

**1,000
young
energy
voices from
around
the world**

MANIFESTO

Generation
2050

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The Generation 2050 Manifesto is based on a global survey of more than 1,000 young experts - including scientists, engineers and commercial professionals, from London to Lagos, Singapore to San Francisco, and from oil and gas through to nuclear, renewables and energy efficiency.



We are Generation 2050. Today we are studying or in the early stages of our careers in energy around the world. Tomorrow we will be the sector's leaders.

The actions taken in 2021, both at the COP26 climate conference and in building back better from the COVID-19 pandemic, will determine the state of the industry and the planet we inherit.

We are young professionals and students with expertise on energy and climate issues. As a community we have published this Manifesto detailing meaningful, evidence-based views to be put forward to today's political leaders, industry leaders and wider society.

A HANDSHAKE BETWEEN GENERATIONS



SINEAD OBENG AMEI,
CHAIR OF THE ENERGY
INSTITUTE YOUNG
PROFESSIONALS COUNCIL

WHY TOMORROW'S LEADERS MATTER TODAY

Climate change is an intergenerational emergency that requires urgent action. It affects us at local, national and global levels as we consider the challenge of adapting our habits as a world community. This is compounded by the need to meet growing global energy demand, particularly for many millions still living without adequate access to energy.

Young professionals embarking on their careers in energy today will be the industry's leaders in 2050. We will inherit a sector that will be judged on how it has responded, so it's crucial that our knowledge is utilised, and our concerns are heard.

We are reverse mentoring our political and industrial leaders; giving a collective voice to tomorrow's energy leaders and providing fresh views on the skills we will need to meet global net zero targets.

As we approach critical decisions in the lead up to COP26 and for the recovery from the global pandemic, there hasn't been a more important time for the voices of Generation 2050 to be heard.



STEVE HOLLIDAY FRENG FEI,
PRESIDENT OF THE ENERGY
INSTITUTE

WHY TODAY'S LEADERS SHOULD LISTEN

The global energy industry has tremendous achievement to its name. I've had the privilege of seeing this first hand over forty years – from my early days as an engineer running a refinery in the UK to heading up the country's National Grid for a decade, and now as President of the Energy Institute.

The next decade will be defining for the sector – both for the delivery of the UN's universal energy access goal, and for getting on the critical path towards global net zero emissions.

This Manifesto is a fresh wake up call for me, and others in leadership positions across the world of energy about the pace of change that is required. The demands contained in it are powerful, they come at just the right time, and from voices that should be heard and deserve a seat at the table.

***Political and industry leaders
from around the world are
responding to the Manifesto.***

Find out more at www.energy-inst.org/Generation2050

1 **THE WORLD IS OFF TARGET**

We came into energy because we are motivated to work in a dynamic and interesting industry, one which is developing exciting new technologies that can make a difference on climate change, universal access to energy and energy security.

However, we are frustrated at the lack of concrete action in tackling these challenges, and the manner in which politics and profit are often put before people and planet. We fear we will inherit a world that is both off-track on limiting global temperature increases to below 2°C and achieving universal access to energy.

Acting on these challenges is not something that can be delayed or ignored. We are calling on today's political and industry leaders to take urgent action to put this right.



GENERATION 2050 SAY...

The top reasons we chose to work in/study energy
(participants could select more than one answer):

