



Strategy & Governance



Infrastructure

NTR is a Signatory of the



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# 02 Introduction

The Principles for Responsible Investment ("PRI") define "Responsible investment as an approach to investing that aims to incorporate environmental, social and governance (ESG) factors into investment decisions, to better manage risk and generate sustainable, long-term returns."<sup>1</sup> It is responsible investment driven by financial implications and its main purpose is to decrease investor risk and improve risk adjusted returns.

ESG continues to grow in acceptance in global markets with ESG considerations being driven out of the niche of self-identified responsible investors into the mainstream investor market. At NTR we support this growth through both our in-house program and an active involvement in promoting ESG. As you will see in this report, 2019-2020 saw many of the ESG senior team speak at international conventions promoting ESG. Internally, we continue to implement our ESG policy (https://www.ntrplc. com/images/uploads/files/ESG\_Policy\_-\_December\_2018.pdf), a policy that was re-endorsed by the NTR plc Board in March 2020 and as a long-term investor, ESG continues to be at the heart of how NTR does business.

NTR operates at the highest ethical standards and has a clearly defined risk culture. We continue to incorporate ESG best practice and work to ensure a minimum risk adjusted rate of return is achieved.

COVID-19 has proved to be a global social and economic challenge unlike anything the world has witnessed since the second world war. NTR responded quickly to minimise the impact of COVID-19 on our investors, our employees and the communities in which we operate. As an energy generator, the continuing generation of renewable electricity throughout the COVID-19 pandemic remains a critical service within the countries in which we operate. NTR continues to provide this service while ensuring the welfare of our employees and stakeholders. NTR has implemented many employee health and welfare strategies for its employees, including remote working and NTR has brought forward the release of community funds from the various assets it manages to provide COVID-19 support into the communities in which it operates. Under this move, over €85,000 was earmarked for early release to support COVID response and recovery in local communities. In a further move, NTR donated €10,000 to help an Irish vulnerable children's' charity whose incomes were severely impacted with the advent of COVID-19

Consistent with last year, this report provides a transparent report of NTR performance for 2019-2020 detailing over 30 ESG metrics and providing real-life example case studies.

In August 2020 we were pleased to receive our second UNPRI assessment for the year 2019-2020 in which we received another "A" rating for Strategy and Governance and an improved "A+" rating for Infrastructure compared to our peers.

We wish you and your families every good health in these challenging times.



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**Rosheen McGuckian** CEO NTR plc



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**Tom Roche** Chairman NTR plc

### 04 NTR Welcomes Helen Kirkpatrick MBE to the Board of NTR plc

In January 2020 NTR plc was pleased to announce the appointment of Ms Helen Kirkpatrick as non-executive director with effect from 1 January 2020, bringing female representation on the board to 40%. Helen also joined both the audit and remuneration committees of the organisation.

Helen currently sits on the board of several private and not-for-profit companies including agri-food manufacturer Dale Farm Co-operative Ltd, software solutions provider Neueda Ltd and the Irish Football Association. Helen is also a member of the audit committee of Queen's University Belfast.

Helen formerly was on the boards of Kingspan Group plc and UTV Media/Wireless Group plc and was also a Non-Executive director of the International Fund for Ireland.

Helen has a B.A. (Hons) Business Studies from Ulster University, is a fellow of the Institute of Chartered Accountants in Ireland and is a member of the Chartered Institute of Marketing. She was awarded an MBE for services to the community in Northern Ireland. Commenting on the appointment Mr Tom Roche, Chairman of NTR plc said;

"I am delighted to welcome Helen to the Board of NTR, which will benefit greatly from her extensive experience as a Non-Executive Director of numerous international businesses across various sectors."



### **Our Funds**

NTR (www.ntrplc.com) is a renewable energy investment management group that acquires, constructs and manages assets on behalf of itself and third-party investors. NTR currently has €500 million of equity under management spanning two funds:

- NTR Wind 1 LP, an onshore wind fund with assets in Ireland and the UK and;
- NTR Renewable Energy Income Fund II, an onshore wind, solar and energy storage fund with assets in Ireland, the UK and continental Europe.

NTR brings sectoral experience, financing capability and operational management to its clean energy investments. Key aspects of our funds are:

- Onshore wind, solar and energy storage projects located in Ireland, UK and continental Europe.
- Investments are typically a combination of ready to build and operational assets.
- Assessments, acquisitions, construction and asset management functions are carried out by a combination of our internal experts (investment, financial and technical), together with the use of external advisors.
- Our funds comprise a diversification of technology and geography.
- All investments are independently evaluated by our Investment Advisory Committee who advise on each investment submitted for consideration.
- Each Fund's board comprises a combination of senior members of the NTR team and independent directors with extensive fund management and renewable energy expertise.
- All investment opportunities undergo ESG evaluation including assessment against an ESG exclusions checklist as part of their evaluation.
- All investments comply with relevant statutory planning, environmental, labour and fiduciary requirements and best practice.



Saint-Pierre-de-Juillers, France

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### NTR Wind 1 LP Fund

NTR Wind 1 LP Fund, the first NTR investment vehicle for third party investors, invested just over €219 million in onshore wind projects in Ireland and the United Kingdom. With the inclusion of project debt finance, some €600 million of capital has now been invested. The operating assets in this fund produced enough energy to power 131,791 homes in the 2019-20 period.

The remaining projects in this fund completed construction and entered operation in April 2020. This fund is now fully deployed.

Project	Туре	Size (MW)	Location	Country	Status	MWhr 2019/20	CO₂ Offset 2019/20 (Tonnes)	# Houses Powered
Aeolus / Bunnyconnellan	Wind Farm	28.0	Мауо	Ireland	Operational	n/a	n/a	n/a
Airies	Wind Farm	35.0	Dunfries & Galloway	Scotland	Operational	73,145	16,458	19,345
Altaveedan	Wind Farm	18.0	Antrim	Northern Ireland	Operational	55,644	12,520	14,717
Ardoch and Over Enoch	Wind Farm	11.5	East Renfrewshire	Scotland	Operational	31,841	7,164	8,421
Boolard	Wind Farm	4.5	Cork	Ireland	Operational	n/a	n/a	n/a
Castlecraig	Wind Farm	25.0	Tyrone	Northern Ireland	Operational	61,233	13,777	6,195
Coollegrean	Wind Farm	17.0	Kerry	Ireland	Operational	49,876	16,210	10,754
Ora More	Wind Farm	15.0	Fermanagh	Northern Ireland	Operational	38,646	8,695	0,221
Quixwood Moor	Wind Farm	24.0	East Berwickshire	Scotland	Operational	73,176	16,465	19,354
Rathnacally	Wind Farm	4.5	Cork	Ireland	Operational	18,306	5,949	3,947
Single Turbines	Wind Farm	3.8	Multiple Sites	Northern Ireland	Operational	6,728	1,514	1,779
Teevurcher	Wind Farm	9.0	Meath	Ireland	Operational	31,673	10,294	6,829
Twin Rivers	Wind Farm	29.0	Yorkshire	England	Operational	76,485	17,209	20,229
Total		224.2				516,752	126,255	131,791

#### The assets in this fund include the following:

Figure 1 - NTR Wind 1 LP Fund Assets

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### NTR Renewable Energy Income Fund II ("Fund 2")

In 2018, NTR launched its second €306 million fund which invests in on shore wind, solar and energy storage projects in Europe. With the inclusion of project debt finance, some €1.0 billion of capital is expected to be invested. The operating assets in

this fund in the period 2019-2020 produced enough energy to power 60,953 homes.

This fund's investment period is underway.

Project	Туре	Size (MW)	Location	Country	Status	MWhr 2019/20	CO₂ Offset 2019/20 (Tonnes)	# Houses Powered
Apollo	Solar Farms	38.4	Multiple Sites	England	Operational	39,417	8,850	10,403
Ballycumber	Wind Farm	19.2	Wicklow	Ireland	Operational	22,038	7,162	4,752
Bricqueville	Wind Farm	8.8	Normandy	France	Operational	21,086	3,970	4,436
Norra-Vedbo	Wind Farm	100.0	Jönköping and Aneby	Sweden	In Development	n/a	n/a	n/a
Saint-Pierre- de-Juillers	Wind Farm	10.2	Nouvelle- Aquitaine	France	Operational	26,799	5,092	5,690
Skutskär	Wind Farm	10.0	Skutskär	Sweden	Operational	32,589	1,757	4,196
Svalskulla	Wind Farm	15.0	Ostrobothnia	Finland	Operational	49,297	2,659	6,353
Trattberget	Wind Farm	69.9	Örnsköldsvik	Sweden	Operational	195,171	10,517	25,123
Total		271.5				386,397	40,007	60,953

### The assets in this fund include the following:

Figure 1 - NTR Wind 1 LP Fund Assets



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### 14 NTR's Investment Policy is Aligned to Internationally Accepted Principles



Figure 3 - The UN supported Principles of Responsible Investment (PRI) & How they are Adopted by NTR

**PRI Principle** 

### **How NTR Adopts This Principle** • ESG items are key items considered by NTR's investment team and addressed in investment papers presented to the independent Investment Advisory Committee for review and to each of NTR's Funds' Boards for approval • Investments made by NTR funds are either majority owned or fully owned by each fund. NTR acts as Asset Manager on behalf of each fund, enabling active ownership and incorporating ESG issues into ownership, policies and practice. • ESG issues are adopted into our procedures. • ESG issues are monitored monthly by NTR operations and reported upon guarterly and annually to our funds. • ESG topics are items investigated and reported upon in all due diligence reporting of acquisitions/investments. • ESG topics are monitored monthly by NTR at monthly operations meetings and actively reported to each fund on a quarterly basis. • NTR is an active member of PRI and SIF Ireland promoting ESG. NTR makes best endeavours to respond to ESG requirements of our investors. • NTR is an active member of the PRI, attending workshops, conferences, webinars and completing annual reports. • NTR is looking to encourage ESG best practices from key supply chain suppliers, consultants and advisors, primarily through self-compliance statements and Tier 1 supply-chain audits. • NTR reports on its ESG activities internally (monthly) and to its investors (quarterly). NTR also reports on certain ESG matters to its debt providers on an exceptional basis. • PRI Signatories are required to report on their responsible investment activities annually. This ensures o Accountability of the PRI and its signatories; o A standardised transparency tool for signatories' reporting; o That signatories receive feedback from which to learn and develop.

### **16** NTR's Investment Policy is Aligned to Internationally Accepted Principles continued

#### **UN Sustainable Development Goals (SDGs)**

In 2015, world leaders gathered at the UN to adopt 17 Sustainable Development Goals to achieve several objectives by 2030: end poverty, promote prosperity and well-being for all, and protect the planet. The UN Sustainable Development Goals have been adapted by 193 countries. NTR's business and investment approach helps to address the following UN Sustainable Development Goals:

### **UN SDG How NTR Adopts This Principle** GOOD HEALTH And Well-Being 3 • NTR's primary contribution to societal good health and well-being is through the generation of clean energy. • Good health and well-being of its employees is valued by NTR. Together with a positive working environment and active safety management, NTR supports a healthy lifestyle amongst its employees. QUALITY Education • NTR provides continuous learning supports for its employees. • The NTR Foundation supports third level education and research programs in the areas of climate change and resource sustainability. GENDER 5 • NTR aims for a balanced gender split in all levels of its organisation. • NTR does not distinguish remuneration by gender. AFFORDARI F AND • As a developer and operator of renewable energy including on-shore wind and solar, NTR's strategy is at the heart of affordable and clean energy. 8 DECENT WORK AND ECONOMIC GROWTH • NTR provides a comfortable and flexible working environment for its employees. • NTR regularly benchmarks its pay scales to ensure it is operating in line with the relevant job positions. • NTR engages with its Tier 1 suppliers to ensure they are not participating in any activities that would cause them to be excluded under unacceptable work practices.

\* The UN Sustainable Development Principles 1 (No Poverty), 2 (Zero Hunger), 6 (Clean Water & Sanitation), 16 (Peace, Justice & Strong Institutions) and 17 (Partnership for the Goals) have all been omitted as NTR's business and investment strategy does not impact these goals directly.

