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Position Paper

Siemens' Position on Global Decarbonization and Climate Change

Climate change makes decarbonization necessary

The Paris Agreement, which entered into force in November 2016, underlines the global consensus to keep global warming below 2°C above pre-industrial levels. Its goal: To protect societies and economies against serious impact from climate change. The most important means to achieve this end is the decarbonization of the global economy by the end of this century – meaning the total elimination of emissions of greenhouse gas (GHG), most of all of CO_2.

Siemens supports the Paris Agreement. By providing innovative technologies, we consider ourselves a leading partner for decarbonization for our customers and society. With respect to climate change mitigation measures, we take the entire value chain into account – from sustainable supply chain initiatives and our CO_2 neutral operations to Siemens' products and solutions. Siemens' research and innovation focuses among others on enabling the transition towards a low carbon economy.

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Decarbonization on the supply and demand side

The decarbonization transformation will transform the entire energy value chain within the next decades, covering the exploration and transformation of energy resources, electricity generation and transmission as well as end-user applications:

- On the supply side, the necessary rise of renewable energy – with times of electricity generation being partly decoupled from consumption – will demand a highly flexible system in terms of grid integration, stability, demand-response, available storage solutions and Power-to-X technologies. Conventional electricity generation will in turn require a transformation towards flexible, low carbon power plants that are needed to provide flexibility, system stability and backup electricity production when renewable sources are not available.
- On the demand side, efficient use of energy along the entire value chain such as in buildings, industrial processes and transportation is essential as it often comes along with a positive business case, enabling energy cost savings.

Furthermore, a combination of electrification and green synthetic fuel (synfuel) applications especially for the industry and transport sector is required for the decarbonization of the economy. These levers will be amplified through digitalization as a new driver towards technological progress and development of new business models.

Siemens takes leadership

At Siemens, with our Environmental Portfolio, we support customers both on the supply and demand side to reduce their carbon footprint and enhance their business success through greater productivity. In fiscal 2017, revenues from the Environmental Portfolio amounted to €38.7 billion and carbon emission reductions at our customers were 570 Mt, equivalent to more than 70% Germany's annual CO_2-emissions.

In addition, we walk the talk and take leadership at Siemens when it comes to climate change. By 2030, our operations will be CO_2-neutral and we intend to half our CO_2 footprint by 2020 already. In fiscal 2017, we already achieved a 27% reduction vs. our fiscal 2014 baseline.

Finally, we report on our supply chain related carbon emissions and encourage our suppliers to leverage the business case of energy efficiency.

Policy recommendations

Siemens supports enabling policies that provide a reliable long-term investment perspective and create a global level playing field to accelerate a large-scale deployment of low-carbon technologies:

1. Use energy as efficiently as possible – not wasting energy is a cost-effective pillar of a low-carbon economy as it reduces the need for capital intensive investments in the electricity sector
2. Increase the share of renewable energy and accelerate the switch of the remaining conventional electricity generation to low-carbon fuels
3. Redesign electricity markets to ensure sufficient investments into a sustainable, secure and efficient energy system
4. Accelerate the uptake of highly flexible technologies to integrate renewable energies and ensure system stability
5. Accelerate the decarbonization of other sectors with sector integration, including Power-to-X-technologies

Putting a price on carbon should capture the true cost associated with carbon emissions. It should be sufficiently relevant to trigger a shift towards low-carbon technologies in line with the commitments of the COP21 Paris Agreement.

Siemens joined the Carbon Pricing Leadership Coalition of the World Bank (CPLC) in 2016 to advocate the introduction of carbon pricing globally.

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