligations under the MARPOL treaty.

Decarbonising air travel requires global coordination and action.

Our ambition to decarbonise every sector of our economy includes aviation. Despite aviation being one of the most challenging sectors to decarbonise, it is important that it plays its part to ensure Jersey reaches net-zero.

For the aviation industry to become net-zero by 2050, the commitment of all parts of the supply chain is needed, to collaborate, invest and innovate to decarbonise air travel. This will include aircraft manufacturers, fuel suppliers, airlines, airports, governments, and others working together to reduce emissions; be that from the aircraft that are flown, the infrastructure that supports the industry or the policy framework that they require suppliers and customers to adhere to.

We recognise that aviation emissions are a global issue, and that Jersey cannot act in isolation. We will coordinate closely with the UK Aviation industry and government, to support its leading role in the work of the International Civil Aviation Organisation (ICAO) to reduce emissions from international aviation. This pledge is reinforced by the Ports of Jersey having endorsed the Toulouse Declaration, which was signed on 4 February 2022. The declaration is a historic treaty confirming the commitment of European Governments, the European Commission, industry, unions, and other key stakeholders to support European aviation's goals to reach net zero CO_2 emissions by 2050.

As an Island, we rely on air connectivity both economically and as a community
Air connectivity is critical to Jersey's economy and the quality of life for Islanders. The tourism sector alone contributes £372 million per year in economic benefit Gross Value Added (GVA) and provides nearly 5,000 jobs (11.5% of all employment)[97]. Jersey Finance has also highlighted air connectivity as a key source of competitive advantage for the finance sector.

Islanders depend on air connectivity to visit friends and relatives in the UK, to access specialist as well as emergency medical care, university education, travel on holiday and, in many cases, fulfil job roles.

[97] The Economic Contribution of Tourism to Jersey: The Productivity Opportunity - A Report For Visit Jersey (Tourism Economics)

It is essential that measures to deliver the requirement to decarbonise aviation, also allow us to maintain and ideally enhance connectivity. It is important that Islanders have access to affordable flights allowing them to enjoy holidays, visit friends and family and to travel for business. Being a leader in the development of sustainable aviation will not just support our net-zero ambitions but also creates opportunities to open our economy to innovation in emerging sustainability industries.

Working together to find a solution

A coordinated, holistic and multi-faceted Government policy framework will play a key role to enable the transition to net-zero aviation by 2050. Working closely with Ports of Jersey and others, the key areas of focus will include:

- improving operational efficiency across the aviation supply chain,
- providing appropriate infrastructure to facilitate the move to sustainable aviation fuels,
- encouraging airlines to transition to sustainable aviation technologies,
- managing residual emissions through carbon removals,
- promoting Jersey as a centre for sustainable innovation and development,
- encouraging Islanders and visitors to make sustainable air transport choices,
- safeguarding and enhancing Island connectivity while promoting sustainability.

The development of sustainable aviation technologies is vital to decarbonise air travel, with a combination of sustainable aviation fuels, electric, hybrid and hydrogen-based technologies. The pace of innovation in this area is increasing exponentially. Jersey is well-positioned to be at the forefront of the development and testing of sustainable aviation technologies due to:

- its regulatory framework with oversight from both the Civil Aviation Authority (CAA) and the European Union Aviation Safety Agency (EASA),
- a very close relationship with our locally based carrier airline Blue Islands,
- Ports of Jersey is the controlling authority for Air Navigation Service Provision for 8,500km sq of airspace between the UK and France,
- an electricity supply that is already 95% decarbonised.

To realise the potential benefits, both for the Island and the planet, the development of a policy framework and legislation that supports the infrastructure investment required to deliver to the Jet Zero scenario 2 will be developed. This scenario forecasts a reduction in emissions from aviation of 7% by 2030, and 43% by 2050.

Emissions from maritime transport

The Government of Jersey will work with Ports of Jersey to monitor the marine sector in line with the International Maritime Organisation's (IMO's) greenhouse gas strategy[98] and in compliance with our obligations as a signatory to the IMO's pollution prevention treaty, MARPOL.

Support for this work will be required from SPPP, IHE departments, Local Economy team and Ports of Jersey.

[98] International Maritime Organisation's greenhouse gas strategy

HT - Heating policies

#	Policy	Summary	Deliverables	4-Year Budget	Carbon	MCA
HT1	Supporting low-carbon heating systems and home insulation	• Purchase incentive to replace oil or gas boiler with specified alternatives • Covers 50% of the cost up to £5k • Up to £10k and no match funding required for low-income households	1000 low-carbon heating systems	£5,706,000	4	3.36
HT2	Update building bye-laws	• Review and update building bye-laws in 2022 • Increases minimum energy standards in new buildings and when existing buildings are renovated • End the replacement of oil and gas boilers from 1 January 2026		BAU+	4	3.58
HT3	Energy Performance Certificates	• A system of Energy Performance Certificates is in place • New regulations on Energy Performance Certificates in place by end of 2024	800 energy audit incentives	£355,000 BAU+	3.2	3.79

HT1 - Supporting low carbon heating systems and home insulation

The Government of Jersey will:
Provide a subsidy to enable both householders and commercial businesses to transition to low carbon heating systems. The scheme will run from 2022.

Greenhouse gas emissions are generated when fossil fuels are burnt. In Jersey, the majority of emissions are generated when we drive petrol and diesel vehicles and in the boilers that heat our homes and business premises. A key priority policy is therefore accelerating the switch from fossil fuel to low-carbon property heating.

This proposal is split into two separate but related schemes – a domestic incentive and a commercial incentive to switch away from fossil fuels. Recognising that running costs to the householder may be increased, energy efficiency measures will also be eligible for funding under the domestic scheme.

The aim of the incentive is to assist Islanders with the costs of the new equipment to encourage them to choose the lower carbon option when needing to replace their heating system and to encourage people to make this switch earlier than they may have chosen to. The incentive will run from 2022 until 2025. The domestic heating sector accounts for the second highest contribution to the Island's greenhouse gas emissions. With an estimated 21,559 fossil fuel boilers currently in the Island, the target is c16,000 boilers to be switched by 2030.

Emissions from the business sector accounted for 15% of total greenhouse gas emissions in the 2019 inventory[99]. There are 6,830 private sector companies in Jersey. Data on commercial heating systems is poor, but an assumption that 50% of commercial properties have fossil fuel boilers would provide a baseline of 3,415 commercial properties. With the target of achieving a 50% reduction in this sector from current (2019 inventory) figures we are therefore setting a provisional target of 1,700 commercial properties to fuel switch by 2030.

The greenhouse gas emissions modelling assumes that the remaining 6,559 domestic boilers and 1,715 commercial boilers will have switched away from fossil fuels by 2034. Proposed changes to the building regulations will help achieve this by preventing fossil fuel boilers going into new properties by 2025 and ensuring that fossil fuel boilers can only be replaced with non-fossil fuel alternatives from 2026. All remaining fossil fuel boilers will need to be replaced, or to switch to using renewable biofuels from 2034.

[99] Jersey's Greenhouse Gas Emissions (gov.je)

The key elements of both domestic and commercial programmes will be confirmed in the programme design phase, following further consultation with key stakeholders. The current working design assumptions are as follows (note that these are subject to change):

- existing properties with gas or oil boilers will be eligible to apply for an incentive to cover 50% of the costs of eligible work up to a maximum grant of £5,000 where the gas or oil boiler is being replaced with a qualifying renewable technology or electric heating system,
- the property owner will be required to pay a minimum of 50% of the total costs of the eligible work (see below for additional support for those on low incomes),
- where the total eligible work costs more than £10,000, the maximum amount of incentive that will be paid per property will be £5,000,
- property owners (including landlords) are eligible to apply,
- individuals can apply for grant funding for multiple properties that they own. Consideration will be given as to whether there will be a cap for the number of properties for which an individual can apply.

Additional elements of domestic programme

- there will be a controlled system so that those on lower incomes will not be required to meet the 50% match funding criteria
- those on lower incomes will be able to claim up to a maximum incentive of £10,000 for eligible work
- consideration will be given as to how those on lower incomes can be supported to access any additional capital required if the work costs over £10,000
- householders replacing their fossil fuel heating source will be able to include energy efficiency measures that are identified on a completed Energy Performance Certificate within their funding application.

Additional elements of the commercial programme

- leaseholders who own the heating system can apply but it is the applicant's responsibility to ensure that written permission is obtained from property owner
- types of heating systems eligible for funding are likely to include: electric flow boilers; electric storage heaters; electric panel radiators; electric immersion water heaters; ground source heat pumps; air source heat pumps; photovoltaic panels; solar thermal panels; micro wind turbines; biomass boilers; and battery storage.

SMART objectives

1. establish and commence an incentive scheme to subsidise the replacement of fossil fuel heating systems with non-fossil fuel heating systems in properties by end of 2022.

Assumptions

- that there is sufficient electricity capacity to meet the increased demand from these fuel switches.