UN SDG	How NTR Adopts This Principle
9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	<ul> <li>As a developer and operator of renewable energy at a competitive price, NTR's strategy is at the heart of industry, innovation and infrastructure.</li> <li>NTR is not an early adaptor of innovation typically due to the associated risks of first-move-disadvantage. However, NTR moves quickly to adapt cost-effective proven innovations.</li> </ul>
10 REDUCED INEQUALITIES	<ul> <li>NTR offers good quality incomes ensuring that all its employees have a good standard of living.</li> <li>NTR offers equal opportunity to its employees regardless of sex, race, religion or ethnicity.</li> <li>NTR promotes the internationalisation of its workforce.</li> <li>NTR is seeking confirmation of similar values in its Tier 1 supply chain providers.</li> </ul>
11 SUSTAINABLE CITIES	<ul> <li>NTR's strategy of developing renewable power supports sustainable development of urban centres.</li> <li>NTR supports the rural communities in which it develops its renewable projects, particularly through the provision of community benefit schemes.</li> </ul>
12 RESPONSIBLE CONSUMPTION AND PRODUCTION	<ul> <li>Development of renewable energy projects is a core aspect of responsible consumption and production by using freely available, undiminishing natural resources to generate renewable energy.</li> <li>In the construction, operation and decommissioning of its projects, NTR optimises its material requirements, minimises its waste generated and maximises the recycling of waste.</li> </ul>
13 CLIMATE	<ul> <li>NTR uses the natural and freely available resources of wind and solar generating renewable energy and offsetting carbon emissions associated with traditional, fossil fuel-based energy generation all of which is at the heart of addressing climate action.</li> <li>NTR, through the NTR Foundation, supports programmes that address climate change and resource sustainability. The NTR Foundation is an independent philanthropic organisation funded by NTR. Its mission is to address the challenges of climate change and resource sustainability by providing targeted financial support to select projects, research and organisations.</li> <li>See http://www.ntr-foundation.org/</li> </ul>
14 LIFE BELOW WATER	• The SDG's aim of Life Below Water is to sustainably manage and protect marine and coastal ecosystems from pollution. NTR supports this aim through the careful management of rivers and waterways located close to its renewable energy generation sites. It does this primarily using independent hydrologists, ecologists and environmentalists who monitor and report the water's condition throughout a project's lifecycle.
15 UFE on Land	<ul> <li>The SDGs aim of Life on Land is to conserve and restore the use of terrestrial ecosystems such as forests, wetlands, drylands and mountains.</li> <li>NTR supports this aim through the careful management of lands located near to its renewable energy generation sites. It does this primarily using independent ecologists and environmentalists who monitor and report the land's condition throughout a project's lifecycle.</li> <li>Included in this program of work is the protection of natural habitat during construction and the restoration of lands and implementation of biodiversity and landscape plans post construction.</li> </ul>

### **18 NTR's Investment Policy is Aligned to Internationally Accepted Principles** continued



The 10 Principles of the UN Global Compact The United Nations Global Compact is a United Nations initiative to encourage

businesses worldwide to adopt sustainable and socially responsible policies, and to report on their implementation. The UN Global Compact is a principle-based framework for businesses, stating ten principles in the areas of human rights, labour, the environment and anti-corruption. These principles are derived from the Universal Declaration of Human Rights, the International Labour Organisation's Declaration of Fundamental Principles and Rights at Work, the Rio Declaration on Environment and Development, and the UN Convention Against Corruption. NTR is a supporter of these 10 principles and encourages its supply chain to do likewise:

#### **UN Global Compact Principles**

Principle 1	Businesses should support and respect the protection of internationally proclaimed human rights.
Principle 2	Businesses should make sure they are not complicit in human rights abuses.
Principle 3	Businesses should uphold the freedom of association and the effective recognition of the right to collective bargaining.
Principle 4	Businesses should uphold the elimination of forced and compulsory labour.
Principle 5	Businesses should uphold the effective abolition of child labour.
Principle 6	Businesses should uphold the elimination of discrimination in respect of employment and occupation.
Principle 7	Businesses should support a precautionary approach to environmental challenges.
Principle 8	Businesses should undertake initiatives to promote greater environmental responsibility.
Principle 9	Businesses should encourage the development and diffusion of environmentally friendly technologies.
Principle 10	Businesses should work against corruption in all its forms, including extortion and bribery.

### Key ESG Activities This Year

#	Period	Activity
1	Apr 2019	ESG objectives incorporated into each employee's annual objectives, assessment and bonus award
2	Apr 2019 – Mar 2020	ESG is reported in each quarterly report for the period April 2019 to March 2020
3	July 2019	NTR publishes its ESG Annual Report 2019
4	July 2019	NTR submits its ESG annual reports to UN Global Compact and SIF Ireland
5	Oct 2019	NTR hold all-employee 'Mindfulness Away Day' to highlight employee health awareness
6	Nov 2019	NTR attends International Climate Finance Week in Dublin promoting climate action and ESG and participates in ESG expert panels
7	Feb 2020	NTR discuss ESG policy and objectives as part of all-employee away day
8	Feb 2020	NTR stops all unnecessary international travel in response to COVID-19 outbreaks in China and continental Europe
10	Mar 2020	All employees commence working from home in response to the COVID 19 outbreak. Community funds are diverted to COVID-19 response and recovery.
11	Mar 2020	NTR funds have zero ESG reportable incidents for the period April 2019 to March 2020
12	Mar 2020	NTR submits it UNPRI Annual Report for 2019-2020
13	Mar 2020	NTR plc Board re-indorses the NTR ESG Policy. All employees re-read and re-signed up to this policy
14	Apr 2019 – Mar 2020	NTR senior executives attend many national and international events speaking at and supporting climate change, sustainability and ESG awareness.
15	Jun 2020	ESG is reported in NTR's Fund 1 and Fund 2 Annual Reports
16	August 2020	NTR Produces its 2020 ESG Annual Report

# 20 NTR's Exclusions Checklist

### **Exclusion Checklist**

All potential investments in NTR funds are screened against our Exclusion's Checklist as part of the NTR investment due diligence process.

#### NTR ESG Screening / Exclusion Checklist

0 = no presence; 1 - 2 = low risk; 3 - 4 = medium + risk and requires mitigation; <math>5 = automatically excluded

ESG Factor	0–5	Comment (including mitigation)
Does the project have a significant impact on soil and if so, can it be mitigated?		
Does the project have significant impact on water and if so, can it be mitigated?		
Is there evidence of extensive hazardous waste?		
Is there evidence of extensive emissions?		
Does the project involve significant degradation of critical habitats that cannot be mitigated?		
Does the project have a material impact on a critically endangered species that cannot be mitigated?		
Does the project have a material impact on significant archaeological artefacts?		
Does the project have a material adverse effect on the economic well-being of the immediate community in which it will be located?		

ESG Factor	0-5	Comment (including mitigation)
Does the project have a material adverse effect on the health of the immediate community in which it will be located?		
Does the project have a material adverse effect on the safety of the immediate community in which it will be located?		
In achieving its planning, does the project or has the project inadequately engaged with those materially affected?		
Are there material risks of forced labour or child labour being used in the project?		
Are there material risks of forced labour or child labour being used in the supply chain?		
<ul> <li>Does the project involve supply chain companies that are:</li> <li>involved in the manufacture of landmines?</li> <li>involved in the manufacture of cluster bombs?</li> <li>involved in the manufacture of chemical weapons?</li> <li>involved in the manufacture of biological weapons?</li> <li>involved in the manufacture of nuclear weapons made in violation of the Nuclear Non-Proliferation Treaty?</li> </ul>		
Is the project tax compliant?		
<ul><li>Are there reasons to be concerned about the vendor and its previous actions</li><li>from a bribery perspective?</li><li>From an anti-money laundering perspective?</li></ul>		

Figure 7 - NTR's Exclusion Checklist



Skutskär Wind Farm, Sweden

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### 24 The Task Force on Climate Related Financial Disclosures (TCFD)

In 2015 the G20 Finance Ministers and Central Bank Governors asked the Financial Stability Board (FSB) to review how the financial sector can take account of climate-related issues.

The FSB established the Task Force on Climate-related Financial Disclosures (TCFD) in December 2015 to develop a set of voluntary consistent disclosure recommendations for use by companies in providing information to investors, lenders and insurance underwriters about their climaterelated risks. Specifically, the FSB sought recommendations for more effective climate-related disclosure that: could "promote more informed investment, credit, and insurance underwriting decisions" which in turn, "would enable stakeholders to understand better the concentrations of carbon-related assets in the financial sector and the financial system's exposures to climate-related risks."

The TCFD issued its final report on Recommendations of the Task Force on Climate-related Financial Disclosures in June 2017. Pages 10 and 11 of this report cite examples of climate-related risks and potential financial impacts. NTR has assessed its funds' positions against these risks. These assessments are summarised below:

### TRANSITION RISKS - Policy & Legal

- **Increased pricing of greenhouse gases** Does not negatively impact NTR investments which are specifically in renewable energy (on-shore wind and solar) that have zero emissions during operation. This may, in fact, encourage improvement in pricing for our sector.
- Enhanced emissions reporting obligations Our 100% renewable energy portfolios have zero emissions and so enhanced reporting obligations do not apply. However, NTR does report the CO<sub>2</sub> emissions displaced (or avoided) by our production of 100% renewable energy.
- Mandates on and regulation of existing products and services The renewable energy sector is mandated to grow to address climate change challenges in all the countries in which NTR's funds are deployed. An EU-wide reduction of 40% greenhouse gas emissions by 2030 has already been agreed by Member States. The EU, along with several other Member States, have set out ambitions to reduce greenhouse gas emissions from 80% to 95% by 2050, compared with 1990 levels. An example of renewable electricity mandates is that of Ireland which has a 70% renewable electricity target by 2030 from its present 2020 performance of 32% renewable electricity. Similar targets apply across all the countries in which NTR deploys its funds under management.
- **Exposure to litigation** –Climate change litigation risk that our 100% renewables portfolios are exposed to are most likely limited to planning and environmental nuisance. NTR typically acquires projects post planning consent award and conditional on completing a planning technical and legal due diligence. Any nuisance factors are addressed throughout all stages of our investments.
- Increased operating costs (e.g. higher compliance, insurance costs) Compliance relative to
  emissions does not apply as our projects are 100% renewable energy projects. Cost of compliance
  is typically related to regulation, tax / fiduciary compliance, rather than climate-related risks.
  NTR tenders for insurance costs on a regular basis. Insurance as a percentage of operating costs
  is a relatively low cost which is evaluated as part of any due diligence prior to acquisition and
  monitored annually once the asset becomes operational. NTR incorporates an operation cost
  contingency in all its budgets.
- Write-Offs, asset Impairment and early retiring of existing assets due to policy changes. As NTR assets are 100% renewable energy assets, the risk of enforced early retirement due to policy shift on climate change is low. On the contrary, NTR actively works to extend the life of its assets see case study later in this report.
- Alteration/elimination of revenue support schemes e.g. ROCs, FIT or Feed-In-Premiums. NTR's fund's assets are operating in countries with very stable climate change policies and support schemes that have been in place for many years and are not expected to alter during the life of the projects. NTR also diversifies its portfolios across jurisdictions to further minimise this risk.

### **TRANSITION RISKS - Technology**

- Substitution of existing products. NTR invests in renewable energy technologies (wind and solar) that are leading the way in reducing the levelized cost of energy. Once constructed, our renewable energy assets are typically tied into long term (15-20 year) power purchase agreements, reducing the risk of being substituted by alternative technologies. Our renewable energy assets have the benefit of an ongoing free energy source (wind or sun). NTR also has the capacity to invest in energy storage and is monitoring the extent to which long-term viable revenues are possible, due to the very real risk of technology substitution of this early stage technology in the next number of years.
- **Unsuccessful investment in new technologies** –NTR only uses proven technologies in its renewable energy investments.

#### **TRANSITION RISKS - Market**

- **Changing customer behaviour** There is a risk of reducing demands for energy as energy efficiency initiatives proliferate. Overall, this is expected to be offset by growth in the use of electricity for transport, datacentres and heating. In addition, there is an growing demand for cost-efficient renewable energy, providing an opportunity for investors in lower cost onshore wind and solar renewable energy.
- Increased cost of raw materials The principal materials costs apply during the construction
  phase of a project and are priced into the investment model at the time of investment (e.g.
  aluminium, steel, copper for wind turbines, silicon wafers for solar PV, concrete for wind turbine
  foundations, lithium-ion for battery storage). Increased costs of raw material thereafter apply only
  to spare parts. In this regard, NTR typically agrees long term O&M contracts with the OEM that
  include replacement by the OEM of critical spare parts at agreed prices prices that are set at
  the time of initial investment. NTR's insurance also addresses spares availability and replacement.
- Abrupt and unexpected energy cost NTR's renewable energy assets produce rather than consume energy and as such revenues are exposed to fluctuations in the market price for energy rather than costs. NTR's renewable energy projects avail of either a subsidy or are substantially contracted with long term power purchase agreements to protect against abrupt and unexpected energy price variations. Any increase in power prices provides an opportunity to our funds. Modelling of long-term forecasts of energy prices is carried out quarterly using independent recognised international experts in this field.

#### **TRANSITION RISKS - Reputation**

- Stigmatisation of the sector –The principal stakeholder in this area is the community within which
  we locate our projects. NTR invests considerable efforts in its community engagement, including
  the provision of annual community funds, to ensure an understanding of and acceptance of these
  renewable energy projects. The transition from fossil powered conventional energy to renewable
  energy is looked upon favourably by wider society.
- **Reputation as a good place to work** As an investor in renewable energy, NTR's reputation as a good place to work from a climate risk perspective is actually enhanced as is our ability to attract and retain top talent who wish to use their expertise to address climate change. NTR encourages a positive workplace with opportunities for personal development, benchmarks its employees and offers bonus and long-term incentive plans to ensure key employee retention. NTR monitors and can demonstrate a low staff turnover indicating employee satisfaction within the workplace.
- **Reduction in capital availability** Due to its long history and positive reputation, NTR has relationships with many funds and major banks ensuring easy availability to capital. As our funds are invested 100% in proven renewable energy technologies, they readily attract investment capital seeking ESG opportunities. Asset backed lending or investment into renewable energy assets is perceived as a safe haven for capital during illiquid times, as was experienced during the global financial crisis and indeed the 2020 COVID-19 epidemic.

