DEPARTMENT OF HOUSING, PLANNING, COMMUNITY AND LOCAL GOVERNMENT

SSE RESPONSE TO

IRELAND 2040 – OUR PLAN, NATIONAL PLANNING FRAMEWORK ISSUES AND CHOICES PAPER

MARCH 2017

INTRODUCTION

SSE wishes to make the enclosed submission for consideration as part of the Department of Housing, Planning, Community and Local Government (DHPCLG) consultation concerning *Ireland 2040 – Our Plan, National Planning Framework, Issues and Choices Paper* (NPF). SSE welcomes the publication of the Consultation Document and the work being done by DHPCLG to produce stable planning policy framework to support sustained, long-term and regionally balanced progress on social, economic and environmental fronts.

A strong National Planning Framework will be necessary to support future development and investment in Ireland between now and 2040. Our submission is focused on the role of a strong planning framework with reference to the significant challenge posed globally and nationally by climate change and the transition to a low carbon economy, the subject of a separate but very much interlinked consultation being undertaken by the Department of Communications, Climate Action and Environment on the National Mitigation Plan. Our submission highlights a number of key points, which we believe will help achieve shared national development goals, including improved living standards, quality of life, prosperity, competitiveness and environmental sustainability, as well as providing greater clarity for private sector investment.

Ireland's ability to achieve its overall national development goals will rely on the development of a secure, sustainable supply of energy, which is available at a competitive cost.

The transition to a low carbon economy will require a range of activities including:

- Increasing levels of renewable energy – including both onshore and offshore wind.
- Investment in a range of new technologies including electricity and energy storage.
- Increasing energy efficiency activity, including deeper retrofits of domestic residences.
- A transition to a society with a more active energy consumer with greater levels of understanding, control and influence of energy consumption.
- The electrification of the heat and transport sectors to utilise the decarbonised electricity system as a workhorse to decarbonise the broader economy.

Effective spatial and marine spatial planning policies will be needed in order to support investment in and development of new low carbon energy sources e.g. onshore and offshore wind projects. Consideration should also be given as to how to best utilise existing sites in the future through the potential to repower existing sites and the potential to co-locate different technologies at the same site, for example solar or electricity storage at existing wind farm sites.

The Department should also be aware that investments in flexible low carbon thermal generation may also be required over time.

In addition, planning policies will need to support: delivery of crucial infrastructure (North-South Interconnector); expansion and upgrading of the grid; increased energy efficiency; decarbonisation of the heat and transport sectors; implementation of a clear and streamlined planning process for developers; a coordinated approach to planning; and inclusive governance.

We have provided an overview of SSE's key considerations around the areas outlined in the Department's consultation below.

- **Ireland's National Planning Challenges** = Ireland's population and economy are set to grow and develop over the next 20 years. Increased growth brings about significant challenges due to increased strain on resources and the link between economic success and increased emissions. As outlined in the Consultation Document, in order to address projected future growth and change in Ireland the NPF will need to enable public and private investment decisions to be guided and prioritised in a manner that can benefit the country as a whole e.g. increased broadband connectivity and energy infrastructure. In addition, it will be necessary to support a decoupling of emissions from economic activity through decarbonisation and the development of a cost effective approach to climate change.

- **People's Health and Wellbeing** = In addition to the direct benefits of contribution to Ireland's targets and economic growth, increased energy efficiency and decarbonisation (particularly of the heat and transport sectors) will bring about decreases in both air and noise pollution and will have a beneficial impact on people's health – helping to achieve the Department's goal to develop a "healthier places" legacy which can be handed over to the future generation of Ireland's citizens.

- **Place-Making Strategy** = Integrated place-based strategies will be vital to Ireland's development. Ireland's ability to attract and retain foreign direct investment (FDI) and sustain Irish enterprise depends on achieving a secure, sustainable supply of energy at a competitive cost. Furthermore, FDI decisions, particularly from high-tech companies, are increasingly based on the need for low carbon and renewable energy supplies and broadband connectivity. The NPF should seek to identify those areas where energy generation is most cost effective, and where possible seek to locate suitable industries (demand) in the same area to minimise the need for network infrastructure. The NPF will need to provide a framework which will support investment in and development of the infrastructure necessary for economic growth e.g. broadband and energy infrastructure.

- **Ireland's Unique Environment – Climate Change and Sustainability** = Ireland is committed to reducing GHG emissions and in this context has obligations at EU level. National policy and obligations are also set out in the National Position on Climate change and Low Carbon Development (2014), the Climate Action and Low Carbon Development Act (2015), and the Irish Government's White Paper "Ireland's Transition to a Low Carbon Energy Future 2015-2030". In addition, a public consultation is currently under way in relation to the development of Ireland's first National Mitigation Plan (NMP). Ireland's unique environment also

brings a unique set of challenges. Relatively geographically isolated and nationally geographically dispersed settlement patterns bring larger dependency on imported fossil fuels and challenges to the decarbonisation of the heat and transport sectors. However Ireland's environment also has benefits, not least the abundant wind resource that is available both onshore and offshore providing one of the most cost effective sources of renewable energy in Europe. The NPF will need to play a key role in assisting the reinforcement of the structural changes required to transition to a low carbon society. This will require the Department to examine how planning policy can help shape national infrastructure decisions e.g. the development of energy infrastructure and renewable technologies.

- **Equipping Ireland for Future Development – Infrastructure =** There are a number of important infrastructure projects for Ireland that will require delivery over the next 20 years. The delivery of this infrastructure must contribute to the delivery of a low carbon society, and avoid the lock in of technologies which rely heavily on fossil fuels, such as the public transport fleet. Many infrastructure decisions are effective over a number of decades and hence decisions on infrastructure in the 2020's could affect Ireland's emissions profile in 2050. The NPF will need to facilitate the incorporation of long term emissions considerations in infrastructure decisions. From an energy perspective, a range of technologies will be required to support the necessary transition. The NPF will need to support technologies including development of renewable infrastructure – onshore and offshore wind; enhancement of the grid; delivery of the North South Interconnector; and development of repowering and co-location at existing generation facilities so as to make best use of existing infrastructure. A flexible approach will be needed, in order to adapt to new and existing technologies, as they develop and change over time.

