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New Energy Solutions

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Introduction:-

The New Energy business based on the principle of Carbon Recycle and Circular Economy is a multi-trillion opportunity for India and the world. It is also an opportunity to make clean and green energy abundantly available at an affordable price to every Indian, every Indian enterprise, and every Indian utility.To avoid the most devastating impacts of climate change, we must limit global warming to 1.5°C. We urgently need to reduce energy-related CO_2 emissions in the short-term, which means businesses need to use the low-carbon energy sources available today - from the way we heat and light buildings, to the way we transport goods, people and services. With proven technologies and low-carbon fuels, we can already make significant headway in decarbonizing the energy system .This approach includes the transformation of the energy system and the urgency to adopt technologies that drive the growth of clean energies in order to stop global warming. New Energy Solutions has developed alternative fuel technology that includes:-Providing clean energy designed to power systems which can be fuelled from renewable energy sources instead of fossil fuels-Developing and integrating green energy technology concepts in the field of alternative fuels created from biomass products . These smart energy solutions can be applied in various business segments throughout the complete value chain, from efficient production of electricity to smart metering systems, and from micro-grid applications to the complete portfolio of smart city solutions. Our aim is to create added value through an eco-system that promotes the efficient usage of resources while upgrading the existing infrastructure for the benefit of the end-user.

What Is Renewable Energy?

Renewable energy is energy that has been derived from earth's natural resources that are not finite or exhaustible, such as wind and sunlight. Renewable energy is an alternative to the traditional energy that relies on fossil fuels, and it tends to be much less harmful to the environment.

Renewable energy is energy derived from natural sources that are replenished at a higher rate than they are consumed. Sunlight and wind, for example, are such sources that are constantly being replenished. Renewable energy sources are plentiful and all around us.

Carbon Footprint

A carbon footprint is the total amount of greenhouse gases (including carbon dioxide and methane) that are generated by our actions.

10 ways to reduce your carbon footprint and waste output

- Recycle more. Make a pledge to recycle your waste and take advantage of your local recycling facilities.
- Cut out plastic. ...
- Minimise food waste. ...
- Save water. ...
- Use eco-friendly products. ...
- Fertilise your garden. ...
- Grow vegetables and herbs. ...
- Reduce electricity usage.

Low-carbon energy

Energy that is generated using lower amounts of carbon emissions such as, wind, solar, hydro or nuclear power. These alternative methods of producing energy are better for the planet as they release less carbon into the atmosphere.

Types of Renewable Energy

Solar

Solar energy is derived by capturing radiant energy from sunlight and converting it into heat, electricity, or hot water. Photovoltaic systems can convert direct sunlight into electricity through the use of solar cells.

Wind

Wind farms capture the energy of wind flow by using turbines and converting it into electricity.

Hydroelectric

Dams are what people most associate when it comes to hydroelectric power. Water flows through the dam's turbines to produce electricity, known as pumped-storage hydropower.

Geothermal

by using steam that comes from the heated water pumping below the surface, which then rises to the top and can be used to operate a turbine. Sources of hot water found underneath the earth's surface can be used to provide energy. Wells are drilled to these underground reservoirs, where steam or vapour is used to spin turbines, power generators, and create electricity.

Ocean (Tidal)

The ocean can produce two types of energy: thermal and mechanical. The movement of ocean waves can be used as a source of energy, spinning turbines to generate electricity. Currently, tidal power is still being developed and there are few power plants using this source

Hydrogen

Hydrogen needs to be combined with other elements, such as oxygen to make water as it does not occur naturally as a gas on its own. When hydrogen is separated from another element it can be used for both fuel and electricity.

Biomass

Bioenergy is a renewable energy derived from biomass. Biomass is organic matter that comes from recently living plants and organisms.

Alternative energy sources

People everywhere are looking for new energy ideas to help them make energy-smart decisions for the future. we believe in renewable energy and changing the attitudes and practices about the way people generate and use energy. Central to this is the discovery and development of alternative energy sources. Here are some of the fascinating ways energy is being generated across the globe – and even outside it.

1. Solar wind

At Washington State University, Scientists are working on an ambitious project to harness the power of the solar wind which if successful could generate 1 billion billion gigawatts of electricity – that's 100 billion times more power than the planet currently consumes. The technology for harnessing solar radiation in space exists already, as demonstrated by Japan's IKAROS – an interplanetary spacecraft powered solely by the solar wind.

2. Algal biofuels-

As an alternative to liquid fossil fuels, algae offers huge commercial potential. And because the carbon they release has only recently been taken from the atmosphere by photosynthesis, the impact of algal fuels on the atmosphere is much lower too. Algal fuel production has a minimal impact on land and water resources too as its 'farms' require relatively little space (compared to cereal farming) and it can be produced using seawater or even 'grey' waste water.

3. Body heat

Sweden's latest green energy source – is Swedes. Engineers in Stockholm have devised a way to harness the heat generated by the 250,000 commuters who crowd into its Central Station every day. The body heat is channelled through the station's vent system, then used to warm up water in underground tanks and pumped through the heating system of a nearby office block – owned by the same company.

4. Bioalcohols

As we've seen with algal fuels, biomass can be converted directly into liquid fuels for transportation. Unlike algal fuels though, biofuels such as ethanol and biodiesel are already commercially available and their popularity is on the rise.