### **PHYSICAL RISKS - Acute**

- Increased severity of extreme weather rising sea-levels/flood risk: As on-shore wind turbines are typically located on high-ground, flood risk does not normally apply. Recent extreme precipitation events have solidified the need to ensure robust damp proofing and flooding construction techniques for infrastructure such as sub-stations. Flood risk assessments based on 200-year occurrences are carried out on solar projects and used to inform the investment due-diligence. Flood risk has been carried out in specific cases on wind farms, where there is a possibility of flooding. Adequate drainage is also assessed and built into construction plans.
- Increased severity of extreme weather high wind: Onshore wind turbines are designed to operate in high wind conditions, maximising power output. All wind turbines in our funds' portfolios are designed to apply safe mode should the wind speed exceed c. 20m/s (Beaufort Force 9 Strong/severe gale conditions). The wind farms are designed to operate in the most severe wind conditions anticipated at a site. Our solar farms are constructed taking into consideration the ground conditions of our sites to ensure projects are well anchored. All our assets carry physical, public liability and business interruption insurance.
- Increased severity of extreme weather lightning: Turbines by their nature are extremely high structures that can provide conductivity to ground for lighting. Turbines are designed to do this while not damaging the turbine itself. All main components including the nacelle, blades, controller and tower have extensive lighting protection integrated into their design. Detailed electrical design is completed prior to construction and this includes earthing design to direct the lighting to ground. Additional ground earthing works are carried out in ground conditions of high resistivity.
- Increased severity of extreme weather hailstorms: Solar Panels can be damaged by a heavy hailstorm, but it is not statistically probable. Manufacturers use quality tests that simulate the impact of hailstones to PV modules in order to ensure that solar panels will be able to resist hailstorms for the lifetime of the asset.
- Increased severity of extreme weather freezing conditions: Some of NTR's wind portfolio is situated in the Nordic regions where icing can be a factor. De-icing technology is readily available and NTR factors in the cost of de-icing in its investment projections.
- Increased severity of extreme weather extreme temperatures: NTR only considers solar technology in areas of moderate to high temperature where increased irradiance indicates increased energy yields. The temperature impact on energy yield is modelled in our long-term energy yield estimates at the time of acquisition/construction.

### **PHYSICAL RISKS - Chronic**

- Changes in precipitation patterns see above
- Changes in weather patterns see above
- **Rising mean temperature** NTR's fund assets are not susceptible to rising mean temperatures forecast for the geographies in which our assets operate.
- Rising sea levels NTR's fund assets are not susceptible to rising sea levels. See above.
- Write off/early retirement of assets no impact anticipated. See policy & legal above.
- Increased operating costs Minimal impact anticipated due to climate-change factors as most operating costs are contracted in for the long-term at the outset and renewable energy requires very limited raw materials (spare parts only). Overall, operating costs are a relative low percentage of revenue in these capital-intensive investments.
- **Reduced revenues** All assets' revenues are evaluated against long term forecasts by internationally recognised experts. Most of our revenue contracts are tied into long term (10-20 year) government supports, or power purchase agreements.
- Increased insurance cost This risk is considered low as insurance for business interruption is a small portion of operating costs.
- Supply chain interruptions Supply chain delays in a construction program due to severe weather are mitigated by allowing sufficient room in the construction program for time overruns. During the operational phase, the OEM contracts incorporate c. 97% availability. Supply chain interruptions (e.g. due to extreme weather condition), are predominantly at the expense of the OEM under their long-term O&M contracts. Key spare parts are typically held within a few hours travel distance from our projects. Business interruption insurance is in place.

#### **Resource Efficiency**

- Use of recycling Production of energy through on-shore wind and solar generates few byproducts or waste products. Where practical, any waste products are recycled e.g. recycling of gearbox oil on turbines. There is a growing recognition that end-of-life recycling of components needs to be taken into consideration, with particular emphasis on wind turbine blades made of glass fibre composites. The industry is working hard on a solution which should be in practice well in advance of NTR's assets being decommissioned. The safe and environmentally robust endof-life decommissioning of battery storage will also be a key factor in assessing battery storage project economics.
- More efficient buildings Renewable energy projects do not have occupied buildings. The HQ of the fund is rented and where feasible, initiatives are put in place including swap out of lights to LED lights.
- Water usage There is negligible water usage on our wind turbines. Cleaning of our solar panels is primarily done naturally through falling rain.
- Increased production capacity NTR continuously monitors the generating performance of its renewable energy assets and implements optimisation programs to maximise production/energy yield. All our assets have a real-time performance feed back to our Dublin HQ for monitoring by our Asset Management Team. Yield maximisation is driven by our in-house Asset Management team working with our external Asset Managers and equipment OEMs.

### **Energy Source**

- Use of lower emissions source NTR objective is to displace carbon emissions by producing renewable energy with zero CO<sub>2</sub> emissions.
- Use of supportive policy incentives Where possible, NTR has availed of renewable energy support polices secured through long-term support schemes. It diversifies its portfolio across several markets to reduce exposure to the risk of change of policy by any one jurisdiction.
- Use of New Technologies NTR uses proven technologies and keeps abreast of changing technology in the industry through its suppliers and consultants.
- **Participation in the carbon market** Sale of renewable energy is automatically linked to the carbon market, being a revenue source for the renewable industry. Expectations are that this opportunity will grow.

### **Products and Services**

- Low emission product Production of renewable energy is a zero emissions technology.
- **Diversification** NTR's investments invest in on-shore wind, solar and energy storage across the geographic areas of Ireland, UK and Western Europe. This geographic diversification enables the portfolios to avail of different weather patterns. Country and technology investment concentration limits are in place.

#### **Markets**

• Access to new markets – Renewable energy growth is a core policy throughout Europe, providing significant opportunity for NTR investments both in new generation and in paid for grid services, including capacity firming and storage.

#### Resilience

• Increased reliability of supply chain – NTR continues to work with global leaders in developing and operating the most effective and robust renewable energy generators. NTR requests that its Tier 1 supply chain adhere to the principles espoused under the principles of the UN Global Compact.

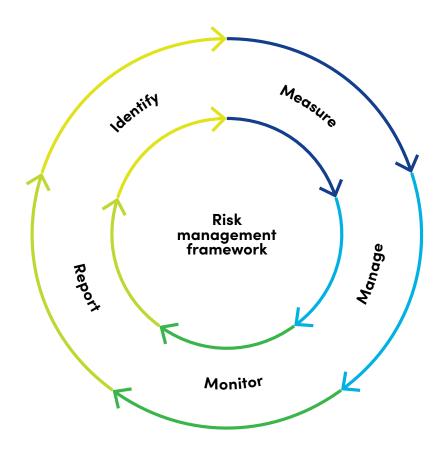


Hale Solar Farm, UK

## 31

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## 32 Risk Governance at NTR



#### **Risk Management and Internal Control**

The NTR plc Board is responsible for establishing and maintaining the company's systems of risk management and internal control. This includes the company's risk governance structure and determining its risk appetite to ensure success in achieving its strategic objectives and maintaining an appropriate internal control environment.

#### **Risk Appetite**

NTR plc's risk appetite statement defines the amount of risk that the company is willing to accept or tolerate in order to deliver on its strategic and business objectives. It is a critical component of the company's risk governance system defining the key risk parameters within which strategic decision-making takes place, assisting with the company's objectives of disciplined and focused growth.

### **Risk Register**

Both NTR plc and its fund boards have detailed risk registers that are formally reviewed and updated at least biannually which list out all known risks across multiple categories, with assigned owners and mitigation plans. The risk registers assess risk by impact and probability. The NTR plc risk register is accompanied by a risk heat map. The heat map highlights new and emerging risks, risks with increased weighting and risks that have reduced since the last period under review.

### Key Risks and Mitigants

While there are a wide range of risk factors that may potentially impact NTR including general macro-economic risk factors, the following are some of the risks and corresponding mitigants (non-exhaustive) impacting NTR:

Risk	Mitigant
Wholesale power Price: Price variability due to changes in key input commodity prices, supply and demand forces etc.	<ul> <li>The majority of revenue streams are contracted via regulatory price supports or long-term contracted power price agreements.</li> <li>Independent long-term power price forecasts are used in all financial models.</li> </ul>
Energy Resources: Variations between forecast and actual wind/ solar resource	<ul> <li>NTR has a geographical spread of wind assets and balances this with the seasonal advantage of solar assets.</li> <li>NTR has an experienced asset management team which monitors and optimises output.</li> </ul>
3rd Party Supplier Failure: Default of power off- taker, equipment provider, construction company etc.	<ul> <li>Power off takers are typically utilities or grid operators providing fundamental infrastructure and services. The risk of default with these utilities is low.</li> <li>NTR require high credit worthiness for any PPA counterparty.</li> <li>NTR partners with reputable wind turbine and solar technology suppliers who provide availability warranties.</li> </ul>
Health and Safety: Asset construction, operation or maintenance may result in physical injury	<ul> <li>NTR ensures robust safety processes are in place and carry out regular site audits</li> <li>NTR partners with experienced and competent external asset managers with proven track records in health and safety.</li> <li>NTR's senior management and board regular monitor the health and safety metrics.</li> </ul>
Regulatory Support: Shift of local government or EU policy reduces or removes support regimes	<ul> <li>NTR's target markets have stable political institutions with strong and consistent support for encouraging renewable generation.</li> </ul>





Coollegrean Wind Farm, Ireland

# 35

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# 36 Key ESG Metrics

This section summarises the key environmental metrics for the April 2019 to March 2020 period:

#### **Environmental**

#### Renewable Energy Produced (MWhrs)

**Definition:** This is a measure of the amount of renewable electricity produced in MWhrs by operational projects managed by NTR during the period April 2019 to March 2020.

MWhrs Produced								
Fund	2019/2020	2018/2019	Year on Year Change	% Change				
Fund 1	516,752	455,733	61,019	13%				
Fund 2	386,397	120,211	266,186	221%				
Total	903,149	575,944	327,205	57%				

#### Figure 8 - Renewable Energy Produced (MWhrs)

The increase in year on year production was driven primarily by full year production numbers for assets purchased/commissioned in 2018/2019.

#### CO2 Emissions Displaced

**Definition:** As NTR is a 100% renewable energy company, it does not emit  $CO_2$  in the production of its electricity. This metric measures the amount of  $CO_2$  it would have produced if it were a fossil fuelbased energy production company based on the average Tonnes of  $CO_2/MWhr$  reported by the relevant statutory authority in the countries in which NTR operates. This metric is for the period April 2019 to March 2020.

Tonnes CO <sub>2</sub> Displaced (Per Fund Reports)							
Fund	2019/2020	2018/2019	Year on Year Change	% Change			
Fund 1	126,255	110,393	15,862	14%			
Fund 2	40,007	11,311	28,696	254%			
Total	166,261	121,704	44,557	37%			

#### Figure 9 - CO<sub>2</sub> Emissions Displaced (Tonnes CO<sub>2</sub>/Annum)

The displacement of  $CO_2$  through the use of 100% non-fossil renewable energy generation is biased towards Fund 1 where assets are solely located in Ireland and UK. Ireland and UK have higher  $CO_2$ /MWh emissions than other European countries where Fund 2 has assets.

#### **Equivalent Number of Houses Powered by Renewable Energy**

**Definition:** Based on the average MWhr/annum consumed per household reported by the relevant statutory authority in the countries in which NTR operates, NTR converts renewable energy production volumes into equivalent numbers of houses powered. This metric is for the period April 2019 to March 2020.

Equivalent Number of Houses Powered by Renewable Energy							
Fund	2019/2020	2018/2019	Year on Year Change	% Change			
Fund 1	131,791	116,694	15,097	13%			
Fund 2	60,953	19,406	41,547	214%			
Total	192,743	136,100	56,643	42%			

Figure 10 - Equivalent Number of Houses Powered by Renewable Energy

## Key ESG Metrics continued

#### **Environmental** continued

#### Independent Ecological Assessments

**Definition:** This is a measure of the number of ecological assessments carried out by independent consultants on all assets under NTR management in the period April 2019 to March 2020. During the construction phase, a minimum of a monthly independent ecological assessment takes place on each of NTR's sites across both funds to ensure construction on the sites have no adverse environmental affects and that all jurisdictional regulations are complied with.

During the operations phase of a project sites are inspected on a regular basis by our asset managers. An independent ecological assessment is carried out where such an inspection, or observations by the landowner or 3rd parties highlight an area of concern. These tables outline all the assessment reports completed for NTR sites during the period April 2019 to March 2020 distinguished between construction and operation assets.