- In addition to an effective planning framework, strong carbon pricing (in both the ETS and Non-ETS sectors) will be required to provide a more stable, cost effective and technology neutral incentive to decarbonise.

- **Enabling the Vision – Implementing the National Planning Framework =** SSE is supportive of the key implementation arrangements outlined in the Consultation Document: interdepartmental drive, statutory backing, investment, monitoring and policy feedback, and administrative structures to respond to real-world issues at both national and regional levels. An integrated and monitored approach will be vital to ensure the implementation of the NPF at all levels. SSE notes that documents such as the draft National Mitigation Plan have built in the flexibility of a 5 year review cycle to ensure they reflect the necessary requirements. The NPF should incorporate the flexibility required to adapt to any identified changes.

The remainder of this submission provides additional information on the key points we outline above. SSE remains available to further discuss any aspect of this submission with the Department if helpful to its considerations.

About SSE

At SSE we're proud to make a difference. From small beginnings we've grown to become Ireland's second largest energy provider, supplying greener electricity and natural gas to around 800,000 homes and businesses on the island, or 20 per cent of the total combined gas and electricity markets here.

We're proud too to be making a difference to the future of Ireland's energy supply. Since 2008, SSE has invested over €2 billion, or around €1 million a day, in growing our energy business here – creating jobs in Ireland, sustaining employment, driving competition and greening our economy.

In energy generation, we now own and operate over 1800 MW of generation capacity, of which almost 550MW is from 25 wind farms across Ireland. We're also building the 174MW (SSE share 120MW) Galway Wind Park in partnership with Coillte – when completed in 2017 it will become Ireland's largest wind farm.

We've commissioned Ireland's newest and one of its cleanest power plants – the new 464MW Great Island CCGT unit (grid connection capacity set at 431MW) in Co. Wexford which can generate enough energy to power over half a million Irish homes. Coinciding with the retirement of the old 240MW heavy fuel oil unit at the same site, the transition to gas has improved the carbon intensity of SSE's fleet and significantly decarbonises energy generation in Ireland. In addition, SSE estimates that Great Island will save Irish energy customers in excess of €50 million per year as one of Ireland's most efficient power plants, and it will provide additional savings when full grid access is delivered.

SSE's retail energy brand SSE Airtricity is Ireland's largest provider of 100 per cent green energy. In 2015, all of the electricity we supplied to our home and business customers (5.3 TWh[1]) was from 100 per cent green energy sourced by SSE Airtricity, significantly abating over 2 million tonnes of harmful CO2 emissions on the island.

SSE adopts a responsible approach to managing its social, environmental and economic impacts to ensure the long-term viability of the business. In addition to being Ireland's largest provider of 100 per cent green energy SSE Airtricity is also the third largest financial contributor to charities and community groups in Ireland – in 2015, SSE Airtricity donated more than €1 million to local projects and good causes, as well as volunteering over 3,500 hours[2].

SSE was the first large corporate business in Ireland to become a Living Wage employer – from 1 January 2016 SSE guarantees all its employees a Living Wage of at least €11.50 an hour.

[1] Total GWh supplied to homes and businesses based on Electricity Market Share by MWh published by the Commission for Energy Regulation (CER) in Retail Market Reports for the periods Q1-Q4 2015. Quoted CO2 emissions abated based on Average CO2 Emissions (t/MWh) in 2015 in the All-Island Single Electricity Market, and published by the CER in its Fuel Mix Disclosure and CO2 Emissions for 2015, August 2016.

[2] Business in the Community Ireland (BITCI) Business Impact Map 2015.

SSE Considerations on the Guidance Documentation

SSE strongly welcomes the publication of this Consultation Document and the work of the Department to develop a stable planning policy framework to support sustained, long-term and regionally balanced progress on social, economic, and environmental fronts.

Ireland has a challenging outlook to achieve its ambition as outlined in the Government White Paper on Energy entitled "Ireland's Transition to a Low Carbon Energy Future – 2015-2030" where it stated: *'Our vision of a low carbon energy system means that greenhouse gas (GHG) emissions from the energy sector will be reduced by between 80% and 95%, compared to 1990 levels, by 2050, and will fall to zero or below by 2100.'*

Furthermore, the 2020 EU Energy and Climate Framework includes a 20% reduction in GHG emissions by 2020 and a 16% renewable target for Ireland for 2020, which Ireland is seeking to meet through 40% renewable electricity, 12% renewable heat and 10% renewable transport.

In October 2014, the EU Energy and Climate Framework was agreed which includes a 40% reduction in GHGs by 2030 and was the EU submission to the COP 21 discussions and subsequent global agreement in December. This is all set against an EU leaders' commitment to a reduction in the EU's GHG emissions of 80-95% by 2050 compared to their 1990 levels. This position is continuing to develop through the Draft Effort Sharing Regulation published by the EU in 2016 which is being progressed towards a definitive target for Ireland for 2030.

Ireland's geographic location and elements of Ireland's unique national environment including dispersed settlement patterns, make this transition challenging. Ireland will therefore experience some decarbonisation challenges, particularly with respect to the heat and transport sectors, earlier than other Member States.

In the period to 2040 and beyond, a key objective will be to effectively balance the competing challenges of achieving the necessary transition in a manner that will be affordable for customers and businesses whilst ensuring secure energy supplies and the certainty needed to invest in low-carbon alternatives and smarter energy initiatives. In addition, there will be a need to achieve broader societal, environmental and economic goals.

Energy is central to Ireland's economy and society. Ireland's ability to attract and retain FDI and sustain Irish enterprise depends on achieving a secure, sustainable supply of energy at a competitive cost. We can see already, that technology companies will locate multi-million euro data centres in locations where they can have ease of access to green power from renewable energy sources. Indeed there are estimates that this green data centre push could add up to 1GW of renewable demand in the next 5 years. Supporting the development of renewables and grid infrastructure through the NPF will help to attract increased FDI to Ireland.