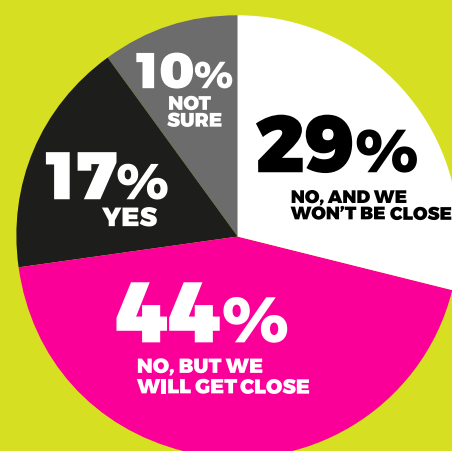
59%

Tackling
climate
change

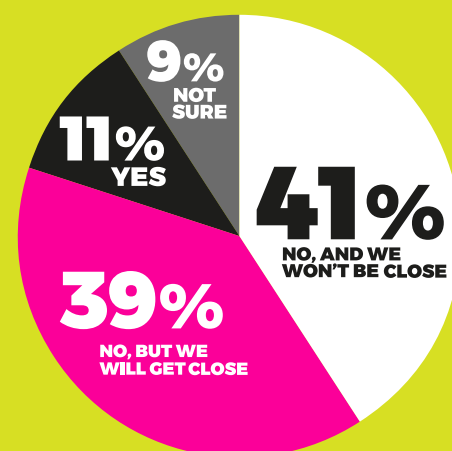
55%

Dynamic,
interesting
industry

Will the world limit global
temperature rise to well
below 2C warming over this
century?



Will the world achieve
universal access to energy
by 2030?



Regional views:

In general, Generation 2050 are sceptical that global climate and energy access challenges will be met, however on climate change, there is more optimism in sub-Saharan Africa, where 37% think we will meet the 2°C target. Optimism is strongest about achieving universal access to energy in Asia-Pacific (26%).

“

“Politicians see investing in renewable energy as a choice between sustainability and economic growth, but the truth is the two go hand in hand... the devastating effects of climate change will also have a serious detrimental economic impact. It will disproportionately affect those who are poorest.”



“

“The 2050-2070 targets are too late. If we want our beautiful planet to stay alive, we need immediate and purposeful action... implement strong legislature and policies that force us to meet that climate target as consumers and as businesses.”





2

ACTION NOW ON CLIMATE CHANGE

Not enough is happening fast enough to remove harmful greenhouse gas emissions from our energy system.

We call on political leaders to take decisive action, above all else by introducing legislative and regulatory reforms to drive the transition further and faster.

We also call on leaders in industry to align their business plans and commitments with the ambition demanded by global climate targets and invest in the necessary technology and infrastructure.

GENERATION 2050 SAY...

The first steps **political leaders** should take to tackle climate change are:

44%

Change legislation or regulation

16%

Build awareness and knowledge via education and professional development

The first steps **industry leaders** should take to tackle climate change are:

44%

Align business plans/ commitments with climate targets

35%

Invest in technology and infrastructure

Regional views:
Young professionals in Europe, MENA and the Americas are most keen for political leaders to hear their voice, whereas those from Asia-Pacific and sub-Saharan Africa are most keen for energy leaders to hear their voice.

“

“Changes must be made to how companies measure investment and risk. We have reached the point in which the risk outweighs the cost of investment for climate change, and corporations and governments need to accept that mindset.”



“

“For political leaders it's all about putting in place legislation to make it more financially viable to develop clean energy over and above fossil fuel energies.”



“

“The COVID-19 pandemic has illustrated humanity's ability to adapt and unite. We diverted funds and efforts to find solutions and mitigate the impacts. Climate change is a challenge of unparalleled magnitude, 2020 is the year we have shown what humanity can do... can we continue doing it?”



The challenge

UN Sustainable Development Goal 13 requires the world to “take urgent action to combat climate change and its impacts”. The UNFCCC Paris Agreement aims to “limit global temperature rise this century to well below 2 degrees Celsius above pre-industrial levels...and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius”. Current commitments from governments do not add up to enough to meet this goal but there is hope that COP26 in Glasgow in 2021 will lead to increased ambition.
[Source: United Nations]



3

ACTION NOW FOR UNIVERSAL ACCESS TO ENERGY

It is unacceptable that 800 million people still do not enjoy access to electricity and almost 3 billion rely on polluting, harmful cooking fuels.

We call on political leaders to provide support to international projects and cooperate with other governments to improve the lives of populations around the world; and we call on industry leaders to invest in the necessary technology and infrastructure and support social enterprises to help meet the UN goal of universal access by 2030.