	Fund 1 Independent Ecological Audits								
#	Site	2019/20 Construction Phase Independent Ecological Audits	2019/20 Operational Phase Independent Ecological Audits						
1	Aeolus/ Bunnyconnellan	26	n/a						
2	Boolard	12	n/a						
3	All other Fund 1 Sites	n/a	No cause for independent ecological inspection						
	Total	38	0						

Figure 11 - Independent Ecological Assessments Carried Out on Fund 1 Assets in 2019/20

	Fund 2 Independent Ecological Audits							
#	Site	2019/20 Construction Phase Independent Ecological Audits	2019/20 Operational Phase Independent Ecological Audits					
1	All Fund 2 Sites	n/a	No cause for independent ecological inspection					
	Total	0	0					

Figure 12 - Independent Ecological Assessments Carried Out on Fund 2 Assets in 2019/20

### **Key ESG Metrics - Social**

#### Safety: Internal Audits

**Definition:** This is the measure of the number of safety audits performed by NTR staff and our independent advisors on all assets under NTR management in the period April 2019 to March 2020.

Number of Internal Audits Performed								
Fund	2019/2020	019/2020 2018/2019 Year on Chang		% Change				
Fund 1	23	21	2	10%				
Fund 2	5	2	3	150%				
Total	28	23	5	22%				

#### Figure 13 – Safety: Internal Audits

#### Safety: Hours Worked

**Definition:** This is a measure of the hours worked in the construction of all assets under NTR management in the period April 2019 to March 2020.

Hours Worked							
Fund	2019/2020	2018/2019	Year on Year Change	% Change			
Fund 1	170,189	65,848	104,341	158%			
Fund 2	2,242	600	1,642	274%			
Total	172,431	66,448	105,983	159%			

#### Figure 14 - Safety: Hours Worked

The number of construction hours worked in Fund 1 is high in 2019/2020 as construction of the Bunnyconnellan and Boolard wind farms occurred in the reporting period.

### Social continued

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#### **Safety: Loss Time Incidents**

**Definition:** This is the measure of the number of Loss Time Incidents recorded across all assets under NTR management in the period April 2019 to March 2020. A "Loss Time Incident" is defined as a statutory agency recordable incident in which an employee is not able to return to work or is assigned restricted work on the day or shift following the incident.

	Loss Time Incidents							
Fund	d 2019/2020		d 2019/2020 2018/2019		Incidents Per Hours Worked			
	Loss Time Incident	Hours Worked	Incidents Per Hours Worked	Loss Time Incident	Hours Worked	Incidents Per Hours Worked	Year on Year Change	% Change
Fund 1	0	170,189	0.0000	0	65,848	0.0000	0.0000	0%
Fund 2	0	2,242	0.0000	0	600	0.0000	0.0000	0%
Total	0	172,431	0.0000	0	66,448	0.0000	0.0000	0%

Figure 15 - Safety Loss Time Incidents

#### **Safety: Near Misses**

**Definition:** This is the measure of the number of Near Miss incidents recorded across all assets under NTR management in the period April 2019 to March 2020. A "Near Miss" is defined as a narrowly avoided accident. Monitoring near misses enables NTR to put in place additional safety practices to enhance a safe working environment.

	Near Misses								
Fund	2019/2020			Fund 2019/2020 2018/2019			'Near Misses' P Hours Worked		
	No. of 'Near Misses'	Hours Worked	'Near Misses' Per Hours Worked	No. of 'Near Misses'	Hours Worked	'Near Misses' Per Hours Worked	Year on Year Change	% Change	
Fund 1	23	170,189	0.0001	31	65,848	0.0005	-0.0003	-71%	
Fund 2	15	2,242	0.0067	3	600	0.0050	0.0017	34%	
Total	38	172,431	0.0002	34	66,448	0.0005	-0.0003	-57%	

#### Figure 16 - Safety: Near Misses

While the number of near misses for 2019/20 is similar to that reported in 2018/2019, there was a considerably higher number of hours worked resulting in a substantial number of near misses per hours worked reduction.

#### **Safety: Good Observations**

**Definition:** This is the number of Good Observations recorded across all assets under NTR management in the period April 2019 to March 2020. A "Good Observation" is defined as a positive observation identified, recognised and communicated to all relevant employees and contractors to be employed in future works and is also used by NTR to enhance a safe working environment.

	Good Observations								
Fund	2019/2020		d 2019/2020 2018/2019		Good Observations Per Hours Worked				
	No. of Good Observations	Hours Worked	Good Observations Per Hours Worked	No. of Good Observations	Hours Worked	Good Observations Per Hours Worked	Year on Year Change	% Change	
Fund 1	193	170,189	0.0011	121	65,848	0.0018	-0.0007	-38%	
Fund 2	7	2,242	0.0031	6	600	0.0100	-0.0069	-69%	
Total	200	172,431	0.0012	127	66,448	0.0019	-0.0008	-39%	

#### Figure 17 - Safety: Good Observations

Overall, the number of good observations increased as did the hours worked. The number of good observations per hours worked is reduced. Emphasising the need for good observations will have to be stressed as we commence new construction projects.

### Social continued

#### **Safety: Inductions**

**Definition:** This is a measure of the number of inductions carried out by the relevant Project Supervisor Construction Stage (or equivalent) in the construction of NTR assets under management for the period April 2019 to March 2020.

	Inductions								
Fund	Site	Inductions 2019–20	Inductions 2018-19	Year on Year Change	% Change				
Fund 1	Boolard	169	0	169	N/A				
	Bunnyconnellan	352	232	120	52%				
Total	521	232	289	125%					

There were only two sites under construction for the reporting year.

\* There were no Fund 2 Projects in construction for the reporting period

#### Figure 18 - Safety: Inductions

Both Boolard and Bunnyconnellan exhibited increase numbers of inductions in the 2019-2020 period due to the increased construction activity on site.

#### **Community Engagement: Community Meetings Held**

**Definition:** This is a measure of the number of community meetings carried out by NTR or its agents in the construction and operation of its assets under management for the period April 2019 to March 2020. A community meeting is defined as any organized meeting between a representative of NTR and a member of the local community.

Community Meetings Held								
Fund	2019/2020	2018/2019	Year on Year Change	% Change				
Fund 1	25	18	7	39%				
Fund 2	35	1	34	3400%				
Total	60	19	41	216%				

#### Figure 19 - Community Engagement: Community Meetings Held

Community meetings in Fund 1 increased due to the increased construction activity at Bunnyconnellan and Boolard wind farms.

Fund 2 community meetings primarily relate to development activity at Norra Vedbo.

#### **Community Engagement: Local Employment Hours Worked**

**Definition:** This is the number of local employment hours worked in the construction and operation of NTR's assets under management for the period April 2019 to March 2020 and demonstrates NTR's commitment to a sustainable local economy. An employee is defined as local if s/he is living within the country in which the asset is being constructed.

Local Employment Hours Worked							
Fund	2019/2020	2018/2019	Year on Year Change	% Change			
Fund 1	133,900	63,811	70,089	110%			
Fund 2	1,793	3,321	-1,528	-46%			
Total	135,693	67,132	68,561	102%			

#### Figure 20 - Community Engagement: Local Employment Hours Worked

The intensive construction of the Bunnyconnellan and Boolard wind farms increased the Fund 1 local hours worked in 2019/20.

#### **Community Engagement: Complaints**

**Definition:** This is the number of written complaints received by NTR or its agents across all assets under NTR management for the period April 2019 to March 2020. This definition includes a measure of the number of complaints received and those that are still open.

Complaints									
Fund	2019/	2019/2020		2018/2019		Year on Year Change		% Change	
	Received	Open	Received	Open	Received	Open	Received	Open	
Fund 1	25	4	4	0	21	4	525%	400%	
Fund 2	3	0	0	0	3	0	300%	0%	
Total	28	4	4	0	24	4	600%	400%	

#### Figure 21 - Community Engagement: Complaints

Complaints are typically in the areas of noise, flicker and TV interference. While many of the complaints in 2019/2020 remained open at the end of the year, this is primarily due to the fact that the complaints were received at the end of the reporting year, especially with the commissioning of both Bunnyconnellan and Boolard wind farms in February/March 2020. NTR have resolved many since the end of the reporting year and the complaints that still remain open are being proactively addressed.

### Social continued

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#### **Community Engagement: Community Fund Grant Distributions**

Definition: This is a measure of the amount of money (€) distributed to communities where NTR has assets under management for the period April 2019 to March 2020 and is an indication of NTR's commitment to the local community. Examples of the community projects supported through the NTR community fund grants distributions can be found in the Social Case Studies section.

Community Fund Grant Distributions							
Fund	2019/2020	2018/2019	Year on Year Change	% Change			
Fund 1	€725,176	€679,356	€45,820	+7%			
Fund 2	€67,000	€67,400	-€400	-1%			
Total	€372,000	€746,756	-€374,756	-50%			

#### Figure 22 - Community Engagement: Community Fund Grant Distributions

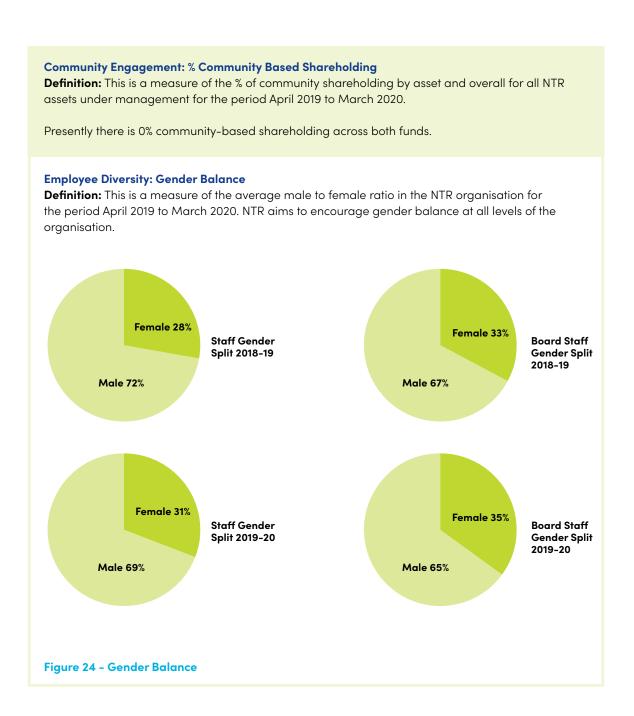
#### **Community Engagement: Payments to Local Authorities**

Definition: This is a measure of the amount of money ( $\in$ ) paid to local authorities in council areas or municipalities where NTR has assets under management for the period April 2019 to March 2020 and is a further indication of NTR's support for a sustainable local economy. It is outlined by fund and total for the year.

	Payments to Local Authorities							
Fund	2019/2020	2018/2019	Year on Year Change	% Change				
Fund 1	€2,150,000	€1,754,171	€395,829	23%				
Fund 2	€489,123	€282,285	€206,838	73%				
Total	€2,639,123	€2,036,456	€602,667	30%				

#### Figure 23 - Community Engagement: Payments to Local Authorities

The increase in local authority payments is driven by the payment of planning contributions on Bunnyconnellan and Boolard wind farms when they went into construction and overall an increase in rates on operational wind farms.



### Social continued

#### **Employee Diversity: Ethnicity Balance**

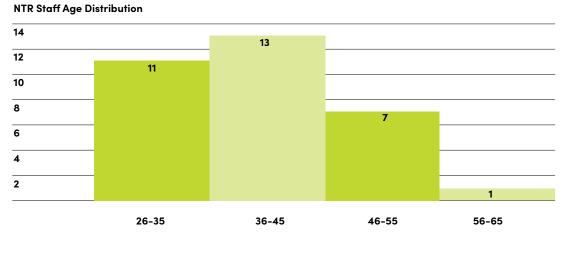
**Definition:** An ethnic group is defined as belonging to a social group that has a common national or cultural tradition. Diverse groups are less likely to exercise group think and less likely to carry conscious or sub-conscious bias in their decision-making processes. NTR has a small but diverse workforce comprised of full-time employees and a small number of independent full-time consultants. The ethnic mix of this workforce in mid-July 2020 was:

Nationality	Count	% of Staff
English	1	3%
French	3	9%
Indian	1	3%
Irish	21	66%
Nigerian	1	3%
South African	1	3%
Spanish	1	3%
Swedish	3	9%
Total	32	100%

Figure 25 - A Breakdown of the NTR Workforce Employee Ethnicity

#### Employee Diversity: Age Balance

**Definition:** This is a measure of the distribution of employee ages in the NTR organisation in mid-July 2020. NTR aims to avoid unconscious age bias by actively monitoring the distribution of its workforce by age.



#### Figure 26 - Staff Age Distribution

#### **Employee Continuous Professional Development**

Every year NTR devotes a portion of the budget for employee training to allow the staff to further develop their skills for their own personal benefit as well as the company's.

