CALEDONIA
Offshore Wind Farm

Code: UKCAL-CWF-CON-EIA-APL-00001-A036

Application Document 16

Appendix 16-1 Caledonia South Statement of Need

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Acronyms and Abbreviations

BESS	British Energy Security Strategy
CCA	Climate Change Act
CCC	Climate Change Committee
DESNZ	Department for Energy Security and Net Zero
GBE	Great British Energy
GHG	Greenhouse Gas
GW	Gigawatt
IPCC	Intergovernmental Panel on Climate Change
$MtCO_2e$	Million tonnes of carbon dioxide equivalent
MWh	Megawatt Hour
NGESO	National Grid Electricity System Operator
NMP	National Marine Plan
NMP2	National Marine Plan 2
NPS	National Policy Statement
OWF	Offshore Wind Farm
UK	United Kingdom
UN	United Nations
WTG	Wind Turbine Generator

1 Introduction

1.1.1.1 In January 2022, as part of the ScotWind leasing round, Ocean Winds UK Ltd. was successfully awarded an Option Agreement granting exclusive rights to develop an Offshore Wind Farm (OWF) within the NE4 Plan Option, which is located within the outer Moray Firth, off the north-east coast of Scotland. Ocean Winds is progressing the proposals for this OWF, which has been named the Caledonia OWF, hereafter referred to as the "Proposed Development (Offshore)", via the newly incorporated limited company of Caledonia Offshore Wind Farm Ltd (the Applicant). The Proposed Development (Offshore) includes the Caledonia OWF (Array Area) and Caledonia Offshore Export Cable Corridor (OECC) seaward of Mean High Water Springs (MHWS).

1.1.1.2 The Applicant is seeking to deliver electricity to the grid from 2030. The Proposed Development (Offshore) will have an indicative generation capacity of up to two gigawatts (GW); however, this is indicative and does not represent a cap on the generation capacity in a consenting context. Due to the volume of national grid reinforcement works required to connect offshore wind projects and commercial drivers, the Applicant is expecting the Proposed Development (Offshore) to be developed in phases. To support with the deliverability of these phases, the Applicant is submitting two offshore consent applications (Section 36 and associated Marine Licences) for the Proposed Development (Offshore).

1.1.1.3 The two consent applications for each of the phases of the Proposed Development (Offshore) are referred to as:

- Caledonia North; and
- Caledonia South.

1.1.1.4 This Statement of Need provides the undisputable case for why Caledonia South is necessary. The document presents this case through appraising the benefits of Caledonia South in terms of how they will contribute to the following four global, United Kingdom (UK) and Scottish imperatives:

- The urgent need to address the effects of climate change;
- The urgent need to meet future energy requirements;
- The urgent need to ensure affordability for the consumer; and
- The urgent need to ensure security of energy supply.

2 Key Legislation and Policy

2.1 Overview

2.1.1.1 Given the globally recognised threat that is climate change, there is a significant volume of legislation and policy that has been established of relevance to low carbon electricity generation. This is true at an international, UK and Scottish context.

2.1.1.2 At a more local level, within the UK and Scotland, there is additional emphasis in legislation and policy supporting the need for renewables, and in particular offshore wind, to ensure future energy needs are met and they are secure and affordable. Key commitments have been made independently by the UK and Scottish Governments regarding the need to achieve these imperative objectives.

2.1.1.3 This section presents, in chronological order, the primary legislation, policy and international agreement which underpins the need for offshore wind, and particularly Caledonia South.

2.2 Climate Change Act 2008

2.2.1.1 The Climate Change Act 2008 (CCA) (UK Parliament, 2008[1]) was passed by the UK Government in November 2008, and is the key legislation underpinning all subsequent legislation, including that introduced by the Scottish Government. The CCA defined legally binding targets for reducing greenhouse gas (GHG) emissions and was the first legally binding climate change mitigation target set by any independent state.

2.2.1.2 The CCA[1] established a system of carbon budgeting, where the UK Secretary of State was required to set a limit for the net production of carbon by the UK in five-year cycles. This resulted in two primary targets of reducing GHG (in the UK, including Scotland) by 34% before 2020 and 80% before 2050, compared to the baseline level as set in 1990.

2.2.1.3 The Committee on Climate Change (CCC) was established under the CCA, as an independent body using the most appropriate and up to date evidence available to provide advice to the UK Governments on emissions targets, report on progress regarding GHG emissions, and generally prepare the UK (and therefore Scotland) against the impacts of climate change.

2.2.1.4 Under the CCA, the relevant national authority may make provision by regulations for trading schemes relating to GHG emissions, with trading schemes defined as:

"a scheme that operates by—

(a)limiting or encouraging the limitation of activities that consist of the emission of greenhouse gas or that cause or contribute, directly or indirectly, to such emissions, or

(b)encouraging activities that consist of, or that cause or contribute, directly or indirectly, to reductions in greenhouse gas emissions or the removal of greenhouse gas from the atmosphere."

2.2.1.5 This includes the development of clean energy technologies such as renewables, nuclear and carbon capture and storage through increased investment in energy efficiency.

2.2.1.6 The CCA[1] also included a requirement for the UK Government to develop a National Adaptation Programme to manage the effects of unavoidable climate change within five-year cycles similar to the carbon budgets.

2.2.1.7 A review of the CCA in 2018 by the Grantham Research Institute (2018[2]) found that the carbon budgets introduced had helped to reduce emissions in the UK, particularly in the power sector, while the economy had continued to grow.

2.3 Climate Change (Scotland) Act 2009

2.3.1.1 The Climate Change (Scotland) Act 2009 (Scottish Parliament, 2009[3]) was built on the CCA and set out the statutory framework for greenhouse gas emissions reduction in Scotland by setting additional targets for emission reductions. The Climate Change (Scotland) Act 2009[3] also enabled interim targets to be adjusted and required the Scottish Ministers to set annual targets for annual emissions reductions up to 2050.

2.3.1.2 The adjusted targets established under this Act (as amended) were:

- 48.5% by 2020;
- 75% by 2030; and
- 90% by 2040.

2.3.1.3 This Act also established Scotland's Climate Assembly, which informs the Scottish Government's decision-making with regards to the current climate crisis, and the Scottish Nitrogen Balance Sheet, which tracks how efficiently nitrogen is used across Scotland.

2.4 The Scottish Government's Climate Change Adaptation Programme

2.4.1.1 The Scottish Government's Climate Change Adaptation (CCA) Programme (Scottish Government, 2013[4]) was introduced in 2013. The CCA programme focussed on the assessment of climate change risks to the environment, economy, infrastructure and local communities, and the development of adaptation strategies and action plans for a range of sectors. The programme also focussed on increasing engagement and collaboration between stakeholders. The CCA Programme[4] process concluded that critical infrastructure (including transport networks, energy systems, water supply and communications) needed enhancements in order to better handle the increased frequency of climate related hazards, including natural ecosystem-based approaches to improve the overall biodiversity of Scotland.

2.5 Scotland's National Marine Plan

2.5.1.1 Section 11 (Offshore Wind and Marine Renewable Energy) of Scotland's original National Marine Plan (NMP) (Scottish Government, 2015[5]) set out the Scottish Government's commitment to building a globally competitive offshore wind and marine renewables industry based in Scotland to take forward the transition to a low carbon economy while ensuring security of energy supply.

2.5.1.2 The NMP set ambitious targets for renewable energy by aiming to generate the equivalent of 100% of Scotland's own electricity demand from renewable resources by 2020 and to deliver an 80% reduction in greenhouse gas emissions by 2050.

2.5.1.3 The NMP further set out the part that offshore wind and marine renewables will play in meeting these targets, with the expectation that the role of offshore generation would increase further into the 2020s and beyond (Scottish Government, 2015[5]):

"As the global wind industry expands further offshore, Scotland is well placed to become a key hub for the design, development and deployment of the next generation of offshore wind technologies. In addition to the planned development sites detailed above for offshore wind, Scotland is also becoming a key location for test and demonstration facilities in renewable energy development".

2.6 The Paris Agreement

2.6.1.1 While the CCA[1], Climate Change (Scotland) Act 2009[3] and Scottish Government's Climate Change Adaptation Programme[4] provided a strong foundation for Scotland and the UK's national climate change goals, the

international community also established targets through The Paris Agreement, as adopted in 2015 by 196 UN member states (including the UK and Scotland) (United Nations Framework Convention on Climate Change, 2016[6]). The Paris Agreement was the first international legally binding treaty on climate change, with the member states agreeing to:

- A long-term goal of keeping the increase in global average temperature to well below 2°C above pre-industrial levels;
- An aim to limit the increase to 1.5°C since this would significantly reduce risks and the impacts of climate change;
- The need for GHG emissions to peak as soon as possible; and
- Undertake rapid reductions thereafter in accordance with the best scientific guidance available.

