

Business English News 40 – Renewable Energy

Early energy sources were simple; fire was discovered to heat things, and then along came **conversion** – such as fire under a **kettle** producing steam. But times have changed, and the impact of using **non-renewable** sources of energy, or **fossil fuels**, is one that we can no longer afford to ignore. Putting the **climate change** debate aside, there are real commercial opportunities that businesses and governments can, and should, consider, as Forbes reports:

Environmental concerns about the **consumption** of energy are nothing new. What's changed in the last few years is the **maturation** of new, and arguably more **sustainable**, energy sources that can be used to power our lives. **Evident** for a while, **wind** and **solar stand poised** to reshape energy markets.

The reason for this is clear once you take a look at any major city. The social, health, and environmental risks caused by fossil fuels are **undeniable** – but so too are the benefits of the **booming clean energy** sector. As CleanTechnica explains, this is why much of the world is working to move in a different direction:

As costs of solar and wind power keep falling, a global transition to 100% **renewable energy** is a reality which is **unfolding** much faster than **skeptics** think. Wind and solar are already the cheapest sources of electricity, and storage technology will soon follow. **Disruptive technology** improvements in the renewable energy sector as well as the search for real solutions to climate change, air **pollution, poverty** and the **refugee crisis** will **accelerate the process**.

Renewable energy is generated from **natural processes** that are continuously **replenished**. This includes **sunlight, geothermal** heat, wind, **tides**, water, and various forms of **biomass** which cannot be **exhausted**. What's more, with easier access and lower set-up and management costs, it's now a more appealing choice for many, as NDRC notes:

Lower oil prices and the prospect of a **diminishing demand** for fossil fuels are **prompting** a serious **rethinking** by energy companies. Given larger concerns about local air pollution and climate change, some or all of these steps may be **justified**.

As governments worldwide work to find ways to **collectively** improve their use of renewables, agreements like the **Paris Accord go a long way in** ensuring a healthier planet for future generations. In a recent report from BNEF, some may be surprised to see the names at the top of the list:

China has held on to its spot as most attractive renewable energy country, **leaving room** for India to step into second place as the United States **stalled** at third due to new **political headwinds**. Though still the world's largest coal consumer, China is also the largest investor in **green energy** accounting for nearly one quarter of the world's total \$329 billion of new energy investment.

Along with China and India, countries like France, Germany, Norway, and Britain are taking a **further step** by **banning gas-powered** cars by as early as 2025 and moving toward **Electric Vehicles** or **EVs**. It's just one of many remarkable developments around EVs that **heralds** the arrival of a **revolution** - sooner than most analysts expected. From Vox magazine:

How fast that revolution will unfold is the source of much **dispute** and uncertainty. And it matters a great deal to oil demand, electricity demand, **greenhouse gas emissions**, air pollution, and **global trade flows**. In many ways, questions around EVs **parallel** those around renewable energy, but there's a lot of **hype**, **wildly conflicting** projections, and plenty of risks and **pitfalls** ahead.

While it's important that governments lead by example, it's encouraging to see businesses **step up to the plate** as well. Following Puerto Rico's **devastating** Hurricane Maria, companies like Tesla, Duracell, and Virgin **jumped in** and began sending battery and solar supplies to **stand in** for the aging **power grid**. As Futurism explains:

Tesla's plan is to install a **microgrid** - a **distributed network** of batteries and **solar panels** that operates independently of the standard electric grid. The solution should prove more **resilient** to **natural disasters** and of course, it would be a lot cleaner than their current fossil fuel-based power generation.

Few would argue that a cleaner planet is **in everyone's best interest**. The technology and economics are too strong, and there's the **political** and **social will** to make the transition quickly. As PRI concludes, investment in renewable energy technologies will go a long way in **addressing** environmental **concerns** and reducing society's **dependence** on fossil fuels:

The benefits of all this is we eliminate four to seven million **premature deaths** from **air pollution** each year that are caused by **combustion**, primarily from fossil fuels. We can eliminate **global warming**. Even if you don't believe in it, it's there and we can eliminate it.

Vocabulary

Conversion: The process of changing or causing something to change from one form to another; "The company is undergoing a conversion to a new computer system."

Kettle: A metal container in which to boil liquids, cook foods, etc.

Non-renewable: Existing in finite quantity and not capable of being replenished; "Fossil fuels are non-renewable and rapidly running out."

Fossil fuels: a natural fuel such as coal or gas, formed in the geological past from the remains of living organisms; Burning fossil fuels uses oxygen and produces carbon dioxide."

Climate change: Change occurring in the Earth's overall climate, now regarded as a result of human activity and resulting generally in global warming.

Environmental concerns: Activities that impact the air, water, and soil quality.

Consumption: The action of using up a resource; "Industrialized countries should reduce their energy consumption."

Mature/Maturation: The action or process of becoming more mature or developed; "Now that I'm more mature and experienced in the field, I'm able to find better career opportunities."