Dependencies

- support from industry to set up a supplier/installation accreditation/verification scheme
- link to key polices on improved building energy efficiency standards (policy HT2) and Energy Performance Certificates (policy HT3)
- planning/building control support in getting approval for fuel switch installations
- availability of suitably qualified local tradesmen to install heating systems and service them, see policy on Green Skills (policy EN3)
- energy performance certificate/energy audit possible and sufficient surveyors to meet increased demand.

CEF 4-Year budget	Total 2022-2025	Deliverables
Low-carbon heating incentive	£5,706,000	1000 low-carbon heating system switches

HT2 - Update building bye-laws

The Government of Jersey will:
Bring into force legislation that updates current building regulations and sets increased energy efficiency and carbon emission standards of new and existing domestic and commercial buildings and prohibits new fossil fuel boilers being installed in any property after 1 January 2026.

New buildings

The knowledge and technology exist today to build properties that require no external input of energy for heating. To reach net-zero emissions our aim is for all buildings to require no external input of energy through fossil fuel consumption by 2050. This means that new buildings must meet this requirement as soon as possible. Under the new Future Homes standards, the UK has set the target of new domestic buildings being 'zero-carbon ready' by 2025. Jersey's building standards will be updated to match this requirement – with the aim that all new buildings should be required to be zero-carbon by 2025.

Existing buildings

The majority of buildings that will exist in 2050 already exist today and it is these existing buildings that make the biggest contribution to greenhouse gas emissions. There are a number of policies proposed to incentivise property owners to voluntarily make changes, however voluntary measures alone are unlikely to get the required pace of decarbonisation. There are key points in the lifetime of a property where it is possible to mandate that energy efficiency or carbon emission levels are improved. These include: the point of sale or rental and at the point of having renovation work that requires planning permission/building permits.

The current building regulations will be reviewed with the aim of identifying how best to increase the energy efficiency (including consideration of standards such as Passivhaus) and reduce the number of oil and gas heating systems as rapidly as possible, and to ensure that no new fossil fuel boilers will be installed in any building from 2026.

The draft Bridging Island Plan[100] seeks to introduce a 20% reduction in Target Energy Rate beyond existing building bye-laws, as an interim measure whilst formal changes to the building bye-laws are developed.

[100] P.36/2021 Island Plan 2022-2025 as lodged (gov.je)

SMART objectives

1. commission a Building Bye-Law review to be completed in 2022
2. from this review implement legislation by 2024 at the latest to support the following likely outcomes:
    - increase minimum energy efficiency/carbon standards in new builds in line with the zero-carbon homes standard by 2025,
    - increase in the energy efficiency/carbon standards for existing properties at the point of key changes to the building fabric,
    - ensure that no new fossil fuel boilers will be installed in any domestic or commercial building from 2026.

Assumptions

- that the local electricity network could cope with the increased demand within its current or future capacity
- that alternative heating fuels (e.g., second generation biofuels, hydrogen, synthetic fuels etc) will come onto the market over the next 10 years providing a range of non-fossil fuel boiler types for consumers
- that the construction industry is able to keep pace with the necessary improvements.

Dependencies

- ability of local market to be able to adapt to supply and maintain new types of boiler/heating system as they come onto the market
- policy HT1 Supporting low-carbon heating systems and policy HT3 Energy Performance Certificates.

Resources for this work will be provided from IHE budgets.

HT3 – Energy Performance Certificates

The Government of Jersey will:
Develop and introduce legislation to make both domestic and commercial Energy Performance Certificates mandatory at the point of sale and rental by the end of 2024, with minimum standards being brought in sequentially from 2026.

Government will also ensure that Energy Performance Certificates are displayed on public buildings by 2025.

Energy Performance Certificates (EPCs) are necessary to allow Islanders to understand the increasing energy efficiency standards homes they might buy, and other buildings, and to create market incentives to encourage developers to pursue higher energy ratings. Greater uptake of EPCs is also necessary to support better targeting of future decarbonisation policies and investment.

Across the EU and UK, Energy Performance Certificates are mandatory and have been used as the key tool in understanding the energy and carbon performance of buildings as a first step and then going on to drive forward the continual improvement in standards through the introduction of minimum standards. While Jersey does have a system of EPCs in place, these are not mandatory.

We will develop legislation to make both domestic and commercial Energy Performance Certificates mandatory at the point of sale and rental by the end of 2024 with minimum standards being brought in sequentially from 2026. EPCs will have to be displayed on public buildings by 2025.

Between 2022 and the point in which the legislation comes into force we will:

- review the existing home energy audit and Energy Performance Certificate process,
- continue to provide a £250 subsidy for home energy audits,
- complete the development of commercial energy audit tool in 2022,
- deliver on-Island training for commercial energy auditors in 2022,
- introduce a commercial EPC subsidy of around £500 towards the cost of an EPC.

SMART objectives

1. deliver 250 home energy audits/domestic EPC subsidies (£250 per subsidy) per year until EPCs become mandatory
2. complete design of the Jersey-specific commercial EPC tool in 2022
3. provide training for 50 accredited auditors by end of 2023
4. run an introductory subsidy (around £500 per subsidy) for commercial EPCs to 75 commercial

buildings

5. complete a review of the current Jersey Energy Performance Certificate system to ensure its accuracy and implement any required changes to the tool by the end of 2023
6. energy Performance Certificate legislation to be drafted and brought back to the States Assembly by the end of 2024
7. introduce legislation that requires that a valid EPC is mandatory at point of rental or sale for both domestic and commercial properties by the end of 2025
8. legal requirement to reach minimum EPC standard at point of rental or sale by 2026.

Assumptions

- energy prices will continue to rise so demand for energy efficiency will continue
- that energy efficiency is preferable to buyers and renters and therefore the market will force landlords and sellers to make improvements
- uptake of voluntary EPCs is underpinned by knowledge of future policies. Greater uptake of the EPC subsidy is expected as the mandatory date coming sooner.

Dependencies

- uptake of energy assessor training by local market
- landlord licensing legislation is passed so that rental properties can be identified.

CEF 4-Year budget	Total 2022-2025	Deliverables
	£355,000	800 energy audit incentives

OE – Other on and off-Island emissions policies

#	Policy	Summary	4-Year Budget	Carbon	MCA
OE1	Promoting low-carbon lifestyles	• Awareness raising and practical solutions to reduce Jersey's scope 3 (off-Island) emissions	£200,000	3.2	3.56
OE2	Construction sector emissions	• Sets an expectation of steps to decarbonise construction, including work on Island Plan policies, building bye-laws and modern methods of construction	BAU+	n/a	n/a
OE3	Agricultural sector emissions	• Reduce emissions from operational agricultural activities in line with the Rural Economy Strategy	BAU+	n/a	n/a
OE4	Emissions from waste and water management	• Sets an expectation of a decarbonised waste management system from 2038 or earlier (date of Energy Recovery Facility obsolescence) and steps needed to deliver this, starting with a waste strategy review • Development of a net-zero water management strategy	BAU+	n/a	n/a
OE5	F-Gas emissions	• Explains emissions from F-gases (HFCs, PFCs, SF6) and industry assumptions about this • Commits to reporting on NF3 in line with the Paris Agreement	BAU+	n/a	n/a
OE6	Delivering a sustainable finance framework	• Continue to develop a sustainable finance framework within the Government of Jersey	£60,000	n/a	n/a

OE1 - Promoting low-carbon lifestyles

The Government of Jersey will:
Develop and deliver an education and engagement programme to help Islanders to reduce their off-Island (scope 3) emissions.

Principle 1 in Carbon Neutral Strategy[101] recognises and requires a strategic focus on Jersey's scope 1, 2 and 3 emissions. It is important that Islanders understand the impact our local choices have across the world including recognising the impact that Jersey based businesses can have.

The main aim of this policy is to raise awareness and engagement on scope 3 emissions, which are emissions associated with the manufacture and transport of the goods and services consumed in Jersey. This is intended to help Islanders to reduce their global impact.

The new programme will build on the eco active network and the work carried out through Jersey's Climate Conversation[102], which have begun to build momentum to the conversation, raising awareness and helping to educate Islanders through engagement and action. The programme will engage individuals, businesses, community organisations and Parishes to explore and how they can act to reduce scope 3 emissions. This will include the development of climate-action plans that might subsequently secure funding through the small grants programme proposed under policy EN2.

The programme will learn from existing practice in identifying sectors that are scope 3 heavy in order to change behaviour, such as the pilot *Green Kitchen Standard* that began in 2020 to support the hospitality sector to reduce their environmental impacts.

SMART objectives

1. sector analysis to identify sectors with particularly large scope 3 emissions by mid-2022
2. implementation plan addressing key sectors and messages informed by sector analysis by end-2022
3. develop a costed communications plan in 2022, to deliver educational and engagement messages and tools that can be used to reduce scope 3 emissions
4. identify if there is a suitable tool that can be used (or created) to measure reduction in scope 3 emissions for public by end 2022
5. deliver initial programme of targeted sector education and awareness by end 2022 tackling priority sectors first
6. increase in locally sourced goods and services.