2.6.1.2 This expands on previous UK and Scottish legislation by providing an international framework for global co-operation in mitigating climate change.

2.7 Scottish Energy Strategy

2.7.1.1 The Scottish Energy Strategy (Scottish Government, 2017[7]) was the driver for Scotland's renewable energy ambitions. As published in December 2017, the Scottish Energy Strategy was designed to provide a long-term vision to guide Scotland's detailed energy policy decisions over the coming decades.

2.7.1.2 The Scottish Energy Strategy proposed a new 2030 'all-energy' target for the equivalent of 50% of Scotland's heat, transport and electricity consumption to be supplied from renewable sources (Scottish Government, 2017[7]):

"*While this level of renewables will be challenging, a 50% target represents an ambitious but achievable goal. Setting this target demonstrates the Scottish Government's commitment to a renewable future – and to the continued growth of a successful renewable energy sector in Scotland*".

2.8 Climate Change (Emissions Reduction Targets) (Scotland) Act 2019

2.8.1.1 The Climate Change (Emissions Reduction Targets) (Scotland) Act 2019[8] was passed by Scottish Parliament in September 2019 and received Royal Assent in October 2019. This Act amends the Climate Change (Scotland) Act 2009, enshrines updates to the greenhouse reduction targets set out in the Climate Change (Scotland) Act 2009, while also making provisions for advice, plans and reports in relation to those targets, with the objective of Scotland contributing to the world's efforts to deliver on the Paris Agreement.

2.8.1.2 New targets were set, including the following GHG emission reductions:

- 55% by 2019;
- 56% by 2020;
- 75% by 2030; and
- 90% by 2040.

2.8.1.3 Scotland's Climate Assembly (as established in the 2009 Climate Change Act) operated independently of the Scottish Government, bringing together a group of over 100 people who were broadly representative of the Scottish population. Members of Children's Parliament were also invited to support the participation and engagement of younger children across Scotland, to ensure their views, experiences and ideas informed the discussions and recommendations going forward.

2.8.1.4 Scotland's Climate Assembly published recommendations on Scotland's approach to climate change in June 2021 (Scottish Government, 2021[9]), with the Scottish Government including relevant actions within their future policy updates and have included consultation and advice to the UK government to ensure a more wide-reaching benefit of the process.

2.8.1.5 The CCC published the "Net Zero: The UK's contribution to stopping global warming" document in 2019 (CCC, 2019[10]), where it was recognised that Scotland has a "greater relative capacity to remove emissions than the UK as a whole". Further, the report recommended that there be a 2045 target for Net Zero in Scotland compared to the 2050 Net Zero target for the UK. The CCC further assessed Scotland's performance up to 2019, and it was determined that Scotland's emissions were 51.5% below the 1990 levels, concluding that the 2019 target of a 55% reduction had not been met. The CCC further concluded in 2024, that the 2030 target of 75% emission reduction is no longer attainable (CCC, 2024[11]), and following this assessment the Scottish Government abandoned this target, solely focusing on the 2045 Net Zero target (Reuters, 2024[12]).

2.8.1.6 The CCC recommended that "The UK should set and vigorously pursue an ambitious target to reduce GHGs to Net Zero by 2050, ending the UK's contribution to global warming within 30 years". It was recognised by the CCC that low carbon infrastructure is essential to accomplishing Net Zero and an increased deployment of such infrastructure is urgent.

2.9 Climate Change Plan

2.9.1.1 Scottish Government's updated Climate Change Plan (2020[13]) sets out the Scottish Government's pathway from 2018–2032 to achieve new and ambitious targets set by the Climate Change Act 2019 and is a key strategic document on Scotland's green recovery from the COVID-19 pandemic.

2.10 Scottish Governments Offshore Wind Policy Statement

2.10.1.1 The Offshore Wind Policy Statement (Scottish Government, 2020b[14]) demonstrated that the Scottish Government supports and promoted a positive policy landscape for renewables and was willing to commit to a long and positive association with renewables that continues to go from strength to strength and is central to Scotland's green recovery.

2.10.1.2 Through the Offshore Wind Policy Statement, Scottish Government also suggested a predicted growth of renewable capacity to 11.9 GW.

2.11 Scotland's Sectoral Marine Plan for Offshore Wind Energy

2.11.1.1 Scotland's Sectoral Marine Plan (SMP) for Offshore Wind Energy (Scottish Government, 2020a[15]), which builds on Section 11 of the 2015 National Marine Plan[5], identified sustainable plan options for the future development of commercial-scale offshore wind energy in Scotland, including deep water wind technologies, and covers both Scottish inshore (Scottish territorial waters or within 12 NM from shore) and offshore waters (extending out to the Exclusive Economic Zone limit).

2.11.1.2 The SMP identifies 15 Plan Options, split across four regions which can generate several GWs of renewable energy.

2.11.1.3 This Plan seeks to contribute to the achievement of Scottish and UK energy and climate change policy objectives and targets, through the provision of a spatial strategy to inform the seabed leasing process for commercial offshore wind energy in Scottish waters, which:

- Minimises the potential adverse effects on other marine users, economic sectors and the environment resulting from further commercial-scale offshore wind development; and
- Maximises opportunities for economic development, investment and employment in Scotland, by identifying new opportunities for commercial scale offshore wind development, including deeper water wind technologies. This Plan was developed to ensure consistency with the objectives and principles set out within Scotland's National Marine Plan[5]).

2.12 British Energy Security Strategy

2.12.1.1 The primary policy responsible for ensuring the security of supply throughout the UK is the British Energy Security Strategy (BESS) (Department for Energy Security and Net Zero (DESNZ), 2022[16]). This policy paper focuses not only on the need for decarbonisation but the route

to energy security and how it can be achieved throughout the UK (including Scotland).

2.12.1.2 One of the primary outcomes of the BESS for offshore wind, is the establishment of a target of 50 GW of offshore wind power by 2030, building on the initial 40 GW target established within the 2020 UK Energy White Paper Powering our Net Zero Future (BEIS (now DESNZ), 2020[17]), which also established that offshore wind is the most critical technology required to deliver the required electrification for mitigating climate change (see Section 4).

2.13 Intergovernmental Panel on Climate Change (IPCC) Assessment Reports

2.13.1.1 The IPCC's 6th assessment cycle took place between October 2015 and July 2023, during which time the 6th Assessment Report (AR6) was produced (IPCC, 2021[18]), resulting in the publishing of three working group documents in August 2021, February 2022, and April 2022 respectively, with a Synthesis Report published in March 2023 (IPCC, 2023[19]). The headline statements from that report are:

- Between 2011 and 2020 the global surface temperature raised by 1.1°C compared to 1990 levels due to increasing GHG emissions arising from unsustainable energy use, land use and land-use change, lifestyles and patterns of consumption and production across regions, between and within countries, and among individuals;
- Based on Nationally Determined Contributions as of October 2021, it is clear that the amount of global GHG emissions in 2030 make it likely that warming will exceed 1.5°C during the 21st century, which will make it difficult to limit warming below 2°C;
- There are gaps between projected emissions from implemented policies and those from Nationally Determined Contributions and finance flows fall short of the levels needed to meet climate goals across all sectors and regions.
- Every increment of global warming will intensify multiple and concurrent hazards, and deep, rapid, and sustained reductions in GHG emissions would lead to a discernible slowdown in global warming within around two decades, and also to discernible changes in atmospheric composition within a few years;
- Projected CO_2 emissions from existing fossil fuel infrastructure will exceed the remaining carbon budget for 1.5°C;
- Rapid, deep and immediate reductions in GHG emissions across all sectors is required this decade to meet any of the modelled scenarios keeping warming below 1.5°C and 2°C; and

- If warming exceeds 1.5°C, then the only way of reducing warming is to achieve and sustain net negative global CO_2 emissions, relying on the removal of CO_2 from the environment which has additional feasibility concerns.

2.13.1.2 It is considered within the IPCC assessment report that Global GHG emissions must peak before 2025 and be reduced by 43% by 2030 in order to limit warming to around 1.5°C. Major changes in the energy sector are required to lead this reduction, primarily a reduction in fossil fuel usage, widespread electrification, improved energy efficiency and the adoption of alternative fuels.

2.13.1.3 The main conclusion of the AR6 report is that there is a chance that humanity can combat climate change in the timescale required, however as of the time of the report, it was considered increasingly unlikely, and a rapid and immediate change to non-fossil fuel energy sources was considered the best way to counter climate change within the timescales required.