During the year, NTR funded a range of learning opportunities for its staff including ESG, finance and accounting training, technical training including high voltage management and solar technology, as well as supporting academic fees across several disciplines. In the period since the onset of COVID-19, NTR employees have attended many webinars as part of their continuous professional development.

#### Governance

#### **Board Quorums**

Definition: This is a measure of the number of meetings re-scheduled due to a lack of a quorum.

Board Quorums						
Number of Board Meetings Held	8					
Number of Board Rescheduled Due to Lack of Quorum	0					
Figure 27 - Board Quorums	Figure 27 - Board Quorums					

#### **Board Meetings Attendance**

Definition: This is the measure of attendance at Board and Board sub-committee meetings by director for the period April 2019 to March 2020.

	NTR plc Board of Directors Attendance 2019/2020											
Director Name			Audit Committee		Remuneration Committee			Nominations Committee				
	Meetings Held	Meetings Attended	% Attendance	Meetings Held	Meetings Attended	% Attendance	Meetings Held	Meetings Attended	% Attendance	Meetings Held	Meetings Attended	% Attendance
Tom Roche	8	8	100%				1	1	100%	3	3	100%
Rosheen McGuckian	8	8	100%							3	3	100%
Marie Joyce	8	8	100%									
Chris Hunt	8	7	88%							3	3	100%
Brian Kearney	8	8	100%	3	3	100%	1	1	100%			
Helen Kirkpatrick MBE*	2	2	100%	1	1	100%						
Andrew Macland	8	5	63%									
Manus O'Donnell	8	8	100%									
Conor Roche	8	8	100%									
Charlotte Valeur	8	7	88%	3	3	100%	1	1	100%	3	3	100%

#### Figure 28 - Board Attendance Performance<sup>1</sup>

1 Helen Kirkpatrick joint the NTR plc board in January 2020.

#### % Non-Executive Directors

**Definition:** This is the average % of Non-Executive Directors on the NTR plc Board for the period April 2019 to March 2020.

A non-executive director (NED) is a board member without responsibilities for daily management or operations of NTR plc. The UK Corporate Governance Code states that at least half of the board should be made of independent non-executive directors. The average Non-Executive Director ratio of the Board over the year ending March 31st, 2020 was 68%.

#### % Independent Directors

**Definition:** This is the average % of Independent Directors on the NTR plc Board for the period April 2019 to March 2020.

An Independent Director (also sometimes known as an outside director) is a member of the board of directors of NTR plc who does not have a material or pecuniary relationship with the company or related persons, except for the receipt of sitting fees. The average Independent Director ratio of the Board over the year ending March 31st, 2020 was 35%.

#### **CEO Duality**

**Definition:** This is the % of time that the NTR plc Board had separate Chairman and CEO roles for the period April 2019 to March 2020.

NTR has a policy of separate Chairman and CEO. At all times throughout the period April 2019 to March 2020, the Chairman and CEO roles were fulfilled by two separate individuals.

#### **ESG Training Hours**

In the period April 2019 to March 2020 NTR employee hours of ESG training was estimated at 60 hours.

#### **ESG Engagements with Funders**

NTR has an open engagement policy with its funders. Quarterly reports and follow up conference calls are provided to each fund. Each report includes updates on ESG matters and a copy of the annual ESG report.

Where a material ESG incident occurs, the relevant Fund is notified immediately by NTR Management. A material ESG incident would include:

- A reportable accident to the Health & Safety Authority (Ireland), Health and Safety Executive (UK), the Swedish Work Environment Authority, the Finnish Occupational Safety and Health Administration or the French Ministry of Business.
- A reportable pollution incident to the Environmental Protection Agency (Ireland), the Environmental Agency (UK), the Swedish Environmental Protection Agency (Naturvårdsverket), the Finish Ministry for the Environment or the French Agency de la Transition Ecologique.
- A reportable incident arising out of the external auditor's report.
- A material tax event.

In the period April 2019 to March 2020 NTR issued 8 quarterly reports to its funders. No material ESG incidents were reported in the period.





## 52 Supplier Compliance with ESG Standards

In 2018, as part of its ESG policy, NTR introduced a Tier 1 Self Compliance requirement whereby NTR expects its Tier 1 suppliers to sign up to the following ESG Self-Compliance Statement or equivalent. Tier 1 suppliers are defined as suppliers who are awarded contracts in excess of €25,000 annually.

The Self-Compliance Statement requires each Tier 1 supplier to NTR, or its subsidiaries or affiliates confirm that it abides by the principles of the UN Global Compact within its organisation and supply chain i.e. it abides by the following:

#### **10 Principles of the UN Global Compact**

**Human Rights** 

- 1. Supports and respects the protection of internationally proclaimed human rights;
- 2. Ensures that it is not complicit in human rights abuses.

#### Labour

- 3. Upholds the freedom of association and the effective recognition of the right to collective bargaining;
- 4. Does not permit any forms of forced or compulsory labour in its supply chain;
- 5. Supports the effective abolition of child labour;
- 6. Does not accept discrimination in respect of employment and occupation.

#### Environment

- 7. Supports a precautionary approach to environmental challenges;
- 8. Undertakes initiatives to promote greater environmental responsibility;
- 9. Encourages the development and diffusion of environmentally friendly technologies.

#### **Anti-Corruption**

10. Works against corruption in all its forms, including extortion and bribery.

#### Signatures

NTR analysed their supply chain, identifying suppliers with whom they had a spend of over €25,000 in the periods 2019-2020. 95 suppliers were identified. This was an increase of 33 on our 2018-19 count. Each supplier was contacted and asked to sign or re-sign up to our Tier 1 Self Compliance Statement, in effect signing up to the Principles of the UN Global Compact. 72 of our suppliers (76%), replied positively to this request. NTR continues to work with the outstanding suppliers to encourage them to sign.

## **ESG Supplier Self-Compliance Statement**

Name of Company: ("Supplier")		
Registered Address of	Address 1:	
Company:	Address 2:	
	City:	
	Country:	
	Post Code:	

### Statement:

On behalf of the Supplier, and as a recognised Tier 1 supplier to NTR plc or its subsidiaries or affiliates, I confirm that the Supplier abides by the principles of the UN Global Compact within its organisation and supply chain i.e.

- 1. Supports and respect the protection of internationally proclaimed human rights;
- 2. Ensures that it is not complicit in human rights abuses.
- 3. Upholds the freedom of association and the effective recognition of the right to collective bargaining;
- 4. Does not permit any forms of forced or compulsory labour in its supply chain;
- 5. Supports the effective abolition of child labour;
- 6. Does not accept discrimination in respect of employment and occupation.
- 7. Supports a precautionary approach to environmental challenges;
- 8. Undertakes initiatives to promote greater environmental responsibility;
- 9. Encourages the development and diffusion of environmentally friendly technologies.
- 10. Works against corruption in all its forms, including extortion and bribery.

Signed:	Name:	
	Position:	
	Date:	



# 55

## 56 Case Studies – Environmental

#### Introduction

Renewable Energy helps tackle climate change and as a result is considered a sustainable way in which to invest in infrastructure. However, the way in which renewable energy is developed, constructed and managed through its operational life can equally have an impact on the environmental area of ESG. The following case studies provide some examples of how NTR addresses the environmental impact of its investments

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## 1. Construction Stage Environmental Monitoring

Provision of an Environmental Clerk of Works (ECOW) /Environmental Manager is typically a mandatory requirement under the planning consent of wind and solar farms. NTR employs independent expert consultants to provide such services in the construction of its projects. These consultants are a key part of the construction management team providing on-site guidance, ensuring full legal compliance for protected species and habitats, ensuring planning condition compliance and preserving natural heritage.

NTR employs independent hydrologists who are responsible for advising of flood risk assessment, water quality, collection of water and soil samples and analysis and interpretation of waste samples. They also advise on-site regarding site water flows as well as containment and protection of nearby waterways.

As appropriate, NTR employs independent archaeologists who evaluate and advise on potential and actual archaeological finds on a site and liaise with the statutory bodies who manage such findings.

Our on-site ECoWs, hydrologists and archaeologists recommend the latest best practice techniques, providing common sense and practical solutions. Sensitive ecological, hydrological and archaeological issues on site are identified at an early stage and managed according to best practice guidelines, whilst recognising the need to progress the development to required timescales.













Figure 29 – Water sampling as part of environmental site monitoring



## Case Studies - Environmental continued

#### 2. Wind Turbines End of Life Treatment



NTR has received investor enquiries as to turbine blade end of life treatment. Of course, this is an evolving story. As all of NTR's assets under management have life expectancies of over 15 years, NTR does not have an immediate need to recycle turbine blades but we do keep a watchful eye on turbine blade end of life treatment.

Limited landfill capacity in Europe coupled with EU environmental laws does mean that landfill is not a solution for turbine blades in Europe. Research and trials regarding the recycling of blade materials is ongoing. SUSTAINABLE DEVELOPMENT GOALS







The majority of wind turbine components comprise precious and non-precious metals and are easily recyclable. This results in the foundation, tower components, gear box and nacelle being easily recyclable and resulting in a recycling rate of 85% to 90% by weight.

However, turbine blades represent a specific challenge as they are made up of composite materials to boost the performance of wind energy by allowing lighter and longer blades. Today 2.5 million tonnes of composite material are in use in the wind sector globally. The complexity of this composite material requires specific processes for recycling. Today, the main technology for recycling composite waste is through cement co-processing.

Further development and industrialisation of alternative technologies such as solvolysis and pyrolysis are being researched to provide the wind industry with additional novel solutions for turbine blades reaching their end-of-life.

Separately, NTR has successfully refurbished and re-commissioned 14 turbines which had been removed from sites on continental Europe and placed into Northern Ireland. NTR overcame a number of issues to provide the turbines with a new lease of life including upgrading grid compatibility and refurbishing the generators and gearboxes. This fleet of recycled turbines is performing strongly and is producing power ahead of expectations. With the right support tariffs, is this a way for the industry to go?



Figure 30 – NTR Bann Energy's Refurbished Bonus 300 turbine at Trillick, Northern Ireland

The accompanying photo is an example of one of our 14 refurbished turbines and shows a Bonus 300 Mk2 turbine which was decommissioned from continental Europe after 18 years of operation, completely refurbished and installed at NTR Bann Energy's site at Trillick, Northern Ireland. The turbine received a complete overall with standard warranty terms and proved acceptable to our insurance underwriters who provide business interruption on such turbines. This turbine went back into operation in 2014, is meeting performance expectations and is expected to remain operational until 2034.

## Case Studies - Environmental continued

### 3. Real-Time Monitoring of Carbon Displacement



Figure 31 - Real time performance monitoring

Perhaps the single biggest impact of NTR's investments from a sustainability perspective, is the extent to which carbon emissions are displaced and this is tracked live by NTR in real time, as the sun rises and as the wind blows, across the multiple European countries in which the assets are located. Using its Supervisory Control and Data Acquisition (SCADA) information system.

NTR monitors real time information to both track its CO<sub>2</sub> emissions offset and to monitor the number of households powered by NTR clean energy. The level of displacement depends on the type of conventional power being displaced, which differs from country to country, all of which is considered by NTR during its daily tracking.



**SUSTAINABLE** 







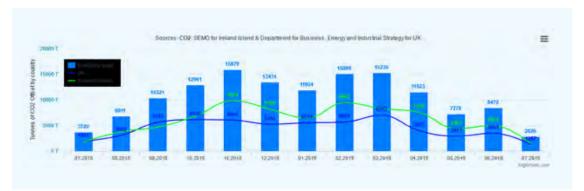


Figure 32 - CO<sub>2</sub> Emissions offsets are monitored in real time at NTR's headquarters.

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#### 4. Habitat Management at Altaveeden Wind Farm



Figure 33 - The Curlew

The purpose of habitat management is to ensure the habitat is consistent with the conditions needed for the natural wildlife of the locale to thrive. Habitat management on windfarms includes the management of the local ground conditions to allow wildlife, birds and arthropods (insects) the conditions to flourish. Activities to support this environment can include natural drain management for the supply of water, the cutting of weeds and large overgrowth to discourage predators and the deployment of traps to catch and release predators in an alternative location.



SUSTAINABLE DEVELOPMENT

Like many of NTR wind and solar farms, the Altaveeden windfarm, located in Northern Ireland has implemented a habitat management plan which incorporates quarterly and annual inspections. The inspections are conducted by a specialist contractor who monitors the local habitat closely in terms of

- Observing the various species of bird and arthropods on the farm.
- Observing nesting sites throughout the identified habitat
- Noting the number of predators captured and re-released by the traps and cages
- Inspecting the drain management and weed control
- Photographing and reporting the habitat management of the farm.

The 'Curlew', a bird native to both Ireland and Britain was identified during the planning stage of the windfarm as being low in numbers throughout the area. The local council advised that having a curlew initiative as part of the habitat management plan would give the bird an increased chance of thriving in the area as numbers of curlews in both Ireland and Britain have fallen in recent years with the concern that the bird will go extinct if no actions are taken.

