



# SAFETY AND CORPORATE SOCIAL RESPONSIBILITY REPORT – 2017

# CORPORATE SOCIAL RESPONSIBILITY

**“A company’s ability to manage environmental, social, and governance matters demonstrates the leadership and good governance that is so essential to sustainable growth”.**

Larry Fink, Chairman and CEO,  
Blackrock, annual letter to CEOs –  
*A Sense of Purpose*, January 2018



Upgrade to the Zingisani Creche in Noupoort, South Africa

At Mainstream we see CSR as more than just “our ability to manage environmental, social, and governance matters”. For us, CSR is woven into all the aspects of our business. It functions as a built-in, self-regulating mechanism where we monitor and ensure we live our corporate values, and go beyond mere compliance with the spirit of the law, ethical standards, and international norms across all of our markets.

In Mainstream, the goal of CSR is to embrace responsibility for the company’s actions and encourage a positive impact through our activities on customers, partners, contractors, employees, communities, stakeholders, all other members of the public sphere and the environment.

In 2015, Mainstream created a committee of the Board, the Safety and CSR committee (“SCSRC”) to report to the Board on our performance in living and leading on our Values.

*\*Gross CO<sub>2</sub> emissions avoided in 2016 were 905,614 metric tonnes less our own consumption.*

The SCSRC reviews Mainstream’s strategies, policies, management, initiatives, targets and performance in the areas of:

1. Occupational health and safety and security;
2. Societal role and interaction with communities and the environment;
3. Workplace policies;
4. Corporate policies and compliance.

It also advises the Board on any areas of emerging environmental, social and governance (“ESG”) risks and opportunities.

## 2017 CSR Highlights

Mainstream renewable energy plant avoided an estimated net **902,708\*** metric tonnes CO<sub>2</sub> through our renewable energy generation in the 2016 reporting year, up from 662,000 tonnes in 2015, or a **36% increase** in net negative emissions.

The Khobab and Loeriesfontein projects in South Africa passed the **2 million hours LTI (lost time incident) free** milestone in December 2017.

**Zero** fatalities and **zero** incidents of bribery or corruption.

We supported **24 community projects** globally with an estimated value in excess of **€148,000**.

We have **7,150MW** of renewable power plant in development, **300MW** in construction and **804MW** delivered into operation (up from 524MW in 2016).

## Key Performance Indicators (“KPIs”)

### 2017 Building the new baseline

In 2016, Business for Social Responsibility performed a benchmark of the Mainstream CSR programme. BSR analysed company and project/investment level CSR measurement and reporting standards against 5 peer companies grouped in 3 sectors. These included Siemens, Enel, Dong (now Orsted) and RES.

The assessment was aligned mostly with Globally Recognized CSR Reporting Standards (Relevant to Renewable Energy Sector), the Global Reporting Initiative (GRI G4) General and Utilities sector supplement, with significant overlap with GIIN IRIS and SASB Wind and Solar Standards and slight overlap with IFC EHS General Standard.



Workshops promoting sustainable living, Chile



"Ventolera y Ventarrón" environmental education program, Chile

As result of their research, BSR identified nine KPI categories from these standards, most of them aligned with our existing SCSRC Terms of Reference.

In July 2017, we undertook a review of the structure and purpose of the SCSRC, and concluded that our CSR strategy should be measured across four pillars. The first, Marketplace, reflects the impact of our business activities on stakeholders across all our platforms, and the three remaining pillars, (Workplace, Environment and Community) enable us to capture our activities in specific parts of the business, based on BSR recommendations and GRI standards [see fig 1].

The Marketplace is where we operate as a company, and encompasses our overall CSR strategy. Workplace relates to all aspects of working life from the way we run our business, the quality and safety of our physical environment and our work/life balance. Environment measures our footprint as a company; what is the social and environmental impact of our activities? Community helps us assess the effectiveness of our Global Development Standard in guiding our approach to development in all our markets. In this pillar we measure how we engage with our neighbours as we develop our projects.

