A GREENPRINT FOR **ECONOMIC RECOVERY**

Five priorities for Ireland's energy future

July 2020

sse | For a better world of energy

INTRODUCTION

Climate action and economic renewal are at the core of the Green New Deal ambitions set out in Ireland's new Programme for Government. SSE believes that a green economic recovery from coronavirus will deliver a 'win-win' for both economy and climate by: unlocking private investment in low-carbon infrastructure, creating new jobs and supporting people in decarbonising their homes and businesses. As one of Ireland's largest utilities, and having made a total economic contribution of €3.8bn to Ireland's economy over the past five years, SSE stands ready to play our part.

In this document, SSE outlines a number of priority areas that can be delivered quickly in order to kick-start that green recovery. These can be progressed through the policy framework outlined in the Programme for Government, whether it be the Climate Bill, Carbon Budgets, National Energy and Climate Plan, Whole of Government Plan, or as standalone initiatives. The key is that they are progressed at pace so investment can be unlocked as soon as possible.

The clear annual carbon reduction target and carbon budgets detailed in the Programme for Government provide investors with some of the certainty needed to progress projects and initiatives. In particular, SSE welcomes the new Government's reinforcement of the 70% renewable electricity target by 2030; this target is achievable with timely policy signals to drive final investment decisions. Indeed, as the electricity sector has made great progress in decarbonisation so far, and as it can assist in the decarbonisation of other sectors, such as heat and transport, SSE believes Ireland should consider targeting a net-zero electricity system by 2040.

With the imperative of tackling climate change, through focusing on the priorities outlined below, we can kick-start the economy and support many thousands of jobs in all regions of the country, building stronger, sustainable domestic supply chains that increase our self-sufficiency and security. SSE looks forward to partnering with the Government to deliver on these ambitions to build a cleaner, more resilient economy.

1. FACILITATE THE DELIVERY OF 1GW OF OFFSHORE WIND BY 2025

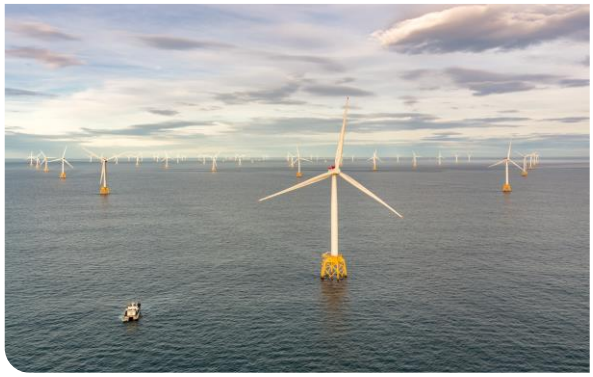
Installing operational offshore wind farms in the Irish Sea by the middle of the decade and within the lifetime of this Government will be vital in maintaining the momentum initiated by last year's Climate Action Plan and further committed to in the new Programme for Government. It is crucial that we utilise our abundant natural resources to establish an offshore wind energy industry in Ireland to decarbonise our energy supply, while developing an indigenous, job-creating supply chain sector delivering significant employment and prosperity in coastal regions in particular.

The new Government's ambition to deliver an increased 5GW of offshore wind energy off Ireland's eastern and southern coasts by the end of the decade is welcome. However, this new scale must be delivered at pace and with immediate effect. In the UK, currently the world's largest offshore market, it took nearly 15 years to achieve 5GW of offshore wind in operation. Ireland needs to re-commit to delivering 1GW of new offshore wind by 2025 in the Irish Sea if the country is to get on track to meet that goal as well as our EU Interim Targets. Delivery of 1GW of offshore wind in this timescale will also

contribute 2% of the Programme for Government's annual 7% average reduction in Ireland's overall greenhouse gas emissions between 2021 and 2030.

Ireland will need to compete in a highly competitive global offshore energy marketplace if we are going to achieve our new 5GW offshore ambition. Action is needed now if Ireland is to deliver the renewables revolution promised in the Programme for Government. The commitment in the Programme to a first RESS auction for offshore wind in 2021 is hugely welcome. Given the time needed to construct and finance offshore projects of scale, we encourage Government to prioritise the auction arrangements and the necessary grid connections policy. This will safeguard developer and market confidence that Ireland is finally open for business for offshore wind energy and unlock offshore wind investment as early as possible.

SSE Renewables is actively progressing the development of the 520MW second phase of Arklow Bank Wind Park to help meet the 1GW target by 2025. When complete, the wind farm is expected to power over half a million homes, offsetting over 600,000 tonnes of carbon emissions. Completion of Arklow Bank Wind Park in the next five years will itself directly contribute to just over half the 2% reduction in carbon emissions that can be achieved by delivering 1GW of offshore wind by 2025.