NTR manages this local habitat by taking measures to control natural predators of curlew such as badgers, foxes and mink and by placing cages and traps throughout the area for predator capture and release away from the habitat. Water flow in drains has been slowed allowing the water to soak into the nearby lands to create a marshy environment perfect for curlew breeding. Weed and overgrowth control has also been closely monitored with weeds cut at least twice a year to reduce predator camouflage cover. Carcass searches are conducted on a regular basis and removed quickly to discourage the presence of unwanted predators and vermin. It will take some time to see the impact of these steps on curlew numbers and NTR is optimistic of success.

## Case Studies - Environmental continued

#### **5. Innovations to Optimise Wind Energy Production**

Increasing the yield from the natural wind resource on each site and increasing the viable lifetime of the project, is not only beneficial for the project's economics, but also serves to further offset carbon emissions for the same invested capital. On the Twin Rivers site in England the NTR asset management team believed that there might be an opportunity for such an improvement. Figure 33 shows the layout of the turbines on the Twin Rivers site. NTR determined that wake losses were high on turbines when the wind came from certain directions.





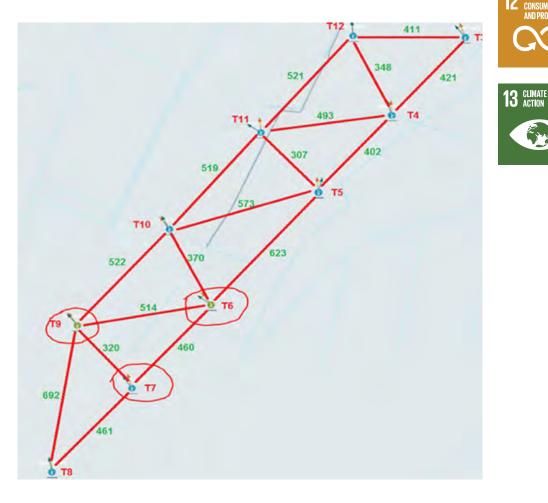


Figure 34 - Twin Rivers Turbine Yield Optimisation

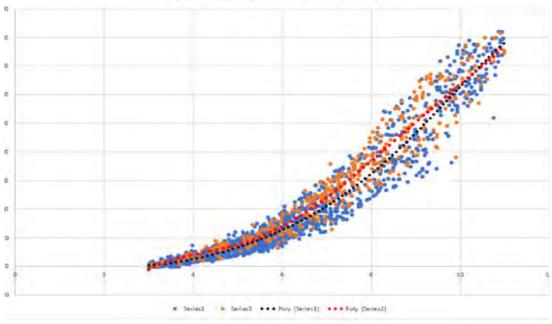
Using its in-house assessment tools, NTR was able to calculate the extent of the sub-optimum conditions on a turbine specific basis.

NTR experimented to see if we could increase the overall yield by maximising turbine "pair" yields instead of individual turbines.

By curtailing windward turbines using normal curtailment procedures, NTR allowed more "clean air" through to the leeward turbines. By comparing combined power output from two turbines before and after, NTR demonstrated a significant yield improvement at low wind speeds. An illustration of such an improvement is shown in Figure 34.

The trial which was fully implemented in 2019 is yielding significant performance improvements and has simultaneously reduced low wind speeds vibration levels. This will extend the working life of the turbines.

NTR intends to employ this strategy on other sites where it is likely to work with selection being dependant on turbine configuration, topography and other factors.



#### Wake Loss Minimisation Pre and Post Oct 10 2018

Figure 35 - Yield Improvement Through Turbine "Pairing" at Twin Rivers

## Case Studies - Environmental continued

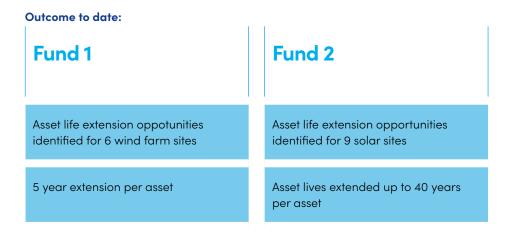
## 6. Offsetting More Emissions with Existing Assets by Extending their Life

When assets are getting closer to end of their operating life there are many things to consider. Decommissioning, repowering, extending the assets technical lifetime with technological improvements, or simply do nothing until the asset wears out. While considering all of these options, the carbon offset of avoiding end of life is a justifiable concern. NTR has embarked upon an asset extension program to optimise the viable life of its renewable energy projects. This is a practical means of addressing the importance of doing more with existing assets before their end of life.

To minimise our environmental footprint and subsequently enhance underlying asset values, we have identified asset life extension opportunities for fifteen of our wind and solar assets across our portfolio.

A comprehensive review was undertaken by NTR which focused on

- 1. Planning permissions Liaising with local authorities to secure extensions to existing planning permission expiry dates.
- 2. Lease agreements Discussions with all landowners seeking their permission to secure longer lease terms.
- 3. Grid connections Ensuring local grid connections agreements will permit our assets to remain connected to the grid for the extended lifetime of the asset.
- 4. Technical assumptions Detailed analysis of design lifetimes, resource conditions, structural reserves and planned refurbishment programmes ensuring that the assets can physically continue to operate over the planned extended life.









### 7. Supporting the Awareness of a Fragile Oceanic Eco-System

As an investor in sustainable clean energy and with our increasing awareness on the importance of resource sustainability, NTR was very taken with the mission of the "Bristol Gulls". The Bristol Gulls is a team of four courageous women who are entering the world's toughest rowing race of 3,000 nautical miles, unsupported, between the Canary Islands and Antigua in December 2020.

They are doing so to promote a better understanding of how human lifestyles put increasing pressure on our oceans and in particular how plastic pollution is now one of the biggest threats facing our oceans. Not only are they taking on the challenge of rowing 20-foot waves over 30 days, but they are on a personal mission to complete their Atlantic crossing in a sustainable manner by eating, washing, and living only with the use of recycled and eco-friendly products. They have also partnered with their boat manufacturer to develop an Eco Ocean Rowing Boat, built entirely from renewable or recycled composites.

NTR is delighted to have been one of the first company sponsors to come on board their endeavour.



Figure 36 - Bristol Gulls take delivery of their new Ecoboat









#### 8. NTR Installs LED Lighting

NTR's impact on the environment though real estate is very minimal, with most of its facilities being wind and solar assets. However, we still aim to reduce our impact wherever we work and in May 2019 NTR carried out a review of the internal lighting of its office. The lighting system (18w fluorescent tube fixtures) was nearly 20 years old and very inefficient. In June 2019, NTR installed new Light Emitting Diode (LED) light fixtures which have an average life expectancy of 19 years. These LED lights reduce will NTR's lighting bill by up to 45% will also reduce NTR's carbon footprint by 5.4 tonnes of CO<sub>2</sub>/annum.

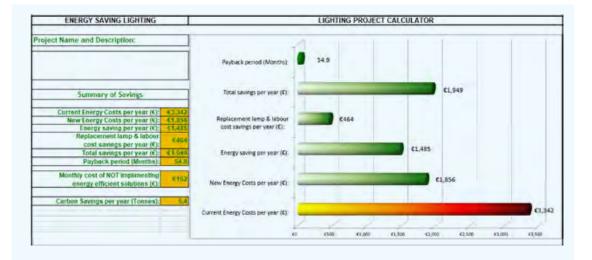












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## 9. Transition Year Work Experience Welcomes the Next Generation of Climate Engineers.

The Irish education system introduced the concept of a transition year (TY) as a voluntary part of the curriculum in order to afford fifteen and sixteen-year-old students the opportunity to gain some real-life skills and experiences during the transition from junior to senior cycle. The intention of the year is to equip students to make more informed life choices, by providing experiences and holistic information not readily available in the classroom. Part of this process involves experiencing work in different environments.

During the year NTR supported this scheme by welcoming transition year students to experience the work that our engineering team undertakes and to introduce them to how engineering can tackle climate change in a practical way. In 2019/20, NTR welcomed three transition year students – Harry Leonard, Ross Mason and Liam Joyce - to work alongside our engineering team. The students experienced construction and operation first-hand, with site visits, operational performance monitoring and basic data analytics. All were taught the fundamentals of wind and solar power, and some of the skills and attributes necessary to manage renewable energy projects.

All three students indicated that they had an enjoyable and very informative time at NTR. Two have confirmed that they intend to pursue education in the field of engineering, with a view to progressing to careers in renewable energy.













Figure 37 - A Transition Year Student on site at Bunnyconnellan Wind Farm

# 68 Case Studies – Social

#### Introduction

Working with the local community in conjunction with national policy is a key pillar of NTR's social policy. NTR strives to work cooperatively with local communities in which it has its assets to ensure a positive outcome for all. The construction and operation of wind and solar farms contributes to local employment opportunities, adds economic activity to the surrounding areas as well as providing competitive land lease incomes to the landowners. However, it is also important to acknowledge that there can be concerns with the addition of new infrastructure in a locality, which NTR aims to address. Key to this is:

- Following national policies regarding renewable energy, carbon reduction, environmental impact, health & safety and community interaction.
- Early and ongoing engagement with the local communities in which our projects are located through the construction and operational stages of each project.
- Adhering to the noise limits set down in national policies and transcribed into planning permits, ensuring that noise impacts are minimal.
- Minimising visual impacts.
- Management of wind turbine flicker through the use of on-turbine flicker control systems.
- Management of solar glint and glare through design.
- Provision of community benefit measures to the community where feasible. These typically can take two forms:
  - Provision of a general community fund in which our projects make annual grants to community-based projects.
  - Provision of a residents' fund in which all residents within the surrounding areas of our projects receive a revenue share from our projects.

## 10. NTR Upgrades its Community Fund Guidelines for UK & Ireland

NTR has introduced a new set of guidelines for managing its community funds in the UK and Ireland. While each project has its own individual needs and requirements, an enhanced guideline document has been developed to ensure NTR policy is followed at each stage of a site's lifespan and healthy relationships are built with the local communities.

#### Acquisition:

As part of due diligence, numerous community related factors are considered:

- Details are provided to stakeholders, including local community groups and leaders, elected representatives, religious leaders, local authorities, newspapers, community websites and social media channels.
- Location and ownership details of properties within 1,000m of a wind or solar farm are identified as well as a detailed map of the area to understand the potential impact the asset might have on local residents
- A list is put together of any local companies or businesses that could benefit from supplying services to the project such as security, quarries, hotels and other forms of accommodation, cafes, catering etc.

#### **Community Fund:**

The Community Fund management differs during construction and operations phases.

During construction each project will have an appropriate budget which can be utilised on a need's basis in areas such as local environmental improvement projects such as tree planting or habitat restorations and donations to local charities.

Once the project is operational, a more extensive multiannual budget is allocated towards a Community Benefit Fund which can be implemented in various ways:

- **Annual Awards:** A fund administered annually to local organisations/projects deemed appropriate by a developer, local authority or GMO (Grant Making Organisation).
- Life of Project Award: Funds allocated annually to a small number of selected local community organisations for the lifetime of the project.
- **LEDS:** Local Electricity Discounts Schemes allow properties within a certain proximity to apply for discounts paid directly to their electricity supplier.
- **Proximity Payments:** Annual direct payments to neighbouring residents living close to and who are impacted by the project.

The management of Community Benefit funds requires careful governance to ensure equitable, fair and transparent dispersal of funds. NTR puts in place governance structures with clear policies to ensure this is managed for each renewable energy project.









## Case Studies - Social continued

## 11. Community Engagement –Active communication throughout the construction period

As part of its ongoing development, construction and operations of its renewable energy projects, NTR engages both directly and through contracted Community Liaison Officers with the local communities to clarify and reassure the community on NTR's activities in the area.

Included in this work is the use of door to door visits and leaflet drops to the local community, the creation of project specific websites with email links and the setting up of call centres.

An example of this work is the Boolard Wind Farm Construction Update community notice leaflets which were issued door to door in communicating with the local Boolard community on the state of development works and upcoming activities that might impact on the local community.

Reassuring the community is a fundamental element of community engagement during the construction period. A simple example of how a community anxiety was dealt with was the entrance to Rathnacally Wind Farm. In order to for the turbine delivery trucks to enter the site, a large extent of the site's roadside stonewall boundary had to be removed temporarily. The nearby neighbours were anxious about this and the fact that, while it was not their property, they had planted flowers in the existing boundary wall to enhance the area. B&R Wind removed the wall to facilitate the entry, rebuilt the stone wall to a higher quality finish than the original wall, built in flower planter boxes into the wall and replanted the wall. The community were very grateful and expressed their thanks in how we addressed their concern.