Within the four pillars we now have a set of seven areas of performance, based on GRI standards, which we can measure:

- > Governance and Ethical Business Practices,
- > Labour Practices,
- > Work Health and Safety,
- > Energy Use and Emissions,

Measuring CSR Strategy – The 4 Pillars			
<b>Marketplace</b> <b>Strategy</b> <ul style="list-style-type: none"> <li>&gt; Execute with skill</li> <li>&gt; Place in the heart</li> <li>&gt; Make it part of the culture</li> <li>&gt; Encourage and motivate responsible behaviour</li> <li>&gt; Make it stream</li> <li>&gt; Share best practices</li> <li>&gt; Anticipate trends</li> </ul>	<b>Workplace</b> <b>2018 Targets &amp; KPIs</b> <ul style="list-style-type: none"> <li>&gt; Governance and ethical business practice (GE)</li> <li>&gt; Labour practices (LP)</li> <li>&gt; Work Health &amp; Safety (WHS)</li> </ul>	<b>Environment</b> <b>2018 Targets &amp; KPIs</b> <ul style="list-style-type: none"> <li>&gt; Energy Use and Emissions (EU) – Carbon Disclosure Project (CDP)</li> <li>&gt; Product lifestyle and related ecological impact (PL)</li> <li>&gt; Waste hazardous material (WH)</li> </ul>	<b>Community</b> <b>2018 Targets &amp; KPIs</b> <ul style="list-style-type: none"> <li>&gt; Community impact and project benefits (CI)</li> </ul>

Figure 1

- > Product Lifecycle and Related Ecological Impact,
- > Waste Hazardous material, and
- > Community Impacts and Local Benefits.

Our intention is to add two more in 2019

- > Water Use and Disposal,
- > Water Sourcing .

The new set of KPIs should be more relevant and have a wider impact across the marketplace where Mainstream operates. This more structured approach using a set of understood and benchmarked objectives will increase the transparency and objectivity of our reporting, and enable us to better measure our performance across all our platforms.

#### Carbon Disclosure Project ("CDP")

Mainstream made its first formal Climate Change submission to CDP in 2017 after an informal submission the previous year. We were graded for the first time. We were

awarded a C grade (grades run from F, D-, and D through to A) for "Awareness". The official feedback is that we "did very well" to achieve a C as our first score, which is consistent with the average for our industry group (electric utilities, IPP's and energy traders) and ranks us alongside The World Bank Group, GE and Vestas. It also puts Mainstream in the top 35% of Irish responding companies.

When Mainstream committed to the CDP journey two years ago we anticipated a path of continuous improvement, and plans are already underway to better articulate Mainstream's climate change leadership through the context of CDP. The materiality of our net avoided emissions of 902,708 tonnes of carbon (902,708 tCO<sub>2</sub>e) in 2017 resulting from plants developed and operated by Mainstream is equivalent to taking 193,299 cars off the road or the carbon sequestered by 1,063,260 acres of forest in the same period. This equates to an increase of 36% from 2016.

# LIVING OUR VALUES

## Our values are our social compass

Having a positive impact on the world around us is at the core of everything we do. Our mission is to lead the world on its transition to sustainability. Our vision is of a world where communities thrive beyond the use of fossil fuels. Along the way, a clear focus on our core values ensures that we have a positive impact today and tomorrow.

Our values directly influence how we do business. We have created the Mainstream Global Development Standard™ to incorporate these Values directly into our day to day work. The Global Development Standard™ is a unique initiative – a project development process that is benchmarked against the highest international standards. It is a comprehensive set of checks and disciplines and is the foundation of every project we undertake. The Standard methodically eliminates risk at every stage from greenfield through to commercial operation, ensuring outstanding quality and consistency. In new and developing energy economies, our partners need certainty. The Standard is benchmarked against IFC Environmental and Social Standards and Equator Principles, and it is in line with the United Nations Guiding Principles on Business and Human Rights and the World Bank Group Environmental, Health and Safety Guidelines.