[101] Carbon Neutral Strategy (gov.je)
[102] Jersey's Climate Conversation

Assumptions

- a mechanism for measuring scope 3 emissions reductions can be found or created
- there are some national and international schemes established that can support specific sectors to achieve net-zero targets
- funding can be used to establish dedicated officer capacity to deliver.

Dependencies

- Carbon Neutral Network established and grants fund available (policy EN2)
- sustainable finance policy delivered (policy OE7)
- data availability.

CEF 4-Year budget	Total 2022-2025
	£200,000

OE2 – Construction sector emissions

The Government of Jersey will:
Work closely with the Jersey Construction Council, Association of Jersey Architects, and others in the industry to drive-down the whole life carbon impact of the Island's construction sector, including considering the use of all available policy levers. Government will also adopt higher construction standards for all public construction projects.

Greenhouse gas emissions from material extraction, manufacturing of construction products, and construction and renovation of buildings are estimated at 5-12% of a jurisdiction's total national greenhouse gas emissions. Greater material efficiency could save 80% of those emissions.[103]

Locally, construction accounts for about 50% of all extracted material in the Island[104], and the sector has a large impact on emissions through selection and transport of materials, and the methods used in development. Industry bodies such as the Jersey Construction Council and Association of Jersey Architects are key stakeholders in meeting the aim to accelerate the transition to a sustainable built environment using low impact construction methods and materials.

A range of regulatory frameworks are due to be strengthened to require lower-carbon construction methods and reduced whole-life carbon from buildings, including:

- changes to building bye-laws (Carbon Neutral Roadmap policy HT2),
- a 20% reduction in Target Energy Rate, beyond existing building bye-laws as an interim measure whilst formal changes to the building bye-laws are developed (draft Bridging Island Plan[105] policy),
- introduction of Energy Performance certificates (Carbon Neutral Roadmap policy HT3),
- BREEAM standards for larger non-residential buildings (draft Bridging Island Plan policy),
- making better use of embodied carbon, with a renewed focus on the retention of existing building fabric, stronger site waste management requirements and the use of whole-life carbon assessments (draft Bridging Island Plan policies).

The measures in the Bridging Island Plan will be reviewed in light of changes to the building bye-laws by 2024, to form the updated Island Plan policies for the period 2025-2035.

[103] Buildings and construction (europa.eu)
[104] Jersey's Greenhouse Gas Emissions (gov.je)
[105] P.36/2021 Island Plan 2022-2025 as lodged

Ministers have also commissioned work to explore the potential for greater use of modern methods of construction in Jersey, including identifying areas where government might support the industry by making regulatory or other changes. Construction industry activity is also shaped by waste, water, energy and other natural resources management law and policy.

The purpose of this policy statement is to commit government to a process of honest and ambitious dialogue with industry, to increase sustainable construction standards in the Island, and to identify clear targets and delivery plans to achieve measurable reductions in construction industry emissions in the coming decades.

To support this process, a Sustainable Construction Summit will be convened by ministers in 2022, supported by the Jersey Architecture Commission and developed in partnership with industry bodies.

Embracing sustainable building standards will need to be supported through provision of training and upskilling as part of future skills policy.

As part of the Decarbonising Government programme (policy EN1), and in line with managing emissions policies set out in the draft Bridging Island Plan[106], government will also adopt higher construction standards for all public construction projects. This step will build on the excellent progress already made by government-backed developers, including planned BREEAM Excellent development by Jersey Development Company at South Hill and the Waterfront (with work continuing to understand if Outstanding might be achievable), and work by Andium Homes to explore the application of Passivhaus standards in affordable homes.

SMART objectives

1. reduce emissions from the construction sector in line with international targets.

Assumptions

- changes are made to relevant legislation
- Island Plan policies are adopted.

Dependencies

- upskilling programme in place through green skills policy EN3
- legislation changes introduced in line with proposed timeline.

Support for this work will be needed from SPPP and IHE departments and the Construction Council and Association of Jersey Architects.

[106] P.36/2021 Island Plan 2022-2025 as lodged

OE3 – Agricultural sector emissions

The Government of Jersey will:
Work with key stakeholders from the agricultural sector to develop and implement a new net-zero Rural Economy Strategy (RES) in 2022, that aims to support the agricultural sector to continue to reduce emissions from their activities, and to adapt to the effects of climate change.

The Rural Economy Strategy (RES) provides the strategic support needed to help the industry adapt to climate change and economic changes. The updated RES will provide a policy framework to reduce emissions from this sector, with targets in the Strategy aligned to Paris commitments as set out in strategic policy 1 of the Carbon Neutral Roadmap.

In 2019, the Agriculture sector accounted for 6% of Jersey's total greenhouse gas emissions[107]. The largest agriculture emissions source in 2019 was enteric fermentation from dairy cattle. Emissions therefore come from the raising of animals for meat and milk. Agricultural emissions have steadily decreased since 1990 largely due to declining numbers of dairy cattle. Emissions in the agriculture sector were split as follows in 2019:

- methane (60%),
- nitrous oxide (37%)
- carbon dioxide (3%).

The Rural Economy Strategy will be published in Q2 2022 with the aim to implement it through the Government Plan 2023-2026. The Strategy will be a bridging plan which will facilitate policy development in this area over the next three years and allow further public and stakeholder consultation.

A Marine Economy Strategy will also be developed at the same time of the Rural Economy Strategy and aquaculture will be covered under within this.

SMART objectives

1. reduce emissions from operational agricultural and aquaculture activities in line with the Rural Economy Strategy and Marine Economy Strategy
2. support the Rural Economy Strategy and Marine Economy strategy objectives to be implemented through the Government Plan process 2023-2026.

[107] Jersey's Greenhouse Gas Emissions (gov.je)

Assumptions

- The Rural Economy Strategy and Marine Economy strategy are produced on time and picks up emissions reductions in line with the Paris Agreement.

Dependencies

- policy is linked to the skills and market policy to ensure that any skills gaps are identified and addressed in order to move to a low-carbon agricultural sector.

Resources for this work will be provided from IHE and Economy business as usual.

OE4 – Emissions from waste and water management

The Government of Jersey will:
Make on-Island solid waste disposal net-zero by 2040. To achieve this, a Circular Economy Strategy will be developed by 2025. Work to explore opportunities for carbon capture from the existing electricity from waste plant will begin in 2022.

Work with Jersey Water to prepare a net-zero Water Management Strategy by 2025, which incorporates existing planned work, in order to inform the next Island Plan.

Emissions from waste come when it is created but also when it is collected and disposed of. The current waste strategy has expired and will be reviewed and updated by the end of 2025. It will show the steps that will be taken to reduce emissions from waste in Jersey, including setting a high-level specification for a net-zero facility to succeed the current energy from waste plant from 2040.

This work will build on the existing waste management hierarchy, which recognises the need to reduce, reuse and recycle, before recovering energy and, ultimately, disposal. It will also consider the drivers of waste production in Jersey, and how the Island might interpret and adopt modern concepts of the circular economy. It will build on the recent Infrastructure Capacity Study and the Integrated Minerals, Waste and Water Study, developed as part of the evidence base for the draft Bridging Island Plan[108]; and support the effective implementation and enforcement of construction site waste management plans (draft Bridging Island Plan policy).

Alongside the planned review of energy market requirements, the new waste strategy will feed into the long-term infrastructure roadmap proposed in the draft Bridging Island Plan. In particular, the two studies will help set out future scenarios for the La Collette area of St Helier.

The implementation of Carbon Neutral Roadmap policies themselves will have implications for waste management and treatment. In particular, the management of waste arising from accelerated vehicle replacement and changing of heating and cooling systems needs to be carefully considered.

In line with strategic policy 3 of the Carbon Neutral Roadmap, government will consider the introduction of commercial waste charges for some activities in order to recognise the life cycle costs of high emission activities. Income from any new charges would be first be used to support infrastructure improvements, with remaining income ring-fenced to the Climate Emergency Fund.

[108] Draft Bridging Island Plan evidence base

Starting in 2022, and working in partnership with Jersey Electricity, the government will also explore opportunities to carbon capture from the existing electricity from waste plant.

Greenhouse gases, such as methane and nitrous oxide emissions, arise from the treating and supplying of clean water as well as handling of liquid wastes and sludge from housing and commercial sources (including human waste). Both the size of the population (and associated water demand) and the method of waste-water treatment are strongly correlated with these emissions.

The new net-zero Water Management Strategy will consider how we can reduce greenhouse gas emissions associated with the Island's water consumption and treatment and how we can ensure that it has sufficient resilience to adapt to the challenges a changing climate will present.

It will build on the recent Minerals, Waste and Water study, and on the recommendations of Jersey Water's 'Water Resources and Drought Management Plan'[109], which aims to address an expected deficit in water supplies over a 25-year period caused by climate change and population growth. It will consider both supply and demand, including water efficiency-related planning policies and building bye-laws, and demand management through non-household water efficiency and intensive media campaigns; and potential requirements for infrastructure enhancement, expansion, or provision. It will also examine industry best practice and technological developments in waste-water treatment that reduce (or capture) associated greenhouse gas emissions.