Figure 38 – Reconstructed and replanted wall at the entrance to Rathnacally Wind Farm.





contraction of the localard Work farm bages mid. May 2023. Site of warks and the grid connection tissed over the summe period. Works to enforce a coses of the hite entrace were completed in toobre and twitnes foundations works were finished in early. November: Works by 123 Hetenecks on the tricking and connections are earling compression. The local entrace from labipare on Millions has been finded. Some minor additional resistances were were available on influence. There exists and resistances were also provide the track of the entraces. There exists and resistances the summa constraints works complex. We there work one for works and there thread the the constraints more than the summa summary and the summary and the summary and the summary entraces. The summary and the summa





#### BBR Wind Boolard Wind Farm Construction Update

Turbine Deliveries

wish to provide advance notice of a number of night-time, abnormal-load deliveries to the Boo n site over the coming week as follows:

Wednesday 4th December – departing Shannon Foynes Port at 23.00hrs
 Thursday 5th December – departing Shannon Foynes Port at 23.00hrs
 safety, these night-time deliveries will have a Garda escort and flashing lights. To facilitate the deliver

wave nagros. e delivery roote will follow the journey from forynes Port as shown on the map below. The delivery conve to make through Dromina village between Jam Jam approximately. The convoy will undertake a revers moreover at the site entrance near Boolard Cross.





SUSTAINABLE DEVELOPMENT

GOALS



# 12. School Visits Bring Climate Change Message to Life for the Next Generation

NTR recognises that it is in a privileged position where it can demonstrate to school children how climate change can be tackled in practical ways and it embarks upon awareness programmes for school children near its renewable energy sites.

In February 2020, NTR's Bunnyconnellan Wind Farm sponsored the local Bonniconnellan primary school visit to the Cool Planet Experience in Wicklow, Ireland. The 'Cool Planet Experience', part sponsored by the NTR Foundation is a unique science-based visitor centre on climate change, based in Ireland. The Cool Planet is a permanent dynamic exhibition where visitors learn about challenges such as extreme weather patterns, food and water sustainability and the impact on human health through interactive games and experiences, together with curriculum linked workshops. During the day, the children engaged with what a smart country or city should look like in the future as we move towards a carbon free world.









Bonniconion NS

What a day at @CoolPlanetExp. We learned all about how wind turbines work and climate change. We made pledges to lower our carbon footprint and protect the future of our planet. Great to have @AttymassNS with us. @PDSTPrimarySTEM @GreenSchoolsize

#### Figure 39 – A twitter feed of Bonniconnlon National School's visit to 'Cool Planet'

#### Meanwhile in France,

NTR's Bricqueville Wind Farm hosted a school tour in November 2019 as part its renewable energy awareness program, where the children learnt about climate change and had the opportunity to visit and see inside working wind turbines.





### 13. Living Side by Side with Society – Wind Farm Shadow Flicker Management

Wind turbine shadow flicker is the result of the sun shining through the rotating blades of a wind turbine, casting a moving shadow on the landscape or surrounding residences. It occurs at certain times of the year when the sun is relatively low on the horizon. By their design, wind turbines have the potential to cause nuisance shadow flicker on residential houses in the immediate vicinity, typically within 10 rotor diameters distance, of a turbine.

While planning laws typically permit 30 minutes a day of shadow flicker, NTR attempts to remove any shadow flicker impact. It does this by carrying out a pre-construction shadow flicker impact study and installing shadow flicker management systems as required. A shadow flicker management unit comprises a light sensor, a control unit on one turbine and corresponding control units on all other turbines in the windfarm. The GPS co-ordinates of sensitive residences are programmed into the control unit and when the light sensor identifies light conditions that may cause shadow flicker on that nearby residence it switches off the turbine until these light conditions disappear. Once a complaint of shadow flicker is received by the team in NTR, we identify the impacted residence, the times of the day and the time of the year that the shadow effect may be experienced. Shadow flicker can be very disruptive for residents is not managed properly and NTR aims to work quickly and effectively to remove flicker impacts.

In 2019 NTR received shadow flicker complaints and supporting videos from nearby residents of one of its wind farms located in Ireland. NTR's asset management team were particularly concerned as NTR had previously installed a shadow management system as part of the turbine installation. NTR's approach was to respond quickly and to keep in close communication with the residents while it assessed the cause. Following discussions with the turbine supplier and an analysis of the times of the day of the shadow events two root causes were identified. Firstly, the flicker management system programming had not taken into consideration the one hour offset of winter savings time and secondly, some new houses had been constructed in the vicinity of the wind farm since the original shadow management work was completed. Addressing these two issues has resolved the shadow management concerns.

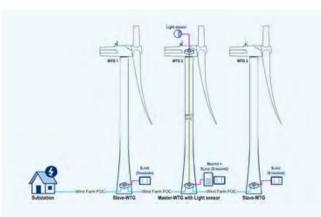


Figure 40 - A Wind Farm Flicker Management Configuration



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# 14. NTR Responds Quickly to COVID-19 Community Hardship

Recognising the impact that the COVID-19 was having on the communities within which it operates and its general impact on charitable organisations, NTR realised that they must contribute to the response.

In response to the COVID-19 emergency and recognising that these local communities may need assistance, NTR made the decision to accelerate the distribution of a portion of its annual community benefit funds towards local organisations involved in both immediate response and mid-term recovery from the effects of the pandemic. NTR reacted immediately to make available 50% of the value of each designated community fund to be distributed to those most in need under a COVID-19 relief fund. Over €85,000 (equivalent) has been identified for communities throughout the British Isles.

In addition NTR plc staff voted to make a donation of €10,000 to the Solas Project, a charity that works with 500 disadvantaged and at-risk children and youths in Dublin to help keep them engaged in education and society and to stay connected with these children under social-distancing rules and when schools (and hot meals associated with these schools) have been closed.



Figure 41 - NTR supports the Solas Project

#### SUSTAINABLE DEVELOPMENT GOALS







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#### 15. Employee Well Being at the Heart of a Sustainable Business



Figure 42 - NTR employees, (L-R) Siobhan Keane, Marie Joyce, Matthew Reast, Ailbhe Elliott, Martin Sweeney and Liam Lyng participating at the Mindfulness Day at Glendalough, Wicklow, Ireland

As an investment and asset management business, NTR employees manage complex assets and significant investments on behalf our investors. NTR identified work pressures as an important area to address and embarked on a mindfulness training programme to ensure all NTR staff have access to tools to manage their well-being both inside and outside of work.

In September and October 2019, NTR held mindfulness days for all its employees, with one of the days held offsite in Glendalough, 'the valley of the two lakes ', renowned for its spectacular scenery, rich history, archaeology and abundant wildlife. The programme was developed and hosted by Dr. Jill Walker, a psychologist, keynote speaker, expert in personal growth and mindfulness practitioner.

The purpose of the programme was to create an awareness of the presence for all employees and help give them tools to bring one's attention to the experiences occurring in the present moment and help deal with work and life stresses associated with their daily lives.



SUSTAINABLE DEVELOPMENT



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# 16. NTR Goes Green for Concern

It's an unjust reality that the millions of people now living with the impact of climate change are the least responsible for causing it. Concern Worldwide is a charity that has for over 50 years been working with the world's poorest people to transform their lives. To celebrate St. Patrick's Day, Concern Worldwide asked the people of Ireland to Go Green for Concern and raise money to help transform communities affected by climate change. NTR employees participated in this event having lots of fun while raising money for this worthy cause.











# 17. NTR Contributes to Irish Wind Energy Association COVID-19 Guidance Document



Figure 43 - Kieran Tubridy

In March 2020 NTR Senior Asset Manager, Kieran Tubridy was a member of the Irish Wind Energy Association Working Group that developed and published a "COVID-19 Industry Guidance note for turbine and substation maintenance technicians and other key wind farm workers". With wind energy accounting for over 30% of all electricity production on the island of Ireland, continuing operation of windfarms was critical for the continuing running of the economies of Ireland and Northern Ireland.

With this in mind, industry representatives formed a working group, and using the latest public health advice of both jurisdictions and their own practical knowledge of operating wind turbines and sub-stations compiled an industry specific COVID-19 guidance document. The guidance covered all aspects of travelling to and from site, hub and nacelle working, working in substations, managing a service centre, rescue and mental health.

By being able to devise the guidelines within days, the industry could work with confidence and with public health authorities support to maintain critical clean energy throughout the pandemic.

### 18. Health & Safety: Construction KPI Analysis

NTR Fund 1 construction was completed in late March 2020. During the period, over 730,000 man- hours of work was undertaken on the projects

Among our health and safety actions, information was collected on all projects, enabling NTR to review those areas that constituted higher risk, and assess the rate of pro-activity of construction contractors. Feedback KPI's (incident rates) and Feedforward KPI's (demonstrating pro-activity) on sites were measured.

NTR generated a detailed report to share the findings with all major contractors on these construction projects to allow wider review and reflection on the findings, promoting further improvements for the future. High level extracts from the detailed report are provided below.

#### Feedback KPI's:

Metrics used in the different jurisdictions in which NTR operates vary. The following typically refer to incidents per 100,000 hours worked. A "Lost Time Accident" is one reportable to the authorities in the relevant jurisdiction. A lost work-day case is one where the injured party misses work for one or more days, but this is not "reportable".

#### Feedback Statistics (Indicators of performance to date)

Lost Time Incident per 100,000hrs worked	0.14
Lost Work-Day Case per 100,000hrs worked (other than above)	0.00
First Aid Cases per 100,000hrs worked	0.69
Medical Treatment Case per 100,000 hrs worked	0.96
Restricted Work Case per 100,000hrs worked	0.00
Physical Violence, Abuse or threat of violence - per 100,000hrs worked	0.28
Work Related Illnesses per 100,000 hrs worked	0.00
Permanent Damage Injury per 100,000 hrs worked	0.00
Authority reportable injuries/diseases per 100,000 hrs worked	0.00
Near Misses per 100,000 hrs worked	10.9
Number of Crashes	3
Near Misses Total	79

Figure 44 - Health and Safety Feedback Statistics









Practice of Health and Safety (H&S) management was to a high standard on sites, and NTR's Fund 1 construction incident and accident rates were consistently less than 20% of national averages reported in the construction industry in UK and Ireland (relative to national statistics reported at the same time).

#### Feedforward KPI's

At a high level, the following data was collated:

Feed-Forward KPI's	
Near Miss	79
Observations – Good Catches	1,133
Hazards	25
Office and Documentation audits undertaken	139
Owner/Owner Representative Audits Undertaken	127
Internal Contractor Audits Undertaken	252
Detailed Investigations	26
Number of Pro-Active Suggestions or measures taken to reduce risk	133

#### Figure 45 - Health and Safety Feedforward Statistics

The data again suggests that safety management is being managed in a pro-active manner. Average "good catch" reporting is circa three reports per man year, although reporting management was not proportionate on all sites, indicating that there are further improvements to be made in consistent capturing of good catch/near miss and safety suggestions. It is NTRs view that all contractors should be pro-active in capturing good catch's/near misses.

#### **Significant Incidents**

The Pie chart indicates the location or incidence of issues across all of our sites' construction activities. This highlights the overarching importance of attention to transportation, both offsite and onsite to further improve our health and safety performance. Particular themes that NTR has identified and will focus on further include care to stay safely on the site road tracks, the need for careful attention to maintenance activities and fitness for purpose of transport equipment and its configuration during movement – especially the equipment of subcontractors (e.g. stone suppliers).

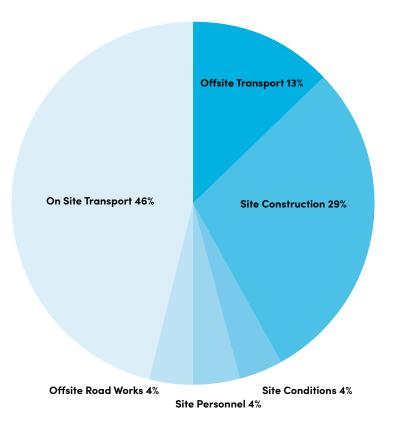


Figure 46 - Categorisation of site incidents by nature or location of occurrence

#### Sharing the information with our partners:

The purpose of any report of this nature should be to heighten awareness. NTR had intended to share its content with our partners and contractors in April of 2020 but has decided to wait until the Covid-19 threat has become manageable, so that the findings of the report can be appropriately responded to by the parties involved. NTR therefore intends to share the report with our contractors in Autumn 2020.

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# 19. Health & Safety: A 'Near Miss' Learning – Castlecraig Wind Farm – 'A Wheel Lost is Not a Lost Opportunity'





Figure 47 - A wheel loss 'near miss' incident at Castlecraig Wind Farm

Access to the Castlecraig Wind Farm site is via an old 8 km long forestry road. During the initial stages of construction, a wheel from a truck delivering stone to the site came lose and spun off the road. The wheel came to rest adjacent to the road without injury or damage – truly a "near miss" event.

NTR and our contractors used the incident as a learning point to discuss and reinforce the need for adequate daily safety checks on all vehicles entering the site. Toolbox talks were arranged for all drivers frequently entering the site on the need and benefits for daily checks. A new procedure was implemented at the site entrance to confirm all trucks delivering to the site had completed their daily checks and random inspections were completed on trucks to confirm their wheels were tight.

Following the implementation of these procedures no further incidents were recording during the remainder of the construction phase of the project.