Sustainable: Able to continue over a period of time; "A large international meeting was held with the aim of promoting sustainable development in all countries."

Evident: clearly seen, understood, or obvious.

Wind power: Power obtained by harnessing the energy of the wind.

Solar power: Power obtained by harnessing the energy of the sun's rays.

To stand poised: Completely still or not moving, but ready to do something; "The company is poised to launch its new advertising campaign."

Undeniable: Something that is certainly true and unable to be disputed; "Roberta's skills as a team leader are undeniable; that's why she's so valuable to the company."

Booming: A period of sudden economic growth, especially one that results in a lot of money being made; "The market for shared offices is absolutely booming in the last years. It's a great opportunity for a lot of self-employed professionals."

Clean energy/Green energy: Energy that can be produced in a way that protects the natural environment, for example by using wind, water, or the sun; "Most of their green energy comes from wind farms."

Renewable energy: energy that is produced using the sun, wind, etc., or from crops, rather than using fuels such as oil or coal; "With sky-high energy prices and lower investment costs, renewable energy is becoming more popular."

Unfolding: Events or information which gradually develop or are revealed; "The situation unfolding in Spain should be concerning to all global citizens."

Skeptics: A person who doubts the truth or value of an idea or belief; "People say that relations between the China and the USA will improve, but I'm a skeptic."

Disruptive technology: A technology that significantly alters or changes the way that businesses operate; "Virgin's new Hyperloop transportation system is an example of disruptive technology that will change the way we travel."

Pollution: The presence in or introduction into the environment of a substance which has harmful or poisonous effects; "Air pollution is estimated to cause around 7 million deaths per year."

Poverty: The state of being extremely poor; "Millions of families are living in complete poverty."

Refugee (crisis): Someone who has been forced to escape their country because of persecution, war, or violence; "It's estimated that there are 22.5 million refugees today, and many of them are women and children."

To accelerate the process: To make something speed up or happen more quickly; "We'll need to accelerate the reporting process to meet our deadline."

Natural processes: A process existing in or produced by nature (rather than by the intent of human beings).

Replenished: To fill something up again; "Our office supplies haven't been replenished in ages; I need a new highlighter!"

Sunlight: The light that comes from the sun; "As the sunlight shone through the office window, all I could think about was how far away my next vacation was."

Geothermal: The use of heat coming from inside the earth; "Geothermal energy does not involve burning of fossil fuels so it has little impact on the environment."

Tides: The daily rise and fall of sea levels; "Tides are created because the Earth and the moon are attracted to each other, just like magnets."

Biomass: Plant or animal materials that are suitable for using as fuel; "Food, wood, plants, and the organic waste of animals are all forms of biomass."

Exhausted: To become depleted of energy or supply; "We've exhausted all other possibilities. Our only chance to save the business is to cut some more positions."

Diminishing demand: To become less important, valuable, or impressive.

To prompt a rethink: To be caused to think about something again; "There must be a rethink of government policy toward this vulnerable group."

Justified: To believe that something is reasonable or acceptable; "Looking for a job in another company is completely justified, and you shouldn't be punished for doing it."

Collectively: Shared by every member of a group of people; "I was the project manager, but we worked on this project collectively."

Paris Accord/Agreement: An agreement between every country in the world, except the US and Syria, that sets out a global action plan to limit global warming to well below 2°C above pre-industrial levels.'

To go a long way in/toward (doing something): To be very helpful; "The money raised will go a long way toward providing essential food and medicine."

Leave room: To provide enough remaining space; "Make sure you leave enough room at the end of the report for people to write some notes if necessary."

Political headwinds: A force or challenge in the direction of the political agenda a government wants to implement.

A further step: An additional or extra movement in the direction of a goal; "Your research is good, but you need to take it a further step if you really want to drive home your point."

To ban: To forbid or refuse to allow something; "Certain chemicals have been banned because of their damaging effect on the environment."

Gas-powered: Equipment, usually a vehicle, that needs gasoline/petrol to operate.

Electric Vehicles/EVs: An automobile powered by electricity.

To herald: To be a sign that something important, and often good, is starting to happen; "This drug has been heralded as a major breakthrough in the fight against cancer."

Revolution: A change in the way a country is governed, usually to a different political system and often using violence or war.

Dispute: An argument or disagreement; "They have been unable to settle the dispute over working conditions."

Greenhouse gas emissions: The release into the earth's atmosphere of any of various gases, especially carbon dioxide, that contribute to the greenhouse effect; "Global warming is caused by human activity, specifically the emission of greenhouse gasses, according to a recent report."

Global trade flows: The buying and selling of goods and services between countries.

Parallel: An event or situation that happens at the same time as and/or is similar to another one; "Parallel experiments are being conducted at our offices in Rome, Edmonton, and London."

Hype: Something that is advertised or promoted a lot in order to generate a lot of attention; "For all the hype when they first came on to the market, 3D printing hasn't really taken off yet."