2.14 National Policy Statements (NPS)

2.14.1 Overview

2.14.1.1 The UK has published NPS, which are statements explaining, justifying and accounting for UK government policy in relation to the mitigation of and adaptation to climate change. The NPS' are primarily applied to England and Wales, however as all energy policy is a reserved matter for UK ministers, the content of the NPS' is still relevant for consideration in Scottish planning decisions.

2.14.2 Overarching National Policy Statement for Energy (EN-1)

2.14.2.1 The UK Government's Overarching National Policy Statement (NPS) for Energy (EN-1), as issued by DESNZ, sets out national policy for energy infrastructure and is part of a suite of NPSs issued by the Secretary of State for Energy Security and Net Zero (DESNZ, 2023a[20]).

2.14.2.2 NPS EN-1 sets out the UK government's policy for the delivery of major energy infrastructure which includes renewable electricity generation (both onshore and offshore) as covered in the NPS for Renewable Energy Infrastructure (EN-3) (DESNZ, 2023b[21]). Of particular relevance to the derogation provisions for Caledonia South, NPS EN-1 concluded that there is a critical national priority (CNP) for the provision of nationally significant low carbon infrastructure, which includes offshore renewable generation such as offshore wind. It is important to note that while the CNP status of offshore wind generation does not generate an additional need atop that

already established for renewable energy infrastructure, is an important aspect of the planning balance to be considered by the Scottish Ministers.

2.14.3 National Policy Statement for Renewable Energy Infrastructure EN-3

2.14.3.1 NPS EN-3 (DESNZ, 2023b[21]), taken together with NPS EN-1 (DESNZ, 2023a[20]), provides the primary policy for decisions on applications received for significant renewable energy infrastructure.

2.14.3.2 NPS EN-3 (DESNZ, 2023b[21]) provides a mechanism for delivery of the BESS (2022[16]), which sets out a series of bold commitments to deliver a more independent, secure, and affordable energy system.

2.14.3.3 Section 2.8 of NPS EN-3 (DESNZ, 2023b[21]) reiterates the UK governments expectations, as set out in the BESS, that offshore wind (including floating wind) will play a significant role in meeting demand and decarbonising the energy system, and the ambition to deploy up to 50GW of offshore wind capacity (including up to 5GW floating wind) by 2030, with an expectation that there will be a need for substantially more installed offshore capacity beyond this to achieve net zero carbon emissions by 2050.

2.14.3.4 To meet these objectives, the UK government considers that all offshore wind developments are likely to need to maximise their capacity within the technological, environmental, and other constraints of the development.

2.15 Emerging Legislation and Policy

2.15.1 Scotland's National Marine Plan 2 (NMP2)

2.15.1.1 Scotland's NMP2 will provide a current review of the original NMP published in 2015, as reviewed/amended in 2018 and 2021. Previous reviews concluded that there is an urgent need to tackle the twin crises of climate change and biodiversity loss, as well as a need to reflect significant emerging matters, which have become core drivers for developing a new national marine plan.

2.15.1.2 The decision to update and replace the existing NMP was formally announced by Ministers in Parliament in October 2022 and in the Programme for Government 2022-23. The Marine Directorate are currently preparing the updated NMP2, which, as with the first NMP, will cover Scottish territorial waters (0-12 nautical miles) and Scottish offshore waters (12-200 nautical miles) (Scottish Government, 2022[22]):

"Effectively managing how we use our marine space is critical in our transition to net zero by 2045, the achievement of our national and international biodiversity commitments and to maximise the opportunities

a blue economy approach can deliver for our environment and communities".

"In Programme for Government 2022-2023, we announced our intention to start the process of developing a new National Marine Plan (NMP), to address the global climate and nature crises by carefully managing increased competition for space and resources in the marine environment".

2.15.1.3 NMP2 is expected to be adopted in late 2024/2025 following detailed assessment and extensive stakeholder engagement.

2.15.2 Energy Strategy and Just Transition Plan

2.15.2.1 The draft Energy Strategy and Just Transition Plan (Scottish Government, 2023a[23]) provides clarity on how Scotland will prepare for a just energy transition and sets a vision for Scotland's energy system to 2045 and a route map of ambitions and actions that, coupled with detailed sectoral plans and the forthcoming Climate Change Plan, will guide decision-making and policy support over the course of this decade.

2.15.2.2 The Energy Strategy and Just Transition Plan is expected to be adopted by Scottish Government in mid-2024.

2.15.3 The (Updated) Sectoral Marine Plan (SMP)

2.15.3.1 The updated SMP will provide the planning framework for both the ScotWind and Innovation and Targeted Oil and Gas leasing rounds.

2.15.3.2 It is expected that consultation on a draft updated plan will commence in Autumn 2024 and a final plan will be adopted by Spring 2025.

2.15.4 Great British Energy Bill

2.15.4.1 On 25th July 2024, the UK Government introduced the Great British Energy Bill to Parliament. The Bill aims to deliver on one of the new government's first steps for change by setting up Great British Energy (GBE), a publicly owned company headquartered in Scotland to invest in clean, home-grown energy (DESNZ, 2024[24]).

2.15.4.2 According to DESNZ, GBE will be backed by a capitalisation of £8.3 billion and will own, manage and operate clean power projects. It will be a company that will generate energy in its own right, working in partnership with the private sector for the good of the country. GBE will work closely with industry, local authorities, communities and other public sector organisations to help accelerate Britain's pathway to energy independence.

2.15.4.3 That means installing thousands of clean power projects across the country, crowding in investment for next-generation technologies, and providing vital support to accelerate large-scale projects, with the intention

of getting windfarm projects that could generate between 20GW and 30GW of offshore power to lease stage by 2030.

2.15.4.4 In a forwarding statement, the DESNZ Secretary said:

"Great British Energy comes from a simple idea - that the British people should own and benefit from our natural resources. Investing in clean power is the route to end the UK's energy insecurity, and Great British Energy will be essential in this mission." Ed Miliband, July 2024.

3 Reducing the Effects of Climate Change through Decarbonisation

3.1 Overview

3.1.1.1 It is well established that the decarbonisation of the UK requires an increase in electrification (Section 4), with renewable projects being considered a very important route to achieving this. However, given the nature of the large scale of the infrastructure required for renewable energy projects (nuclear power stations, OWFs, solar farms, etc.), it takes a significant amount of time for projects to be developed, often up to a decade for the from inception to generation (including stages such as securing consent, achieving the financial investment decision and associated financial agreements, developing and arranging the necessary supply chain to support the development, and the construction period). Therefore, it is considered that given the current and increasing threat of climate change and the 2045 Net Zero target in Scotland, there is an urgent need to achieve as many operational renewable energy projects as possible, in as short a period of time as possible. .

3.1.1.2 The projects currently in planning are unlikely to be producing power until close to 2030, if not after. As more GHG emissions will be released during the period between the initial proposition and eventual commissioning, there is a significant need for completing as many proposals as possible as soon as possible to increase the chances of meeting the Net Zero targets.

3.1.1.3 As stated in the AR6 report (IPCC, 2021[18]), there is already a significant chance that the window for a significant mitigation of climate change will be missed due to inaction, and therefore it is considered imperative that as much action is taken as soon as possible to ensure a survivable future.

3.2 How Decarbonisation has been Achieved to Date

3.2.1.1 By 2023, the total amount of GHG emissions within the UK had decreased by 52.7% compared to 1990 (Figure 3-1; DESNZ, 2024b[25]). This decrease has been led by a reduction in gas demand from the electricity supply. Greenhouse gas emissions from UK electricity generation fell by 19.6% (10.8 million tonnes of carbon dioxide equivalent; $MtCO_2e$) in 2023, primarily due to higher electricity imports from France, unlike 2022 when the UK had higher than usual exports, meaning less gas was needed to meet the electricity demand, which has also been continuously declining (DESNZ 2024a[25]).