SUSTAINABLE DEVELOPMENT





### 20. 59 Community Projects Benefit from NTR Community Funds

In the reporting period 59 community projects benefited from the NTR Community Funds in UK and Ireland. In France, community contribution is made through taxes paid by the projects to the government. Examples of beneficiaries include:

- a) Altaveedan WF sponsored a playing pitch lawnmower for the local Gaelic Athletic Club.
- b) Ora More WF granted £1,450 to the Lakeland Community Care Active Aging Program.
- c) Teevurcher WF offered annual grants of between €300 and €750 to nearby residents of the windfarm.
- d) Castlecraig WF granted £7,000 to the local Edernay Community Development Company.
- e) Castlecraig WF granted £1,200 to the Edernay Village in Bloom group.
- f) Airies WF donated £7,000 to the upgrading of the nearby Archenmalg community hall.
- g) Airies WF donated £1,500 to the New Luce area Primary School for extra curricular activities.
- h) Airies WF donated £9,360 to support the retention of the local Post Office and shop.
- i) Quixwood Moor WF donated £96,422 to Preston & Abbey Trust to be used in the construction of a new community hall.
- j) Coollegrean WF donated €5,000 towards festive Christmas lights for the Brosna community.
- k) Coollegrean WF paid €5,000 for the purchase of a lawnmower for the nearby Loughfouder National School.

Sometimes the smaller awards can be just as impactful as the larger ones. While Ora More wind farm donates over £75,000 per annum to the community through a combination of Local Electricity discount Scheme and significant donations to four selected charitable organisations, a benefit scheme for smaller requests also flourishes. The Boho Bowling Club were awarded £2,000 to purchase equipment for their club. The club is based close to the Ora More wind farm and seeks to promote indoor bowling providing an excellent focal point for the local community. The club's weekly meetups are well attended and provide an opportunity for exercise and social interaction within a rural community.

In recognition of the contribution from Ora More Wind Farm the club decided to name their annual trophy "The NTR – Ora More Wind Farm – Community Shield".



**SUSTAINABLE** 





## 21. Health & Safety: Promoting a Hands-On Safety Culture



Figure 48 – NTR Asset Management Staff Undergoing High Voltage Training Constructing and operating clean energy assets has inherent safety risks and nowhere more so than dealing with high voltage equipment. While the NTR team does not deal with high voltage switching on a day to day basis, the company believes that in order to promote a high safety culture, it is important for staff to understand the nature of the hazards.

As a practical measure to develop this awareness, the NTR asset management team undertook practical high and medium voltage training with one of NTR's HV UK Contractors where the team were educated on protection systems, testing, high voltage failure mechanisms and risks, together with good practice and system isolation (making equipment safe for work). The course also focussed on good and poor installation practice.



SUSTAINABLE DEVELOPMENT





# 83

Skutskär Wind Farm, Sweden

# 84 Case Studies -Governance

### Introduction

NTR has put in place strict governance structures both at a company level and within each of its funds, ensuring that strong levels of expertise, independence and diversity are in place at each board and decisionmaking forum.

During the year, NTR added and updated to it suite of governance policies. NTR takes its role as an industry leader and responsible investor very seriously. Through the reporting year, senior NTR executives participated at ESG and renewables fora across Europe helping to promote the ESG, climate change and sustainability messages.

The company continues to challenge itself on governance matters and in the reporting year, the Board engaged *BoardMetrix* to facilitate an online self-assessment of the NTR plc Board members with results benchmarked against our peers.

This section provides governance case studies experienced in the reporting year.

# 22. Board Assessment Central to NTR Board Activities

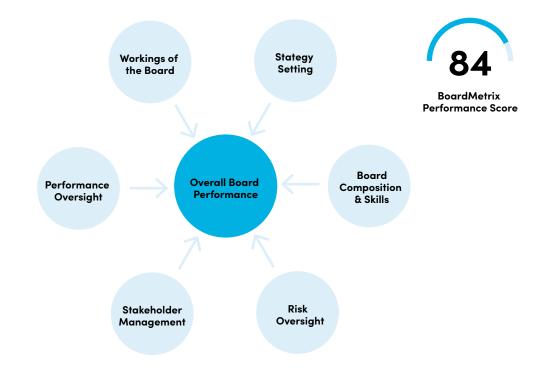
Board assessments are important because they strengthen how companies operate and govern. Every stakeholder has something to gain from boards that perform well and that practice good governance.

The benefits of board assessments include:

- Enhance the performance, functioning and effectiveness of the Board
- Leverage independent insights and actions
- Identify strengths and pinpoint weaknesses
- Offer assurances to stakeholders
- Investment in the company's future

During 2019 year, NTR engaged *BoardMetrix* to faciliate an online self-assessment (>100 questions) of the NTR plc Board members with results benchmarked against our peers. Key areas evallated were as follows:

On completion of the self-assessment, *BoardMetrix* issued a detailed report which, while highly positive overall, has driven a number of actions to be undertaken by NTR plc during 2020.









# 86

# Case Studies - Governance continued

# 23. Promoting Sustainability & Diversity Through Regular Industry Event Participation, Speeches and Panel Discussions



Figure 49 – NTR CFO Marie Joyce Speaking at the Finance Leadership Summit, Dublin 2020

NTR's senior executives have actively promoted the principles of ESG through a variety of conferences, roundtables and summit events throughout the year. The objective is to promote principles around sustainability in its broadest sense and openly share our own practices to help move on the agenda.

CEO of NTR, Rosheen McGuckian participated in a number of panels throughout Europe including a panel on sustainable investing at an energy conference in Dublin organised by one of Dublin's leading law firms in October 2019, a panel on bringing ESG and

sustainability issues into the mainstream as part of *Infrastructure Investor Global Summit* webcast in April 2020 and a roundtable on ESG in March 2020. Sharing the floor with infrastructure investors such as Blackrock, Antin, Ardian and Whitehelm Capital at each of the events, Rosheen promoted the importance of ESG being part of the fabric of the organisation and being integrated into all primary investment and management processes as well as people's remuneration.

NTR CFO Marie Joyce also participated in lectures and panels on behalf of the organisation on the topic of sustainability. In February 2020, Marie spoke at the *Finance Leadership Summit 2020* held in Dublin, on the topic of the changing face of finance and the drive for sustainability.

Marie was also asked to participate as a panellist on energy transition in the *Women in Infrastructure Forum* in London in November 2019. Recognising that women are under-represented at senior levels in the energy sector generally, Marie, Rosheen and other NTR senior executives actively participate in events that encourage diversity such as this and the 30% club.

NTR has also been an active founding promoter of ESG in Ireland, with active participation in multiple events during Ireland's Climate Finance Week 2019 and attending the launch of the Sustainable and Responsible Investment Forum's *"Ireland's Annual Responsible Investment State of Play Report 2019".* This report was based on the annual returns of its signatories of which NTR is one.

NTR also supports the Global Investor Statement to Governments on Climate Change. The Global Investor Statement to Governments on Climate Change was signed by a record 631 investors managing over \$37 trillion in assets reiterating the call for full and urgent implementation of the Paris Agreement by national governments.







# 24. Supporting Best Practice Learnings on ESG Through Academia

In order to support a shared understanding on how ESG risk management best practice applies in renewable energy, NTR was selected as one of nine renewable energy investors who are signatories of UN Global Compact to participate in an MSc project run from University of Salford, Manchester, UK. Companies from Ireland, Netherlands, Chile, Finland, Sweden, Spain, Norway, Pakistan and Denmark were selected to participate in the study. The aim of the dissertation was "to assess whether or not UN Global Compact Principles could be used to manage Risks in Renewable Energy Power Generation Projects".

The key findings of the thesis from an NTR point of view were:

- There is a gap in academic research in the areas of Sustainability and Code of Conduct and Reporting on UNGC principle breaches, where renewable energy respondents indicated that they have practices in place to address these issues, but no academic research is available on the findings.
- 2. Renewable energy companies that are signatories to the UN Global Compact incorporate sustainable (environmental and social) risks into their risk assessments.
- 3. Typically, risks assessments of the renewable energy companies are using the *impact x probability* matrix. The application of this matrix is required not just at the start of projects but throughout the life of a project. Traffic light type of identification is used to prioritise the risks identified.
- 4. Renewable energy companies use exclusion checklists that incorporate the UNGC principles and apply whistleblowing or speak-up policies to highlight breaches in the principles.

Participation in the study endorses our belief that NTR is applying best practice in sustainability risk management and that our position that driving down acceptance to the UNGC through our supply chain is a key sustainability risk management matter.

SUSTAINABLE DEVELOPMENT







### 25. Addressing Cybersecurity Risk

Technology over the past few decades has become an increasingly integral aspect of the workplace. From virtual teams, digital correspondence and financial transactions, to collaborative work documents, businesses rely on technology to be connected at all times and conduct work effectively. However, when these lines of communication are threatened or even compromised, it can have a detrimental effect.

Compromised cybersecurity is a very real and increasing risk and NTR has put in place a number of technical buffers, systems penetration tests, data back-ups and mitigations in response to this risk. However, the human factor is just as important in spotting and avoiding a potential cybersecurity breach.

NTR has a mandatory quarterly cybersecurity training programme for all staff and company directors to help build a strong line of defence in identifying cyber-attacks.

To date, over 40 hours of training has been completed by staff and company directors.

To reinforce the cybersecurity training programme, NTR runs regular simulated phishing campaigns across the company. Simulating phishing attacks allows us to assess the maturity of our company in terms of our security awareness and subsequently allows us to develop targeted phishing awareness training initiatives.



# 90 NTR Foundation

#### Introduction

The NTR Foundation is an independent philanthropic organisation founded by NTR plc. The establishment and funding of the Foundation was approved by the shareholders of NTR plc in 2008. Its ongoing funding is from its holding of NTR plc shares.

A strong commitment to corporate social responsibility is core to the heritage of NTR plc. The NTR Foundation was established to formalise and sustain that commitment and to underscore the company's focus on renewable energy and sustainability.

The NTR Foundation's mission is to address the challenges of climate change and resource sustainability by providing targeted financial support to select projects, research and organisations.

Since its launch, the NTR Foundation has provided over €3.45 million of financial support to carefully selected projects, research and non-governmental organisations, in line with its mission. Today, the Foundation focuses its activities on supporting projects and organisations around renewable energy and sustainability, primarily in Ireland.

The NTR Foundation is a company limited by guarantee without share-capital. It is a registered charity. The Board of Directors is comprised of non-executive directors who provide oversight of spend, budget and governance. Examples of projects receiving grants from the NTR Foundation are provided overleaf.

















#### **Cool Planet Experience**

The NTR Foundation is a founding partner of the 'Cool Planet Experience', a unique science-based visitor centre on climate change, based in Ireland. The Cool Planet is a permanent dynamic exhibition where visitors will be faced with challenges such as extreme weather patterns, food and water sustainability and the impact on human health. Visitors engage with what a smart country or city should look like in the future as we move towards a carbon free world.



#### Friends of the Earth Community Power Project

The NTR Foundation has provided funding to Friends of the Earth, supporting the Community Power project. The project, which consists of a consortium of European partners, has the overall aim of improving policy and legislation across Europe in favour of community owned renewable energy. It is generally recognised that public support is essential to meeting renewable energy 2020 targets and beyond, and that community participation in renewable energy projects can transform public opposition into support.

# nature+

Nature+

#### For many decades, various environmentalists, biologists and other scientists, have viewed the entire earth as a massive living organism or system due to the interdependent nature of all species within it. At least 40 per cent of the world's economy and 80 per cent of the needs of the poor are derived from biological resources. It is now recognised that the richer the diversity of life, the greater the opportunity for medical discoveries, economic development, and adaptive responses to such new challenges as climate change. Responding to this, the NTR Foundation has become the anchor funder of an important Trinity College Dublin initiative called Nature+ which will develop the template and tools needed to optimise biodiverse land management and the delivery of natural capital benefits from onshore wind farms. This initiative will be carried out on 12 wind farms initially and learnings will be shared across the wind farm sector.

#### **Moy Hill Farm**

Moy hill is a 67-acre community farm and registered charity that grows worthy food, builds soil, regenerates systems, plants flowers, herbs, trees and works to leave the land and environment in their care healthier than they found it. The Farm produces organic food without any chemical inputs and has created a local food network that brings together high-quality local producers and local consumers.

Moy Hill Farm educates it customers and local community through tastes and hands on farm activities, farm tours and online tutorials on sustainable farming. The farm builds community by bringing together the local community through the production of food.

Moy Hill Farm is seeking to address the problem that our food system is not hitting the triple bottom line of environmental, social, and economic viability. In 2020 the NTR Foundation sponsored Moy Hill Farm to build a campsite and educational facility / social hub / communal space for the farm to host farm interns, workshops, regenerative agriculture courses, talks, events and work retreats. This will expand the educational reach of the farm and provide an additional revenue stream for the farm. Design of the building is now complete and in the planning process.



Figure 51 - Design of Training Building Sponsored by NTR Foundation



Shalfleet Solar Farm, UK

Carlos March



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