

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."
- justifying / devastating
 - heralding / booming
 - unfolding / replenished
 - addressing / undeniable
7. One of the most common _____ of a small business is trying to grow too quickly.
- pitfalls
 - dependences
 - disputes
 - skeptics
8. "I think it's our responsibility to look for ways to use more _____ and do what we can to help the environment."
- fossil fuels
 - disruptive technology
 - green energy
 - natural processes
9. Which of the following is an example of non-renewable energy?
- biomass
 - fossil fuels
 - solar
 - wind
10. Compared to our technological abilities just 10 years ago, it's _____ that the entire energy sector is much more _____ today.
- exhaustive / collective
 - disruptive / banned
 - distributed / parallel
 - evident / mature

Answers

A. Collocations

1/f, 2/e, 3/h, 4/a, 5/g, 6/d, 7/c, 8/b

1. Natural Disaster
2. Wildly Conflicting
3. Premature Death
4. Disruptive Technology
5. Renewable Energy
6. Diminishing Demand
7. Environmental Concerns
8. Fossil Fuels

B. Vocabulary Quiz

1/c, 2/b, 3/d, 4/a, 5/b, 6/d, 7/a, 8/c, 9/b, 10/d