Smart energy and planning policies will assist in creating the conditions for building the economy, creating jobs, delivering regional development and tackling Ireland's climate change targets.

The following sections outline SSE's key considerations under the six areas highlighted in the Consultation Document:

- Ireland's National Planning Challenges
- People's Health and Wellbeing
- Place-Making Strategy
- Ireland's Unique Environment – Climate Change and Sustainability
- Equipping Ireland for Future Development – Infrastructure
- Enabling the Vision – Implementing the National Planning Framework

IRELAND'S NATIONAL PLANNING CHALLENGES

As outlined in the Consultation Document, Ireland's population and economy are set to grow and develop over the next 20 years. Whilst very welcome, increased growth and economic activity brings about significant challenges due to increased strain on resources and the link between economic success and increased emissions.[3]

As outlined in the Consultation Document, in order to address projected future growth and change in Ireland the NPF will need to enable public and private policy investment decisions to be guided and prioritised in a manner that can benefit the country as a whole e.g. increased broadband connectivity and energy infrastructure.

In addition, it will be necessary to support a decoupling of emissions from economic activity and the development of a cost-effective approach to climate change. As outlined by the EPA,[4] it is clear that Ireland faces significant challenges in meeting emission reduction targets for 2020 and beyond.

Decoupling of emissions activity from economic activity is central to achieving a prospering low carbon economy. This will require early action in order to ensure that the necessary investment is required to put Ireland on a trajectory to a low carbon economy in 2050.

This will require a whole of economy approach. Infrastructure investments take place over a long time frame, decades in many cases, and hence decisions made need to ensure that emissions are not 'locked in' to the economy through these investments – for example, decisions in relation to the future of the public transport fleet.

The NPF will need to support further policies and measures above and beyond those already in place and planned in the period to 2020 in order to position Ireland on a pathway towards a low carbon, climate resilient and environmentally sustainable economy, in line with the national objective of the Climate Action and Low-Carbon Development Act 2015.

Our response to the remaining sections outline the specific types of activity that will support the objectives outlined in the consultation document and hence the planning framework should support.

[3] http://www.epa.ie/pubs/reports/air/airemissions/ghgemissions/GHG%201990-2015%20Provisional%20November%202016.pdf

[4] https://www.epa.ie/pubs/reports/air/airemissions/2020_GHG_Projections_2016_Bulletin.pdf

PEOPLE'S HEALTH AND WELLBEING

Increased energy efficiency and the electrification of the heat and transport sectors are central to the Department's goal to develop a "healthier places" legacy which can be handed over to the future generation of Ireland's citizens.

Increased energy efficiency and the decarbonisation of the heat and transport sectors will bring about better living conditions and decreases in both air and noise pollution and will have a beneficial impact on people's health.

Energy Efficiency

Energy efficiency will make a key contribution to achieving a number of energy and climate objectives. It is clear that it also has the potential to support a number of broader societal goals of the Government and more specifically the goals in the NPF.

There is evidence that living in a cold damp house is linked to poor health, in particular chronic respiratory conditions. Energy efficiency not only helps tackle Ireland's climate change objectives, but also reduces energy bills, increases comfort and health standards and improves social inclusion. International Energy Agency analysis demonstrates that energy efficiency has the potential to support economic growth, enhance social development, advance environmental sustainability, ensure energy system security and help build wealth. [5]

Ireland has made real progress on energy efficiency, however this has come from tackling easier, cheaper measures e.g. attic insulation. Over the coming years the NPF will need to support efforts to achieve larger amounts of more durable energy savings from large scale projects, in particular deep renovation of buildings and more sustainable new build. The need for increased energy efficiency will also help generate jobs in and associated with the sector and help support sustainable and balanced economic growth.

Energy efficiency activity can be supported through the Building Regulations for new build and renovation and a framework that supports and incentivises investment in the implementation of deep retrofit solutions to existing developments.

The Building Regulations will have an increasingly central role to play in relation to energy efficiency requirements e.g. the role out of Nearly Zero Energy Buildings (NZEB).

An NZEB is defined in the Energy Performance of Buildings Directive as a building that has a very high energy performance and that the nearly zero or very low amount of energy required should be covered to a very significant extent by energy from renewable sources, including energy from renewable sources produced on-site or nearby. The definition of NZEB was transposed in January 2017 into the Building Regulations through the Building Regulations (Amendment) Regulations 2017. Not only will the Buildings Regulations assist in increasing the energy efficiency of buildings, but they will also play an important role in increasing the consumption of energy from renewable sources.

[5] IEA (2014): '*Energy efficiency: a key tool for boosting economic and social development*'

DHPCLG will publish draft Building Regulations to amend Part L of the Building Regulations (Conservation of Fuel and Energy) and the associated draft Technical Guidance Document for consultation to set the specific NZEB performance requirements for buildings other than Dwellings in Ireland. This process will be replicated to amend Part L of the Buildings Regulations in respect of Dwellings during 2018. SSE would recommend that the policies outlined in the NPF are developed with regard to the Building Regulations.

The Public Sector has a key leadership role to play in taking steps towards reaching Ireland's energy efficiency targets. There will be a requirement for the public sector to introduce NZEB from 31 December 2018. In addition, the Public Sector Energy Efficiency Strategy (PSEES) outlined various actions to be taken in relation to energy efficiency, including the need for procurement frameworks for energy efficiency works to State owned buildings occupied by Government Departments and Agencies. SSE welcomes the publication of the PSEES, and we believe that the NPF should support the development of the role of the Public Sector.

Separately though, it will be important to ensure that energy efficiency activity is undertaken in a progressive manner. SSE is supportive of the continuation of Exchequer funded alternative measures to incentivise energy efficiency measures for the benefit of residential customers and fuel poor homes. It is notable that DCCAE is undertaking a number of alternative measures to address particular social policies such as the Warmth and Wellbeing Programme, which is focused on the linkage between energy efficiency and health, and SSE would call for ongoing commitment to the provision and promotion of such schemes.

