

# AFFORDABLE AND CLEAN ENERGY

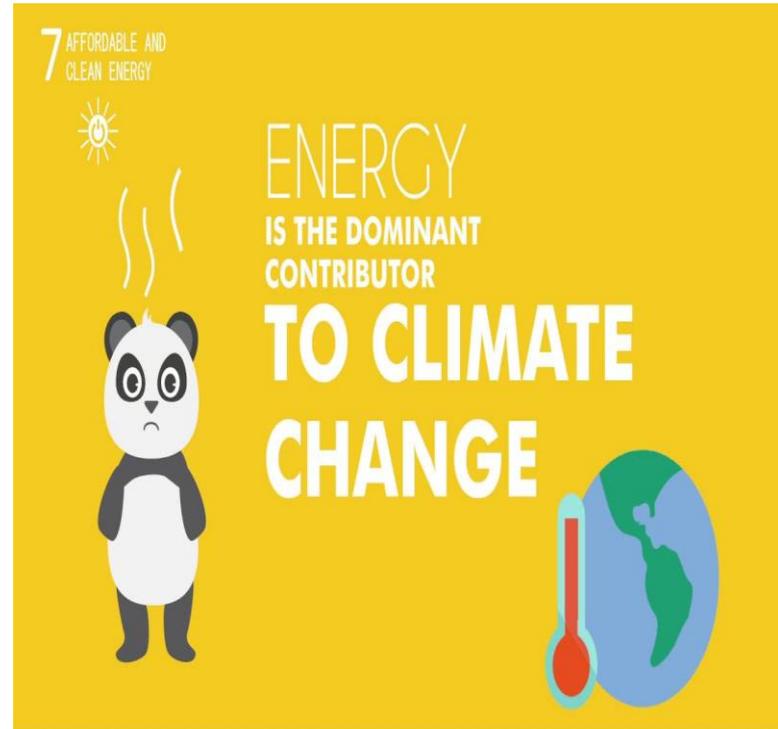


# Affordable and clean energy

- Between 1990 and 2010, the number of people with access to electricity has increased by 1.7 billion, and as the global population continues to rise so will the demand for cheap energy.
- A global economy reliant on fossil fuels and the increase of greenhouse gas emissions is creating drastic changes to our climate system. This is having a visible impact on every continent.
- However, there has been a new drive to encourage alternative energy sources, and in 2011 renewable energy accounted for more than 20 percent of global power generated.
- Still one in five people lack access to electricity, and as the demand continues to rise there needs to be a substantial increase in the production of renewable energy across the world.

# Facts and figures

- 3 billion people rely on wood, coal, charcoal or animal waste for cooking and heating
- Energy is the dominant contributor to climate change, accounting for around 60 per cent of total global greenhouse gas emissions
- Since 1990, global emissions of CO<sub>2</sub> have increased by more than 46 per cent.
- Hydropower is the largest single renewable electricity source today, providing 16% of world electricity at competitive prices. It dominates the electricity mix in several countries, developed, emerging or developing.



- Bioenergy is the single largest renewable energy source today, providing 10% of world primary energy supply.

# Challenges

## Challenges

**ONE IN FIVE PEOPLE STILL LACK ACCESS TO MODERN ELECTRICITY** and three billion people rely on wood, charcoal or animal waste for cooking and eating



Every year **INDOOR AIR POLLUTION** kills 4.3 million people - most of them women and children



Energy provided by **FOSSIL FUELS** is the **MAIN CONTRIBUTOR OF CLIMATE CHANGE** representing 60% of all greenhouse gas



# Goal-why?

## What's the goal here?

- To ensure access to affordable, reliable, sustainable and modern energy for all.

## Why?

- Our everyday lives depend on reliable and affordable energy services to function smoothly and to develop equitably.
- A well-established energy system supports all sectors: from businesses, medicine and education to agriculture, infrastructure, communications and high-technology. Conversely, lack of access to energy supplies and transformation systems is a constraint to human and economic development.

# Example

I have access to electricity. Why should I care about this goal?  
A common question that ought to be struck.

