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Name Vinod Philip
Department SE ST&TI

World Energy Council.
Hands of Secr. General Dr. Angela Wilkinson

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Dear Secretary General,

I am pleased to confirm that Siemens Gas and Power GmbH & Co. KG supports the Global Hydrogen Charter. Whilst we understand that **this charter is not legally binding,** we champion this effort. It is critically important for the business community, policy makers, innovators and investors to understand the importance of supply diversity in our pursuit toward mitigating the negative impacts of climate change. Siemens Gas and Power GmbH & Co. KG will make a clear statement of this commitment to its stakeholders and the general public.

Our **commitment is as follows:**

Today, gas turbines play a vital role in addressing the threat of global warming and making energy cleaner. Gas turbines are in the category of the cleanest fossil-fuel based power generation solutions and are ideally suited to manage the intermittency of increasing renewable loads by providing reliable and on-demand power. Gas turbines will remain an even more important element in power grids as electrification trends toward full decarbonization and the hydrogen economy starts to unfold.

By burning hydrogen as a fuel, either through co-firing or complete displacement of natural gas, gas turbines can provide low-carbon or even carbon-free power solutions. Gas turbines play another key role in enabling a smooth transition from fossil to decarbonize power systems because they provide highly flexible and dispatchable generation to support grids largely dominated by intermittent renewable power. These capabilities make gas turbines ideally suited to helping to meet the World Energy Council's trilemma of secure, affordable and environmentally sustainable energy.
In the future, increasing use of hydrogen fuels will enable the conversion of thousands of gas turbine operating units worldwide into reliable and environmentally sustainable decarbonization agents. Therefore, owners of existing gas turbine power plants and the ones soon to be developed can be confident of their plants' roles in supporting the future energy transition.

By 2030, Siemens intends to have gas turbines with the capability of operating on 100% hydrogen fuel with DLE technology available across our gas turbine portfolio. To achieve this target, we are continuously developing the necessary technologies and implementing these new designs into our product portfolio. Siemens' aeroderivative gas turbines are available to run on 100% hydrogen fuel with WLE combustion systems today. Based on the availability of hydrogen in the different sectors, we will push our hydrogen technology forward to ensure that customer needs are met.

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The fully sustainable fuel for gas turbine operating units is green hydrogen. Green hydrogen that is produced by renewable electricity via electrolysis of water is completely free of CO2 emissions from the beginning.

Using renewable electrical energy like wind or solar power to decarbonize energy across all sectors unlocks enormous environmental and business benefits. Green hydrogen is at the heart of this sector coupling approach, allowing to decarbonize sectors beyond power generation like industry and mobility whose electrification will come to its limits. Siemens is deeply engaged in promoting and developing projects and technologies to produce green hydrogen. With its Silyzer portfolio, Siemens is leading PEM-based water electrolysis, which allows for a highly flexible load operation and is, thus, predestined for a combination with volatile renewable energy sources.

Wind generators, compressor solutions, and gas turbines for re-electrification of green hydrogen are all part of the portfolio. Hand in hand with our clients, Siemens is ready to go!

I am very confident that we can work together enable a better, faster and successful energy transition.

Vinod Philip
Chief Technology & Strategy Officer
Siemens Energy