However, it is necessary for the Government to remove the cost of social and industrial policy from consumer bills. Paying for such policies (e.g. the Energy Efficiency Obligation Scheme) through bills has no regard to a customer's ability to pay, has the ability to undermine the broader health and wellbeing benefits that the activity brings, and damages competitiveness. In SSE's view, policy costs are more progressively and appropriately recovered through the Exchequer rather than through energy bills.

It is worth noting that private investment by individuals and businesses will be required in many instances. Financing will be essential to supporting continued energy efficiency practices and to ensure that the cost does not lie with the energy consumer – listed below are a few possible alternatives:

- Carbon Tax and EU ETS Revenues – A portion of these revenues could be ring-fenced to fund energy efficiency measures.
- Capital Plan Building on Recovery: Infrastructure and Capital Investment 2016-2021 – Could provide funding for supporting energy efficiency measures and/or supplement Exchequer funding.
- European Investment Bank (EIB) – The EIB could be interested in providing low interest financing for energy efficiency measures at a national or county level.
- Low Cost Financing – Access to low cost financing would assist in the implementation of energy efficiency measures. SSE considers that the German kfw model, whereby the State lends to lending institutions at low interest rates, which is then passed through to consumers has promise.

Decarbonisation – Heat and Transport

The electricity sector is one of the most successful at decarbonising and is poised to assist others, including transport and heating. Emissions related to the power generation sector have halved since 1990. SSE has made an important contribution to the decarbonisation of the sector. SSE is Ireland's largest provider of wind power and we currently generate over 550 MW of renewable energy at our 25 onshore windfarms. We're also building the 174MW (SSE share 120MW) Galway Wind Park in partnership with Coillte – when completed in 2017 it will become Ireland's largest wind farm. We have also built Ireland's latest combined cycle gas turbine at Great Island, Co. Wexford. This plant is one of the most efficient and low carbon thermal generation facilities on the island of Ireland bringing direct savings to consumers but also contributing to decarbonisation.

Through a balanced low carbon generation portfolio and demand side management, electricity can make a meaningful contribution to decarbonisation economy wide.

The EU Effort Sharing Decision establishes a binding GHG emissions target for Ireland that is equivalent to a 20% reduction in emissions relative to a 2005 baseline for the non-ETS sector (transport, buildings, agriculture and waste). Most of Ireland's emissions lie in the non-ETS sector (approximately 70%) and this brings about considerable challenges in meeting the 20% target. A strong contributor to this is that Ireland has proportionately the largest agricultural sector in the EU. This effectively means that efforts to decarbonise heat and transport in Ireland must move more quickly than in other EU member States.

The electrification of the heat and transport sectors will be vital in achieving Ireland's decarbonisation goals. In doing so, it would absorb the non-ETS emissions into the ETS and help reduce the cost of abatement. The electrification of the heat and transport sectors therefore contributes to both the achievement of Ireland's renewable and non-ETS targets for 2020 and, when established 2030.

One of the barriers to electrification at present is the current calculation of energy efficiency savings by reference to an outdated Primary Energy Factor. Primary Energy Factor is both a static and backward looking measure which does not take account of the transition that is required to achieve a low carbon economy. We recommend that given the focus on climate and energy policy on the reduction of GHG emissions that it would be more productive to measure savings by reference to carbon rather than by energy, and in doing so to recognise the advances made in decarbonising the electricity supply. By failing to recognise these advances, policy incentivises the lock in of fossil fuel technologies for another investment cycle.

Transport

SSE agrees that air and noise pollution are key issues relating to the "health" of a place. In order to meet climate targets and air quality objectives, the transport sector must transition away from the use of fossil fuels, moving predominantly to electricity for passenger cars, commuter rail, taxis, and (urban) buses by 2030.

As outlined above, given Ireland's dispersed settlement pattern and high reliance on commuter vehicles, long term planning policies will be needed to develop and build the infrastructure required to transition to a low carbon economy. In addition to transport infrastructure as outlined above, the NPF should support increased electricity and broadband connectivity, so as to enable people to work remotely and minimise reliance on private transport.

While a reduction in the amount of private travel will achieve a positive effect as outlined in the consultation, the decarbonisation of public transport networks and the private car fleet will be central to meeting Ireland's climate and air quality objectives and ensuring there is no lock in of emissions over the next 20 years.

In 2015, transport sector emissions amounted to the second largest contributor to overall emissions at 19.8%, an increase of 130% since 1990. As noted above the electrification of the transport sector is an important step in achieving Ireland's decarbonisation goals and helps to contribute to the 'health' of a place by reducing both air and noise pollution

Electrification of transport can bring a number of additional benefits including -

- Energy Efficiency: EVs are more energy efficient. In addition to reducing Ireland's carbon emissions EVs will also help to deliver against Ireland's energy efficiency target.
- Improved Air Quality and reduced noise: Reduced emissions, no point of use emissions and reduced noise is particularly important in cities.
- Security of Supply: This is strengthened through diversification and also introducing an element of battery storage and potential grid support.
- Demand Response: It will offer the opportunity for customers to influence consumption and provide electricity system services.

Transport is closely aligned with economic activity, creating a very challenging outlook for the decarbonisation of the sector.

Strategic transport planning is needed to align development with the need to transition to a sustainable, low carbon economy and society. NPF can play a key role in integrating transport policies with other policies employed across Government at both national and local levels. Integration of these policies will help to align investment priorities.

Given Ireland's dispersed settlement pattern and high reliance on commuter vehicles, long-term planning policies will be needed to develop and build the infrastructure required to transition to a low carbon economy e.g. the appropriate placement of EV charging points throughout the country – for both private vehicles and public transport – including its integration into existing infrastructure as technology develops such as inductive charging points. Ireland's private car fleet makes the biggest contribution to CO2 emissions, and along with the decarbonisation of public transport, should be tackled as a priority.

The NPF should give consideration to the recent joint DTTAS/DCCAE consultation on the *Draft National Policy Framework – Alternative Fuels Infrastructure for Transport in Ireland.* The framework will outline the roadmap for Ireland to transition the transport sector onto alternative fuels.