Wildly conflicting: Completely different or opposing; "Presidents Obama and Trump have wildly conflicting approaches to how they govern."

Pitfall: A likely mistake or problem in a situation; "The store fell into one of the major pitfalls of small business, borrowing from suppliers by paying bills late."

To step up to the plate: To take action when something needs to be done, even though this is difficult; "He took over the team when it became obvious no one else was going to step up to the plate."

Devastating: Causing a lot of damage or destruction; "Losing our best negotiator to another company was devastating for the team, but we've been trying to stay focused and positive."

To jump in: To become involved in a situation very quickly; "Onlookers jumped in to break up the argument."

To stand in: To do someone else's job temporarily while they are not available to do it; "Lorraine was ready to stand in if Helen got sick."

Power grid: A network that carries electricity from a power plant to the user.

Microgrid: A small network of electricity users with a local source of supply.

Distributed network: A network of electricity that is spread over a large area.

Solar panels: A device that changes energy from the sun into electricity; "Solar panels are used to power satellites."

Resilient: Able to quickly return to a previous good condition; "Martina is a very resilient person; even if she didn't get this new job, she'll keep working hard."

Natural disaster: A natural event such as a flood, earthquake, or tsunami that kills or injures a lot of people; "Europe's 2003 heat wave claimed more than 30,000 lives, making it the continent's largest natural disaster in 50 years."

To be in everyone's best interests: For the benefit or advantage of most people; "It's a cool technology, but I think it's in everyone's best interests if we stop looking for new Virtual Reality projects if we're not able to do it properly."

Political/social will: The wish or desire to do something that will affect everyone.

To address concerns: To respond to someone's issues or worries; "We are going to respond to your concerns about this issue later in the day."

Dependence: The situation in which you need something in order to continue existing or function properly; "The company needs to reduce its dependence on just one particular product."

Premature deaths: Deaths that occur before a person reaches an expected age (e.g. age 75) and are considered to be preventable.

Air pollution: Harmful substances in the air, often consisting of waste from vehicles or industry; "In 2000, it was estimated that air pollution from various sources contributed to 3 million deaths worldwide."

Combustion: The process of burning; "Cars run because their engines use combustion to get the cylinders to fire."

Global warming: a gradual increase in world temperatures caused by gases, such as carbon dioxide, that are trapped in the air around the earth and stop heat escaping into space; "Scientists fear that global warming has gone beyond the point of no return."

Language Review

A. Collocations

Match words from each column to make collocations found in the article.

| | | |
|------------------|----------------|--|
| 1. Natural | a. Technology | |
| 2. Wildly | b. Fuels | |
| 3. Premature | c. Concerns | |
| 4. Disruptive | d. Demand | |
| 5. Renewable | e. Conflicting | |
| 6. Diminishing | f. Disaster | |
| 7. Environmental | g. Energy | |
| 8. Fossil | h. Death | |

B. Vocabulary Quiz

1. A global transition to 100% renewable energy will help lessen the impact of the following problems except:
 - a. Premature deaths
 - b. Air pollution
 - c. Political headwinds
 - d. Refugee crisis

2. You did a great job _____ for Claudio the other day during the conference. Thanks for the help!"
 - a. by jump in
 - b. standing in
 - c. having stepped up
 - d. to leave room

3. Which of the following terms refers to a change in the Earth's overall temperature?
 - a. Clean energy
 - b. Natural disaster
 - c. Greenhouse gas emissions
 - d. Climate change

4. "In my years as a manager, I've learned that the most important characteristic of successful employees is _____. Just because things are difficult, it doesn't mean that you should stop trying!"
 - a. Resilience
 - b. Devastation
 - c. Sustainability
 - d. Justification

5. "I honestly don't understand all the _____ surrounding the new iPhone X. For that price, you could buy two great Android phones."
 - a. combustion
 - b. hype
 - c. tides
 - d. conversion

6. "I hope that by _____ your concerns, we've also been able to demonstrate that the benefits of our clean water solution are _____. This technology will improve the lives of millions of people around the world."
- a. justifying / devastating
 - b. heralding / booming
 - c. unfolding / replenished
 - d. addressing / undeniable
7. One of the most common _____ of a small business is trying to grow too quickly.
- a. pitfalls
 - b. dependences
 - c. disputes
 - d. skeptics
8. "I think it's our responsibility to look for ways to use more _____ and do what we can to help the environment."
- a. fossil fuels
 - b. disruptive technology
 - c. green energy
 - d. natural processes
9. Which of the following is an example of non-renewable energy?
- a. biomass
 - b. fossil fuels
 - c. solar
 - d. wind
10. Compared to our technological abilities just 10 years ago, it's _____ that the entire energy sector is much more _____ today.
- a. exhaustive / collective
 - b. disruptive / banned
 - c. distributed / parallel
 - d. evident / mature