Produce clean energy

Produce clean energy

The world needs energy to support everyday life and drive human and economic development. In 2019, over 26 000 terawatt-hours of electricity were produced worldwide. This electricity is being produced by a range of energy sources, mostly fossil fuels but also nuclear power and renewables such as solar, hydro and wind.

Energy production and use are the largest source of greenhouse gas emissions around the world. As greenhouse gases are a driving force behind climate change, countries worldwide are actively working on a clean energy transition by changing how energy is produced.

Here"s a closer look at the clean energy transition and what role nuclear power plays. This is also the central topic of this year"s IAEA Scientific Forum taking place from 22 to 23 September in Vienna, Austria. Leading scientists and experts from around the world will meet over two days to examine how nuclear power"s science-based solutions can play a pivotal role in paving the way for a sustainable future.

The clean energy transition means shifting energy production away from sources that release a lot of greenhouse gases, such as fossil fuels, to those that release little to no greenhouse gases. Nuclear power, hydro, wind and solar are some of these clean sources.

The direction of the global transition to clean energy was agreed in the Paris Agreement, an international deal between over 180 countries that are part of the United Nations Framework Convention on Climate Change (UNFCCC). The agreement"s central aim is to limit the increase in global average temperatures to well below 2?C relative to pre-industrial levels by encouraging the use of low carbon energy sources to reduce greenhouse gas emissions.

With around two thirds of the world"s electricity still coming from burning fossil fuels, reaching these climate goals by 2050 will require at least 80% of electricity to be shifted to low carbon sources, according to the International Energy Agency (IEA).

Greenhouse gases are gases in the Earth"s atmosphere that trap and let off heat. These gases include carbon dioxide, methane, water vapour, nitrous oxide and ozone. As they absorb and radiate heat back to Earth, it causes the planet"s average temperature to go up.

Although some greenhouse gases come from natural sources, most now come from people. Since the Industrial Revolution in the late 1800s, greenhouse gas emissions have gone up owing to an increase in human activities, primarily from burning fossil fuels, such as when driving a gasoline-fuelled car or burning coal to produce heat. When fossil fuels burn, they let off carbon dioxide.

For over 100 years, greenhouse gases have been accumulating much faster than they can dissipate, which,

according to the most accredited scientific theories, has sped up the increase in the average global temperature. This is called global warming.

Global warming is causing environmental changes, such as more extreme weather patterns, erratic rainfall, drought and unpredictable season changes. These changes are known as climate change. With the current fast pace of global warming, climate change and its effects are expected to become more extreme and make it more difficult to live on Earth.

Nuclear power is the second-largest source of low carbon energy used today to produce electricity, following hydropower. During operation, nuclear power plants produce almost no greenhouse gas emissions. According to the IEA, the use of nuclear power has reduced carbon dioxide emissions by more than 60 gigatonnes over the past 50 years, which is almost two years" worth of global energy-related emissions.

Nuclear power accounts for around 10% of the world"s electricity and for around one third of global low carbon electricity. Currently, there are 440 nuclear power reactors in operation in 30 countries. There are 54 reactors under construction in 19 countries, including 4 countries that are building their first nuclear reactors.

Contact us for free full report

Web: https://sumthingtasty.co.za/contact-us/
Email: energystorage2000@gmail.com
WhatsApp: 8613816583346