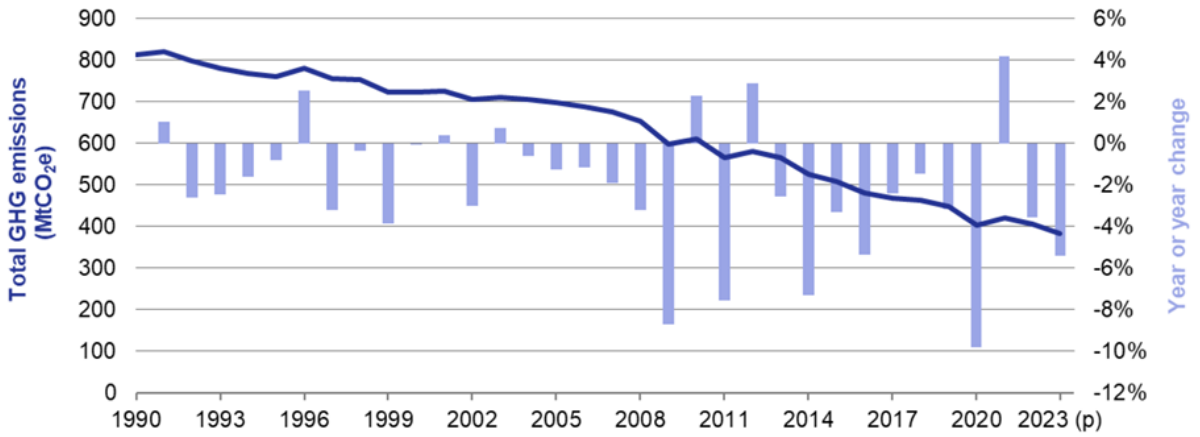

Figure 3-1: UK GHG emissions between 1990 and 2023 (DESNZ, 2024a).

3.2.1.2 As touched on above, these GHG emission reductions have occurred primarily through a reduction in the amount of power that has been produced from coal and gas-powered power stations. The Large Combustible Plant Directive (as updated in 2010 to Version 3, Department for Environment Food and Rural Affairs, 2010[26]) was introduced to manage the emissions from large combustion plants to help minimise environmental damage and has led to a significant amount of decommissioning of older coal and gas plants throughout the UK. Scotland's last coal fuelled power station closed in 2016, alongside the 11.5 GW of coal fired power stations that were decommissioned between 2012 and 2015.

3.2.1.3 Other sectors also reduced emissions, with emissions from buildings and carbon generating products having fallen by 6.2% (5.1 $MtCO_2e$) in 2016, with high energy prices likely to have been a factor in reduced gas use for heating buildings. Industry sector emissions also fell by 8% (4.6 $MtCO_2e$), largely due to reduced fuel consumption in the iron and steel industry.

3.2.1.4 There was also a 1.4% (1.6 $MtCO_2e$) fall in greenhouse gas emissions from domestic transport. Compared to 2019, the most recent pre-pandemic (COVID-19) year, domestic transport emissions are down 11.1%. Domestic transport remains the largest source of emissions in the UK, accounting for 29.1% in 2023 (DESNZ, 2024a[25]).

3.2.1.5 In addition to sectors reducing their GHG emissions through decreased gas use, the electricity supply from other sources has increased. In 2020, 97% of Scotland's gross electricity consumption was provided from renewables (Figure 3-2; Scottish Renewables, 2024[27]).

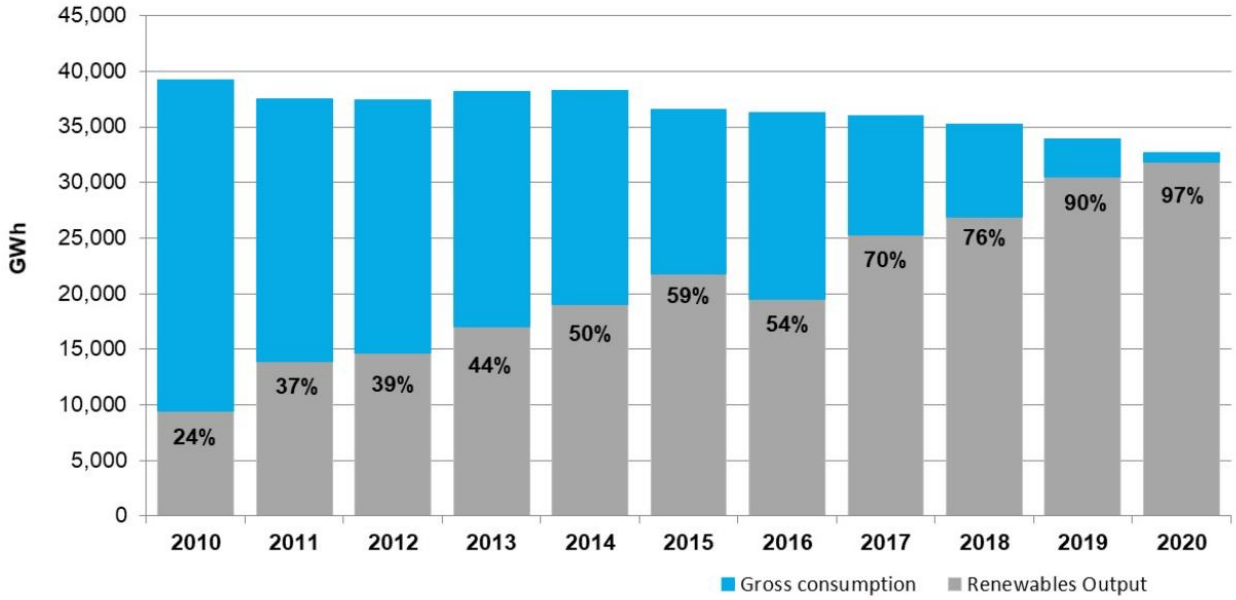

Figure 3-2: Scottish gross electricity consumption and percentage renewables output (Scottish Renewables, 2024[27])

3.2.1.6 The energy mix has changed significantly since 2010, with nuclear power, coal and gas dominating in 2010, with renewables dominating as of 2018, with nuclear power in a close second (Figure 3-3; Scottish Renewables, 2024[27]).

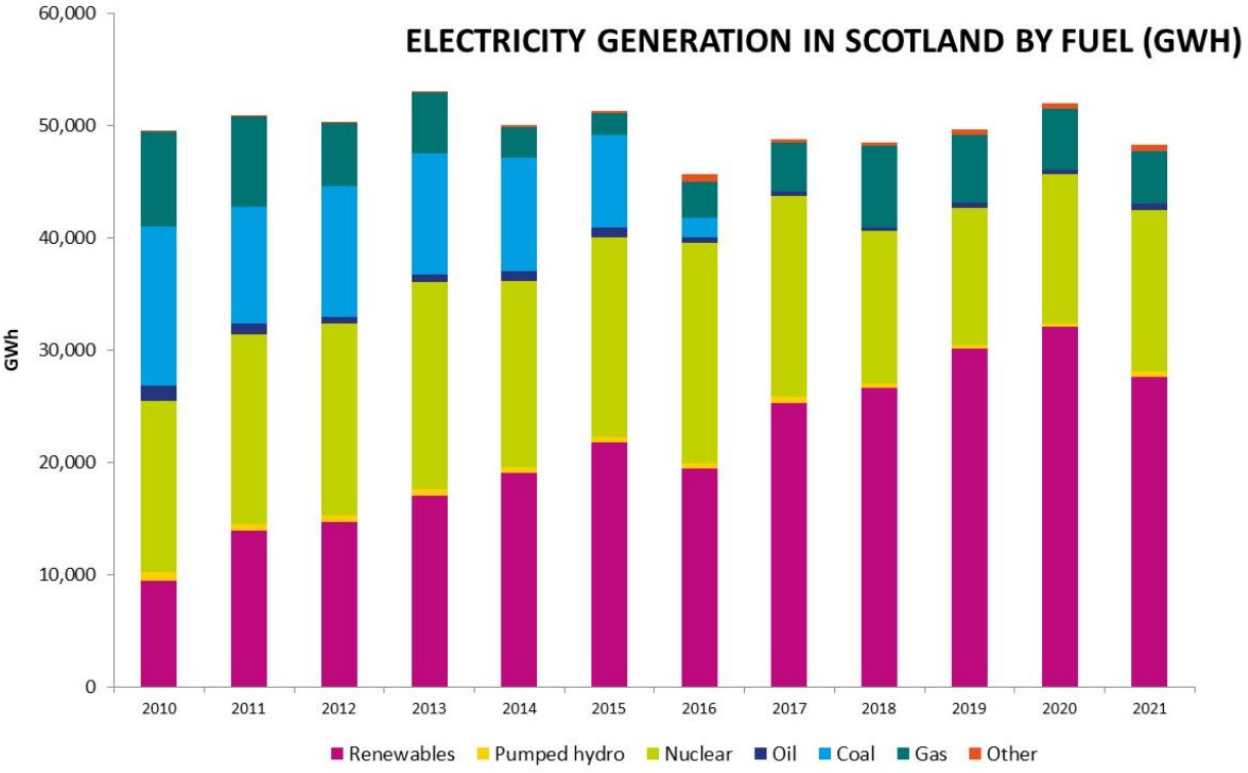

Figure 3-3: Electricity generation in Scotland by fuel (GWh) (Scottish Renewables, 2024[27])

3.3 The Role of Offshore Wind in Decarbonisation

3.3.1.1 Offshore wind is a critical and key part of future renewable energy generation throughout the UK and Scotland. The need for electrification to achieve decarbonisation will only grow to meet Scotland's legislative Net Zero targets, and the need for growth is clear. Offshore wind is a proven low-carbon generation asset that can be deployed at scale and is anticipated to become a significant source of decarbonisation throughout Scotland and the UK.