The net-zero Water Management Strategy will inform both the next Island Plan from 2025, as well as future Carbon Neutral delivery plans and the proposed long-term infrastructure roadmap.

SMART objectives

1. Circular Economy Strategy will be developed by 2025
2. high-level specification for a net-zero facility to succeed the current energy from waste plant from 2040
3. explore opportunities to carbon capture from the existing electricity from waste plant will begin in 2022
4. research options for the introduction of commercial waste charges for some activities
5. produce net-zero Water Management Strategy by 2025.

Assumptions

- The Circular Economy Strategy is produced on time and picks up emissions reductions in line with the Paris Agreement.

Dependencies

- resource availability and political acceptability

[109] Water Resources and Drought Management Plan (Jersey Water)

- Island Plan policies agreed
- Jersey Water Plan delivered
- Population policy.

Resources for this work will be provided from SPPP and IHE business as usual, working closely with Jersey Water.

OE5 – F-gas emissions

The Government of Jersey will:
Seek extension of the UK's compliance with the Kigali Amendment to Jersey by 2025.

The purpose of this policy is to reduce consumption of F-gases and hydrofluorocarbons (HFCs) in line with international commitments. Jersey will aim to reduce to consumption of HFCs by 85% between 2019 and 2036. The Kigali Amendment to the Montreal Protocol makes a major contribution towards Paris Agreement targets. This is because the global warming potential of HFCs range into thousands of times more powerful as CO_2.

The business sector currently accounts for 15% of Jersey's greenhouse gas inventory[110], and of that 39% is from F-gases. HFC emissions are associated with refrigeration and air conditioning. Whilst HFC emissions have grown in the business sector since 1990, emissions have declined in more recent years from 29,927 tCO_2eq in 2014 to 23,213 tCO_2eq in 2019. Perfluorocarbons (PFCs) are used in the electronics sector. These gases were introduced to replace ozone depleting substances, meaning F-gas emissions have increased since 1990.

Jersey's greenhouse gas inventory reports emissions of F-gases: Hydrofluorocarbons (HFCs), Sulphur hexafluoride (SF6) and Perfluorocarbons (PFCs). In accordance with the Paris Agreement, Jersey will also begin reporting on Nitrogen trifluoride (NF3). the Paris Agreement also require that the reference year used is 1995, rather than 1990 as per our other greenhouse gas inventory reporting. Extension of the UK's compliance with the Kigali amendment will mean that Jersey will need to implement controls that reduce the quantity of imports every few years in accordance with a specified schedule.

SMART objectives

1. to reduce emissions from F-gases in line with targets set out in the Montreal protocol and amendments that have been extended to Jersey, including the Kigali Amendment
2. reduce consumption of HFCs by 85% between 2019 and 2036
3. to seek extension of the UK's compliance with the Kigali Amendment to Jersey by 2025.

Assumptions

- continued compliance with Montreal Protocol and all amendments as defined.

Dependencies

- IHE – Regulation department, Strategic Policy, Planning and Performance, Law Officers

[110] Jersey's Greenhouse Gas Emissions (gov.je)

Department, External Relations, Customs and Immigration to ensure continued compliance with Montreal Protocol and seek ratification for the Kigali Amendment

- Policy EN3 to ensure the availability of suitably qualified local tradesmen to install the sustainable refrigeration systems and to service them.

Resources for this work will be provided from SPPP and IHE business as usual.

OE6 - Delivering a sustainable finance framework

The Government of Jersey will:
Continue to develop a sustainable finance framework that supports decarbonisation initiatives in Jersey and around the world, recognising that the way in which Jersey can deliver the biggest impact to global climate change is through its finance sector.

The European Commission defines Sustainable Finance as:

'*Sustainable finance refers to the process of taking environmental, social and governance considerations into account when making investment decisions in the finance sector leading to more long-term investments in sustainable economic activities and projects.*'[111]

The Government of Jersey has split this work into three distinct areas of delivery:

1. **Sustainable Government of Jersey investment - establish a Public Finance Sustainable Financing Framework to improve the sustainability of the Government of Jersey's own investment and debt.**

The Sustainable Financing Framework sets out the basis for identifying, selecting, verifying and reporting on projects that will be eligible for financing from the proceeds of Green, Social or Sustainability financing instruments.

For the Government of Jersey, consideration needs to be given to how the Island's money is invested and what changes could be made to move it towards more sustainable investment options. This needs to include consideration of the appropriate investment strategy for the States of Jersey employees' pension schemes.

2. **Climate finance - develop options to increase the amount/impact of money the Island provides to support climate mitigation and adaptation measures overseas**

The Government of Jersey also needs to determine what funds and how it should allocate funds to international climate finance to support a global 'Just Transition' to net-zero in accordance with the goals of the Paris Agreement.

[111] Overview of sustainable finance | European Commission (europa.eu)

3. **Jersey as a sustainable financial centre - continue to support the Island's finance industry to become a leading sustainable finance centre and support Islanders and local businesses to make informed decisions about how their money is invested.**

As an international finance centre, with over £1 trillion of assets channelled through its shores into global investment, Jersey has a responsibility to consider the global carbon impact of its finance sector. We need to consider the impact on global greenhouse gas emissions resulting from those investments and put in place the necessary regulatory framework to protect against green-washing and provide market transparency. Work in this area is underway by Government of Jersey in partnership with Jersey Finance and the Jersey Financial Services Commission.

Jersey for Good - A Sustainable future is a cross agency initiative seed funded by Government and led by its industry representative body, Jersey Finance Limited to develop with Jersey's finance industry a 10-year vision. An initial two-year plan for Sustainable Finance was launched on 3 March 2021.

This collaboration aims to catalyse stakeholder action and accelerate Jersey's transition into being a leading sustainable international finance centre aligned with the goals of the Paris Agreement and the UN Sustainable Development Goals.

Captured within its scope are the following objectives:

1. to encourage product innovation and quality of delivery by local finance providers by accelerating the adoption of international standards,
2. to deliver awareness, education and training to the private sector,
3. to create an enabling environment with both incentives and a robust supportive regulatory framework,
4. to communicate action and impact to embed and encourage behavioural change,
5. to foster and enable collaboration locally and internationally.

This industry led group will deliver its initial recommendations to Government in 2022 with further recommendations to follow in 2023. These recommendations to be taken forward by Government with the Regulator and wider industry. Government will separately be seeking to raise Jersey's profile internationally for sustainable finance and to accelerate the delivery of a sustainable finance legislative and regulatory framework.

In addition, we will work with the industry to provide independent and accurate information so that locals can make appropriate informed decisions about what they do with their own money.

SMART objectives

1. develop a Public Finance Sustainable Financing Framework in 2022 as an overarching framework under which Government of Jersey investment and debt financing decisions are made
2. develop a Climate Finance strategy for the Island by 2025
3. develop a framework for Sustainable Finance – work with industry and the Regulator to develop a proportionate and internationally aligned legislative and regulatory framework for sustainable finance
4. improve domestic business behaviour - partner with Industry to run a public awareness campaign. To include a minimum of 2 public sustainable finance events annually to be incorporated into the eco active work stream
5. seek to enhance consumer choice - engage and support the natural evolution of local market in the provision of green loans and green financing
6. encourage innovation – work with industry and the Regulator to deliver new products and services for sustainable finance.

Assumptions

- that the Paris Agreement is extended to Jersey and we have an obligation to report on Climate Finance internationally
- this policy will not have an impact on scope 1 or 2 emissions but there is still the need to prioritise the workstream due to the extent of Jersey's influence/activities on the global stage.

Dependencies

- link with Financial Services Strategy for Sustainable Finance
- link to Jersey Finance work in this area.

CEF 4-Year budget	Total 2022-2025
	£60,000

Delivery of this workstream will require collaboration across a number of departments the Office of the Chief Executive, SPPP, Economy Department, External Relations.

EN - Enabling policies

#	Policy	Summary	4-Year Budget	Carbon	MCA
EN1	Decarbonising government	• Creation of a decarbonisation unit within government • Funding to deploy second generation renewable diesel in Government of Jersey fleet where viable and other exemplar projects	£1,260,000	4	3.76
EN2	Create a Carbon Neutral Network	• Create a network of businesses and community groups to drive forward decarbonisation • Provision of a small grants fund to stimulate local networks and innovation	£500,000 BAU+	3.4	3.2
EN3	Developing supply chains and on-Island skills for a sustainable economy	• To be developed as part of the Future Economy Programme • Work with Highlands, industry and others to design targeted training programmes and identify routes to market for key technologies – to support delivery of the Carbon Neutral Roadmap	BAU+	3.2	3.34
EN4	Delivering COP26 education pledge	• Resource to support enhanced climate education in schools	£200,000	n/a	H
EN5	Blue carbon, biodiversity and sequestration	• Promote Jersey as a centre of excellence for blue carbon sequestration • An ambition to double the extent of sea grass beds • Tackling the climate emergency by using nature-based solutions that also address the biodiversity crisis provides multiple benefits on land and at sea • Develop a carbon sequestration framework	£1,325,000	n/a	n/a
		• Develop a Marine Spatial Plan	£150,000	n/a	n/a
EN6	Carbon offset Purchasing strategy	• Develop a policy position on carbon offsets	BAU+	n/a	n/a

EN1 - Decarbonising Government of Jersey

The Government of Jersey will:
Reduce its operational emissions in line with the Paris Agreement trajectory established by strategic policy 1.

