Responding to Climate Change

August 2019

NILGOSC
NORTHERN IRELAND LOCAL GOVERNMENT OFFICERS' SUPERANNUATION COMMITTEE

Introduction

NILGOSC is the organisation that manages the Local Government Pension Scheme in Northern Ireland for approximately 130,000 current and retired public sector workers.

How it does this is laid out in a wide range of legislation. As well as the administration of the Scheme NILGOSC also maintains an investment fund which is used to pay the monthly pensions. This fund is currently valued at £8bn.

This document is a summary of how Climate Change could affect the pension fund, how NILGOSC's investment policy is designed to mitigate the risks posed by Climate Change, how NILGOSC is contributing to the low-carbon transition and its work with others to encourage the action necessary to limit temperature rise to the 2°C degrees or below as per the Paris Agreement.

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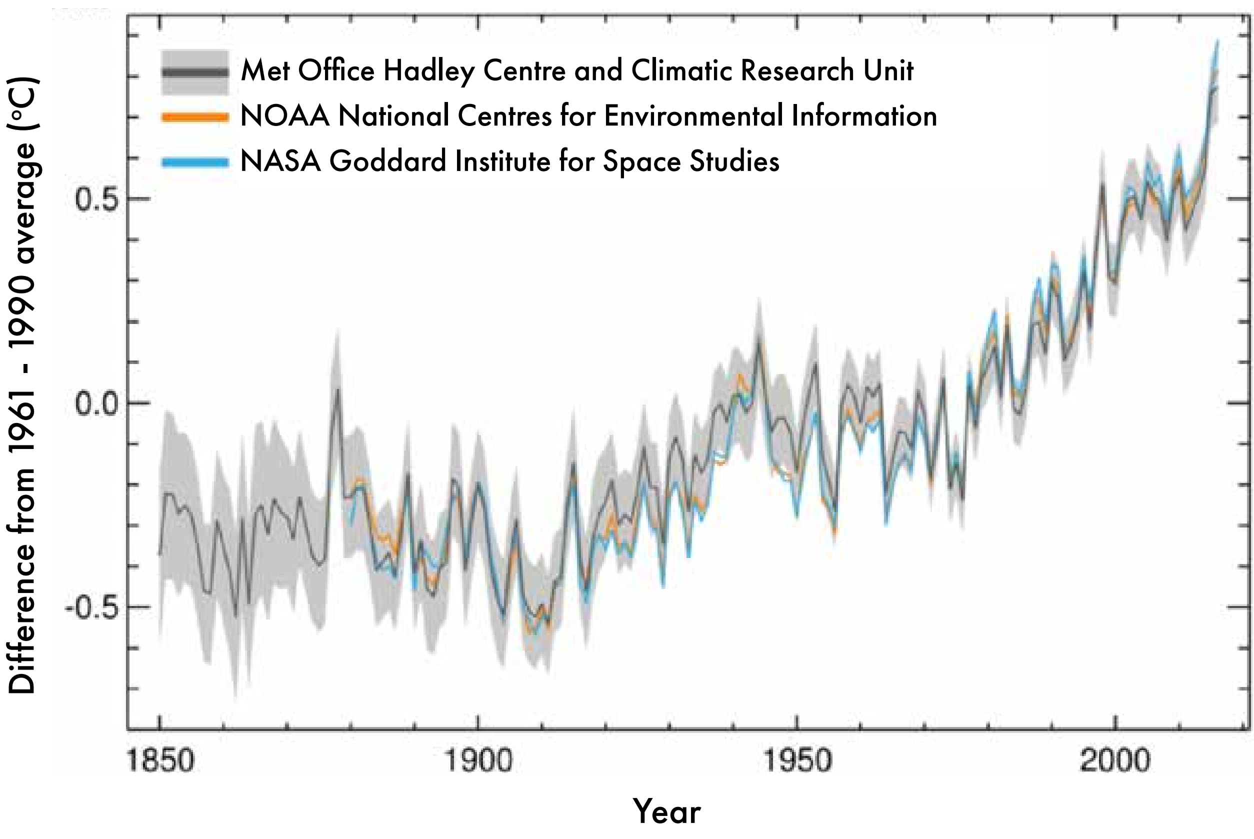
Climate Change and the Paris Agreement

Our environment is changing[i]. Human activity has increased the amount of greenhouse gases in the atmosphere to levels higher than at any time during the last 800,000 years. These trends are driving global average temperature rise at a current rate of about 0.2°C per decade and accelerating the number of species that are becoming extinct[ii].