The draft Alternative Fuels Framework forecast that there would be 250,000 passenger EVs by 2025 and 800,000 by 2030. Support from the NPF and further analysis will be necessary to ensure that the number of spaces with EV charging infrastructure is proportionate to the roll-out of EVs.

In addition, the NPF should give consideration to the recently published "Clean Energy For All Europeans Package" (CEP)[6] which contains a proposal for a revised Energy Performance of Buildings Directive (EPBD). The Commission's proposal introduces new requirements as regards infrastructure for electro-mobility – new non-residential buildings with more than ten parking spaces, and non-residential buildings with more than ten parking spaces undergoing major renovation will have to equip one parking space per ten for electro mobility. This will apply to all non-residential buildings with more than ten parking spaces as of 2025. The proposal also outlines, that new residential buildings with over ten parking spaces, and those undergoing major renovation, will have to put in place the pre-cabling for electric recharging. These stipulations are indicative of the new types of infrastructure that will be required to support the transition to a low carbon transport sector.

Heat

Given the difficulties with reducing carbon emissions in Ireland's non-ETS sector and the impact some forms of renewable heat have on air quality, SSE considers that the electrification of heat has a lot to recommend it in terms of realising Ireland's decarbonisation potential and reducing air pollution.

Furthermore, electric heat technologies have the potential to assist with renewables integration through demand side management and system services. Electric heat technologies also bring a significant energy efficiency increase e.g. pumps.

The building regulations have been supportive of the transition at domestic level in terms of directly requiring greater levels of energy efficiency and indirectly the installation of heat pumps in new residential dwellings, however more needs to be done.

The planning framework will need to support this type of activity, acknowledging that potential rural clusters of dwellings could be served by technologies such as larger central heat pump.

SSE is involved in a Horizon 2020 project with a number of partners across the entire energy supply chain to implement a project titled 'Real Value'. The project commenced in June 2015 and involves installing thousands of Smart Electric Thermal Storage Systems (SETS) into 1,250 homes across Ireland, Germany and Latvia. This technology has been developed to meet householders' space and water heating needs in a low cost and

[6] http://ec.europa.eu/energy/en/news/commission-proposes-new-rules-consumer-centred-clean-energytransition

energy efficient manner while also providing additional energy storage capacity. This is the type of technology we see becoming common place as part of the overall transition.

Effective spatial planning is needed to ensure that homes are connected to appropriate energy networks and/or sources. The NPF should take steps to support the conversion of homes that are not connected to the gas network in the first instance, and hence using higher carbon fuels sources such as solid fuel or oil for heat, to an appropriate electric heating solution. The electricity network provides an appropriate solution to the issue of geographic dispersion, as properties already have an electricity supply.

PLACE-MAKING STRATEGY

The NPF will need to support Ireland's future growth by achieving balanced urban, regional and rural development.

The IDA "Winning Strategy" outlines that clear trends are evident in the demands of FDI investors in selecting locations, including among other things – energy infrastructure, international connectivity, telecommunications, and a supply of skilled people.[7]

The Action Plan for Rural Development[8] also highlights the role the renewable energy sector can play in delivering increased rural development.

Our Capital, Cities, and Towns

SSE supports the development of Ireland's cities and towns through the increased growth in renewables in the energy mix. Ireland has already seen that tech companies will locate multi-million euro data centres in locations where they can have ease of access to green power from renewable energy sources e.g. Apple in Co. Galway or Facebook in Co. Meath[9] - providing an opportunity for cities and towns outside of Dublin to develop in this area.

Opportunities for Our Regions and the Potential of Rural Ireland

SSE welcomes the proposal of the NPF to promote the development of integrated place-based strategies for Ireland's regions and rural urban hinterlands. Rural areas have natural comparative advantages to urban areas in relation to the development of clean energy and are often the optimal location for operations. The development of low carbon energy and in particular, renewable infrastructure will help to build on the "Excellence in Rural" concept as outlined in the Consultation Document.

Rural areas attract a large part of investment related to renewable energy development – tending to be sparsely populated, but with abundant sources of renewable energy. Renewable energy is a source of new jobs and rural growth, as well as a means of mitigating environmental and energy security concerns.

This is evidenced by the Galway Wind Park project, which is a joint venture between SSE and Coillte. The project is currently in construction and when complete, will be the largest onshore wind project in Ireland. The Galway Wind Park Sustainability Impact Report[10] summarises some of the key sustainability – environmental, social and

[7] http://www.idaireland.com/docs/publications/IDA_STRATEGY_FINAL.pdf
[8] http://www.ahrrga.gov.ie/app/uploads/2017/01/162404-rural-ireland-action-plan-web-2-1.pdf
[9] http://www.techweekeurope.co.uk/cloud/facebook-ireland-data-centre-clonee-184452
[10] http://ireland.sse.com/media/18737/Galway%20Wind%20Park_Sustainability%20Impact%20ReportWEB.pdf

economic – impacts resulting from the construction of Ireland's largest onshore wind farm. For example: In addition to the 190,000 tCO2 emissions which will be saved compared to fossil fuels in one year, over €20m has been spent directly with local suppliers and contractors located within 30km of the project and during the height of construction 63% of civil contract workers and 43% of grid contract workers lived within 30km of the site. At a national level, €88.7m has been added to Irish GDP and more than 1,657 years of full-time employment has been supported in Ireland as a result of the construction spend up to the end of October 2016. Going beyond construction, long-term employment will also be created for up to 14 full-time operational employees. In addition, a multi-million euro community fund will operate for the lifetime of the wind park – providing investment for community projects well beyond the €150,000 granted to local groups during the construction phase.

While renewable energy represents an opportunity for stimulating economic growth in local communities, there is also a need to ensure that there is a flexible policy framework and support for the development of infrastructure.

Grid Infrastructure

The electricity grid is a fundamental factor in a rural region's ability to benefit from renewable electricity. Limited grid capacity makes it difficult to develop, even if the area is rich in renewable resources. Many rural areas have surplus renewable energy resources, while urban areas lack sufficient space and resource to meet their needs through renewable energy. There is a need for sufficient grid capacity to transport electricity from rural regions to urban areas. SSE supports the need for the NPF to outline the need to enhance and reinforce the grid so as to maximise Ireland's resources.