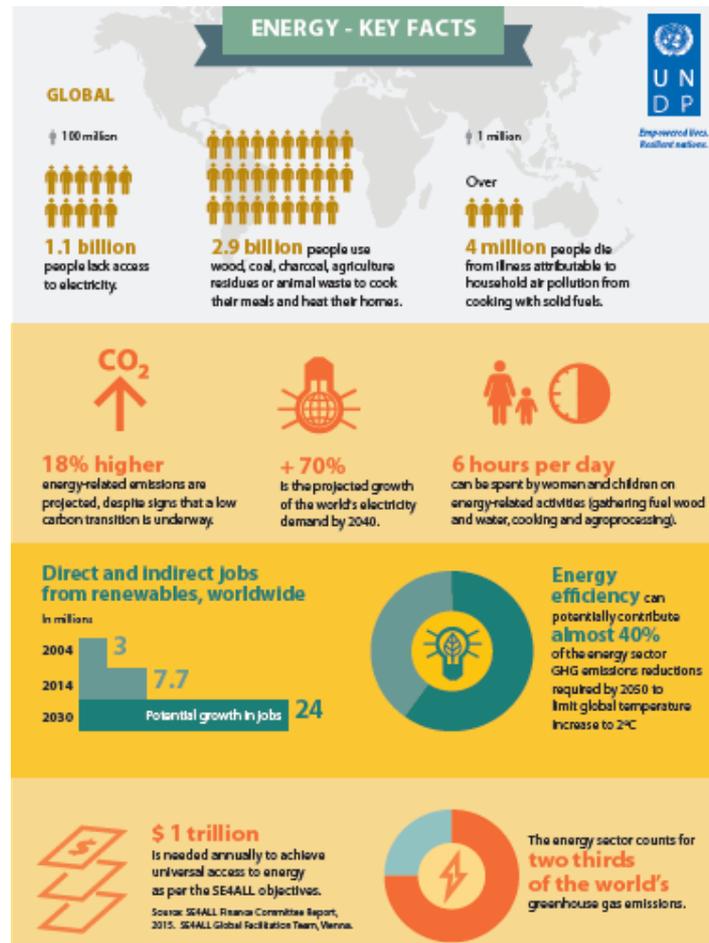
For many decades, fossil fuels such as coal, oil or gas have been major sources of electricity production, but burning carbon fuels produces large amounts of greenhouse gases which cause climate change and have harmful impacts on people's well-being and the environment.

This affects everyone, not just a few. Moreover, global electricity use is rising rapidly. In a nutshell, without a stable electricity supply, countries will not be able to power their economies.

# How many people are living without electricity?

- Over 1.2 billion people—one in five people of the world's population— do not have access to electricity. The majority are concentrated in about a dozen countries in Africa and Asia.
- Without electricity, women and girls have to spend hours fetching water, clinics cannot store vaccines for children, many schoolchildren cannot do homework at night, and people cannot run competitive businesses.
- Another **2.8 billion people** rely on wood, charcoal, dung and coal for cooking and heating, which results in over four million premature deaths a year due to indoor air pollution.

# Energy-Key facts



# What can we do to fix these issues?

- Countries can accelerate the transition to an affordable, reliable, and sustainable energy system by investing in renewable energy resources, prioritizing energy efficient practices, and adopting clean energy technologies and infrastructure.
- Businesses can maintain and protect ecosystems to be able to use and further develop hydropower sources of electricity and bioenergy, and commit to sourcing 100% of operational electricity needs from renewable sources.

# What can we do to fix these issues?

- Employers can reduce the internal demand for transport by prioritizing telecommunications and incentivize less energy intensive modes such as train travel over auto and air travel.
- Investors can invest more in sustainable energy services, bringing new technologies to the market quickly from a diverse supplier base.
- You can save electricity by plugging appliances into a power strip and turning them off completely when not in use, including your computer. You can also bike, walk or take public transport to reduce carbon emission

# Solutions

## Solutions



Ensure everyone has access to **CLEAN, AFFORDABLE, RELIABLE** and **MODERN ENERGY**



Invest in **RENEWABLE ENERGY** and disseminate its use



Put in place **ENERGY SAVING POLICIES**

# GOALS TO BE ACHIEVED

| TARGET 7-1   | TARGET 7-2   | TARGET 7-3  | TARGET 7-A   | TARGET 7-B   |
|--|--|---|--|--|
|  |  |  |  |  |
| UNIVERSAL ACCESS TO MODERN ENERGY  | INCREASE GLOBAL PERCENTAGE OF RENEWABLE ENERGY                                     | DOUBLE THE IMPROVEMENT IN ENERGY EFFICIENCY   | PROMOTE ACCESS TO RESEARCH, TECHNOLOGY AND INVESTMENTS IN CLEAN ENERGY               | EXPAND AND UPGRADE ENERGY SERVICES FOR DEVELOPING COUNTRIES                          |

# REFERENCES

<https://www.undp.org/content/undp/en/home/sustainable-development-goals/goal-7-affordable-and-clean-energy.html>

<http://www.sdgfund.org/goal-7-affordable-and-clean-energy>

<https://sustainabledevelopment.un.org/sdg7>

<https://www.globalgoals.org/7-affordable-and-clean-energy>

<http://www.un-expo.org>

<https://www.unenvironment.org/explore-topics/sustainable-development-goals/why-do-sustainable-development-goals-matter/goal-7>

<https://www.osce.org/sustainable-development-goals/07-energy>

<https://letsruntherace.com/2017/11/14/sdgs-goal-7-affordable-clean-energy/>