

Introduction

The coalition of clean energy industries represented by the Business Council for Sustainable Energy (BCSE) is delivering technology solutions and low-carbon energy resources that will be at the heart of efforts to meet the Paris Agreement's targets.

The 22nd Conference of the Parties (COP 22) of the United Nations Framework Convention on Climate Change (UNFCCC) in Marrakech, Morocco, in November 2016 will celebrate the entry into force of the Paris Agreement and will then focus on writing the Paris "rulebook" for implementation of the agreement. Marrakech will be a COP of action. Key to this emphasis on action will be continued partnership with the private sector, sub-national actors and civil society.

As a result of the historic Paris Agreement, there are now roadmaps for this clean energy transformation in the form of the 162 nationally determined contributions (NDCs), representing 189 countries. However, there is a gap between the level of emissions covered by these NDCs and the level of emissions reductions that must be achieved in order to limit the increase in global average temperature to well below 2 degrees Celsius (°C) above pre-industrial levels.

We know that US\$90 trillion will be invested globally in infrastructure over the next 15 years, and where that money is invested is critical to getting on the right low-carbon pathway. The International Energy Agency estimates that investment of \$1 trillion annually in low-carbon energy by 2030 is needed to avoid the potentially catastrophic effects of climate change.

To learn more about the BCSE at COP 22, visit www.bcse.org/COP22



The good news is that the clean energy transformation is already under way, and the Paris Agreement and country NDCs are setting the path for significant change in the energy sector that will accelerate the transition.

In 2015, global investment in clean energy topped a record \$329 billion. The transition to low-carbon energy is driven by falling technology costs, business innovations, enabling policy frameworks and market reforms.

The mitigation strategies necessary to achieve the long-term goals of the Paris Agreement and to achieve the United Nations' Sustainable Development Goal #7 (SDG 7)³ will need to take an integrated clean energy portfolio approach. The rate of energy efficiency improvement needs to increase from about 1.5 percent per year to a level of 3 percent per year no later than 2030. This implies two lines of action: first, accelerated renovation of existing infrastructure in cities and buildings, with a larger focus on developed countries, and, second, leap-frogging to the cleanest energy solutions and business models in new infrastructure,

with a focus on emerging and developing countries and specifically China, India and African nations.

The efforts to increase the energy efficiency improvement rate will create jobs in renovation vis-a-vis building management technologies, lighting and appliances, insulation, district heating, transport and information communications technologies. They also will drive innovation toward even more efficient, economical and climate-friendly products and technologies.

The share of renewable energy in the global generation mix must increase substantially in order to meet mitigation targets; SDG 7 calls for a doubling of renewables by 2030. To achieve this goal, the International Renewable Energy Agency's 2016 *Roadmap for a Renewable Energy Future* calls for policy interventions that correct for market distortions, create a level playing field and introduce greater flexibility into energy systems. The *Roadmap* finds that when combined with increased energy efficiency, the scaling up of renewable energy is both feasible and affordable, and will result in lower overall costs, fewer deaths due to air pollution, and increased economic growth and employment.

TAKING A PROACTIVE AND INNOVATIVE APPROACH TO WORKING WITH THE PRIVATE SECTOR WILL HELP LAUNCH THE CLEAN ENERGY TRANSFORMATION IN MARRAKECH.

The BCSE believes that embracing a diverse portfolio of clean energy solutions will enable countries to reduce greenhouse gas emissions and meet their NDC goals, enhance climate resilience and also create new climate-friendly and inclusive pathways of economic growth. This portfolio includes carbon capture utilization and storage; demand-side and supply-side energy efficiency in buildings, utilities and transportation; energy storage; grid modernization; natural gas; and renewable energy resources (biomass, biogas, geothermal, hydropower, solar, waste-to-energy and wind).

In Marrakech, the BCSE will work to ensure that the discussions and decisions on the Paris Rulebook, as well as NDC implementation:

» Recognize that if we are to hold the increase in global average temperature to well below 2 °C above pre-industrial levels, new, innovative approaches to working with the private sector to deliver sustainable solutions will be required. There is great opportunity in partnering with the private sector to increase the ambition of NDCs and to build out



practical investment and technology pathways for countries to meet their NDC targets. (Articles 2, 4)

- Expand the reach of carbon pricing through NDCs and a Paris Agreement framework that establishes robust carbon accounting rules and measures to protect environmental integrity and that prevents the double counting of emissions reductions. The early setting of operational rules for cross-border transfers and a new mitigation mechanism will accelerate private sector investment in low-carbon opportunities. (Article 6)
- Demonstrate continued support for international climate finance by donor countries post-2020 and for climate-related finance mechanisms. The Green Climate Fund (GCF) is oriented in the right direction, and it must continue to work with the private sector to ensure that attractive financing tools and a more streamlined project process are implemented to leverage greater levels of private sector investment. (Article 9)
- » Agree to a new **Technology Framework** that builds on the existing Technology Mechanism and continues

- to protect innovation systems that enable the deployment of existing clean energy solutions and the creation of next-generation low-carbon technology solutions. When the private sector makes investment decisions in a country, it assesses a potential market based on the existence of stable policies, sound governance and infrastructure, and effective legal frameworks that encourage competition and innovation and that protect intellectual property rights (IPRs). (Article 10)
- » Reaffirm the shared commitment to transparency and data integrity by all countries and ensure that the measurement, reporting and verification (MRV) system for emissions and mitigation actions utilizes the latest technologies and borrows from best practices already in place for corporate greenhouse gas emissions reporting and disclosure. (Article 13)
- » Recognize that public-private partnerships, such as Sustainable Energy for All and the Building Efficiency Accelerator Platform, are collaborative efforts that will drive action and help countries meet NDC goals.

ENDNOTES

- 1 The New Climate Economy, The Sustainable Infrastructure Imperative: Financing for Better Growth and Development (October 2016).
- 2 International Energy Agency, Energy Technology Perspectives 2012: How to Secure a Clean Energy Future (Paris: 2012).

- 3 United Nations, "Sustainable Development Goal #7: Ensure access to affordable, reliable, sustainable and modern energy for all" (New York: 2015).
- 4 International Renewable Energy Agency, Roadmap for a Renewable Energy Future (Abu Dhabi: 2016).

ABOUT THE BCSE

The Business Council for Sustainable Energy (BCSE) is a broad coalition of clean energy business sectors, including renewable energy, supply-side and demand-side energy efficiency, and natural gas and electric utilities in North America. The BCSE is an advocate for policies that increase the use of commercially available clean energy technologies and drive investment into a low-carbon, diversified energy portfolio. The BCSE has represented the views of clean energy industries in the United Nations Framework Convention on Climate Change (UNFCCC) since 1992. For more information, please visit http://www.bcse.org to download the *Sustainable Energy in America Factbook* for the latest market data, and follow us on Twitter: @BCSECleanEnergy.