A new decarbonisation unit will be established in 2022 to develop a comprehensive action plan, which will set quantified emissions reduction targets in Departmental Operational Business Plans from 2023. Second generation renewable diesel (SGRD) will be phased into the government of Jersey fleet from 2022, and a range of exemplar projects undertaken.

The Government of Jersey will lead by example in reducing the carbon emissions from both its day to day operations and service delivery and also through indirect activities such as procurement and regulatory functions. The decarbonisation unit will report to the Operations Committee of the Executive Leadership Team, chaired by the Chief Operating Officer. Funding is provided to accelerate the ambition to lead by example and bring together dedicated officer resource from Treasury and Exchequer, Commercial Services, People and Corporate Services, Jersey Fleet Management, and Jersey Property Holdings, and to implement practical decarbonisation actions to 'get our own house in order, including phasing in second generation renewable diesel (SGRD) from 2022 for use in fleet vehicles.

Building on existing work undertaken as part of the Carbon Neutral Strategy Strong Start programme, initial actions are expected to focus on:

- integrating emissions performance and reporting requirements into the Government of Jersey governance framework in 2022,
- publish improved emissions reporting in the Annual Reports and Accounts for 2022 in line with Comptroller and Auditor General recommendations,
- integrate sustainability and emissions into the estate management building condition survey in 2022 to identify a priority action plan to inform the programme of planned maintenance and capital works. To report by end of 2022, with necessary investment identified in 2023 for inclusion in Government Plan 2024-2027,
- as part of the move to the One Gov office, develop workplace travel plans that encourages sustainable travel; and advise on energy efficient heating in the home office when working remotely,
- consider how to include the cost of carbon in feasibility stage gateway review of capital programmes from 2023,
- all public buildings to display Energy Performance Certificates by 2025,
- implement recommendations from fleet review starting in 2022 with the aim of decarbonising the government vehicle fleet by 2025,

- in 2023, work with Commercial Services to consider how to integrate calculation of the cost of carbon emissions into commercial decision-making process,
- develop a staff engagement programme, recognising that the Be Heard survey was clear that public servants want the government to do more in this area,
- encourage social value initiatives which will upskill in the Island in addressing carbon neutrality within the working environment.

SMART objectives

1. to decarbonise Government of Jersey in line with the emissions trajectory set in strategic policy 1
2. to set up a strategic decarbonisation unit, in 2022
3. to produce a detailed costed action plan by end of 2022 that identifies the emissions reduction actions required across the Government of Jersey property portfolio, activities, services and materials procurement
4. to identify the long-term costs and benefits of decarbonisation to government by end of 2022.
5. to deliver an initial programme of actions to begin to decarbonise government operations by end of 2025
6. to run a six-month pilot programme through the estate management strategy building condition survey in 2022 to identify highest emission properties and develop a programme of emissions reductions
7. all public buildings to display Energy Performance Certificate by 2025.

Assumptions

- comptroller and Auditor General report recommendations are incorporated; including a review of strategic governance principles.

Dependencies

- sufficient priority afforded to decarbonisation by Executive Leadership Team and senior managers
- appropriately skilled team can be brought together.

CEF 4-Year budget	Total 2022-2025
Decarbonising Government of Jersey	£1,260,000

EN2 - Create a Carbon Neutral Network

The Government of Jersey will:
Work with the Economic Council sustainability working group to support the development of a Carbon Neutral Network of businesses and voluntary, community, social enterprise and faith sector organisations; and establish a £500k Climate Action Fund to support grassroots projects to tackle the climate emergency.

Government wishes to support the development of a Carbon Neutral Network, led by Jersey businesses and local organisations from the voluntary, community, social enterprise and other sectors. The Carbon Neutral Network would provide a focal point for the vast amount of support and energy for decarbonisation that exists in the Island. The overall aim would be to mobilise action across the Island and in particular to focus on two key areas:

1. **Support for businesses and organisations to decarbonise their activities**
   - peer-to-peer networking and best practice sharing
   - joint procurement of technical advice on topics such as commercial energy audits, waste audits, carbon accounting, sustainable finance
   - linking businesses/organisations with community initiatives they can support.

2. **Support and funding for community decarbonisation project – decarbonisation impact fund**
   - a place for smaller community group to share learning and develop programmes of work together
   - access to small grants funding for decarbonisation and adaptation projects.

Government will work initially with the Economic Council sustainability working group to develop an initial proposal that can be set out for further public consideration.

SMART objectives

1. establish a Carbon Neutral Network by 2023
2. oversee the distribution of £100,000-£200,000 per year of grant funding to decarbonisation projects across the local community from 2023 onwards.

Assumptions

- there is a desire to take practical action to decarbonise local businesses/community
- there are lots of existing complementary activities underway by parishes, business and youth and community groups; and lots of potential partners to get more involved
- a network solution is needed that can provide a home and focal point for all this activity; and can amplify and provide strategic direction over the coming years.

Dependencies

- sufficient interest and motivation exist to get involved in such an enterprise.

CEF 4-Year budget	Total 2022-2025
Create a Carbon Neutral Network	£500,000

EN3 – Developing supply chains and on-Island skills for a sustainable economy

The Government of Jersey will:
Put the development of on-Island skills at the heart of future economic and skills strategy, including integrating green skills into the Future Economy Programme and Further Education and Skills white paper. Government will also support the development of low carbon and sustainable supply chains.

The main aim of this policy is to ensure that the local market supply chain and skills base has resource and capacity to compliment carbon reduction policies. It is an important element of ensuring a just transition by supporting workers in carbon-heavy industries have opportunities to retrain find new roles in a sustainable economy.

Currently, there is both a skills gap and a lack of access to the low-carbon goods and services necessary to the successful delivery of the Carbon Neutral Roadmap. The level of this gap needs to be better understood so that new support and training programmes can be designed and delivered, working with training providers, including Highlands College, and with input from industry.

The policy recognises that there is significant lead in time from gap analysis, design of range of interventions, training through to a mature skill set. As such, the develop of future skills policy and of resulting skills programmes will run in parallel with the Carbon Neutral Roadmap.

The second part of this policy is designed to ensure that there is access to low-carbon products that are required to implement the Carbon Neutral Roadmap policy package. Anecdotal evidence indicates significant challenges in accessing sustainable products at reasonable cost.

A local market supply chain audit will be carried out including a gap analysis to identify supply chain issues which may limit implementation of the policies in the Carbon Neutral Roadmap. The results of this will feed into the development of a plan to overcome barriers, where possible, in the supply which will enable the local market supply chain to offer low-carbon goods or services.

This policy will be integrated into the commercial and procurement policies of Government of Jersey and specified organisations and will be promoted through local business networks and Islanders. The policy will be integrated with education and awareness policies on global emissions.

SMART objectives

1. identify skills base for low-carbon services and goods including a gap analysis by mid-2023
2. begin to identify and build on existing good practice e.g., Highlands College electric vehicle

course by mid-2022

3. develop a plan for filling the skills gaps by the end of 2023
4. develop a local market supply chain for low-carbon goods and services by end of 2024 and link this to Government of Jersey procurement policies.

Assumptions

- Government of Jersey decarbonisation unit will be established
- there is an interest in a local market supply chain and skills base
- training for developing skills base is available and can be delivered to fit with timescales
- dome work has already been carried out on local skills and gaps by Skills Jersey and the Strategic Workforce plan group and the Further Education and skills white paper report that was published end of 2021.

Dependencies

- strategic workforce plan produced by the Jersey Employer Group[112]
- external stakeholders will commit to providing local supply chain for low-carbon goods and services
- investment in training delivery and uptake of courses
- may require incentives for supply chain to move to low-carbon goods/services if more expensive
- policy EN1 Decarbonising Government and policy OE1 Promoting low-carbon lifestyles.

Resources for this work will be provided from agreed workstreams within the Economy and CYPES departments.

[112] Developing a Strategic Workforce Plan for Jersey

EN4 - Delivering the COP26 education pledge

The Government of Jersey will:
Deliver the COP26 education pledge by embedding high quality climate education into education and learning.

This main purpose of this policy is to deliver the COP26[113] education pledge. A plan is needed to embed high quality climate education into education and learning. This policy builds on the pledge made by the Government of Jersey at COP26 and the existing work carried out by CYPES and eco active.

Environmental education is already delivered in educational settings, but this policy will review what is currently delivered from early years, schools and higher education, including informal educational establishments such as Jersey Youth Service. The policy will form a cohesive strategy to embed climate education in life-long learning. It will consider the different ways in which people learn and take on board issues of inequality as part of our Just Transition.