Place-Based Approach

It is clear that different regions have different capacity for producing different types and levels of renewable energy. Supporting those regions with the greatest potential for renewable energy is a more cost effective approach. In particular Ireland's abundant wind resource, affords it one of the most cost effective sources of decarbonisation in Europe through both onshore and offshore wind. SSE emphasises the need for the NPF to identify those places with the greatest potential for renewable technologies, rather than adopting policies that somewhat arbitrarily spread renewable projects across the national landscape.

In addition, the NPF should look for synergies with industries that can be rurally based i.e. locating renewable generation and demand in the same area.

Planning Policy Alignment and Decision-Making

SSE would affirm that there should be alignment between national planning policy documents e.g. the goals of the NPF should be fully reflected in the soon to be published Wind Energy Guidelines. As such, the Wind Energy Guidelines should ensure continued support for the development of onshore wind projects and should not impose excessive requirements on developers.

SSE submits that clear timeframes for planning decisions are a vital aspect of permitting and licensing procedures as they allow developers to plan and make investment decisions with confidence. Difficulties arise for developers where there is a lack of clarity surrounding different permitting procedures e.g. when they cannot run together or when they produce conflicting requirements. Increased clarity and efficient processes are vital to create an environment which is attractive for investment.

A coordinated approach to planning is necessary to provide greater certainty with regards to the type, scale, and location of renewable infrastructure. This is particularly necessary where there is need for support and coordination across administrative boundaries. The Regional Assemblies will have a key role to play in order to co-ordinate and ensure effective sub-regional and regional outcomes that are in line with national policies.

Community Engagement and Benefit

SSE supports the need for inclusive governance to help ensure the social acceptance of energy infrastructure. Local governments can play a vital role to disseminate clear and reliable information to the local community, can help adapt national policies to the characteristics of the local community and can help promote the social acceptance of renewable energies.

Our experience to date has shown that windfarm projects and considerations can vary substantially from site to site. The Department should be mindful to maintain a level of flexibility, avoiding an overly prescriptive approach to community benefit and engagement in order to enable projects and project developers to take into account local project, community and broader stakeholder requirements within the confines of the licences and permits afforded to the project.

SSE has constructed and operates one of the largest wind farm portfolios across the Island of Ireland. Our experience to date has shown that there is no single solution to successful community engagement and engagement on each project needs to be tailored to the project scale and needs of the local stakeholders. We operate community funds in the vicinity of our wind farms.

SSE fully supports the need for community engagement and we are proud of the community funds we operate and the difference this makes to those communities.

SSE's Communication and Engagement Strategy involves identifying key local stakeholders and local sensitivities. SSE focuses on keeping local residents, community groups, local businesses and political representatives engaged at all times during any of our projects, and to proactively pre-empt and address any concerns they may have. A range of communications options have been used on projects to engage with stakeholders including public meetings, letters, newsletters, SMS notification systems, local signage indicating increased project activity, a schools programme, local 'Meet the Buyer' events and dedicated project websites.

The Galway Wind Park (which is a joint venture between SSE and Coillte) is currently in construction and when complete, will be the largest onshore wind project in Ireland. With 2020 fast approaching, Galway Wind Park will play a significant role in helping Ireland meet its target of 40% of electricity generation from renewable sources. The project is an example of best-in-class large scale energy infrastructure delivery with the

community at its heart. A total of 69 wind turbines are permitted with a capacity of 169MW. The area covers over 2,000 hectares. Galway Wind Park will produce enough green energy to power around 84,000 homes, which is equivalent to almost 90% of the homes in County Galway. The green energy produced at Galway Wind Park will help to offset approximately 190,000 tonnes of CO2 emissions every year from fossil fuel generation. The scale of the Galway Wind Park has afforded the ability to implement the majority of the public engagement features outlined above and hence SSE considers it to be a good example of how effective community engagement can be undertaken on a large scale renewable electricity project.

Community Benefit

The SSE Airtricity Community Fund is intended to support community projects in the locality of our wind farms. The purpose of the fund is to further strengthen the benefits that wind farm development brings to local communities. The fund is distributed on an annual basis for the lifetime of the wind farm, starting one year after the wind farm starts producing electricity.

To date SSE Ireland has invested over €6.6 million into local communities across the island of Ireland through our wind farm community funds, which have supported over 2,600 projects. This investment continues to transform schools, communities and sports clubs in the local areas in which we operate in addition to supporting the local supply chain.

A new application window is opened each year and is available within 20km of the wind farm, prioritising projects within a 5km radius. Funds are used to support local community activities with a focus on energy efficiency and sustainability (environmental and social). Award ceremonies are held and provide the opportunity to engage again with the local community.

In the past SSE has hosted visits to its wind farms across the island of Ireland as part of global wind day and also as part of an ongoing annual community engagement programme. This enables the community to come and speak with our staff and have a closer look at the wind farm operating in their local area/county.

SSE actively participated at the 2014 National Economic and Social Council (NESC) conference concerning the topic of Wind Energy in Ireland with regards to Building Community Engagement and Social Support[11]. SSE agrees in principle with the concept of community ownership and we have had some experience of this in the context of our GB wind farms. The British Government's first ever Community Energy Strategy was published in January 2014 and set out how they intended to boost the community energy sector. It included an ambitious goal for community shared ownership; that from 2015 will be the norm for communities to be offered the opportunity of some level of ownership of new commercially developed onshore renewable projects. There have been some challenges in the implementation of this strategy with a number of models having been trialed, reviewed and refined and each one encountering problems for a variety of reasons including the ability of the local community to raise adequate finance to fund such ventures and the community appetite for the risk associated with investment.

[11] http://files.nesc.ie/nesc_reports/en/139_Wind_Energy_Main_Report.pdf

An important consideration when assessing any potential community benefit scheme is the time, cost and administrative burden of both introducing and operating any scheme for stakeholder including developers. This is particularly acute in the timeframe to the 2020 energy and climate targets and maintaining affordable energy for consumers by ensuring the cost of development is minimised. SSE would argue that the community benefit fund strikes this balance while representing a meaningful way to share value with the community.