Arklow Bank Wind Park will require an investment of over €1bn, and SSE Renewables is committed to ensuring the project delivers a significant economic and job-creating boost for Co. Wicklow, the Eastern Region and Ireland. In June 2020 it selected Arklow Harbour as the preferred location for the Operations and Maintenance Base, while announcing that this new purpose-built facility will be home to 80 full-time employees once the project enters operation. By way of comparison, SSE Renewables' recently completed Beatrice offshore wind farm in Scotland, similar in size to the proposed Arklow Bank Wind Park, added £2.4bn of value to the UK economy, created hundreds of direct jobs during the construction phase as well as long-term highly skilled jobs for the 25-year duration of the wind farm's operations.[1]

Delivering projects like Arklow Bank Wind Park in the next few years will help to power the renewables revolution envisaged in the Programme for Government in the very near-term. Progressing longer-term projects off eastern and southern coasts under the upcoming marine planning legislation will maintain the green recovery through the rest of the decade and beyond.

2. CONTINUE THE ONSHORE WIND SUCCESS STORY THROUGH BALANCED PLANNING STANDARDS

As Ireland's largest developer of onshore wind, and as operator of Ireland's largest community fund for wind farms, SSE is convinced of the need for and benefits of continued deployment of onshore wind to decarbonise our electricity supply further. We welcome the introduction of the RESS support scheme, and we are pleased to see the first auction is progressing this year as planned.

[1] https://www.sserenewables.com/media/fh5hr31h/beatrice-economic-report_final_web.pdf

There are undoubtedly challenges to developing onshore wind; we can effectively balance the achievement of Ireland's renewable ambitions with sensitive planning and development through the Wind Energy Guidelines and a more efficient planning process overall. As some of our older wind farms approach the end of their lifespans, attention must turn to repowering existing wind farms with superior new technology.

Policy should encourage new and repowered developments by setting a trajectory of renewables auctions volumes for the next few years. Updating the Wind Energy Guidelines in a balanced way can ensure that that Ireland takes advantage of the infrastructure already in place and does not slip backwards in its renewables achievements.

In socio-economic analysis carried out on the delivery of Galway Wind Park[2], SSE Renewables found that the 169MW onshore wind farm delivered over €88 million in economic contribution to Irish Gross Domestic Product (GDP) while supporting over 1,600 years of full-time employment. By extension, the delivery of an additional 4GW of onshore wind by 2030 to meet the Climate Action Plan target can support over 38,000 years of full-time employment in Ireland, contributing over €2bn to the Irish economy.

3. PROVIDE CUSTOMERS WITH ATTRACTIVE DECARBONISATION OPTIONS

ENERGY EFFICIENCY

Decarbonisation efforts in the energy sector must benefit customers, by providing a secure and affordable supply of energy as well as empowering people to directly take part in the green transition. This will be furthered by the ambitious energy efficiency targets set out in the Programme for Government and the options outlined for providing affordable finance through the National Recovery Fund, Strategic Banking Corporation of Ireland and loan guarantee scheme.

Financing is one of the main barriers impeding households and businesses from adopting energy efficiency measures. As ever, the focus must be on minimising costs for consumers and avoiding imposing unnecessary policy costs on energy bills, which if badly designed could act against the adoption of lower-carbon energy sources such as green electricity.

A partnership approach and continued collaboration between utilities, the Sustainable Energy Authority of Ireland (SEAI) and local authorities have been successful to date and, supported by a system of grants and incentives, will continue to be vital to the development and delivery of Ireland's National Retrofit Programme.

[2] https://www.sserenewables.com/media/ggxao1fx/galway-wind-park_sustainability-impact-report_web.pdf

We must learn from the experiences in other jurisdictions and consider the most appropriate proposals on financing models, bearing in mind some of the challenges we have seen materialise with the UK's Green Deal. The potential for on-bill finance to create a barrier to switching and competition is a concern. Attaching repayments to bills also risks undermining the benefits of energy efficiency, in the form of reduced energy bills, in the minds of consumers.

Early collaboration with industry in the design of finance and other incentives can help to deliver an efficient and effective package of incentives.

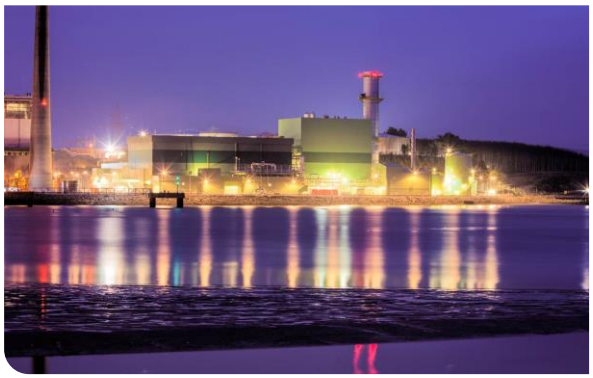
MICROGENERATION

As set out in the Programme for Government, microgeneration provides an opportunity for customers to get directly involved in the renewables revolution and SSE welcomes proposals to design effective incentives in this area. The Smart Metering programme can enable more active energy citizens by providing greater data on energy use and facilitate benefits of microgeneration. Discussions with industry on incentives to encourage investment in microgeneration can help design a scheme that both encourages customers to adopt these technologies and realises savings in energy bills