COP26 Education Pledge:

1. the Government of Jersey pledges to put children first in our response to tackling the climate emergency. Improving climate education and learning are vital in our efforts to tackling climate change. We will continue to actively involve children, young people and students as we work towards becoming net-zero by 2050,
2. the Government of Jersey is committed to working with Jersey Youth Parliament to seek opportunities for embedding climate change education and sustainability into formal frameworks and linking these to the United Nation's Sustainable Development Goals,
3. the Government of Jersey pledges to review existing education on climate change. Including gathering the views of children and young people as well as educators and parents so that we can ensure that we deliver high quality environmental education. This should include consideration of the potential of new, digital and 'green' technologies,
4. the Government of Jersey recognises that we must live within planetary boundaries and that learning for sustainability must commence in early childhood and carry right through higher and further education and as part of life-long learning. This includes investing in ensuring higher education and re-training opportunities for workers to support the Just Transition,
5. the Government of Jersey commits to improving climate education so that it takes on board issues of gender inequality and the impacts of minority groups and other seldom heard voices within our community.

[113] UN Climate Change Conference (COP26)

SMART objectives

1. carry out an education review regarding the quality and effectiveness of climate change education across all educational settings at all key stages by July 2022
2. share the best practice and recommendations with schools via Jersey Curriculum Council, Headteachers and ECO leads by October 2022
3. identify key training resources required to support teaching and learning. Create the plan to address these by October 2022
4. develop a training plan based on needs and share this with schools by December 2022
5. appoint a Climate Curriculum Lead on a secondment by April 2023.

Assumptions

- a review of existing education can be carried out, including non-Government of Jersey funded establishments and home schooling.

Dependencies

- commitment of CYPES/schools.

CEF 4-Year budget	Total 2022-2025
Delivering the COP26 education pledge	£200,000

EN5 – Blue Carbon, biodiversity and sequestration

The Government of Jersey will:
Promote Jersey as a centre of excellence for blue carbon sequestration, with an ambition to double the extent of sea grass beds and recognise that tackling the climate emergency by using nature-based solutions that also address the biodiversity crisis provides multiple benefits for our land, air and sea.

Blue Carbon

Blue carbon is a recently coined term which collectively describes the processes associated with the capture and storage of carbon within the marine environment. Government will aim to maximise sequestration opportunities in Jersey's waters through further research, protection, enhancement and extension of marine habitats such as sea grass beds.

The natural world can play an essential role in both our mitigation and adaptation strategies for climate change. As an Island of just 120 km^2, the scope for terrestrial restoration is limited with it being estimated that even a large-scale reforestation project would only be able to draw down in the region of 1% of the Island's total emissions. However, 95% of the Bailiwick of Jersey consists of sea and recent assessments have demonstrated that there are areas of sedimentary seabed which may be able to sequester important weights of carbon annually.

The Government of Jersey has an active marine research programme largely coordinated by its Marine Resources team. Government have just completed a desktop evaluation of our blue carbon resource in partnership with the universities of Plymouth and Exeter and the Blue Marine Foundation. The amount of carbon already sequestered annually around Jersey's seas is estimated at around 37,600 tonnes of carbon dioxide[114] which is more than half of the carbon dioxide equivalent emissions for the entire Jersey business sector.

Government will develop a Marine Spatial Plan by the end of 2023 that can provide the necessary regulatory and consenting frameworks to manage marine activity in order to support blue carbon sequestration and will work with international partners to promote the recognition of marine sequestration in greenhouse gas inventories.

Biodiversity

The Climate Emergency Fund is already investing in projects designed to address the biodiversity crisis. This work will continue alongside the Carbon Neutral Roadmap, with a focus on:

[114] Chambers, P.M., Blampied, S., Binney, F., Austin, W.E.N., Morel, G. An Assessment of Blue Carbon Resources in Jersey, Channel Islands, Government of Jersey. In draft, due 2022.

- species and habitat protection and restoration,
- development of a biosecurity strategy and associated projects,
- marine environment research,
- improved habitat management, and
- development of a trees strategy and associated projects.

Sequestration

As required in strategic policy 5 of the Carbon Neutral Roadmap, government will develop a carbon sequestration framework, including public consultation by the end of 2023. The framework will address a range of issues, including:

- advice and support for community tree planting projects to ensure that projects maximise long term carbon sequestration as well as improve biodiversity and deliver other community benefits,
- clarity on how local carbon sequestration will be accounted for in the Island's greenhouse gas inventory and the likely potential scale of the role that local sequestration (both in the terrestrial and marine environment) can play in meeting our emission reduction targets,
- financial support for sequestration projects that use local carbon sinks in the terrestrial or marine environment,
- embed the principle that local sequestration opportunities should be maximised before the purchase of any off-Island offsets.

SMART objectives

1. complete further research and policy development to better understand the role natural sequestration could play in Jersey's journey to carbon neutrality:
    a. Develop a Carbon Sequestration Framework, including consultation, by end of 2023,
    b. Develop a Marine Spatial Plan by end of 2023 that provides the regulatory and consenting frameworks to manage marine activity to support blue carbon sequestration.
2. protect Jersey's existing carbon sinks to prevent stored greenhouse gases from being emitted back into the atmosphere and safeguard the estimated 60,000 tonnes of carbon dioxide sequestered annually. Maximise co-benefits for biodiversity where possible.
3. if considered plausible, increase the level of greenhouse gas emissions sequestered by Jersey's natural resources, as reported within the UKs international greenhouse gas inventory. Nature-based solutions should be used, and biodiversity co-benefits maximised where possible.

Assumptions

- legislative basis for Marine Spatial Plan can be established
- that Blue Carbon is accepted in inventory reporting.

Dependencies

- dependent on work of Economy and Natural Environment colleagues.

CEF 4-Year budget	Total 2022-2025
Biodiversity and blue carbon projects funded by Climate Emergency Fund agreed in Government Plan	£1,325,000
Marine spatial plan	£150,000

EN6 - Carbon offset purchasing strategy

The Government of Jersey will:
Undertake the necessary work to ensure Jersey can become carbon neutral by 2030, through the delivery of ambitious carbon reduction policies, balanced with purchased offsets and sequestration. A decision on purchasing carbon offsets will be taken no later than 2028.

Strategic policy 1 of the Carbon Neutral Roadmap commits us to a science-led emissions reduction trajectory that aligns with the widely held global ambition of net-zero by 2050.

The policies within this pack focus on how we can move away from burning fossil fuels in the Island and so reduce our on-Island greenhouse gas emissions to as close to zero as possible by 2050.

In addition, policy EN5 considers how we can support the sequestration of carbon locally through projects to protect, restore and enhance both land and marine habitats and the carbon sinks they represent.

In 2030 we will only be part of the way through decarbonising our local economy and it is unlikely that local carbon sequestration will be at a scale that balances our remaining greenhouse gas emissions. In order to obtain carbon neutral status we will need to purchase carbon offsets, on an annual basis, that support the removal of carbon from the atmosphere in other jurisdictions.

International markets in offsets are still evolving, and the costs, potential benefits and availability of offsets that would fulfil local aspirations are currently uncertain. In order to meet the Paris Agreement goals, the World Bank estimates[115] that carbon prices will need to be between $50 and $100 per tCO_2. The Bank of England increased its forecasted price to $150 tCO_2 by the end of the decade[116].

A carbon offset purchasing strategy will be developed, consulted on, and published by 2025. It will include research and information on the following:

- up to date information on the governance structures within the different carbon markets. For example, the independent governance body of the Taskforce on Scaling Voluntary Carbon Markets,
- current academic and international thinking on the highest principles that should be applied to offsets. For example, the new Oxford Principles for Net-zero Aligned Carbon Offsetting[117],

[115] State and Trends of Carbon Pricing 2020 (World Bank Group)
[116] https://www.bloomberg.com/news/articles/2021-05-18/boe-s-breeden-says-banks-are-unprepared-for-150-carbon-price
[117] The Oxford Principles for Net Zero Aligned Carbon Offsetting (Oxford)

- current international agreements and stated national positions on how offsets should be used. Article 6[118] of the Paris Agreement[119] recognises that some Parties can choose to pursue, voluntary cooperation in the implementation of their Nationally Determined Contribution (NDC) to allow for higher ambition in their mitigation and adaptation actions and to promote sustainable development and environmental integrity. At the time of writing, the final agreement on Article 6 had yet to be reached,
- the current UK position on using crediting mechanisms. In the UK's recently published net zero strategy[120], October 2021, it states *'While the UK intends to meet its climate targets for each of carbon budgets 3 to 6 through reducing emissions domestically and the proposals and policies set out in this Strategy have been prepared on that basis, it reserves the right to use such voluntary cooperation under Article 6 of the Paris Agreement'*,
- how, in negotiations on extension of the UK's ratification of the Paris Agreement to Jersey, agreement is reached about how the Crown Dependencies can utilise carbon offsets to meet their agreed carbon targets,
- up to date current pricing on carbon offsets and predicted future pricing as well as a proposed purchasing strategy. This should take into consideration the types of offsets, the location of the offset project, the co-benefits of that project, the certainty of the carbon reduction, the verification/standard it meets, the need to hedge purchases across different offset types and locations and when to make the purchases.