5. Dancefloors-

This isn't just smart tech, it's funky too. Energy floors in Rotterdam has found a way to harness the kinetic energy of the dancefloor. This is converted to electricity that lights up the dancefloor itself. With the average person taking 150 million steps in a lifetime, there's no reason why this technology can't find wider commercial applications. Pavegen, a London based company is demonstrating this with its development of the energy-harvesting 'smart street'.

6. Jellyfish-

To Sweden again and at Gothenburg's Chalmers University of Technology, are developing a biological fuel cell derived from the fluorescent protein cells of the jellyfish aequorea victoria. The team has so far used a proof-of-concept device to power a clock with their technology. Fanciful though it may seem right now, one day these biocells could float in the oceans, generating cheap power with minimal impact on the environment and at (relatively) low cost.

7. Confiscated alcohol-

The Swedes are at it again with this ingenious idea. In 2007, 185,000 gallons of alcohol were confiscated at the border of Sweden. Instead of pouring it down the drain as they had in previous years, authorities combined it with other fuel sources such as animal remains from slaughterhouses and human waste in anaerobic digesters where it was converted it into biofuel for public transport. It may sound gross, but by replacing 5 million litres of fossil fuel with 5 million litres of biogas, Sweden can reduce carbon emissions by 12,000 metric tons in one city alone.

Ten innovations making the Energy Industry more Sustainable :-

Fossil fuels are becoming increasingly damaging to the environment and atmosphere. Renewable sources of energy are on the rise.

8. Solar Powered Trains

Solar powered train created and designed by Byron Bay is run completely off renewable energy. The train travels 3 kilometres, and seats 100 passengers. This technology is thought to be useful within cities that have tram systems, especially as in a lot of countries transport is responsible for producing some of the most greenhouse emissions.

9. Artificial Photosynthesis

Artificial Photosynthesis is the process of capturing and storing the energy from the sunlight. Scientists are also researching how water can be converted into hydrogen and oxygen which could decrease the amount of carbon dioxide in the atmosphere.

10. Waste powered planes

Planes are usually powered by fossil fuels which we have a limited supply of, and have a negative impact on the environment. These waste powered planes are powered through fuels made from waste such as wood and home waste which is reacted with catalytic chemicals.

11. Tidal Energy

Tidal energy, similar to solar, is a consistent source of energy. Previously scientists have struggled to utilize this because of the location, it is hard to transport energy from the ocean to land. Now tidal energy can be a direct source of energy; it could power up to 20% of the UK.

12. Solar Roof Tiles

Solar panels are usually seen on top of house roofs. This innovation uses the same concept but instead of putting panels on the roof the tiles themselves self are solar panels. Not only does this allow for more solar energy because of the increased surface area, but also eliminates the need for traditional tiles.

13. Carbon Nanotube Electricity

Carbon nanotubes are carbon atoms rolled up into singular sheet molecules. These can generate electricity and could be used in smaller electrical appliances instead of other energy sources.

14. 4. 3D Printed Solar Energy Trees.

3D printed solar energy trees are wood based stems with solar panel leaves. These were created to replace using wood for energy and instead using sunlight, as most countries still burn wood. These have been designed to look like trees so they can sit within gardens and natural environments. Solar energy trees are also capable of harvesting heat energy.

15. Liquid Sunlight

Liquid sunlight is through solar power that is turned into a fuel source. Scientists have been trying to use this liquid as a sustainable source of energy, it can be used within artificial photosynthesis.

16. Electric Tires

Electric tires are a new concept Goodyear are working on, these would charge while in use. They would be powered by the friction heat of the tires on the road. These tires could also possibly still charge when they aren't moving.

1. Lithium-glass Batteries

These batteries unlike the traditional have an extremely long lifespan. They have twice the energy density than a normal battery and their capacity grows with age. The batteries charge quicker than any other type, cost less and operate at lower temperatures.

The Importance of New Energy

Reduced Global Warming
Improved Public Health
Creation of Job Opportunities
Prevents Power Shortages

Conclusion :-

There are four main types of low-carbon energy: wind, solar, hydro or nuclear power. The first three are renewable, which means these are good for the environment – as natural resources are used (such as wind or sun) to produce electricity. The best bit? Renewable energy never runs out – it's an infinite resource. Unlike fossil fuels which we have a limited amount of on earth, so it will run out eventually.However, wind doesn't always blow all day and the sun can't shine during the night-time. Therefore, other sources such as nuclear power help out when we need more energy. There's lots of us in the world, so powering all our homes takes a lot of energy!

You can be kinder to the planet by always reusing where you can. This means not buying single-use items and not buying items like plastic bags or cups. Reuse in your home wherever you can, and keep an eye out on what you put in the bin.

Reduce: only buy things you really need and donate what you can

Recycle: always recycle what you can in your home, and buy second-hand (clothes or furniture)

Rot: create a compost system in your garden for food waste .

Renewable energy is the energy obtained from renewable resources that refill over time. Energy obtained from these renewable resources is useful in many crucial areas such as water and air heating/cooling, electricity generation, off-grid (rural) energy services, and transportation.In the near future, due to the high demand for renewable energy as a means to curb global warming, the new energy industry is set to experience heavy growth. A report conducted by the International Energy Agency shows that there will be increased use of energy obtained from wind, hydropower, and sunlight.There will also be a rise in the use of wind energy and geothermal energy. Solar energy is expected to become cheaper, and the consumption of hydroelectric power is expected to rise.There is no denying that renewable energy is a reliable and stable source of energy and that it is good for the climate and environment in general. It is a very important part of the energy system, and we must intensify and promote the use of renewable energy for a better future for future generations. The renewable energy market will also experience high growth in the coming years.

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