3.3.1.2 The National Grid Electricity System Operator (NGESO) has produced reports on the predicted energy supply throughout the UK (NGESO, 2023[28]) and all of the scenarios presented in that report that would enable the UK to meet Net Zero (all aside from the 'Falling Short scenario', where net zero emissions are not achieved by 2050) demonstrate a significant increase in renewables, and specifically offshore wind. With 39% of the UK's wind resource (Scottish Government, 2023b[29]), Scotland is uniquely placed to provide a significant amount of the offshore wind generation capacity required to support future energy demand.

3.3.1.3 Whilst it is acknowledged that other technologies will be necessary to supplement the offshore wind capacity, including nuclear power, solar energy, tidal power, and hydrogen fuels, the commercial, technical and legal feasibility of these technologies suggest they are not reliable to be the basis of the UKs energy mix through to 2050. However, with the infrastructure that is already in place and the technological advancements within the field of OWFs, it is considered that OWFs such as Caledonia South are the leading renewable energy source to achieve the UK and Scotland's legislative targets. It is worth noting that advancements in bottom-fixed foundation technology, and associated reductions in costs, support the improved deliverability of bottom-fixed OWFs (at least half of Caledonia South will be bottom-fixed WTG foundations).

3.3.1.4 Therefore, it is considered that offshore wind developments should be prioritised and progressed with urgency to ensure the best possible future for Scotland and the UK with respect to decarbonisation and overall increases in energy supply.

3.3.1.5 Bottom-fixed foundations are currently the main commercially viable technology type used within OWFs. However, they are limited in where they can be constructed as they require relatively shallow waters for installation to be successfully undertaken. Floating OWFs, however, can overcome this limitation and be deployed in deeper waters, providing more opportunities for development.

3.3.1.6 As established in Section 2.14.3, the UK government is aiming to be generating 50GW of offshore capacity by 2030, and this includes up to 5GW of floating wind.

3.3.1.7 Floating wind will be key in accelerating the rate of decarbonisation throughout the UK and Scotland, as it allows access to a significantly greater amount of wind resource than would be unavailable if limited to shallow waters. This enables wider regions of seabed to be exploited, providing many advantages to different areas of Scotland, including additional areas within the ScotWind lease options. It is anticipated that floating OWFs are going to be a key element in the future energy mix.

3.3.1.8 Many trials of floating projects have been undertaken, which demonstrates the potential of the technology. This includes Europe's first commercial floating OWF, Wind Float Atlantic, which was also developed by the Applicant and to date has produced 159 GWh of electricity while increasing the potential areas available to offshore wind. It is considered that not only will the use of floating technologies will allow access to an increased amount of sites, but it will also increase the capacity of existing sites, as there are parts of the Plan Option areas which can be developed beyond the capacity which bottom-fixed Wind Turbine Generators (WTGs) can provide (such as the southern section of the Proposed Development (Offshore)).

3.3.1.9 The Offshore Renewable Energy Catapult anticipate that the first large-scale and commercially viable floating offshore project within the UK will be deployed around 2030 or potentially slightly sooner. This aligns with the timescales of the Proposed Development, which aims to utilise both floating and bottom-fixed foundations to maximise its contribution to decarbonising the energy system in time to reach Net Zero.

3.4 Conclusion

3.4.1.1 There is an urgent need for decarbonisation globally, as well as in the UK and Scotland. As set out in the sections above, renewable energy sources, and in particular offshore wind, are fundamental in meeting this key objective.

3.4.1.2 With Caledonia South already significantly progressed (in terms of the consenting process), and the proposed deployment of a percentage of floating WTGs, it will make best use of available seabed in generating a significant amount of zero carbon renewable energy sooner than many other ScotWind OWF projects. Furthermore, the design envelope includes the use of bottom-fixed WTG foundations (for at least half of Caledonia South), which is a well-understood and established technology that is already installed for existing OWFs in the Moray Firth, immediately adjacent to Caledonia South.

4 Meeting Future Energy Requirements

4.1 Overview

4.1.1.1 Sections 2 and 3 introduce the importance of offshore wind developments in addressing the global threat that is climate change, and sets out the key UK and Scottish legislation and policy of relevance to the need for 'clean' energy generation.

4.1.1.2 This section outlines key considerations and commitments that have been made independently by the UK and Scottish Governments regarding decarbonisation, with both Government's commitments provided equal consideration.

4.2 Current Energy Use and Sources

4.2.1.1 Given the nature of the UK Grid, it is considered that the energy sourced from Scottish Waters is shared among UK citizens, and vice versa. Therefore, while Scotland has its own decarbonisation and development targets, a wider UK context must be considered when assessing availability and security of energy.

4.2.1.2 As of 2022, the UK imports a significant quantity of fuel, with the net import dependency increasing to 41.1% in 2023 from 37.3% in 2022 (DESNZ, 2024b[30]). There was a particular increase in the electricity imports from 2022, going up by 115%, primarily from Norway and the US (DESNZ, 2024b). This has changed from previous years where a significant amount of fuel was imported from Russia, which in 2022 made up about a third of the UK's diesel usage, over 10% of crude oil and over 5% of liquefied natural gas imports in 2020 (DESNZ, 2023[31]).

4.2.1.3 Further detail on the types of energy currently used within the UK is presented within Section 3, with the conclusion being that renewable sources including offshore wind have already begun to dominate the energy mix.

4.2.1.4 The UK has an exceptional amount of potential wind resource, and Scotland itself has 39% of the UK's capacity, and approximately 5% of European and 1% of global installed wind capacity (Scottish Government, 2023[29]). Therefore, it is considered that Scotland has an exceptional resource for an abundance of affordable electricity. Due to this significant volume, it is considered that capitalising on this resource would add a significant amount of energy to the system, therefore increasing the overall resilience and security of Scotland's energy supply.

4.3 Future Energy Demands

4.3.1.1 It is predicted within the NGESO Future Energy Scenarios report, that throughout the UK energy consumption is anticipated to continue to decrease moving forward (NGESO, 2023[28]). By 2050, the anticipated energy demand in the UK will be between 1167 and 1380 TWh (depending on the scenario) compared to the 2022 value of 1763 TWh, resulting in a minimum decrease of 22% (DESNZ, 2023a[31]).

4.3.1.2 However, despite the overall predicted decrease in energy consumption, it is key that there is an increase in electricity consumption (as opposed to solid fuels) in order to decarbonise the energy supply (See Section 3). The increase in electricity consumption needs to increase across all sectors to reduce the dependency on GHG emitting fuels. All of the Future Energy Scenarios considered identify that an increase in electrification is key, with a minimum of 691 TWh coming from electricity in the Falling Short scenario and a maximum of 910 within the Consumer Transformation scenario (Figure 4-1). Compared to the 317 TWh of electricity produced in 2022, this is between a 118% 187% increase (NGESO, 2023[28]).

