

CALL TO ACTION

7 AFFORDABLE AND
CLEAN ENERGY



24/7 Carbon-free Energy Compact to Accelerate the Decarbonization of Electricity Grids

In order to avoid the most catastrophic impacts of climate change, the world must cut carbon dioxide emissions by 50% from 2010 levels by 2030, then achieve net-zero emissions economies by 2050.¹ Electricity accounts for approximately 25% of the world's greenhouse gas emissions. Two sectors with large potential to be electrified - transportation and buildings - together account for another 21%.² Thus, full decarbonization of electricity systems is the linchpin to mitigating climate change, with the potential to eliminate nearly 50% of greenhouse gas emissions globally.

Full-scale electricity decarbonization fundamentally means that every kilowatt-hour of electricity demand is served by carbon-free electricity sources, every hour of every day, everywhere. Consumers of electricity - from companies to cities to governments across the world - can hasten the creation of a decarbonized electricity future by committing to **24/7 Carbon-Free Energy (CFE)** to fully decarbonize their own electricity consumption.

24/7 CFE is based on the following principles:

- 1 Time-matched procurement:** 24/7 CFE focuses on matching each hour of electricity consumption with carbon-free electricity generation. Hourly matching helps connect clean energy purchasing to underlying electricity consumption.
- 2 Local procurement:** 24/7 CFE means purchasing clean energy on the local/regional electricity grids where electricity consumption occurs. This is the only way to drive the electricity-related emissions that a consumer is directly responsible for to zero.
- 3 Technology-inclusive:** 24/7 CFE recognizes the need to create zero-carbon electricity systems as fast as possible, and that all carbon-free energy technologies can play a role in creating this future.
- 4 Enable New Generation:** 24/7 CFE focuses on enabling new clean electricity generation, in order to support the rapid decarbonization of electricity systems.
- 5 Maximize System Impact:** 24/7 CFE focuses attention on maximizing emissions reductions and solving for the dirtiest hours of electricity consumption.

Every energy consumer can take steps to progress toward 24/7 CFE, including purchasing clean energy based on the above principles; supporting the commercialization of advanced carbon-free energy technologies; and advocating for policies that accelerate the decarbonization of electricity systems.

JOIN THE MOVEMENT

Companies, national and local governments, and other stakeholders are invited to sign up to the COALITION FOR 24/7 CARBON-FREE ENERGY and join the official launch of the Coalition during the UN High-Level Dialogue on Energy taking place during the General Assembly in September 2021. Stakeholders are also encouraged to register their own Energy Compacts, committing to the 24/7 CFE principles, and outlining their own actions toward 24/7 Carbon-free Energy. For more information, email 24-7CFE@google.com.

¹ IPCC, 2018: https://www.ipcc.ch/site/assets/uploads/sites/2/2019/06/SR15_Full_Report_Low_Res.pdf

² IPCC, 2014: https://www.ipcc.ch/site/assets/uploads/2018/02/ipcc_wg3_ar5_full.pdf

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