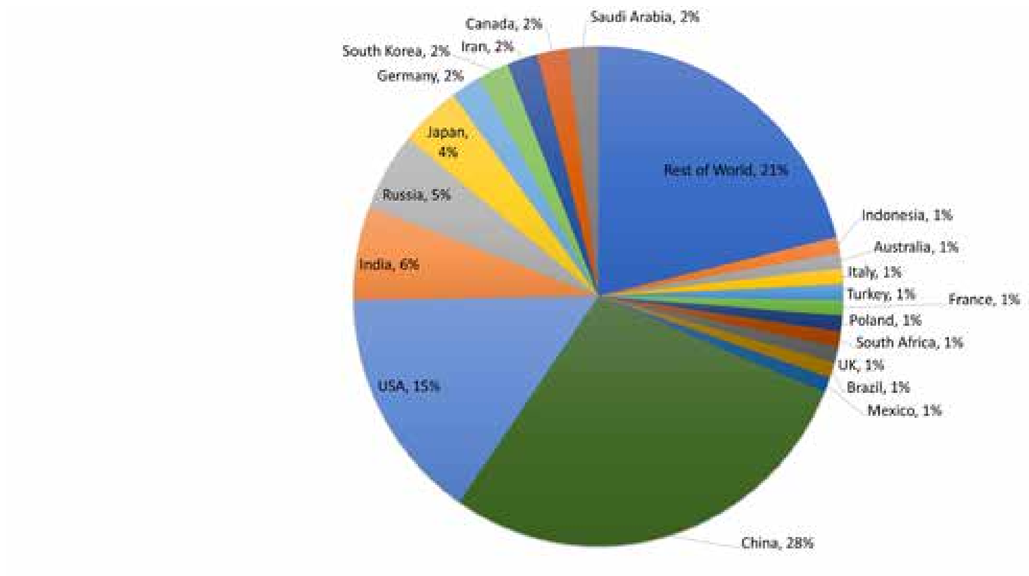
The Intergovernmental Panel on Climate Change's (IPCC) Special Report on Global Warming of 1.5°C showed that humans have caused around 1°C of global warming since the pre-industrial era (1850-1900), with much greater warming in some regions, particularly the Arctic[iii]. Earth has experienced major climate shifts in the past, but since the 1950s, many of the changes are unprecedented[iv]. If greenhouse gas emissions continue at their current rate, global mean surface temperature could rise by more than 4°C above pre-industrial levels by 2100[v].

In December 2015 representatives of 196 countries met in France and negotiated the Paris Agreement which aims to reduce the emission of gases that contribute to global warming. The agreement was designed to limit greenhouse gas emissions to levels that would prevent global temperatures from increasing more than 2°C above the temperature benchmark set before the beginning of the Industrial Revolution[vi]. As of March 2019, 195 states including the United Kingdom, had signed the agreement[vii]. It is up to each country to determine how it will meet the objectives of the treaty.

Global Average Temperature Anomaly 1850 - 2016



Share of global carbon dioxide emissions from fuel combustion (2015)



Data:IEA
Image: Union of Concerned Scientists

The reduction of greenhouse gases in the atmosphere is key to limiting Climate Change. In June 2019, the UK became the world's first major economy to pass a law committing the country to a target of 'net zero' emissions by 2050[viii]. However the actions of single countries will not be effective unless the large emitters[ix], such as the United States and China, take the appropriate action. Unfortunately in June 2017 the US President announced that the United States would withdraw from the Paris Agreement[x].