## Integrity

*We believe in conducting our business to the highest levels with a strong and consistent moral code.*

Acting with integrity is about more than our image and reputation, or avoiding legal issues. It is about sustaining a place where we all are proud to work and ultimately knowing that we have done the right thing.

This means conducting our business openly and according to the highest standards of professionalism, honesty and integrity. Integrity is key to our success and we are firmly committed to protecting our business from any form of illegal, corrupt and unethical activity or practice that could jeopardise our ultimate goal to be the world's leading renewable energy developer.

Mainstream has a zero tolerance policy in relation to bribery and corrupt practices. In 2017 we had zero episodes of bribery or of corruption in the company.

Our Directors sign an Anti-Bribery and Corruption compliance statement and all employees do so annually. In addition, once a year all employees undertake a mandatory Anti-Bribery and Corruption training module.

We also operate our business in accordance with the Mainstream Code of Conduct. The code sets out our stance on a number of matters that are central to the integrity of the company. Such matters include but are not limited to health and safety, human rights, ethical employment practices, transparency in reporting and internal procedures for raising concerns. Our Code of Conduct is freely available to all our stakeholders. We review and update it where necessary, once a year. Along with the Mainstream Global Development Standard™ our Code of Conduct provides partners, investors and regulators with a complete look-through to the company's approach to development.

## We believe in a safe environment for our people

*We believe in creating a safe environment for our people. By putting safety first we create an environment in which people work at their best.*

Environment, Security, Health and Safety remain priorities for Mainstream in 2017, with the completion of a number of



Mainstream Chile signs co-operation agreement with technical school in Southern Chile.



Construction at Khobab wind farm, South Africa.

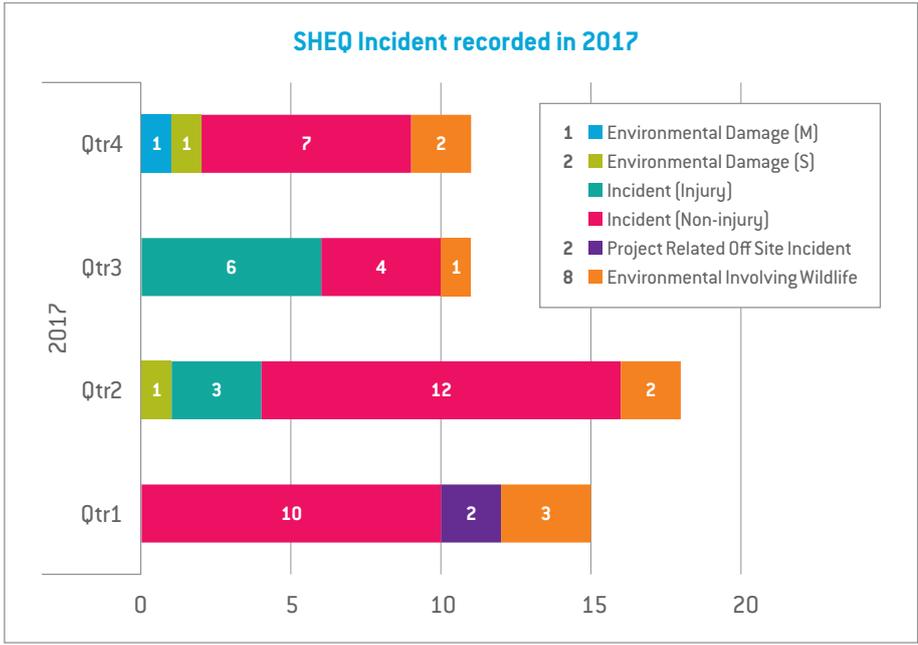


Figure 1



Figure 2

construction projects in South Africa, along with ongoing operations in Ireland and Chile, and pathfinder development in Africa and South East Asia. Management in each country handled a number of challenges and delivered results without compromising safety, environmental health or asset integrity.