Creating wealth, development and growth opportunities and investing in the right education, skills and tools will enable populations to independently manage clean energy systems and eradicate fuel poverty.

GENERATION 2050 SAY...

The first steps the **energy industry** should take to tackle access to energy are:

34%
Invest in technology and infrastructure

14%
Support social enterprises

14%
Align business plans/ commitments with energy access targets

The first steps **political leaders** should take to tackle access to energy are:

25%
Support international energy access projects

18%
Cooperate with other governments



"I would like to see rich countries directly support energy access projects in developing countries. And not just solar panels on a roof – real, reliable, modern electricity grids and cooking fuels."



Regional views:
Addressing universal access to energy is a key focus for respondents from sub-Saharan Africa - over 80% say they have an increased role to play in tackling this challenge due to their position in the industry.



"The boards of energy companies should be picked by shareholders on their involvement in social enterprises. Board members need sensitivity to the complex issues surrounding access to energy."



The challenge
UN Sustainable Development Goal 7 requires the world to “ensure access to affordable, reliable, sustainable and modern energy for all”. The key metric is to ensure universal access by 2030. According to the UN , in 2018 almost 800 million people around the world did not have access to any electricity, and almost 3 billion lacked access to clean cooking fuels and technologies. These populations are mainly concentrated in South East Asia and sub-Saharan Africa. While the global electrification rate has been increasing, it is estimated that four million people die prematurely each year from the effects of using toxic cooking and heating fuels.
[Source: United Nations]

A background image with a green tint showing a hand holding a white ballot paper over a ballot box. The image is partially obscured by a magenta shape on the left.

4

**EACH AND
EVERY ONE
OF US**

Our chosen careers in the energy industry give us more opportunity than most to make a difference and we want our generation to leave a legacy, in particular on tackling climate change.

But the power to bring about change is in everybody's hands, in our behaviours and the choices we make in our day-to-day lives. We must all educate ourselves, vote for leaders who prioritise climate action and change our consumption habits.

GENERATION 2050 SAY...

When asked if our chosen careers in energy give us increased agency in tackling the two most urgent global challenges:

87% agree for climate change

72% agree for universal access to energy

The first steps we as **individuals in society** should take to get on track to meet climate targets are:

31%
Educate ourselves

24%
Vote for leaders who prioritise action on climate

18%
Change our consumption habits



Regional views:
Generation 2050 in Europe and the Americas were most likely to suggest that individuals in society should prioritise picking the right leaders who are strong on climate and energy access.



"I have a strong sense of purpose and great job satisfaction knowing that the hours I spend at work every day contribute to a world that runs entirely on green energy."



"Our generation should be remembered as one of young leaders and entrepreneurs that have worked tirelessly towards access to energy for under-served communities. We should also be remembered for our role in holding world leaders accountable to climate policies."



"Education is key to understanding how our actions impact the environment. With education we can inform others' opinions and share our knowledge with them."

The challenge
Behavioural changes around the world could have a big impact on CO2 emissions. Adjusting the ways in which we use transport, heating and cooling could cut emissions nearly two gigatonnes by 2030, a major contribution to efforts to reach net zero emissions globally by 2050 [Source: International Energy Agency].

A photograph of two workers, a man and a woman, wearing white hard hats and high-visibility safety vests. They are standing in front of a large, curved structure, possibly a roof or a large pipe, and looking towards it. The image has a yellow-green tint. A large, bright pink diagonal shape is overlaid on the bottom left corner, containing the page number and title.

5

SKILLING UP FOR 2050

The energy system of the future will continue to require a workforce equipped with deep scientific and engineering knowledge, alongside technical skills and expertise.

But for leaders in the sector, the nature and scale of the challenges we face will put an additional premium on broader attributes. We need to see vision and ability to deliver alongside skills in communication and change management and broad knowledge of the wider world.

