

# 14 Facts on 100% Renewable Energy



## 100% RE is reality across the world

From North America, to Europe, Africa, Asia and Oceania: Local, regional and national governments demonstrate that 100% RE is technically possible, economically advisable, socially imperative and environmentally inevitable. They also highlight that the decision to phase out fossil fuels is solely dependent on political will.

## 100% RE is cheaper than fossil resources

Renewable energy is becoming more and more affordable: According to new scientific research, electricity from wind turbines and solar panels is now cost competitive with new coal-, nuclear and gas-fired power plants in most regions and significantly cheaper than oil-fired power plants. Since costs for wind and solar further decline, they will be the cheapest energy sources in the future, even without accounting for climate change costs and other health impacts of fossil and nuclear power plants.

## 100% RE is the solution for the climate crisis

Science proves that it is game over for fossil fuels (IPCC AR 5 SYR). The world must stop greenhouse gas emissions through a phased elimination of fossil fuels if we are to avoid the worst impacts of climate change. Renewable Energy Technology is ready to deliver a 100% sustainable and efficient energy system for achieving the internationally agreed upon climate protection target.

## 100% RE can generate significant cost savings

100% RE future is both financially and economically advantageous, generating a wide range of benefits for both citizens and governments. The benefits range from savings on fossil fuel imports, improved energy and economic security to reduced vulnerability to external shocks.

## 100% RE spurs development for people

Since almost 3 billion people suffer from both, erratic or no access to electricity and reliance on inefficient and polluting solid biomass fuels for cooking, 100% reliable, affordable and efficiently used renewables are the preferred options for a more decent livelihood of the deprived. Access to sustainable, affordable and reliable energy is a pre-condition for poverty eradication and sustainable development.

## 100% RE strategies are not just for the wealthiest countries

Jurisdictions demonstrate clearly that the goal of achieving 100% RE is not only for wealthy or industrialised countries – it is taking root in countries in all continents of the globe, including in Africa, the Asia-Pacific region, as well as Latin America. 100% RE provide a plethora of development benefits that have a high priority among governments across the world.

## 100% RE is versatile and adaptable

Renewable Energy Technology can meet a broad spectrum of our energy demands – from supplying major cities to small settlements in remote locations, unconnected to any electricity grid. The sheer range of technologies available to us means that one technology or another will be appropriate for almost every community – and can be built close to where it is actually needed.

## 100% RE protects human's and ecosystem's health

By burning and depleting the world's natural resources, the conventional energy system has led to multiple convergent existential crises, including climate change, air and water pollution, destruction of the oceans, the threat of mass extinction, water and food shortages, poverty, nuclear radiation problems, nuclear weapons proliferation, fuel decline, and geopolitical tension. However, the world's climate and energy security issues are not caused by energy, but rather to the fuel we are using. Fortunately, renewable energy is clean, abundant, and with the exception of biomass, free and far less water intensive than non-renewable energy.



## 100% RE democratizes the energy system

A revolution in the centralized energy system is inevitable and in progress. New actors and stakeholders, including individual citizens and small businesses, enter the system, claim rights, and have direct impacts. New ownership models are emerging, as different stakeholders become directly involved in the transformation. Case studies from around the world show that community-driven solutions enable our society to convert our energy production and supply industry at the required speed and scale.

## Transitioning to 100% RE can mitigate risks and make countries more resilient

Transitioning to 100% RE can make economies more resilient, reducing their exposure to external factors such as rising fossil fuel prices. In times of geopolitical tensions and climate change, this is one of the key drivers for governments to take action.

## Transitioning to 100% RE can generate new economic activity, create jobs, and improve quality of life

In addition to cost savings, 100% RE generates new economic activities and improves quality of life. Case studies suggest that transitioning to renewable energy can help stimulating job creation, creating new business models and opportunities as well as generating new sources of domestic revenue.

## An integrated 100% RE system that includes the power, heating/cooling and transport sectors is viable

Examples from around the world suggest that through an integrated and cross-sectorial approach for the electricity, heating/cooling, as well as the transport sector, 100% RE is viable. Case studies prove that it needs to be a political priority to shift the reliance of the heating as well as the transport sector to a greater share on electricity in the decades ahead.

## 100% RE is a matter of justice

Our dependence upon fossil resources has built a system that lacks equity, diversity and security, threatens the health of our citizens, jeopardizes the stability of the earth's climate, and robs future generations of clean air, clean water, and energy independence. By turning to 100% renewable energy (RE) today, we alleviate a host of ills that beset us. 100% RE is therefore a matter of justice for today's and future generations. It is a matter of equal access to common resources which we have enjoyed and inherited from our ancestors. Transitioning to 100% RE is a moral and ethical obligation.

## 100% RE contributes to achieving a more peaceful and sustainable world order

The transformation of our energy system to 100% RE provides the opportunity to solve geopolitical crises, avoid future armed conflicts triggered by climate instability and resource scarcity, and build cooperative security mechanisms. By harnessing local renewable energy sources, jurisdictions increase their political and energy independency, while the degree of local and international cooperation needed to transition to 100% RE can act as a catalyst for such cooperation in tackling other transnational security threats. Finally, phasing out nuclear power would prevent potential transitions to nuclear weapons development.