SMART objectives

1. a carbon offset purchasing strategy will be developed, consulted on, and published in 2025
2. a decision on the Island's carbon offset purchasing strategy will be taken no later than 2028.

Assumptions

- that carbon offsetting remains an internationally recognised and reputable method to address greenhouse gas emissions.

Dependencies

- availability and pricing of suitably verified carbon offsets on the market.

Resources for this work will be provided from SPPP.

[118] Paris Agreement – Article 6 (United Nations)
[119] Paris Agreement (United Nations)
[120] Net zero strategy (GOV.UK)

Appendix 3 – Implementation schedule

Policy Ref	Policy Name	Implementation route	Political Accountability	Target Year / Quarter	Approval
OE2	Construction sector emissions	The Minister for the Environment will progress this policy in delivery phase 1 following further engagement with the industry, for implementation commencing in 2022 Q2. The programme design will be coordinated by the Programme Office and will include; • further stakeholder engagement, • policy development work to address the issues raised in the consultation, • further distributional impact assessments.	Minister for the Environment (through Bridging Island Plan process).	2022 Q2	Upon the Assembly's agreement of the Carbon Neutral Roadmap, the Minister for Environment will implement this policy.
EN1	Decarbonising government	The Minister for the Environment will progress this policy in delivery phase 1, for implementation commencing in 2022 Q2. The programme will be developed during delivery phase 1. A Programme Board will be established and led by Chief Operating Officer to design and deliver the decarbonisation programme. The programme design will be coordinated by the Programme Office and will include; • further stakeholder engagement, • policy development work to address the issues raised in the consultation, • integration of social value.	Minister for the Environment, but, if approved, this will move to the Minister for Energy and Climate Change.	2022 Q2	Upon the Assembly's agreement of the Carbon Neutral Roadmap, the Minister for Environment will implement this policy.

Policy Ref	Policy Name	Implementation route	Political Accountability	Target Year / Quarter	Approval
OE3	Agricultural sector emissions	The Minister for Economic Development will progress this policy in delivery phase 1, and publish a Bridging Rural Economy Strategy in 2022 Q2 and Marine Economy Strategy, these strategies will be implemented through the commitments made in the government plan 2022-2025. The programme design will be coordinated by the Programme Office and will include; • further stakeholder engagement, • policy development work to address the issues raised in the consultation, • further distributional impact assessments.	Minister for Economic Development.	2022 Q2	Ministerial Decision; Publish a report.
SP1	Jersey's net-zero emissions pathway	The Minister for the Environment working with the Minister for External Relations and Financial Services, will progress this policy in delivery phase 1, **extension of the Paris Agreement will be finalised once the Carbon Neutral Roadmap is agreed**. The reporting requirements of the Paris Agreement will be integrated into the key performance indicators and policy monitoring schedule from 2022 Q3 onwards. The Programme Office will work with CPMO, statistics and analytics (SPPP) and external relations to develop and deliver the ongoing monitoring and reporting requirements, this will include; • further stakeholder engagement • policy development work to address the issues raised in the consultation • further distributional impact assessments of individual policies.	Minister for the Environment, but, if approved, this will move to the Minister for Energy and Climate Change.	2022 Q3	The Minister for the Environment will take appropriate steps to ratify the Extension of the Paris Agreement.

Policy Ref	Policy Name	Implementation route	Political Accountability	Target Year / Quarter	Approval
HT2	Update the building bye-laws	The Minister for the Environment will progress this policy in delivery phase 1 and will amend the **Building Bye Law Regulations to include a 20% energy saving standard across all developments** in line with the Bridging Island Plan proposals by Q4 of 2022, and carry out a full review by the Q4 of 2023 at the latest. The programme design will be coordinated by the Programme Office and will include; • further stakeholder engagement, • policy development work to address the issues raised in the consultation, • further distributional impact assessments.	Minister for the Environment, but, if approved, this will move to the Minister for Energy and Climate Change.	2022 Q4	Making of: an Order.
OE1	Promoting low-carbon lifestyles	The Minister for the Environment will progress this policy in delivery phase 1**, implementation will commence by 2022 Q4.** The programme design will be coordinated by the Programme Office and will include; • further stakeholder engagement, • policy development work to address the issues raised in the consultation, • further distributional impact assessments.	Minister for the Environment, but, if approved, this will move to the Minister for Energy and Climate Change.	2022 Q4	Upon agreement of the Carbon Neutral Roadmap, the Minister for Environment will implement this policy.

Policy Ref	Policy Name	Implementation route	Political Accountability	Target Year / Quarter	Approval
EN3	Developing supply chains and on-Island skills for a sustainable economy	The Minister for Children and Education will progress this policy in delivery phase 1, for implementation commencing in 2022 Q4 at the latest. The programme design will be coordinated by the Programme Office and will include; • further stakeholder engagement, • policy development work to address the issues raised in the consultation, • further distributional impact assessments.	Minister for Children and Education.	2022 Q4	Upon the Assembly's agreement of the Carbon Neutral Roadmap, the Minister for Children and Education will implement this policy.
EN4	Delivering COP26 education pledge	The Minister for Children and Education will progress this policy in delivery phase 1, for implementation by 2022 Q4 at the latest. The programme design will be coordinated by the Programme Office and will include; • further stakeholder engagement, • policy development work to address the issues raised in the consultation, • further distributional impact assessments.	Minister for Children and Education.	2022 Q4	Upon the Assembly's agreement of the Carbon Neutral Roadmap, the Minister for Children and Education will implement this policy.
EN2	Create a Carbon Neutral Network	Subject to further stakeholder engagement in the design process, the Minister for the Environment will progress this policy in delivery phase 1, **for implementation by the Q4 of 2022 to establish a Carbon Neutral Network with agreed terms of reference.** The programme design will be coordinated by the Programme Office and will include; • further stakeholder engagement, • policy development work to address the issues raised in the consultation.	Minister for the Environment, but, if approved, this will move to the Minister for Energy and Climate Change.	2022 Q4	Upon the Assembly's agreement of the Carbon Neutral Roadmap, the Minister for the Environment will implement this policy.

Policy Ref	Policy Name	Implementation route	Political Accountability	Target Year / Quarter	Approval
TR8	Sustainable Transport Roadmap	The Minister for Infrastructure will, subject to further industry engagement and full disability impact assessment, progress this policy and **bring forward the Sustainable Transport Roadmap to the States Assembly by the Q4 of 2022.** The programme design will be coordinated by the Programme Office and will include; • further stakeholder engagement, • policy development work to address the issues raised in the consultation, • further distributional and disability impact assessments.	Minister for Infrastructure.	2022 Q4	Lodging of: Non-Legislative Proposition.
TR10	Active travel	The Minister for Infrastructure will, subject to further industry engagement, progress this policy in delivery phase 1 which will inform the development of the future infrastructure programme from 2026. **This will be indicated within Sustainable Transport Roadmap to be presented to the States Assembly by the Q4 of 2022.** The programme design will be coordinated by the Programme Office and will include; • further stakeholder engagement, • policy development work to address the issues raised in the consultation, • further distributional and disability impact assessments.	Minister for Infrastructure.	2022 Q4	Lodging of: Non-Legislative Proposition.

Policy Ref	Policy Name	Implementation route	Political Accountability	Target Year / Quarter	Approval
TR3b	Investigate potential for use of renewable content petrol and diesel in Jersey	The Minister for the Environment will progress this policy in delivery phase 1, **to produce a policy position by the start of 2023.** The programme design will be coordinated by the Programme Office and will include; • further stakeholder engagement, • policy development work to address the issues raised in the consultation, • further distributional impact assessments. Consideration of fuel duty rates will be considered by the Assistant Minister for the Environment through the Revenue Policy Development Board environmental and climate taxes sub-group as part of policy T3.	Minister for the Environment, but, if approved, this will move to the Minister for Energy and Climate Change.	2022 Q4	Policy paper.
TR3	Supporting transition fuels	The Assistant Minister for the Environment will work with the Revenue Policy Development Board (RPDP) environmental and climate taxes sub-group **to progress this policy for inclusion in the government plan 2023-2026 for implementation from the start of 2023,** subject to further industry engagement in the design phase. The policy design will be coordinated by the Programme Office and will include; • further stakeholder engagement, • policy development work to address the issues raised in the consultation, • further distributional impact assessments.	Treasury Minister via RPDB.	2023 Q1	Decision to be presented in future Government Plan.

Policy Ref	Policy Name	Implementation route	Political Accountability	Target Year / Quarter	Approval
TR4	Vehicle emissions duty optimisation	The Assistant Minister for the Environment will work with the Revenue Policy Development Board environmental and climate taxes sub-group **to progress this policy for inclusion in the government plan 2023 – 2026 for implementation from the start of 2023,** subject to further industry engagement in the design phase. The policy design will be coordinated by the Programme Office and will include; • further stakeholder engagement, • policy development work to address the issues raised in the consultation, • further distributional impact assessments.	Treasury Minister.	2023 Q1	Decision to be presented in future Government Plan.
TR7	"Green" number plates for electric vehicles	The Minister for Infrastructure will, subject to further industry engagement, progress this policy and **bring forward Lodging of: Secondary Legislation (Regulation) in 2022 to be enacted from 2023 to introduce green numberplates for electric vehicles.** The programme design will be coordinated by the Programme Office and will include; • further stakeholder engagement, • policy development work to address the issues raised in the consultation, • further distributional impact assessments.	Minister for Infrastructure.	2023 Q1	Lodging of: Secondary Legislation (Regulation).

