

Transformations within reach: Pathways to a sustainable and resilient world

RETHINKING ENERGY SOLUTIONS

The energy sector has been impacted by the COVID-19 in different ways. Energy demand has decreased due to the reduction in economic activities and traveling, resulting in unprecedented low oil prices in global markets. Disruptions have occurred in the supply chain of energy technologies. Investments in low-carbon energy have declined. Dramatic lifestyle changes induced by lockdowns and containment measures have created new mechanisms of working, business, and education, for example, through digitalized solutions, some of which may survive the pandemic itself. The COVID-19 crisis has also increased global inequality in access to basic energy services, with the most devastating impacts falling on vulnerable groups and the urban poor. These groups are having difficulty maintaining a decent quality of life and accommodating new energy and services needed for home schooling and running an office at home, with their small businesses and unsecure jobs being lost too. See Figure A3.

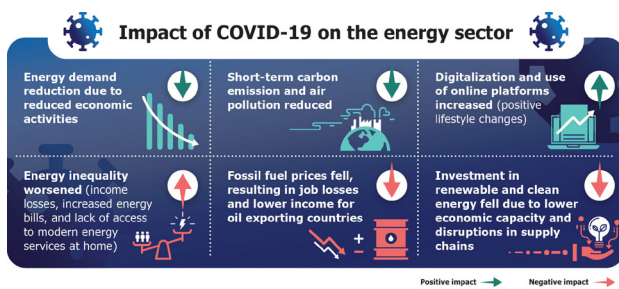


Figure A3. The impact of Covid-19 pandemic on the energy sector

The long-term impacts of the pandemic are still uncertain, not just on the energy sector, but on human wellbeing, the economy, and the environment. This raises questions and concerns as to how the post-COVID-19 recovery will advance or undermine efforts to achieve the Sustainable Development Goals (SDGs) and meet the Paris Agreement pledges on climate change. Decisions made today will either accelerate the transition toward a more sustainable and resilient energy system or slow it down.

“Rethinking Energy Solutions” puts forward three key policy interventions that could help decision makers lay out a pathway to a sustainable, resilient, people-centered, equitable, and climate-friendly future. Cities and urban spaces are identified as key areas that need to be rethought if there is to be a positive effect on energy consumption, livability, and resilience. This report also identified that gaining an understanding of how the pandemic has influenced individual behavior, lifestyles, consumer choices, and social practices in relation to energy, mobility, and sustainable consumption in the longer term will be a key part of the “new normal.” Science can provide a valuable contribution to identifying and designing sound energy policy options in the short, medium, and long term in the face of uncertainty.

Decarbonizing economy and redirecting excessive consumption to sufficiency through a circular and sharing economy is one of the pillars of our findings. Last but not the least, different institutional, societal, and economic potentials are discussed in terms of mobilizing them to advance decentralized, efficient, and renewable energy systems.

The full report can be accessed on [covid19.iiasa.ac.at/isc/outcome](https://www.covid19.iiasa.ac.at/isc/outcome)