2017 closed with 55 recorded events, and 9 of them involved minor injuries to contractors during development and construction

activities representing a decrease of 40% compared with 2016. We had no single lost time event or fatal accident recorded in a continuation of our 2016 record. This includes the remarkable achievement of our Loeriesfontein and Khobab projects reaching over two million man hours and COD with no significant incidents.

In Chile we started preparations for the construction of the two Aela windfarms at Sarco and Aurora, by adding more SHEQ

professionals and resources underpinned by an integrated construction and operations strategy. In frontier markets, including Vietnam and the Philippines the SHEQ team has worked closely with development colleagues to embed H&S policies across our new platforms.

In Chile and South Africa we continue to develop an Integrated Management System (IMS) in accordance to OHSAS 18001 and ISO 14001 frameworks, and there is work in progress in getting ready for a final test with ISO certification entities. Our Dublin and Glasgow offices kept their ISO 9001 and OHSAS 18001 accreditation.

A number of challenges remain for Mainstream like road safety, construction activities and sustainable environmental compliance, and as a young organisation we continue to build our resilience to enable us to better manage risk across the business. Fig.1 shows annual distribution of SHEQ incidents along 2017.

In 2017 we improved our SHEQ observation process. This activity looks to address hazardous situations and conditions in order to implement corrective actions before these can trigger an incident. South Africa led this initiative, followed by Chile and Ireland, where 90% of observations happened during operations (fig2).

The focus remains in tackling hazardous conditions on equipment and housekeeping (fig3 on the next page). Near miss activity built momentum in early 2017 and then slowed down due to the progress of activities in South Africa and Chile.

The appointment of a new Group SHEQ Manager has helped considerably as we look to create a global SHEQ function that ensures compliance across complex legal frameworks in the marketplaces in which Mainstream operates. The SHEQ team continues to work to increase awareness across the organisation, and to ensure that our performance exceeds our targets and enables us to live this most critical of all our values.

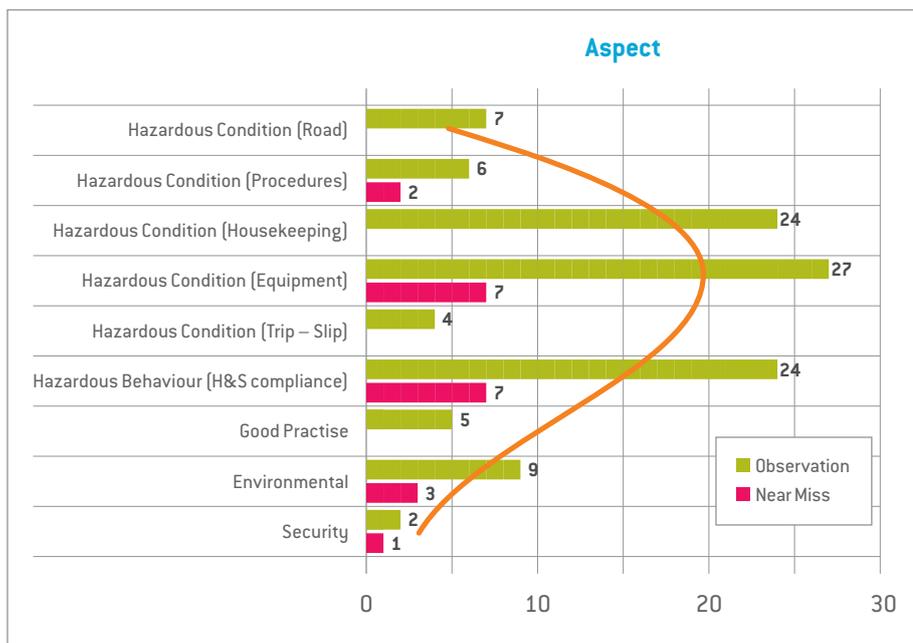


Figure 3

### We believe in showing personal respect for everyone we deal with

*Respect forms the core of the most successful relationships and relationships form the foundation of our business. Where there is mutual respect, trust is established and partnerships thrive.*