4. DECARBONISE FLEXIBLE GENERATION BY STRENGTHENING CARBON PRICING AND SYSTEM STABILITY SERVICES

SSE is fully behind a renewables-led transition to net zero, however, from a technical standpoint flexible thermal generation will continue to be required to maintain security of supply and system stability. This class of generation will have to be decarbonised if we are to achieve net zero and we welcome commitments in the Programme for Government to focus on research and development for hydrogen.

SSE is involved in a number of low-carbon industrial clusters in Britain and is progressing what we hope to be the UK's first gas-fired power station equipped with Carbon Capture and Storage (CCS) technology. We believe there is great potential for CCS and hydrogen power generation in Ireland too. Indeed, as a company we have committed not to develop any further thermal generation without a pathway to decarbonisation.



SSE believes carbon pricing can be an effective and enduring policy mechanism to progressively decarbonise the whole energy sector, and we support the strengthening of the EU ETS or exploration of a carbon price floor to drive investment in low-carbon technologies and discourage investment decisions that lock in carbon for the coming decades. In the meantime, the Programme for Government rightly emphasises the DS3 programme, which will enable many of the innovative stability services our grid needs.

5. ELECTRIFY HEAT AND TRANSPORT TO HARNESS PROGRESSIVE DECARBONISATION OF ELECTRICITY SUPPLY

Electricity is already on a steeper decarbonisation trajectory than other sectors, and it can be used as a workhorse to decarbonise heat and transport.

The electrification of the public and private transport fleet will have a significant impact on reaching Ireland's climate targets, improving local air quality, reducing carbon emissions and helping to integrate renewables into the electricity system. Decarbonising Ireland's public transport network through electrification and encouraging modal shift are of critical importance.

Enabling the shift to private electric vehicles is also needed if we are to encourage hundreds of thousands of motorists to make the switch over the next decade. Greater collaboration will be required to identify areas where on-street charging infrastructure is needed and the creation of public tenders will enable third parties to deliver this infrastructure at the scale required. The extensive roll-out of EV charging infrastructure will be necessary to stimulate demand. SSE believes local authorities, transport authorities and electricity companies are best placed to innovate and to lead the competitive delivery of this via a new partnership model.

The Programme for Government makes welcome proposals to encourage the adoption of heat pumps and district heating and to refresh incentives to encourage the uptake of electric vehicles and rollout of charging infrastructure. These technologies all have the potential to create employment, and given technology readiness, their rollout can start to scale up now and build gradually with the right incentives. SSE recommends introducing these incentives as early as possible, to influence uptake as people come to change their cars or upgrade their heating, and to avoid decisions that lock in carbon consumption for another investment cycle.

SUPPORTING INVESTMENT IN INFRASTRUCTURE AND SKILLS

Progress in delivering the requisite grid infrastructure underpins all of the above initiatives, in particular the delivery of the North-South Interconnector, connection of new projects, and facilitation of greater instantaneous levels of wind power on Ireland's electricity grid. Similarly, investment in infrastructure is required to deliver the electric vehicle revolution, to facilitate microgeneration, and to enable customer empowerment through smart metering. These infrastructure projects and investments will all create employment and deliver benefits for customers. Proposals in the Programme for Government to upskill and retrain the workforce to deliver the green transition are welcome and will ensure that Ireland can maximise employment benefits from the Green New Deal.

About SSE

SSE is one of Ireland's largest energy utilities, and a FTSE 40 company. We develop, own and operate the low-carbon infrastructure needed to support the transition to a net-zero carbon future. We are driven by our purpose: to provide energy needed today while building a better world of energy for tomorrow. Since entering the Irish energy market in 2008 we have invested significantly to grow our business here, and we continue to make this contribution to the economy through:

- Owning and operating 28 wind farms totalling 890MW across the island of Ireland, offsetting over 700,000 tonnes in carbon emissions annually;
- Supplying over 700,000 customers with green electricity and natural gas, as well as providing energy efficiency services and rooftop solar installation to businesses and households;
- Owning and operating four thermal power stations, totalling 1,292MW, including Ireland's newest and most efficient gas-fired power station at Great Island, Co Wexford;
- Maintaining over 275,000 streetlights on behalf of 15 local authorities across Ireland;
- Employing 1,000 people as a Living Wage employer and proud recipient of the Business Working Responsibly and Fair Tax marks; and
- Providing over €1.5m annually in community funds, bringing our total community investment to over €10m so far.