We urge today's leaders to work individually and collectively to bring on the depth and breadth of skills that will be required by those that succeed them.

GENERATION 2050 SAY...

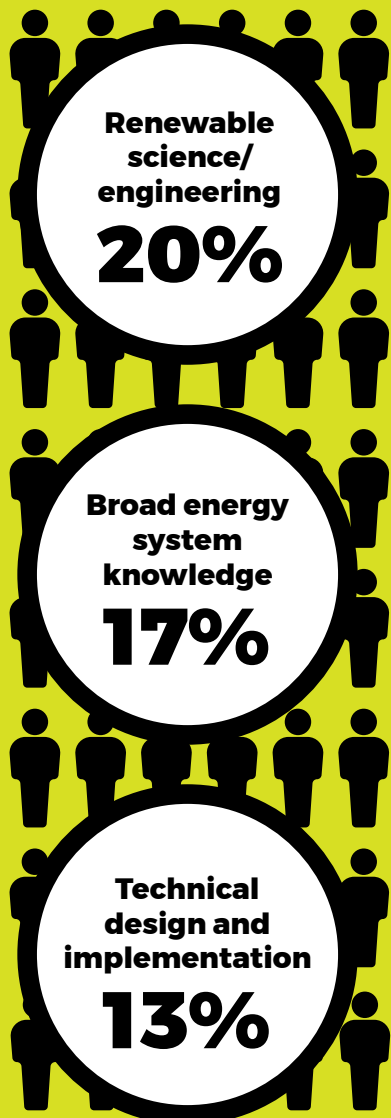
The most important skills and qualities needed by **future energy leaders** are:

LEADERSHIP



The most important skills and qualities needed by the **wider energy workforce** are:

WORKFORCE



“Energy leaders require a technical basis to appreciate the nuances and complexities of the whole energy system and the long term vision to be the architects of a robust system”



“Energy leaders should have social responsibility, with a vision for sustainable development – not only to tackle emissions but also to create climate resilience”



“For energy leaders, a real empathy for diverse voices is crucial. Leaders need to communicate and influence shareholders and their companies to move in the direction aligned with climate change goals”



WHO ARE GENERATION 2050?

The views expressed in the Generation 2050 Manifesto are a synthesis of responses given by more than 1,000 young people working in and studying energy around the world, surveyed anonymously by the Energy Institute between July and October 2020.

The vast majority of the respondents are between the guide range of 20 and 35. Two thirds are in the early to middle stages of their careers in energy, a further third are studying subjects related to energy.

All regions of the world are represented, including at least 100 respondents from each of Asia-Pacific, Europe, Middle East/North Africa, Sub-Saharan Africa and the Americas.

The full breadth of the energy system is represented, from every major technology and from diverse disciplines.

More than one third of respondents are involved in wind and solar, more than one third in oil and gas and one quarter in energy demand and use, including considerable numbers involved in multiple areas.

Demographically, 45% are white, 21% are Asian, 15% are black. Smaller numbers are of Hispanic/Latino, mixed and Middle Eastern backgrounds. Two thirds are male, one third female – a reflection of the gender disparity in the energy sector.

The Manifesto has been reviewed by the Energy Institute's Young Professionals Council, representing young people in the sector around the world, and by its Energy Advisory Panel.

WITH THANKS TO

Supporting partners



Supporting networks



and the Energy Institute's growing Young Professionals Networks in the Caribbean, Hong Kong, Middle East, Malaysia, Nigeria and across the UK.



ABOUT THE ENERGY INSTITUTE

The Energy Institute is the not-for-profit chartered professional membership body bringing together expertise to tackle urgent global challenges. We are an independent, collaborative network of professionals spanning the world of energy, convening and facilitating debate, championing evidence and sharing fresh ideas.

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#GENERATION2050

www.energy-inst.org/Generation2050

Generation
2050

The logo for Generation 2050, where the '0' in '2050' is replaced by a stylized head profile with a dot for an eye, and the final '0' is replaced by a stylized globe.