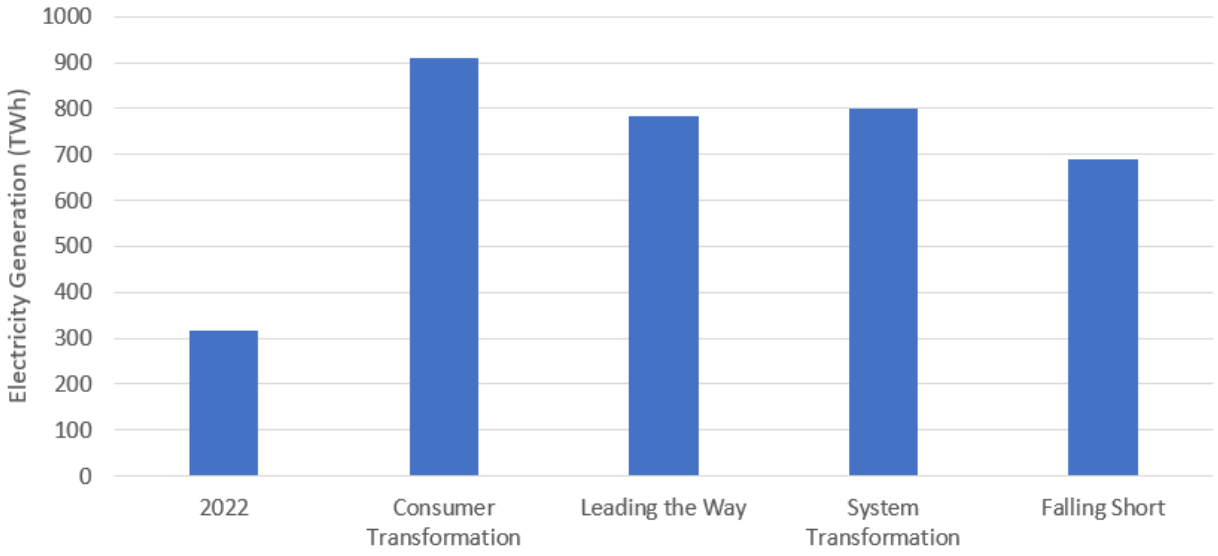

Figure 4-1: Electricity generation required in the UK (adapted from NGESO, 2023[28])

4.4 Future Renewable Energy Production in Scotland

4.4.1.1 Scotland's focus on renewable energy sources (as shown in Section 2) has the potential to increase Scotland's annual generation of electricity beyond its current and predicted usage, with it being anticipated to be more than double by 2030 and more than three times greater by 2045. The CCC state that to accomplish the doubling of supply using low-carbon sources, a total

of around 15 GW of offshore wind will be required in Scotland, and around 75 GW will be required to triple supply by 2045.

4.4.1.2 The Scotwind leasing round, which Caledonia South is a part of, combined has proposed up to 27.6 GW of additional energy capacity, which doubles the operational renewable capacity as of Q1 2023. Figure 4-2 shows the predicted electricity generation capacity of Scotland in time for Net Zero (2045), and the significant expected contribution from renewable energy sources.

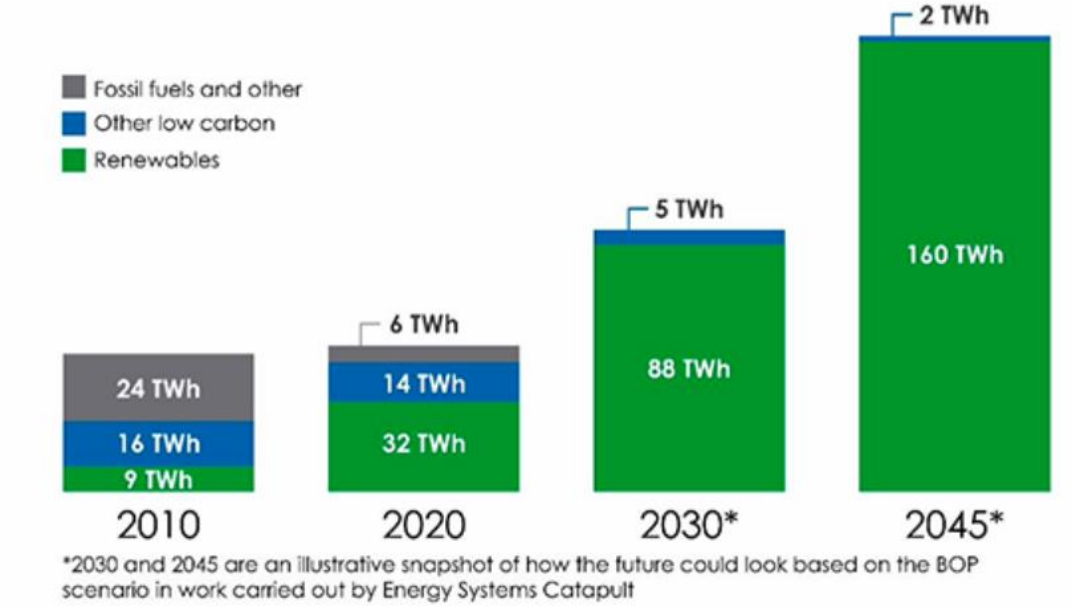

Figure 4-2: Predicted electricity generation capacity in Scotland (Scottish Government, 2023[23]).

4.4.1.3 The NGESO Future Energy Scenarios (NGESO, 2023[28]) present different possible options for how the future energy supply will look for Scotland based on the demand, and any changes in government policies. However, they are not the only metric, and are not completely flawless themselves as they do not factor in consented capacity, only operational. Further, they do not discuss the capacity for delivery of supply from the various sources, as they only consider the functional and operational capacity within Scotland. However, even with those limitations, they provide a good understanding of the potential pathways leading to different outcomes regarding climate change and Net Zero.

4.4.1.4 The Future Energy Scenarios reports have consistently highlighted the need for increased capacity within the UK, and the more reports that are published, the more the need for offshore wind is emphasised. They have consistently reported that the amount of energy fed into the national grid from OWFs is consistently high/stable. This provides a strong evidence base to the reliability of offshore wind going forward, on top of evidencing the high reliability of large-scale offshore wind projects in the long-term.

4.4.1.5 Within the 2023 Future Energy Scenarios report (NGESO, 2023[28]), the UK will reach it's 2050 Net Zero targets in three of the four modelled scenarios, one scenario reaching Net Zero in 2046, and two in 2050. The report considers that moving away from fossil fuels is key to achieving the successful future scenarios, with offshore wind making up 24.6% of the capacity even in the failing scenario (Falling Short), and 29.2% in the most successful scenario (Leading the Way) (Figure 4-3).

4.4.1.6 It is also concluded that the UK's installed electrical generation capacity needs to reach between 156 and 209 GW by 2030 to meet the anticipated demand. Not only does the capacity need to increase, but 70% of it needs to be from the UK's own renewable/low-carbon sources to meet the UK's Net Zero targets. The NSEGO predicts that a further 7-9% will come from low-carbon imported sources, leaving between 9 and 17% of the required energy supply to be from traditional, high-carbon sources.

4.4.1.7 The National Infrastructure Commission also modelled scenarios for future energy capacities, where they estimate that 129 – 237GW of renewable capacity must be in operation by 2050, including 54 – 86GW of offshore wind. These are like that of the Future Energy Scenarios report, as are the Energy System Catapult models stating that 165 – 285GW of capacity will be required in 2050, including 33 – 66GW of offshore wind.

4.4.1.8 Regardless of the scenario and how it has been modelled, there is a significant increase in offshore wind required in the immediate future, with it providing the majority of energy supply not just to Scotland, but to the whole UK by 2045/2050 to meet the Net Zero targets.

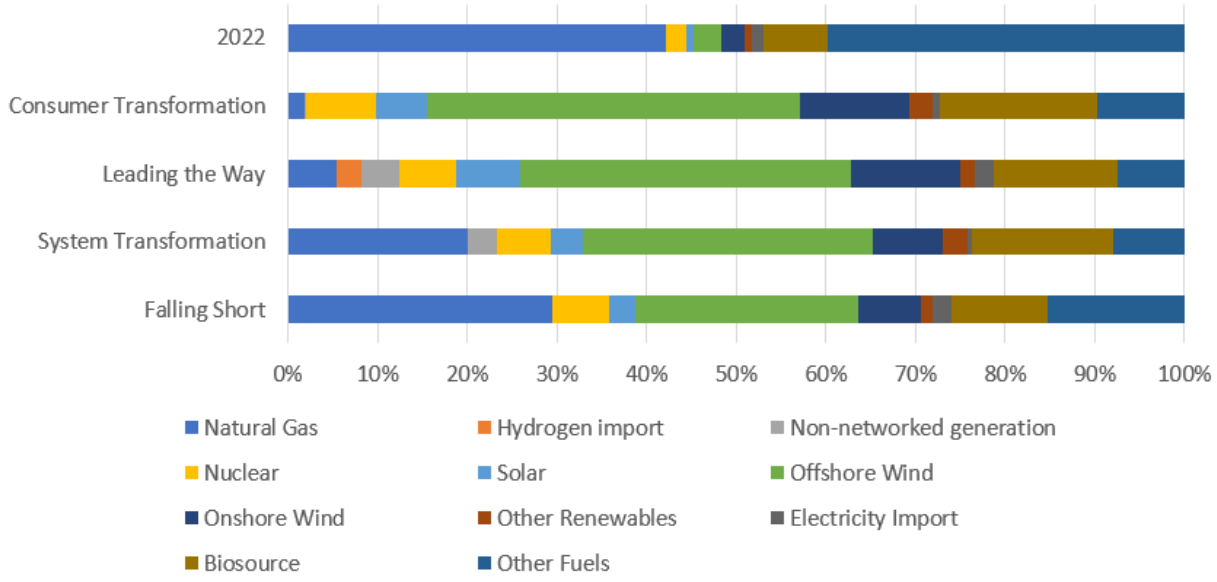

Figure 4-3: Generation sources for UK energy supply (adapted from NGESO, 2023[28]).