Policy Ref	Policy Name	Implementation route	Political Accountability	Target Year / Quarter	Approval
TR1	Speeding up the adoption of electric vehicles	The Minister for the Environment will progress this policy in delivery phase 1 **and bring forward a grant scheme for electric vehicles. The final details will be confirmed following further engagement with the industry and stakeholders.** The programme design will be coordinated by the Programme Office and will include; • further stakeholder engagement, • policy development work to address the issues raised in the consultation, • further distributional impact assessments.	Minister for the Environment, but, if approved, this will move to the Minister for Energy and Climate Change.	2023 Q2	Upon the Assembly's agreement of the Carbon Neutral Roadmap, the Minister for the Environment will implement this policy.
HT1	Supporting low carbon heating systems and home insulation	The Minister for the Environment will progress this policy in delivery phase 1, **and bring forward a grant scheme for implementation by 2023 Q2 at the latest, following further industry and stakeholder engagement.** The programme design will be coordinated by the Programme Office and will include; • further stakeholder engagement, • policy development work to address the issues raised in the consultation, • further distributional impact assessments.	Minister for the Environment, but, if approved, this will move to the Minister for Energy and Climate Change.	2023 Q2	Upon the Assembly's agreement of the Carbon Neutral Roadmap, the Minister for the Environment will implement this policy.

Policy Ref	Policy Name	Implementation route	Political Accountability	Target Year / Quarter	Approval
SP3	Financing strategy	The Treasury Minister working with the Minister for the Environment, will progress this policy in delivery phase 1, the financing strategy will be developed following further engagement with stakeholders. **The financing strategy will be brought to the States Assembly by the 2023 Q3 for inclusion in the government plan 2024.** The programme design will be coordinated by the Programme Office and will include; • further stakeholder engagement, • policy development work to address the issues raised in the consultation, • further distributional impact assessments.	Treasury Minister.	2023 Q3	Lodging of: Non-Legislative Proposition.
SP2	Island energy market	The Minister for the Environment will progress this policy in delivery phase 1, a review will be scoped and commissioned in 2022 following further engagement with the industry. **The review will be complete by Q4 of 2023 1 and the energy strategy will be published by the Q4 of 2023.** The programme design will be coordinated by the Programme Office and will include; • further stakeholder engagement, • policy development work to address the issues raised in the consultation, • further distributional impact assessments.	Minister for the Environment, but, if approved, this will move to the Minister for Energy and Climate Change.	2023 Q4	Upon the Assembly's agreement of the Carbon Neutral Roadmap, the Minister for the Environment will implement this policy.

Policy Ref	Policy Name	Implementation route	Political Accountability	Target Year / Quarter	Approval
TR5	End the importation and registration of petrol and diesel vehicles that are new to the Island from 2030	The Minister for Home Affairs will, subject to further industry engagement and full disability impact assessment, progress this policy and **bring forward Lodging of: Primary Legislation (Law) to the States Assembly by the Q4 of 2024 to Q4 the importation and registration of petrol and diesel vehicles that are new to the Island from 2030.** The programme design will be coordinated by the Programme Office and will include; • further stakeholder engagement, • policy development work to address the issues raised in the consultation, • further distributional and disability impact assessments.	Minister for Home Affairs.	2024 Q4	Lodging of: Primary Legislation (Law).
TR9	Bus service development trials	The Minister for Infrastructure will, subject to further industry engagement, progress this policy in delivery phase 1 and commence the bus trials in 2022 3. **The outcomes will inform the discussion and scope of the new bus contract in 2025.** The programme design will be coordinated by the Programme Office and will include; • further stakeholder engagement, • policy development work to address the issues raised in the consultation, • further distributional and disability impact assessments.	Minister for Infrastructure.	2025 Q1	Upon the Assembly's agreement of the Carbon Neutral Roadmap, the Minister for the Infrastructure will implement this policy.

Policy Ref	Policy Name	Implementation route	Political Accountability	Target Year / Quarter	Approval
EN5	Blue carbon, biodiversity and sequestration	The Minister for the Environment will progress this policy in delivery phase 1, **and will publish a Blue Carbon plan and a Sequestration Strategy by the Q4 of 2025 and a marine spatial plan by Q4 2023.** The programme design will be coordinated by the Programme Office and will include; • further stakeholder engagement, • policy development work to address the issues raised in the consultation	Minister for the Environment, but, if approved, this will move to the Minister for Energy and Climate Change.	2025 Q4 2023 Q3	Ministerial Decision; Publish a report.
OE5	F-gas emissions	The Minister for the Environment and the Minister for External Relations and Financial Services will progress this policy in delivery phase 1 and **will seek extension of the UK's signatory to the Kigali amendment to the Montreal Protocol by the Q4 of 2025 for implementation from 2026.** The programme design will be coordinated by the Programme Office and will include; • further stakeholder engagement, • policy development work to address the issues raised in the consultation, • further distributional impact assessments.	Minister for the Environment.	2025 Q4	Ministerial Decision; publish a report.
TR11	Emissions from aviation and maritime transport	The Minister for the Economy will work with Ports of Jersey to support their net-zero programme.	Minister for the Economy.	2025 Q4	N/A

Policy Ref	Policy Name	Implementation route	Political Accountability	Target Year / Quarter	Approval
OE4	Emissions from waste and water management	The Minister for Infrastructure will progress the waste aspect of the policy in delivery phase 1 **and will bring forward a Circular Economy Strategy to the States Assembly by the Q4 of 2025 for implementation from 2026.** The Minister for the Environment will progress the water aspect of the policy in delivery phase 1 **and will publish a Water Strategy to the States Assembly by the Q4 of 2025 for implementation from 2026.** The programme design will be coordinated by the Programme Office and will include; • further stakeholder engagement, • policy development work to address the issues raised in the consultation, • further distributional impact assessments.	Minister for Infrastructure and Minister for the Environment respectively.	2025 Q4	Lodging of: Non-Legislative Proposition.
TR6	Review Roads Law	The Minister for Infrastructure will, subject to further industry engagement and full disability impact assessment, progress this policy and **bring forward Lodging of: Primary Legislation (Law) to the States Assembly by the Q4 of 2025 to the Roads Law to include the use of micro mobility devices from 2026.** The programme design will be coordinated by the Programme Office and will include; • further stakeholder engagement, • policy development work to address the issues raised in the consultation, • further distributional and disability impact assessments.	Minister for Infrastructure.	2025 Q4	Lodging of: Primary Legislation (Law).

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HT3	Energy Performance Certificates	The Minister for the Environment will progress this policy in delivery phase 1 and **bring Lodging of: Primary Legislation (Law) to the States Assembly by the end of 2024 for implementation in from 2025.** The programme design will be coordinated by the Programme Office and will include; • further stakeholder engagement, • policy development work to address the issues raised in the consultation, • further distributional impact assessments.	Minister for the Environment, but, if approved, this will move to the Minister for Energy and Climate Change.	2025 Q4	Lodging of: Primary Legislation (Law).
EN6	Carbon offset purchasing strategy	The Treasury Minister will progress this policy in delivery phase 1**, a Carbon Offset Purchase Strategy will be brought back to the States Assembly by the Q4 of 2028.** The programme design will be coordinated by the Programme Office and will include; • further stakeholder engagement, • policy development work to address the issues raised in the consultation, • further distributional impact assessments.	Treasury Minister.	2028 Q4	Lodging of: Non-Legislative Proposition.

Policy Ref	Policy Name	Implementation route	Political Accountability	Target Year / Quarter	Approval
SP5	Becoming carbon neutral	The Minister for the Environment will progress this policy in delivery phase 1, **through implementation of policies EN5 and EN6.** The programme design will be coordinated by the Programme Office and will include; • further stakeholder engagement, • policy development work to address the issues raised in the consultation, • further distributional impact assessments.	Minister for the Environment, but, if approved, this will move to the Minister for Energy and Climate Change.	2029 Q4	Ministerial Decision: Publish a report.
TR2	Vehicle scrappage incentive	Not applicable – policy TR2 removed. Note, possible that this will be revisited at the Carbon Neutral Roadmap review point. Will not be developed further in 2022-2025 period.	Not applicable.	N/A	N/A
OE6	Delivering a sustainable finance framework	The Minister for External Relations and Financial Services will progress this policy in delivery phase 1 and will continue to actively engage with Jersey Finance and other stakeholders. The programme design will be coordinated by the Financial Services team in the Office of the Chief Executive	Minister for External Relations and Financial Services.	ongoing	The Minister for External Relations and Financial Services will continue to implement this policy.