

Article Overview

The Energy Internet is a decentralized, smart energy network integrating renewable energy with digital connectivity, and the United Nations supports its development through UN-Energy initiatives and global sustainable energy policies.

Concept of the Energy Internet

The Energy Internet is envisioned as a smart, responsive, and decentralized network that combines renewable energy generation with Internet connectivity and digital technologies. It enables multi-directional flows of energy and information, allowing households, businesses, and communities to produce, share, and consume energy efficiently. This concept is part of the so-called Third Industrial Revolution, which aims to integrate renewable energy, digital manufacturing, and green industry to achieve sustainable production and consumption while creating jobs and reducing energy poverty (Our World, UNU) .

UN Involvement and Policy Support

The United Nations, through UN-Energy, plays a central role in promoting sustainable energy systems aligned with SDG 7 (Affordable and Clean Energy). UN-Energy acts as a collaborative mechanism across UN agencies to strengthen policy coherence, provide analytical inputs, and document best practices for energy access, efficiency, and renewable integration (UN.org) . It also supports initiatives like the Global Plan of Action for the Decade of Sustainable Energy for All, which guides investments and partnerships to accelerate clean energy adoption and infrastructure connectivity .

Advancing Power System Connectivity

UN-Energy emphasizes power system connectivity as a key enabler for the Energy Internet. Policy briefs highlight the importance of integrating regional grids, digital technologies, and renewable energy sources to enhance energy security, reduce emissions, and expand access to underserved populations. Collaborative efforts involve governments, private sector actors, and civil society to create innovative coalitions that accelerate energy-related innovation and deployment (UNECE) .

Benefits and Global Impact

By combining renewable energy with digital networks, the Energy Internet can:

- o Reduce energy poverty by enabling decentralized energy access.
- o Enhance efficiency through smart grid management and real-time data.
- o Support climate goals by lowering CO2 emissions and promoting renewable adoption.

o Create economic opportunities through green jobs and digital energy services. The UN's engagement ensures that these technological and policy innovations are globally coordinated, inclusive, and aligned with sustainable development objectives, helping to meet the growing energy demand of a rapidly expanding global middle class without exacerbating environmental risks .

This report, Environmental Cost of Artificial Intelligence: Carbon, Water and Land Footprints, by the United Nations

As an integration of energy technology and information communication technology, "Energy Internet" is the new driving

Energy drives development, but our continued unsustainable and inefficient energy use impedes progress in areas

The International Renewable Energy Agency (IRENA) is an intergovernmental organisation supporting countries in their transition to

Statement by Marcos Neto, UN Assistant Secretary-General, and Director of UNDP's Bureau for Policy and Programme

Welcome to the new knowledge platform of the Sustainable Water and Energy Solutions Network. In September 2015, the United

The International Energy Agency works with countries around the world to shape energy policies for a secure and

New York, 3 November 2021 - As pressure mounts for urgent climate action, UN Secretary-General

Energy Internet, a futuristic evolution of electricity system, is conceptualized as an energy sharing network. Its

Energy UNEP promotes the use of integrated approaches to sustainable energy systems, including energy efficiency

Joint press release Energy Access Has Improved, Yet International Financial Support Still Needed to Boost Progress

United Nations Statistics Division - Energy Statistics International cooperation and coordination UNSD is a co-custodian of the



Energy Internet United Nations

Energy independence cannot be built on fossil fuel dependence. Renewables are the cornerstone of true energy security. ANTÓNIO

Publications This section includes a broad selection of content including reports, analysis, and in-depth

Abstract Energy Internet (EI) envisions a future energy system with sustainable concerns of efficiency, economy and

The 2023 Energy Statistics Yearbook is the sixty-seventh issue in a series of annual compilations of internationally comparable

Web: <https://in-au.co.za>

