

Draft

Green Grids Initiative - One Sun One World One Grid

One Sun Declaration

Glasgow, November 2021

The untapped potential of the sun is well known - all the energy humanity uses in a year is equal to the energy that reaches the earth from the sun in a single hour. The sun never sets – every hour, half the planet is bathed in sunshine. By trading energy from sun, wind and water across borders, we can deliver more than enough clean energy to meet the needs of everyone on earth. This trading is already beginning to happen through discrete bilateral and regional arrangements. But to meet the sheer scale of the challenge, these efforts need to be brought together and supplemented to create a more inter-connected global grid. We call this vision: One Sun One World One Grid.

We need new transmission lines crossing frontiers and connecting different time zones, creating a global ecosystem of interconnected renewables that are shared for mutual benefit and global sustainability. This must be combined with expanded and modernised national and regional grids and complemented with the rapid scale-up of mini-grids and off-grid solar solutions.

To help deliver the vision of One Sun One World One Grid, we have resolved to combine our efforts and create a more inter-connected global grid. Our next step is to develop an action agenda for global cooperation on this agenda. Through working groups of interested governments, regulators, financiers, institutions, companies, legislators and researchers, we will seek to provide a common global framework for efforts on:

1. **Investing in solar, wind, storage** and other renewable energy generation in locations endowed with renewable resources for supporting a global grid.
2. **Building long-distance cross-border transmission lines** to connect renewable energy generators and demand centres across continents, underpinned by effective and mutually beneficial cross-border power trading arrangements.
3. **Developing and deploying cutting edge techniques and technologies to modernise power systems and support green grids** which can integrate billions of rooftop solar panels, wind turbines and storage systems.
4. **Supporting the global transition to zero emission vehicles** through incorporating the role of electric vehicles to help improve grid flexibility.
5. **Attracting investment into solar mini-grids** and off-grid systems to help vulnerable communities gain access to clean, affordable, and reliable energy without grid access in their own areas, enhancing socio-economic development and a resilient power supply for all.
6. **Developing innovative financial instruments, market structures, and financial and technical assistance** to attract low-cost capital, including climate finance, for global solar grid infrastructure.

Through these and other efforts, we intend to cooperate internationally to share ideas and learn from each other's successes and expertise. In this common endeavour, we can ensure that the sun becomes a secure and reliable source of energy for all, especially for the world's underprivileged citizens.

Realizing One Sun One World One Grid through interconnected green grids can be transformational, enabling all of us to meet the targets of the Paris Agreement to prevent dangerous climate change, to accelerate the clean energy transition, and to achieve the Sustainable Development Goals. These efforts can stimulate green investments and create millions of good jobs. By sharing the sun's energy, we can help to build a more peaceful and prosperous world.