The Climate Change Risk to NILGOSC

NILGOSC is both a global and a long-term investor therefore it can expect the returns it receives on its investments to be affected by Climate Change. Research has indicated that traditional investment portfolios will be affected negatively, more so with each increase in temperature[xi].

In 2008 NILGOSC published its Climate Risk Statement which set out the action it would take to mitigate the risk of Climate Change[xii] to the pension fund. Following the action taken and using the latest research NILGOSC is now expecting only a modest reduction in return, however, with further action it plans to deliver returns in line with its investment strategy. These actions are described in the remainder of this document.

NILGOSC has a fiduciary duty to its employers and members and must exercise its power to invest on investment grounds only, not for some other reason. It is not permissible to exclude from the fund any investments for non-investment reasons if it is likely to have an adverse impact on the returns achieved or lead to the fund being exposed to an unduly narrow and undiversified portfolio[xiii]. Therefore NILGOSC makes decisions around investments on investment grounds only which includes taking into account the effects of Climate Risk on future values.

In 2019 NILGOSC almost halved the proportion of the fund invested in equities. This shift along with an increase in fixed income and infrastructure assets has significantly reduced the likelihood of a negative effect on returns in the scenario of temperature rises. However returns should be greater if the temperature rise is limited to 2°C or less therefore **NILGOSC supports the aims of the Paris Agreement**. It demonstrates its support through the various engagement activities it undertakes on top of the investment decision making process.

In July 2019 NILGOSC's investment strategy and governance was rated 'A' by the United Nations Principles for Responsible Investment, the pre-eminent body governing responsible investment, in its annual reporting framework assessment[xiv].

NILGOSC was awarded an 'A' rating by the United Nations Principles for Responsible Investment in July 2019

PRI Principles for Responsible Investment

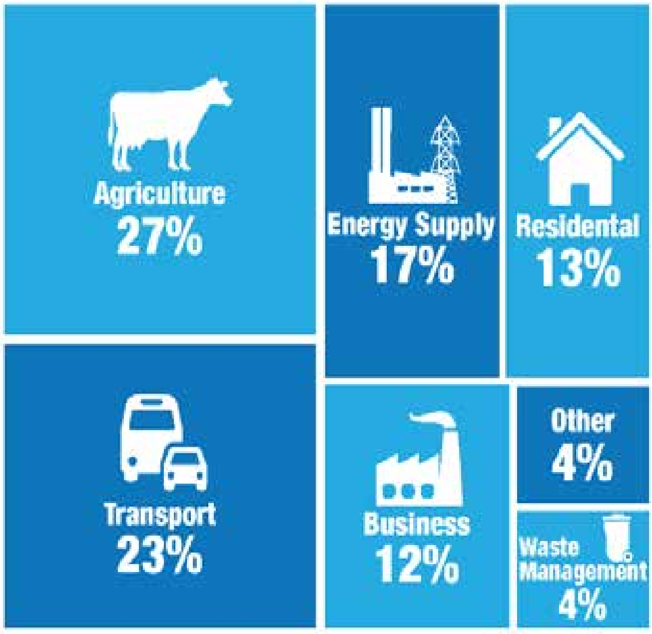
Greenhouse Gases

The sources of greenhouse gas emissions vary by country across the world. Taking Northern Ireland as an example, in 2017 its emissions accounted for 4.3% of total UK emissions. The main emitter was the Agriculture sector followed by Transport and Energy Supply[xv].

