



CASE STUDY

MAKING '24/7 CARBON-FREE ENERGY' A REALITY

📅 2021 – ONGOING

The 24/7 Carbon-Free Energy Compact has solicited commitments from over 120 organizations and governments to decarbonize their electricity consumption.

OUR PARTNERS

Bloomberg
Philanthropies



Google

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Switching to clean, carbon-free energy sources 24/7 with the 24/7 CFE Compact is the only way we can address climate change and improve air quality. Switch Electric is working tirelessly to make rooftop solar electrification a reality for communities and businesses in the Global South as they transition away from using petrol/diesel generators.



IFEANYI CHRISTWIN JR.
Founder & CEO, Switch Electric

OBJECTIVE

Current approaches to procuring renewable energy for organizations typically rely on matching annual demand, sometimes on different grids. This is an important step forward but leaves scope for fossil fuel-based power supply in the energy mix when hour-to-hour demand exceeds renewable supply. 24/7 Carbon-Free Energy (24/7 CFE) is a new approach to procuring 100% carbon-free energy that enables organizations to match demand more precisely with carbon-free power sources in real time, every hour, every day, everywhere, thereby working to eliminate reliance on fossil fuel-based power.

In 2021, Sustainable Energy for All (SEforALL) worked with a coalition of energy buyers, energy suppliers, governments, system operators, solutions providers, investors and other organizations to develop a commitment to 24/7 CFE, announced as an Energy Compact commitment to the United Nations. By joining the 24/7 CFE Energy Compact, companies can share innovative tools and solutions with other members in support of their carbon-free energy journey.

PARTNERS

Founding signatories to the 24/7 CFE Compact included AES Corporation, EDP, Google, Microsoft, Eurelectric, the government of Iceland, Orsted, Statkraft and the US cities of Des Moines and Ithaca. The compact now has 116 signatories, including additional governments (Panama, Vanuatu), academic institutions (e.g., Stanford University) and private companies.

TECHNOLOGIES SUPPORTED

24/7 CFE is designed as a technology-inclusive platform, recognizing the need to create zero-carbon electricity systems as quickly as possible and supporting all technologies that generate energy without direct carbon emissions, together with smart grid and metering solutions required to match supply and demand in real time (i.e., time-matched, hourly procurement). The Compact supports technologies and business models that enable new clean power generation to come online quickly, as well as procurement of clean energy on the same electricity grids where consumption occurs. Maximizing system impact is a key priority for 24/7 CFE, addressing the 'dirtiest' hours of electricity consumption by prioritizing storage, demand-side management and other innovative tools.

OUR ROLE

The 24/7 CFE Energy Compact was launched at the United Nations High-Level Dialogue on Energy in September 2021, in partnership with SEforALL and supported by organizations working to transform global electricity grids to 'absolute zero' carbon emissions. SEforALL worked with the founding signatories to develop and launch the Compact, as part of our wider lead role in designing and delivering the Energy Compacts platform for the United Nations. We serve as the Secretariat for the initiative, with support from Google, and work with signatories to develop and scale technologies, policies, procurement practices and other solutions.

We developed a dedicated website, produced analyses and case studies, coordinated a quarterly newsletter and published a collaborative action roadmap. We hosted a series of deep-dive thematic workshops and high-level events alongside key UN climate and energy events, featuring, among others, Scotland's First Minister and Google's Chief Sustainability Officer. We also recently launched a new 24/7 Carbon-Free Energy Community Platform to support collaboration amongst the Compact's signatories.

RESULTS

Since launching, SEforALL has worked with our partners to grow the 24/7 CFE Compact to more than 116 signatories, with critical recent additions such as Stanford University and the governments of Vanuatu and Panama, among others.



The 24/7 Carbon-Free Energy Compact is the first collective action group to bring together companies, national and local governments, and other stakeholders to drive innovation and investment in 24/7 carbon-free electricity grids, and we are hopeful that it will facilitate significant progress.



RUTH PORAT

Chief Financial Officer, Google





As we take further strides towards grid decarbonization and to a clean energy system, we're delighted to partner with UN-Energy and Sustainable Energy for All to encourage all stakeholders across the globe to formalize their commitments to helping ensure affordable, reliable, sustainable, and modern energy for all by 2030.



NOELLE WALSH

Corporate Vice President, Microsoft

NEXT STEPS

We are continuing to support signatories on their 24/7 CFE journey, as well as growing the coalition of partners. In addition to technical innovations, policy and regulatory reforms are often needed to empower customers, including for example to grant consumers access to their own energy data. SEforALL is launching a study that will analyze existing and possible future policies and regulations needed globally, to shape the electricity industry in a way that allows active citizen participation in the energy transition, maximizes emissions reductions by increasing energy efficiency and reducing reliance on fossil fuels during the 'dirtiest' hours of electricity consumption. The study will also investigate possibilities for consumers to request 24/7 matching of supply and demand from their electricity tariff or supplier. Finally, we have launched a working group to explore the potential role of green hydrogen in delivering 24/7 CFE, working with organizations including Energy Tag, Princeton University and the Natural Resources Defense Council in focused workshops, engagement and more.



By establishing Granular Certificates as a recognized, tradeable instrument we can harness consumer demand for 24/7 Carbon-Free Energy to create a price signal that drives investment in the right technologies. The Carbon-Free Energy Compact is playing a critical and central role in driving this consumer demand.



TOBY FERENCZI

Founder, Energy Tag

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ABOUT SEFORALL

Sustainable Energy for All (SEforALL) is an independent international organization that works in partnership with the United Nations and leaders in government, the private sector, financial institutions, civil society and philanthropies to drive faster action on Sustainable Development Goal 7 (SDG7) – access to affordable, reliable, sustainable and modern energy for all by 2030 – in line with the Paris Agreement on climate change.

SEforALL works to ensure a clean energy transition that leaves no one behind and brings new opportunities for everyone to fulfil their potential. Learn more about our work at www.SEforALL.org.



Kate Brandt, Chief Sustainability Officer at Google, H.E. Nicola Sturgeon, First Minister of Scotland, and Hastings Chikoko, Managing Director of Regions and Mayoral Engagement and Africa Regional Director at C40, discuss the 24/7 Carbon Free Energy Compact at COP27.