Our local footprint wherever we develop projects is time limited. Once a plant is operational, we have usually exited in favour of a long-term owner. Working with colleagues across the company the SCSRC determined in 2017 that investing in local education projects, through the development phase of our wind or solar plant, would enable us to maintain a link with local communities after we have departed.

This commitment is part of our value of respect, and in 2017 we undertook projects across the world to help deliver positive pre-school, school and lifelong learning outcomes.

Through our Loeriesfontein and Khobab wind farms in South Africa we are funding a literacy programme aimed at helping local Loeriesfontein primary school learners to improve their reading and spelling levels. This 'Learn-Ready Literacy Programme' is being implemented in Loeriesfontein

Primary School and TNJ van der Walt Primary School Grade 2 to Grade 5 as well as Grade 8 at Loeriesfontein High School, in partnerships with the National Department of Basic Education and the various provincial departments.

Learners at Enoch Mthetho High School in Noupoot are enjoying the benefits of a newly upgraded state-of-the-art Maths and Science laboratory that is supported by solar powered Wi-Fi infrastructure. With the support and guidance of our Noupoot Wind Farm and the Department of Basic Education, this school is now able to offer Physical Science as a subject to its learners for the very first time. The Noupoot Wind Farm's mathematics and science development programme includes the recruitment of a Mathematics and Computer Application Technology teacher as well as a teacher for the recently added Physical Science from Grades 8 to 12.

We sponsored an integrated eyesight screening programme in South Africa's Karoo region which has been implemented in conjunction with Vision 4 Change. The programme performed eye screening and testing on a total of 625 children in the Namaqua District. Of these, 21 children were identified with visual impairments and were

provided with prescription spectacles by qualified optometrists.

Around 60 children participated in the 2017 closing ceremonies for our "Ventolera y Ventarrón" environmental education programme rolled out across the Los Lagos region in Southern Chile since 2013. This educational initiative uses playful material to teach the children about the importance of the environment and taking care of our natural resources. The books, which are the product of these activities, reflect the children's desire to understand how the wind really works and the teachers' and community's willingness to embrace this new knowledge about renewable energy and the environment.

In an effort to support and contribute to renewable energy education, Mainstream Renewable Power and the Frutillar Liceo Industrial Chileno Alemán (Lichaf) signed a cooperation agreement during a ceremony held in the school, which is located in the Frutillar commune of the Los Lagos region. This partnership aims to support the professional and vocational development of these students. It involves educational talks that will introduce the students to renewable energy generation and with a special focus on wind energy and its advantages compared with conventional energy sources. The students are provided with the technical tools so that they can learn about how wind farms work during a site visit, which will involve around 30 students. In addition to this, with the help of the Ministry of Energy, the students will learn about how the electricity market and the new Equal Tariff Law work. At the end of the semester, the Lichaf board and the Mainstream team will test the students on their newly acquired knowledge.

The Ajitepa wind farm project in Ghana has completed the refurbishment of three local schools as part of its Community Investment Plan. The schools, which were selected by the local government based on their individual needs, are located close to the project site and collectively educate more than 300 pupils. The objective of the

refurbishment programme, which began in October 2016 and was completed in March 2017, is to provide a safer and more comfortable teaching environment for both the teachers and the children. The three schools are Old Ningo DA Kindergarten, Ajitepa DA Basic Junior High School and Dawa DA Basic – Primary.