4.5 Conclusion

4.5.1.1 There is an urgent need to ensure future energy requirements in Scotland are responsibly sourced and are sufficient to meet future demands and ensure energy security.

4.5.1.2 As set out in this section, renewable energy sources, and in particular offshore wind, are fundamental in meeting this key objective. The section highlights the reliability of energy generated from offshore wind, which provides a solid case in support of large-scale offshore wind projects in the long-term.

4.5.1.3 Additionally, Caledonia South is considered to be highly deliverable as it is located in close proximity to existing OWFs which the Applicant has previously developed, resulting in considerable experience from the Applicant in this region both on and offshore. Furthermore, well established technologies such as bottom-fixed WTG foundations will be used for the majority of the site, which combined with the significant progression of the Caledonia South to date, ensures it's deliverability. The proposed deployment of a percentage of floating WTGs, further ensures that it will make best use of available seabed in generating a significant amount of renewable energy for Scotland's increasing demand more swiftly .than many other ScotWind offshore wind projects.

5 Ensuring Affordability for the Consumer

5.1 Overview

5.1.1.1 The affordability of supply is a key aspect of the BESS[16], especially given the impacts of COVID-19 and Russia's invasion of Ukraine on energy prices. Renewable energy is proven to be a comparatively cheap resource (CarbonBrief, 2022[32]; 2023[33]). As set out within Section 4.2, Scotland has 5% of European and 1% of global installed wind capacity (Scottish Government, 2023b[29]). Therefore, it is considered that Scotland has an exceptional resource for an abundance of affordable electricity.

5.1.1.2 While offshore wind prices have increased recently (partially due to the COVID-19 pandemic and Russia's illegal invasion of Ukraine), it is still considered to be one of the cheapest forms of energy in the UK alongside solar power (CarbonBrief, 2023[33]). This demonstrates an increased need for Caledonia South that even in times of price increases will most likely remain notably cheaper than the alternatives.

5.2 Historical Energy Costs

5.2.1.1 The average cost of energy in the UK has increased significantly since 2013, costing approximately £73.34 per megawatt hour (MWh) in January 2024 compared to £42.96 per MWh in January 2013 (an increase of 70.7%). However, it is worth noting that the recent price is lower than the peak in August 2022, where the price was £363.71 per MWh (an increase of 746.6% from January 2013; Figure 5-1) (Statista Research Department, 2024[34]).

5.2.1.2 During the COVID-19 pandemic, the price of energy reached an all-time low of £24.01 per MWh in April 2020, a 44% decrease from January 2013 (Statista Research Department, 2024[34]). This was due to a mix of a reduction in the need for fossil fuels and falling international gas prices. Furthermore, reduced generation costs meant that approximately £1.3 billion was saved in supply costs over Q2 2020 (Staffell *et al.*, 2020[35]).

5.2.1.3 However, in January 2021 prices began to rise again, reaching £90.94 per MWh, a 112% increase from January 2013. As a COVID-19 lockdown was still in place across the UK at this time it is considered that this increase was due to outages of conventional power plants rather than changes in demand (Matson and Gogna, 2021[36]).

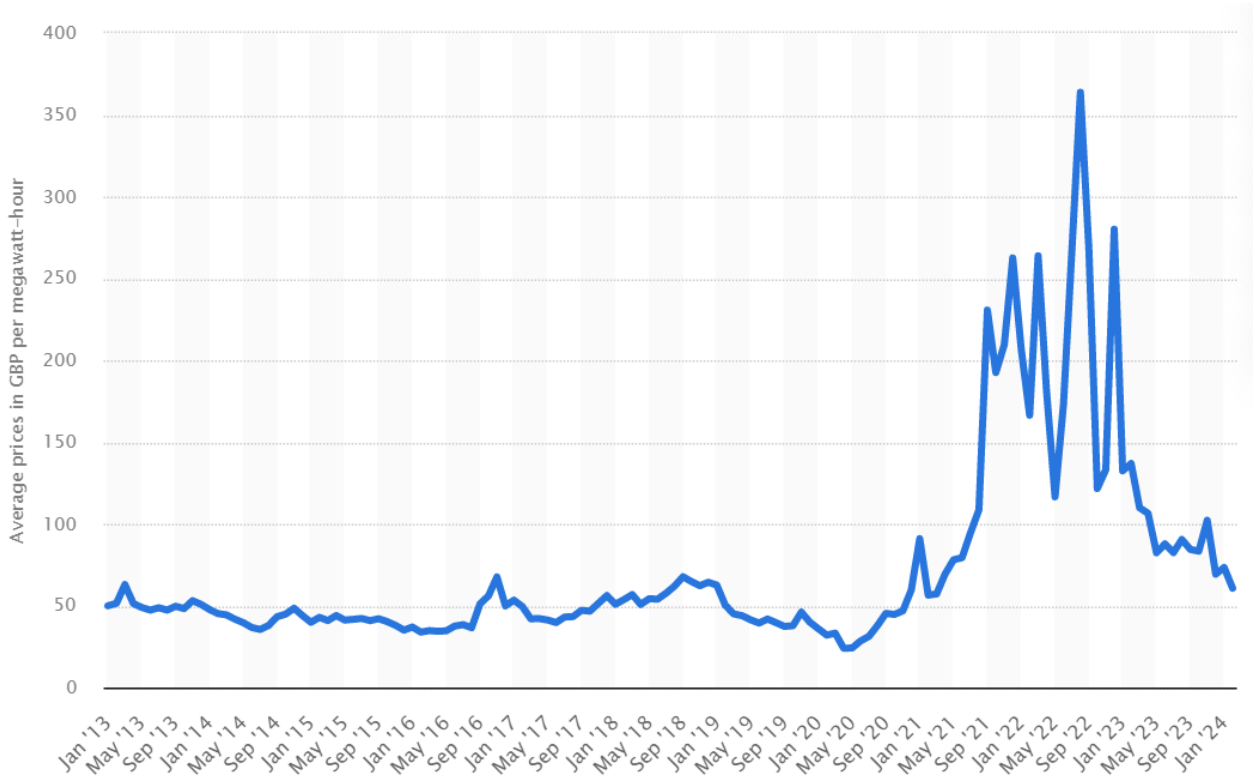

Figure 5-1: Average price of energy per megawatt-hour since January 2013 (Statista Research Department, 2024[34])

5.2.1.4 The large economic recovery in 2021 was responsible for the increasing price throughout 2021, with Russia's invasion of Ukraine causing a dramatic increase in energy prices across all of Europe, not just the UK, eventually reaching the peak in August 2022 as discussed above. Although it is worth nothing the high rates throughout 2022 rather than the August peak in isolation.

5.2.1.5 In 2023, the price began to fall and has resulted in a price of £60.69 per MWh in February 2024. While this is still a rise of 141% since January 2013, the current trend is a decreasing price per MWh for the consumer (Statista Research Department, 2024[34]).

5.3 Floating and Bottom-fixed Turbines

5.3.1.1 As established within Sections 5.1 and 5.2, offshore wind is one of the cheapest available energy sources within the UK. Most commercial wind farms in the UK to date have been using traditional bottom-fixed monopiles; however, the Proposed Development is proposing to use both bottom-fixed and floating WTGs.

5.3.1.2 Floating WTGs are anticipated to start at a higher cost than traditional bottom-fixed monopiles as are new to the commercial market; however, it is anticipated that the price will fall rapidly once commercial operation

begins. This is because projects will be able to learn from bottom-fixed foundation projects and share in a lot of the resource heavy aspects of developments, including a more efficient turbine design from years of development, sharing operation and maintenance resources with existing projects, and utilising the same supply chain and existing skills within the region.

5.3.1.3 The risks are also much better understood for floating OWFs than they were for the beginning of bottom-fixed projects, as the knowledge and skills applied to those projects is transferable to the development of floating projects. Therefore, it is considered that the speed in which the price will fall will be considerably faster than for bottom-fixed foundations, increasing the rate that affordable energy can be supplied.