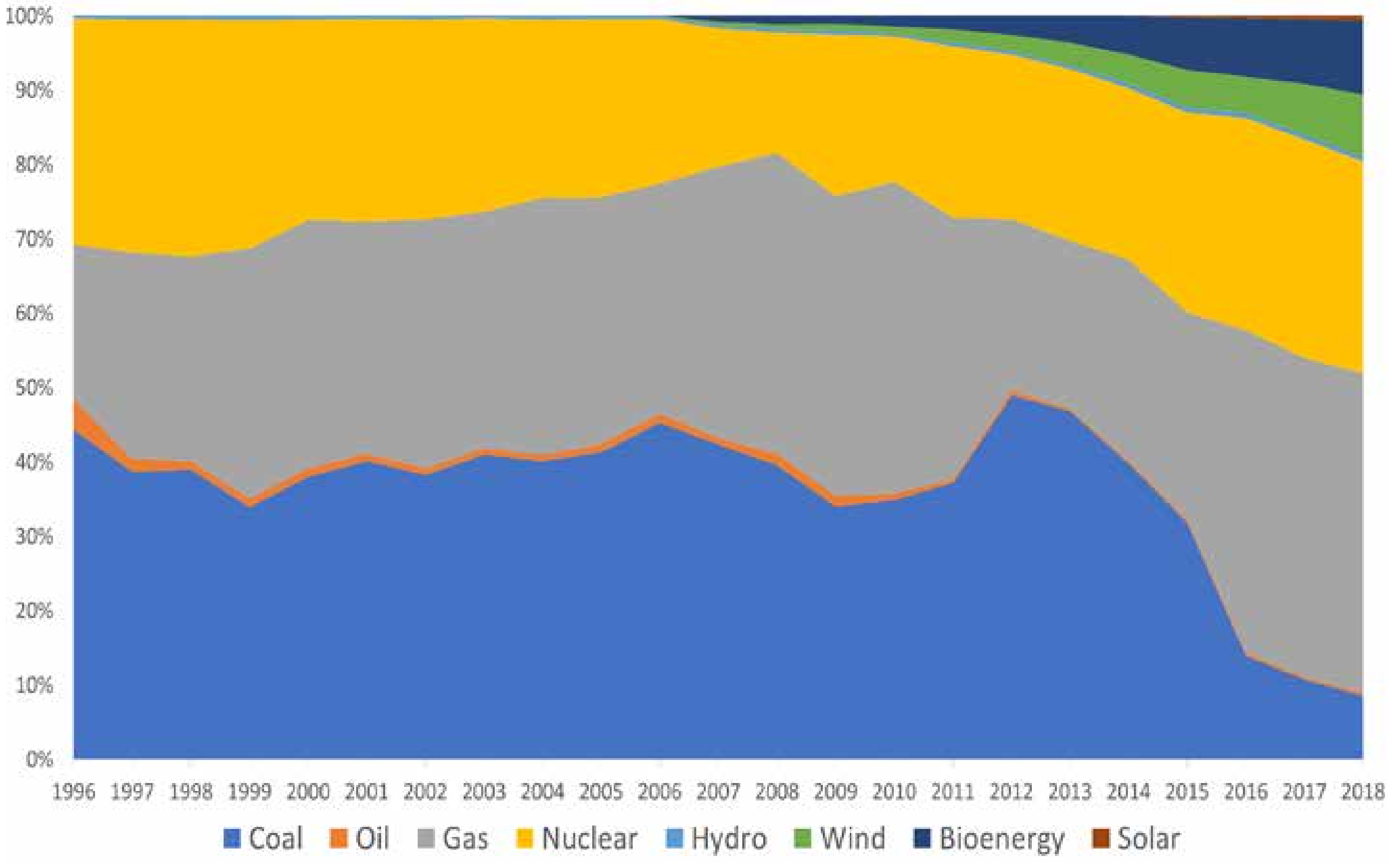
Emissions from Energy Supplies in Northern Ireland and across the UK have been falling significantly in recent years and this has been a major contributor to the overall decrease in UK emissions by 30%. The key reason is the shift away from coal and oil to gas and renewables for the generation of electricity[xvi]. Gas is the cleanest burning fossil fuel emitting 45% less CO2 than coal and 30% less CO2 than oil[xvii].

Each country will have its own mix of greenhouse gas emissions from different sources and therefore will need its own solution for reducing emissions. The Paris Agreement recognises this rather than imposing the same solution across the world.