Ireland in an All-Island Context

There are a number of issues from an energy and climate perspective which are common to the jurisdictions both north and south of the border. These issues include: the nature of the challenge to address broader decarbonisation of the economy; projected expanding economies based on FDI; geographical dispersion of settlement patterns; the ongoing need to upgrade transport networks; and a requirement for fast and effective broadband. It is therefore important, that where relevant, infrastructure interventions strategically complement both the National Planning Framework and the Northern Ireland Regional Development Strategy to help realise the key drivers common to both. This will require both national and regional leadership.

In the energy context, especially given the future implications of Brexit – there are a number of key points which SSE believes should be considered in an All-Island context under the NPF. The NPF will need to be in a position to support the delivery of a secure, increasingly decarbonised, and affordable flow of energy to consumers.

SSE considers the delivery of the North South interconnector as an urgent priority for the island of Ireland in order to increase security of supply, but also, importantly, to reduce electricity costs for all consumers on the island. Investing in the development of infrastructure will also help support economic growth. Clarity on the expected timeframe for the delivery of the interconnector is needed, in order to provide certainty for investors.

As outlined in the Consultation Document, co-ordination with Northern Ireland on energy matters is now embedded in Irish energy policy, supported by an all-island Single Electricity Market (SEM). This gives rise to a need for joint planning to meet future capacity and interventions, including electricity grid connections and interconnectors. The SEM is an example of how NPF could facilitate further co-ordination between settlements that share connections across the border between Northern Ireland and Ireland. Following Brexit, the continuation of the single harmonised scheme for the wholesale electricity market on the island is to the benefit of consumers in Ireland and Northern Ireland and is particularly important in the context of the current capacity issues facing Northern Ireland in the short to medium term.

There is also a need to maintain coherent energy, climate, environmental, and planning policies to ensure a balanced approach is adopted across the island. A coherent set of policies across the island (and indeed GB) with respect to energy and climate will support efficient investment.

Integrated Land and Marine Development

SSE considers onshore wind to be the most cost effective means to deliver sustainable electricity in Ireland given technology costs and favourable wind resource in Ireland. As greater volumes of renewable generation are to be deployed, Ireland should begin to build its capacity to develop offshore wind generation. Offshore wind is a proven technology which can be delivered at scale, which has been proven in GB.

According to the Offshore Renewable Energy Development Plan (OREDP)[12] Ireland has the potential for up to 4,500 MW of installed capacity of offshore wind by 2030, without having a likely significant impact on the environment (SEA and AA have been applied). In general terms this means that Ireland's offshore wind industry alone could power 4.5 million homes per annum.[13]

Marine spatial planning (MSP) is vital for the efficient and optimal deployment of offshore renewable energies and related grid infrastructure – for example, the Irish Sea is close to Ireland's largest demand centre, Dublin, which reduces the grid reinforcement required to connect large scale MW to the grid.

MSP assists planners, investors, communities and a wide range of other stakeholders to make informed decisions about offshore wind development, which would help to minimise costs and incentivise investment.

SSE notes that DCCAE has undertaken a consultation in 2016 as part of its deliberations on the preparation of a guidance document for offshore renewable energy development.

Separately an efficient and streamlined licensing and permitting procedure for offshore projects, including foreshore licensing, supports investment.

SSE has considerable experience in progressing offshore projects in other jurisdictions and would welcome further engagement with the Department on this matter, should that be helpful to the Department's considerations.

IRELAND'S UNIQUE ENVIRONMENT – CLIMATE CHANGE AND SUSTAINABILITY

Ireland is committed to reducing GHG emissions and in this context has obligations at EU level. National policy and obligations are also set out in the National Position on Climate change and Low Carbon Development (2014), the Climate Action and Low Carbon Development Act (2015) and the Irish Government's White Paper "Ireland's Transition to a Low Carbon Energy Future 2015-2030". In addition, a public consultation is currently under way in relation to the development of Ireland's first National Mitigation Plan.

[12] http://www.dccae.gov.ie/energy/SiteCollectionDocuments/Renewable-Energy/20140204%20DCENR%20-%20Offshore%20Renewable%20Energy%20Development%20Plan.pdf

[13] http://www.seai.ie/Renewables/Ocean-Energy/Ocean-Energy-Explained/Offshore-Wind.html

Spatial planning can make a significant contribution to addressing climate and energy obligations by helping to shape new and existing developments. In this regard, it will be critically important that a coordinated and coherent approach to integrating the ongoing development of the National Mitigation Plan and the National Planning Framework is adopted.

SSE supports the key role of the NPF in assisting the reinforcement of the structural changes required to transition to a low carbon society. This will require the Department to examine how planning policy can help shape national infrastructural decisions.

Spatial Planning

As outlined in the Consultation Document, the renewables sector will continue to become more and more central to meeting Ireland's national energy demands. SSE supports the need for detailed spatial planning to support the range of technologies that will be required to support our low carbon transition e.g. onshore and offshore wind projects.

Central to this will be maximising the utilisation of existing energy infrastructure. Spatial planning should also help support the co-location of both multiple generation sources at the same site and generation with industrial facilities. The repowering of existing renewable energy resources will be a key consideration within the timeframe of the NPF and offers opportunities to incorporate efficiencies from technological developments as the sites are refreshed. Activities such as this will make efficient use of grid infrastructure and renewable energy infrastructure already in place and help to sustainably manage the resource of land throughout Ireland.

Marine Spatial Planning

As outlined earlier in our response, effective marine spatial planning is needed to support investment and development of offshore technologies, so as to ensure we maximise the opportunities available.

Support from Planning Policies

SSE agrees that energy infrastructure is critical to support Ireland's future growth. It is necessary for planning policies to support the delivery of critical infrastructure i.e. delivery of the North-South Interconnector – which is a priority in order to increase security of supply and reduce electricity costs for all consumers on the island.

In addition, increasing the share of renewables requires expansion and upgrading of the grid. As well as the need for grid reinforcement, a major obstacle to project delivery is the grid application process. An improvement in this, allowing for quicker decisions and delivery of connections would allow more projects to be built.