5.3.1.4 However, it is worth nothing that this comparison is to the beginning of the bottom-fixed foundation offshore wind industry, while in recent years there has been a fall in cost and risk associated with this foundation type. Therefore, it is considered that while the development of floating WTG foundations is important and will result in rapidly falling costs and risks overtime, the bottom-fixed WTGs proposed for the majority of the Proposed Development (Offshore) are still commercially viable and may reduce the overall cost of the Proposed Development.

5.4 Conclusion

5.4.1.1 There is an urgent need to ensure future energy requirements in Scotland are not only responsibly sourced and at sufficient capacity to meet increasing need but are also affordable to consumers.

5.4.1.2 There is a need for a low-cost energy to consumers, especially after the recent price spikes between 2021 and 2023. OWFs have a historic track record of providing cheap energy when compared to other sources, with the continuous improvements in technology (including the introduction of floating WTGs) in leading to greater capacities possible per unit cost.

5.4.1.3 Caledonia South provides a significant amount of electricity generation through established low-cost methods (bottom-fixed foundations) and developing technologies with the potential to become cheaper while also increasing generation (floating foundations). Furthermore, the distance between Caledonia South and the coast will result in a comparatively low cost and overall duration of the construction works, in turn reducing the end cost of electricity to the consumer. Given the stage of Caledonia South and the anticipated construction programme, it is considered that Caledonia South will provide low-cost electricity over a comparatively short-term timescale, therefore supporting the urgent need for affordable electricity.

6 Supporting Local Communities Through the 'Just Transition'

6.1 Overview

6.1.1.1 The Just Transition seeks to centre the interests of those that are most affected by the low-carbon transition, including workers, vulnerable communities, suppliers of goods and services, specifically small and medium-sized enterprises (SMEs), and consumers. This approach strongly advocates the inclusion of these stakeholders in shaping the net zero transition so that no one is left behind (The London School of Economics and Political Science (LSE), 2024[37]).

6.1.1.2 It has been found that the impacts of climate change on people are uneven and so too are the impacts of attempts to mitigate carbon emissions, such as closing fossil fuel plants and expanding renewable energy. Action to enable a just transition tries to combat this inequality to bring about fairer outcomes as the world transitions to net zero carbon emissions, maximising the benefits of climate action and minimising the negative impacts for workers and their communities.

6.1.1.3 The importance of just transition is recognised at the international level through its inclusion in the 2015 Paris Agreement (United Nations Framework Convention on Climate Change, 2016[6]), which refers to:

"The imperatives of a just transition of the workforce and the creation of decent work and quality jobs in accordance with nationally defined development priorities".

6.1.1.4 Further, a declaration on the just transition was made at the 2018 meeting of the Conference of the Parties to the UN Framework Convention on Climate Change (COP24), and countries signed up to a set of just transition principles at the 2021 meeting, COP26. At COP28 in 2023, countries established a work programme on the implementation of just transition pathways through international cooperation.

6.1.1.5 In terms of Scottish Government support, the draft Energy Strategy and Just Transition Plan sets out a clear vision to capitalise on the opportunities that a net zero energy system offers the industry, the climate and local communities/ economies through just transition.

6.2 Communities in Northeast Scotland

6.2.1.1 In 2023 the Scottish Government committed £500 million to a new 10-year Just Transition Fund to accelerate the energy transition in Aberdeen and the Northeast and establish the region as a world-leader in the transition to a net zero economy.

6.2.1.2 Delivery is ongoing of projects from year one of the Just Transition Fund, backed by £50 million of multi-year capital grant funding, including a skills passport for offshore energy workers, work to develop supply chain pathways, promotion of emerging technologies, and investment in community projects like ecovillages and local climate assemblies (Scottish Government, 2023c[38]).

6.2.1.3 In 2023, former First Minister Humza Yousaf said:

"*Delivering on our climate obligations is an absolute priority for this Government – but so too is our unwavering commitment to ensuring the journey to net zero is fair and just for everyone*".

"*The Northeast has long been known as the oil and gas capital of Europe. It can now become the net zero capital of the world*".

"*The Just Transition Fund for the Northeast and Moray is already helping communities seize these opportunities. By using a portion of the Fund to support the Scottish National Investment Bank, we can leverage further investment in the region to ensure a fair and just transition for the energy sector, and for the people of Scotland*" (Scottish Government, 2023d[39]).

6.2.1.4 Crucial to the future of this area is having enough jobs to sustain employment levels, and that workers have the skills to take up those roles (The Scottish Parliament, 2023e[40]).

6.3 Conclusion

6.3.1.1 The established need and policy/ financial support for offshore wind will accelerate the just transition through providing direct and indirect socio-economic benefits to local communities, particularly those in Northeast Scotland.

6.3.1.2 The urgent requirement for local supply chain development and infrastructure improvements, including expansion of ports, to support offshore renewable energy generation will provide the primary basis for local community benefits through the provision of jobs, upskilling opportunities and further investment in local communities.

6.3.1.3 Given the stage of Caledonia South and the anticipated construction programme, it is considered that Caledonia South will help pave the way toward the objective of just transition for communities in Northeast Scotland.

7 Needs Case Conclusions

7.1.1.1 This Statement of Need presents evidence to demonstrate that OWFs are of great importance to the Scottish Government with respect to decarbonisation, meeting future energy demand, ensuring energy security and affordability to the consumer, and ensuring a just transition and benefits for local communities.

7.1.1.2 As stated by the former Cabinet Secretary for Net Zero, Energy and Transport Michael Matheson in his introduction of the Energy Strategy and Just Transition Plan[23], in the Scottish Parliament (Michael Matheson, January 2023 (Scottish Government, 2023f [41]):

"This is a time of unprecedented uncertainty in global and national energy markets. High energy prices are impacting people, communities, and businesses across Scotland. These uncertainties bring even more impetus to the need to deliver a decarbonised, affordable and secure energy system."

7.1.1.3 The need for offshore wind in particular, is a key focus for UK and Scottish Governments. This was highlighted by the Michael Matheson in the Scottish Parliament in January 2023 (Scottish Government, 2023f[41]):

"Wind power is one of the lowest cost forms of electricity and the Scottish Government is clear that this is where we should focus - reducing costs in the long term and addressing vulnerability to future energy cost crises".

7.1.1.4 In support of this statement the Scottish Government, in October 2023, announced an investment of £500 million for the Scottish offshore wind supply chain (Scottish Renewables, 2024[27]). This Scottish Government pledge was further emphasised by the Scottish First Minister in his address to delegates at the Scottish Renewables Offshore Wind conference in January 2024 (Scottish Renewables, 2024[27]).

7.1.1.5 The key benefits of Caledonia South specifically include:

- The proposed use of both existing bottom-fixed foundations which are proven commercially viable and technologically feasibleas well as floating foundations (as part of Caledonia South), which are widely considered to be a key aspect in the future energy supply as they allow for the expansion of developments into deeper waters and the maximization of seabed usage;
- The Caledonia South will potentially use floating WTGs to maximise the capacity available within the Plan Option area allocated, and therefore aiming to maximise its contribution to mitigating climate change;
- The Caledonia South is in close proximity to the shoreline, enabling the use of well understood and developed technologies (e.g., bottom-fixed WTGs and HVAC methodologies), therefore keeping the cost of the development low and reducing the overall cost of electricity for the consumer;

- This maximization of the developable area capitalises on the significant volume of wind resource in Scotland, which is considered to be technically feasible for development, providing benefits to both the Scottish decarbonisation targets, and the end consumer by keeping the price low;
- Caledonia South anticipates to have a significant quantity of electricity generated in time for the Scottish 2045 Net Zero target, while also being able to provide an imminent mitigation effect on climate change. Caledonia South, therefore, has the potential to support the Offshore Wind Policy Statement target of 11GW by 2030 (Scottish Government, 2020b[14]).
- The significant volume of power generated by Caledonia South will feed into the National Electricity Transmission System and help to balance the energy supply and demand, therefore providing additional resilience to major fluctuations in supply and demand. This helps to keep the cost down for the consumer by reducing the end price.

7.1.1.6 With this in mind, Caledonia South, with a renewable energy generating capacity of up to 1.1GW and potential for early deployment (late 2020's/early 2030's), will not only benefit Scotland, but the wider UK, in urgently mitigating the effects of climate change and helping to achieve a significant increase in a renewable, affordable and secure energy supply to meet future demands. This urgent need for offshore wind deployment in Scotland is reflected in recent decisions by Scottish Ministers in relation to the GreenVolt OWF where, in relation to Habitats Regulations Appraisal considerations, the Scottish Ministers were satisfied that environmental measures had been mitigated where possible, and through the provision of compensatory measures, the UK site network was protected with no concerns over impacts to the designated sites from the development either alone or in-combination with other plans and projects.

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