% of Total Emmissions 2017 by Sector



UK Electricity Sources 1995 - 2018 (source:BEIS)



NILGOSC's Global Engagement with Governments

Individuals and organisations can take action to mitigate against Climate Change but it is governments that need to take the lead and ultimately make the legislation necessary to control greenhouse gas emissions.

In global terms NILGOSC is a small investor but it has collaborated with many other investors to lobby governments to take the urgent action needed to achieve the goals of the Paris Agreement. NILGOSC is a signatory to the United Nations Principles for Responsible Investment (UNPRI) and, at a European level, is a member of the Institutional Investor Group on Climate Change (IIGCC). NILGOSC joined with 447 other investors, with assets totalling $34 trillion, at the last G20 meeting to encourage those governments to do more as up to that point in time the commitment made would only limit temperature rise to 2.9-3.4°C, therefore failing to meet the Paris Agreement objective[xviii].

NILGOSC's Own Investments

NILGOSC significantly reduced its holdings in Equities in 2019 and increased its allocation to Infrastructure. It is continuing to build up its Infrastructure portfolio and currently holds assets that are an important part of the emerging low-carbon economy.

The assets are worldwide and include wind, solar, energy-from-waste and hydro power generators, public transport systems, district heating and manufacturers for the renewable energy industry.

Case Study - DIF Infrastructure V Fund

NILGOSC has committed €50m to a global infrastructure fund managed by DIF Capital Partners. Through this fund NILGOSC is invested in a range of assets which form part of the low-carbon economy. These include:

Dublin Waste to Energy: The Dublin Port waste-to-energy facility is the largest in Ireland. Operating in conjunction with Dublin City Council it is designed to convert 600,000 tonnes of non-recyclable waste into 60 megawatts of electricity and, in the future, generate 90 megawatts of district heating[xix].

Synergy Wind and Solar: This joint venture has acquired Synergy's wind and solar PV power projects located in Western Australia. This includes the 36MW Albany Grasmere Wind Farm, the 40MW Greenough River Solar Farm and the 180MW Warradarge Wind Farm plus a pipeline of other projects[xx].

BluEarth Renewables: Based in Calgary, BluEarth acquires, develops, builds and operates wind, solar and hydro energy projects in the US and Canada. It operates 19 facilities with a current capacity of 381MW but with 1000MW in development[xxi].

Some assets are vital for the transition to the low carbon economy and are being used to replace higher emission fossil fuels with fuels that produce a lower level of emissions such as natural gas.

Case Study - Firmus Energy

Image from Firmus Energy

Closer to home an important investment for the transition to a low-carbon world is NILGOSC's investment in Firmus Energy. Firmus is one of 3 gas distribution and supply companies in Northern Ireland[xxii].

Northern Ireland has the highest level of fuel poverty in the UK and is one of the highest in the European Union[xxiii]. Gas is a key part of the solution to reduce fuel poverty but also, and more relevant, the move to gas will significantly reduce CO2 emissions.

Only 24% of Northern Ireland householders (compared to 83% in GB) currently use gas for heating whilst 68% of householders use oil. The continued rolling out of the gas network, and the conversion of users from oil to gas will reduce CO2 emissions as gas produces 30% less CO2 compared to oil when burnt. In addition the network of pipes will be vital infrastructure in Northern Ireland for use for the next generation of fuels that will replace natural gas in the future.

As well as infrastructure assets NILGOSC also invests around 34% of the total fund in global equities. NILGOSC maintains a diverse portfolio[xxiv] covering all sectors but the direct holdings, for example, in the Utilities sector tilts towards those energy companies using renewable sources such as NextEra Energy, Eversource Energy, and Endsea. NILGOSC also has holdings in Tesla and NIO the electric car manufacturers. It should be noted however that equity holdings are subject to change.

Case Study - NextEra Energy Inc.