As previously stated, SSE would argue that there is a need for the NPF to promote and support the development of onshore and offshore wind. There should be alignment between national, regional and local planning policy documents i.e. the aims regarding renewable development within the NPF should be fully reflected in the soon to be published Wind Energy Guidelines, and other planning guidance such as county development plans. As such, the Wind Energy Guidelines should ensure to support the

development of onshore wind projects and should not impose excessive requirements on developers.

SSE submits that clear timeframes for decisions are a vital aspect of permitting and licensing procedures as they allow developers to plan and make investment decisions with confidence. Difficulties arise for developers where there is a lack of clarity surrounding different permitting procedures e.g. when they cannot run together or when they produce conflicting requirements. Increased clarity and efficient processes are vital to create an environment which is attractive for investment.

Coordinated Approach to Planning

A coordinated approach to planning is necessary to provide greater certainty with regards to the type, scale, and location of renewable infrastructure.

National Level – The NPF should support the development of Strategic Energy Zones/Corridors as areas of national priority for renewable investment, as well as to provide a test bed for new technologies. In addition, there is a need for sufficient grid capacity to transport electricity from rural regions (where there is increased generation from renewables) to urban areas. SSE supports the need for the NPF to outline the need to enhance and reinforce the grid so as to maximise our resources.

Regional Level - At regional level Regional Spatial and Economic Strategies have a role to play in relation to energy infrastructure e.g. supporting the development of generation assets, including onshore windfarms, and assisting the coordination needed across local administrative boundaries. SSE supports the need for inclusive governance to help ensure the social acceptance of wind. Local governments can play a vital role to disseminate clear and reliable information to the local community, can help adapt national policies to the characteristics of the local community, and can help promote the social acceptance of renewable energies. It will also be necessary to ensure that regions have the appropriate resources in order to work effectively across local authority boundaries. The Regional Assemblies will have a key role to play in order to co-ordinate and ensure effective sub-regional and regional outcomes that are in line with national policies.

Northern Ireland - As outlined previously, there is also a need to ensure that there is a co-ordinated and coherent approach with Northern Ireland on planning matters and on in particular on energy and climate matters. Joint planning will be needed to meet future capacity and the interventions needed to achieve this, including electricity grid connections and interconnectors.

EQUIPPING IRELAND FOR FUTURE DEVELOPMENT - INFRASTRUCTURE

Throughout the response, SSE has highlighted a number of important infrastructure projects for Ireland that require delivery over the next 20 years.

Renewables Infrastructure – Onshore and Offshore Wind

SSE considers onshore wind to be the most cost effective means to deliver sustainable electricity in Ireland given technology costs, and favourable wind resource – planning policies should be supportive of its continued development. As greater volumes for renewable generation are to be deployed, Ireland should begin to build its capacity to develop offshore wind generation.

In order to incentivise investment in the renewable sector, it will be necessary for the Department to address increasing cost based challenges, such as commercial rates increases.

SSE would suggest that the deployment of solar could be cost-effectively achieved through co-location with existing generation or demand, or on a residential/small scale basis – rather than large scale ground mounted solar. This would also contribute to efficient land use.

Flexible Thermal and Security of Supply

SSE would advocate for a planning framework that, as required over time, supports the development of new build thermal generation which can provide low carbon, efficient, baseload power. In addition, efficient flexible thermal generation will contribute to the decarbonisation of the sector, increased security of supply and support a transition to a generation portfolio that operates significantly differently to that we have relied on previously.

Enhancement of the Grid and the North South Interconnector

In order to help ensure security of supply and to support increased renewables on the grid it will be necessary for planning policies to support further enhancement of grid infrastructure along with the delivery of the North South Interconnector.

Maximising utility from existing infrastructure - Repowering and Co-Location

Repowering and co-location are ways to make best use of existing infrastructure. Repowering is the process of replacing older wind installations in order to increase wind power capacity and generation, while also utilising existing grid infrastructure. Where repowering is to be effective there will be a need for a simplified planning process for existing sites, ability to retain grid connection capacity at existing sites, and eligibility for future support schemes. In addition the co-location of storage and/or solar with onshore wind is an efficient use of existing resources.

ENABLING THE VISION – IMPLEMENTING THE NATIONAL PLANNING FRAMEWORK

SSE is particularly supportive of the key implementation arrangements outlined on page 51 of the consultation document:

- Interdepartmental Drive = Through a National Planning Framework Management Team. In order to be effective will it will be necessary to ensure that a coordinated and coherent approach between the NPF and other Government policies. In regard to climate and energy this is particularly prominent to implementing the NMP and NPF.

- Statutory Backing = Through the Planning and Development (Amendment) Bill 2016.

- Administrative Structures to Respond to Real-World Issues
  - Preparation of Regional Spatial and Economic Strategies to co-ordinate across local authority and wider public policy levels in support of the NPF
  - Implementation programmes developed on a cross-local authority basis within the Regional Assembly structure.
  - Strengthened legislative basis for local authority co-operation on planning.
  - Marine and North-South/East-West dimension.

- Investment = Capital Programmes of Government Departments and relevant public bodies and the use of 'bid' based systems that incentivise cross-authority/agency working in qualifying for targeted funding.

- Monitoring and Policy Feedback = Establishment of independent monitoring of the NPF to identify and put in place key data gathering systems that will measure NPF effectiveness and outcomes to feed back into further implementation, review and updating in line with the Planning and Development (Amendment) Bill proposals. Annual reporting to Government and Oireachtas could provide a formal oversight arrangement for the NPF.

CONCLUSION

The *Ireland 2040 – Our Plan, National Planning Framework, Issues and Choices Paper* is a welcome development.

We have made a number of suggestions in relation to each of the topics put forward in the Consultation Document, which we believe will help the development of a stable planning policy framework to support sustained, long-term and regionally balanced progress on social, economic and environmental fronts.

SSE is available to discuss any aspect of this submission further and would like to thank DHPCLG for the opportunity to respond to this consultation.