**We believe that by working together as a team, we deliver more**

*We won't achieve our vision in isolation. By coming together we empower each other to deliver a sustainable future and share its success.*

In May 2017 Mainstream signed a joint development Agreement with GE and the Phu Cuong Group to take forward a significant nearshore wind development in southern Vietnam. The deal was one of five agreements valued at more than US\$5 billion announced to support the development of Vietnam's energy and aviation sectors during a signing ceremony that was part of Vietnam's Prime Minister Nguyen Xuan Phuc visit to the United States.

The agreement marked the next phase of the collaboration on the project announced in November 2016 and is in support of the 1 GW initiative that GE and the Ministry of Industry and Trade signed in May 2016.

Partnerships underpin many of the projects that Mainstream has successfully developed, with Lekela in Africa, Aela in South America, SMartWind in the UK, and now in Vietnam. The Aela Sarco and Aurora windfarms moved into construction in late 2017, just as Lekela's Loeriesfontein and Khobab windfarms successfully achieved completion. Three years after Mainstream disposed of its interests in SMartWind, its Hornsea 1 project began construction under its new owners, Orsted.

In Scotland, the Neart na Gaoithe Coalition launched in 2017 in support of our 450MW project was instrumental in building public support through the appeal stages of the RSPB's unsuccessful judicial review challenge of the 2014 planning consent. It also underscored the significant supply chain opportunities for Scottish firms and businesses that Neart will provide as it moves into construction.

**We believe that an entrepreneurial approach will find the solutions others can't see**

*The world is facing monumental challenges. We won't overcome them by conventional thinking. This is the time for finding new ways.*

Chile has experienced some of the most dramatic falls in the cost of renewable energy over the course of a series of annual auctions for new capacity. As prices have fallen questions have been asked as to the bankability of these new low-cost projects. Showing that we can finance and build utility scale renewable energy plants in emerging markets is what we do; sometimes, it is necessary to remind ourselves that it is not always straightforward.

In August 2017 Mainstream and our partners in Aela Energia obtained US\$410m in project financing for two wind farms in Chile with a combined capacity of 299MW, bringing the Projects to financial close. Aela Energía is 60% owned by Actis with the remaining 40% owned by Mainstream. Aela Energía has now started construction of the 170MW Sarco and 129MW Aurora projects. Sarco is



End of year school trip for community, Chile



Remedial teacher support, South Africa.



Eyesight screening program, South Africa.



Community program, Northern Chile.



Mainstream South Africa sponsored three students as part of the WindAC in November 2017.



Greenhouse management and crop scheduling training, Chile

located in Freirina commune in the Atacama region while Aurora is located in Llanquihue Commune in Los Lagos region.

The two projects, which were developed by Mainstream will use wind turbines supplied by German manufacturer Senvion. Both projects will be completed in the next twelve months and together will provide power to the equivalent of 460,000 households.

The project financing will be provided by a group of multilateral and commercial banks including Inter-American Development Bank and its member affiliate Inter-American Investment Corporation (IADB-IIC), Mitsubishi UFJ Financial Group, Sumitomo Mitsui Banking Corporation, Korean Development Bank, Caixa, and KfW and Banco Santander as VAT lender. The length of financing is for 18 years.

In December 2017 we secured US\$50m in mezzanine finance from funds managed by affiliates of Apollo Global Management, LLC, a leading global alternative investment manager, to partially fund Mainstream's equity investment in the Sarco and Aurora wind farms. The projects are now in construction with the first turbines supplied to site in early 2018.

**We believe in a sustainable approach to everything we do**

*We think about tomorrow and how today's actions will impact our future. It's central to everything we do. Taking the long-term view is fundamental to the success of our business, to the relationships that we form and for the future.*

2017 was a critical year for our Scottish offshore wind project, Neart na Gaoithe. Consented in 2014, the project was delayed by the intervention of RSPB Scotland who sought to judicially review the decision of the Scottish Ministers to give it the green light.