NextEra Energy is the world's largest generator of renewable energy from wind and sun[xxv]. Based in the United States, it operates nearly 14,000 MW of wind energy which is sufficient to power almost 4.2 million homes and is growing its wind portfolio.

It provides solar energy to Alabama, Arizona, Arkansas, California, Florida, Georgia, Minnesota, Nevada, New Jersey and New Mexico. It is also the US's leader in energy storage with the largest amount of operational storage used to balance the load on the power grid and to respond to demand quickly. It has more than 140MW of capacity. For example, the Babcock Ranch Solar Energy Center, is the largest combined solar-plus-storage facility in the country, incorporates a 10MW battery storage project with the operations of a 74.5 MW solar power plant[xxvi]. Babcock Ranch is referred to as America's first solar powered town.

NILGOSC has appointed a range of fund managers to determine which securities to hold and has instructed those managers to take Environmental, Social and Governance (ESG) considerations into account when making those decisions[xxvii]. NILGOSC holds securities in companies in most sectors and markets as it is required to hold a diverse portfolio in order to reduce investment risk.

Although NILGOSC delegates responsibility to the fund managers to select shares NILGOSC remains the beneficial owner and seeks to influence the company on ESG related issues including Climate Change. NILGOSC exercises its vote at company meetings. In the year to 30 June 2018 NILGOSC voted at 540 meetings in 33 countries. It cast 7,080 votes of which 2,480 were against the company management's recommendation[xxviii]. Included in the vote total are Shareholder resolutions, of which 5% related to Climate Change[xxix].

Climate Action 100+
@ActOnClimate100

"If global governments, if humanity doesn't prevent climate change...$43tn could be wiped off global shares – roughly a third of their value," @stevewaygood of Aviva. One of the 360 plus global investors that are part of Climate Action 100+.

Can big investors save the world?
Will the big polluters clean up their acts if the people who actually own them say they must?

NILGOSC has previously co-filed resolutions at company meetings on Climate Change related issues. For example, in 2019, NILGOSC co-filed a resolution at the BP Plc AGM calling on it to disclose how its spending plans, emission policies and broader business strategy align with the Paris agreement. The resolution was supported by shareholders and by company management. This is a major step forward in aligning that company's business plan to a <2° world and is an indicator of the influence shareholders can have over a company's activities.

NILGOSC filed the resolution as part of the Climate Action 100+ initiative which is engaging with 100 of the world's largest greenhouse gas emitters to curb emissions, strengthen climate-related financial disclosures and improve governance on climate change risks. Early successes, as well as BP, include Shell, Glencore and Equinor (formerly Statoil). Climate Action 100+ is a collaboration of 360 global investor with assets totalling $34 trillion.

Working with companies like BP and other Energy companies is extremely important for addressing Climate Change through the reduction of greenhouse gas emissions. The market for renewable energy investment opportunities is still immature with higher risk/return profiles when compared to traditional markets. Existing energy companies are major providers of capital for these types of investments. Where NILGOSC holds shares in specific energy companies, it uses its influence as a shareholder to transition the company to a low-carbon economy.

Case Study - Climate Action 100+

NILGOSC is a signatory to, and supporter of Climate Action 100+ which is an investor initiative to ensure the world's largest corporate greenhouse gas emitters take necessary action on climate change. The companies include 100 'systemically important emitters', accounting for two-thirds of annual global industrial emissions, alongside more than 60 others with significant opportunity to drive the clean energy transition.

Launched in December 2017 at the One Planet Summit, Climate Action 100+ garnered worldwide attention as it was highlighted as one of 12 key global initiatives to tackle climate change.

Investor representatives from AustralianSuper, California Public Employees' Retirement System (CalPERS), HSBC Global Asset Management, Ircantec and Manulife Asset Management have helped to lead the design and development of Climate Action 100+.

The initiative is designed to implement the investor commitment first set out in the Global Investor Statement on Climate Change in the months leading up to the adoption of the historic Paris Agreement in 2015 -"As institutional investors and consistent with our fiduciary duty to our beneficiaries, we will work with the companies in which we invest to ensure that they are minimising and disclosing the risks and maximizing the opportunities presented by climate change and climate policy."

To date, more than 360 investors with more than USD $34 trillion in assets under management have signed on to the initiative. In July 2018, Climate Action 100+ released an update that showed more investors are mobilising across dozens of countries to drive corporate action on climate change, and companies on the initiative's focus list, have started to make progress towards its goals, including a trebling in support for the recommendations of the Financial Stability Board's Task Force on Climate-related Financial Disclosures.

NILGOSC is also a signatory to the Carbon Disclosure Project, which runs a disclosure system for investors, companies, cities, states and regions to manage their environmental impacts[xxx]. It aims to make environmental reporting and risk management a business norm, and drive disclosure, insight and action towards a sustainable economy. CDP requests information on climate risks and low carbon opportunities from the world's largest companies on behalf of over 800 institutional investor signatories with a combined US$100 trillion in assets.

NILGOSC has not banned investments in particular industries. It is up to its fund managers to determine which stocks or companies to hold but they must take ESG issues, including Climate Risk, into account when making the investment decision. Decisions have to be made for clear investment reasons and not for political or ethical reasons.

Case Study - Why does NILGOSC not exclude all investments in Fossil Fuels?

NILGOSC has not excluded investments in any particular industry including Coal, Oil & Gas. It is up to its Fund Managers to determine which stocks to hold but they must take environmental, social and governance (ESG) issues into account when making the investment decision.

NILGOSC's holding in the Coal, Oil & Gas sector has fallen significantly in recent years. In 2015 it held £167m directly in the sector, **in 2019 this has fallen to £33m, which is less than 0.4% of the total fund**. It holds particular companies due to their low valuation and balance sheet strength which reduces portfolio volatility.

Those companies in which it holds shares are listed on public stock markets and have good levels of corporate governance. NILGOSC as a shareholder can vote at company meetings and influence the direction of the Company. At the 2019 meeting of BP, it co-filed a resolution, that was carried, demanding that it disclose how its spending plans, emission policies and broader business strategy align with the Paris agreement.

Whilst NILGOSC's holdings in the Oil & Gas sector are low it recognises that some operators in the Oil & Gas sector are important for the transition to the low-carbon economy. This is especially relevant to the Gas sector where emissions of $CO2$ are 30% less than oil and 45% less than Coal. Energy usage across the world is forecast to rise and renewable sources cannot replace all Coal, Oil & Gas in the medium term however the continued conversion from Coal and Oil to Gas will result in lower $CO2$ emissions in the interim period.

NILGOSC believes that the forced selling of its relatively small holdings in Oil & Gas will have no positive effect on $CO2$ levels for a number of additional reasons:

- Selling shares has no effect on the company profits. It simply passes ownership of the shares to another buyer, who may well have less concern about the climate than NILGOSC does.
- Selling shares will have no effect on the supply of oil and gas. 80% of the world's oil companies are not listed and are in private or state ownership. These companies will continue irrespective of any divestment initiative and continue the supply.
- Divestment is a distraction from the most important action which is to reduce demand. It is not the Oil & Gas sector which is burning the fuel and creating $CO2$, it is the demand side, domestic and commercial users.

Summary

NILGOSC has been taking action to mitigate the investment risk brought about by Climate Change since 2008. It has positioned its portfolio such that the downside from adverse returns is minimised but that there are also upside opportunities from its investments in assets operating in the low-carbon economy. It has amplified its influence by collaborating with other investors to engage with governments and individual global companies in the desire to accelerate the transition to a low-carbon economy and achieve the objectives of the Paris Agreement.

NILGOSC believes the best way to bring about change in corporate behaviour is to remain as an active and influential investor. Alongside this it will continue to seek suitable investments in low carbon opportunities where these yield an attractive level of return for an acceptable level of risk. To this end it will continue to engage with governments and policy makers to establish long-term policies which create a range of attractive opportunities and technologies of the future.

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