Underpinning our position was the knowledge that the project's potential impact on bird species in the outer Forth Estuary was significantly outweighed by its broader environmental impacts. Once operational the project will displace 450,000 tonnes of CO<sub>2</sub> a year, helping to abate the impact of a changing climate on Scotland, particularly in the warming of the sea around her coasts. As the seas' warm, plankton moves north in search of cooler waters. Sand eels follow the plankton, and the sea birds, which feed on the sand eels, find their traditional feeding grounds exhausted.

Our approach has always been to try to do the right thing. To build Neart to help combat climate change, but to design it in such a way to minimise its local environmental impact.

It is not just environmental sustainability which drives us, but economic as well. In 2017 we commissioned a study by the Fraser of Allander Institute at Strathclyde University, which showed that Neart would contribute a £827m uplift to Scotland's GDP over its lifetime, while helping to create 2,000 highly skilled jobs in every year of its construction. This work was undertaken in support of the coming together of the Neart na Gaoithe Coalition, inspired by the commitment of the local supply chain to deliver long-term social and economic benefits from the project, in addition to its clear environmental benefits. Launched in May 2017, the Coalition had grown to almost 70 organisations by the end of the year.

**We believe that by embracing innovation we stay ahead of the game**

*Our success reflects our flexibility and openness to embrace innovation across all our markets and business activities. Finding innovative solutions to delivering wind and solar projects means that we will continue our developments across our markets to meet the energy challenge in emerging markets.*

"Energy efficiency and the fast transition to renewable energy are the prime solutions for the climate crisis, and we need to achieve 100% renewable energy before 2050 to meet the Paris Agreement's temperature increase



Sponsored by Mainstream, GWEC's Philippine Symposium included Mr Felix William B. Fuentebella, Undersecretary for Power, Renewable Energy & Media Affairs and Department of Energy's Spokesperson (pictured second from right).

limit of 1.5C. Shifting to 100% renewable energy is a no brainer." IRENA Coalition for Action, November 2017.

Mainstream is a member of the IRENA Coalition for Action, launched in 2014 to promote the wider and faster uptake of renewable energy. In 2017 the Coalition launched its Business and Industry Group, and led by Mainstream, published its first White Paper *Scaling Up Renewable Energy Investment in Emerging Markets*, which was unanimously adopted at the January 2018 IRENA General Assembly.

The Coalition for Action is one of a number of global organisations where Mainstream's participation and leadership is leading to the identification and delivery of innovative solutions to the delivery of renewable energy, particularly in frontier markets.

Eddie O'Connor is the Global Ambassador for the Global Wind Energy Council (GWEC). In November 2017 Eddie hosted a seminar in Manila on accelerating renewable energy deployment in the Philippines. He was joined by the undersecretary for Energy, the chairman of the National Renewable

Energy Board, and industry partners. GWEC's primary role is market making, and we have worked closely with it to establish the framework for renewable energy investment in South Africa, South America and now in South East Asia.

In 2017, one of our employees, Pule Segale, was selected as a Future Energy Leader by the World Energy Council. Every year, the World Energy Council selects 35 exceptional young professionals to join the group of 100 Future Energy Leaders from over ninety different countries across the globe. The programme is designed to identify and inspire the next generation of energy leaders, and to work with them on removing barriers to investment in new markets. Pule's selection is a reflection of the innovative work he has championed both in the construction of new wind farms in South Africa, and the identification of new opportunities in West Africa.

The UN High Commission for Refugees SAFE programme exists to provide safe access to food and energy for refugees across the world. In 2017, Mainstream's Global Head of Corporate Affairs, Adam Bruce, was invited to



Pictured right, Mainstream's Pule Segale receives the Future Energy Leader Award, South Africa.

join its advisory board, working with experts on clean cooking, sustainability and off-grid energy to help the UNHCR plan for the better integration of renewable technologies in its provision of safe refuge to displaced peoples. Mainstream's work with communities in Africa and South America has helped us better understand how we can bring renewable energy technologies to provide energy and income to people in often very marginal rural environments.

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