

Unit 10 – Going net zero: Is it really necessary?

Energy key terms

acid rain	Acid rain poses a threat to the health of soil and crops in certain areas.	saurer Regen
carbon dioxide emissions	Carbon dioxide emissions are the main driver of climate change and the greenhouse gas effect.	Kohlendioxidemissionen
carbon footprint	Large companies have the largest carbon footprints because they tend to use a great deal of energy.	CO ₂ -Fußabdruck / CO ₂ -Bilanz
climate change	Scientists have known about climate change for a long time.	Klimawandel
energy consumption	The energy consumption per capita of western nations is much higher than that of the rest of the world.	Energieverbrauch
fossil fuels	Burning fossil fuels released a significant amount of carbon dioxide.	fossile Brennstoffe
global warming	Global warming is gradually being replaced by the term <i>global heating</i> in the scientific discourse around climate change.	globale Erwärmung
greenhouse effect	The greenhouse effect occurs when heat from the sun's rays is unable to escape through the atmosphere and causes the Earth's surface to heat up.	Treibhauseffekt
heat wave	Most countries have experienced record-breaking heat waves more frequently in the last few years.	Hitzewelle
natural gas	Prices for natural gas soared in 2022, which is why heating costs exploded for many people.	Erdgas
nuclear power plant	Nuclear power plants produce a significant portion of France's energy.	Atomkraftwerk
ozone layer	The ozone layer can be damaged easily by the chemical byproducts of burning plastic.	Ozonschicht
renewable energy sources	It is time to completely switch over to renewable energy sources for the good of humanity.	erneuerbare Energiequellen
solar farms	Solar farms are becoming more and more popular as the price of solar panels continues to drop.	Solarparks

Talking about going net zero

to release greenhouse gases into the air	Most common ways of producing electricity release greenhouse gases into the air.	Treibhausgase in die Luft freisetzen
to get greenhouse gas emissions down to zero	Ultimately, to support the health of the planet, humans need to get greenhouse gas emissions down to zero.	die Treibhausgasemissionen auf null senken
to take greenhouse gas molecules out of the air	New forms of energy generation take greenhouse gas molecules out of the air and use them as fuel sources.	Treibhausgasmoleküle aus der Luft entnehmen
to make big changes	Needing to quickly generate more energy is going to force humans to make big changes to city infrastructures.	große Veränderungen vornehmen
to use less, more efficiently	Focusing on improving technology results in being able to use less, more efficiently.	weniger (z.B. Ressourcen) verbrauchen und (diese) effizienter nutzen
to replace greenhouse gas-emitting activities with clean ones	Individuals can take the initiative and replace greenhouse gas-emitting activities with clean ones, like choosing to bike instead of driving to the lake.	Treibhausgas-abgebende Aktivitäten durch saubere (Aktivitäten) ersetzen

to be the best chance for a sustainable future	Adapting to consuming less and finding a way to remove greenhouse gases from the air is the best chance for a sustainable future.	die beste Chance für eine nachhaltige Zukunft sein
Talking about global warming		
to ignore scientific predictions	Recently, party leaders in certain countries have ignored scientific predictions about the effects of climate change.	wissenschaftliche Vorhersagen ignorieren
to be blind to the facts	Even after multiple national climate summits, many world leaders continue to be blind to the facts of global warming.	die Augen vor den Tatsachen verschließen
to be at risk of collapsing / being destroyed	Countless ecosystems are at risk of collapsing / being destroyed by human activity.	Gefahr laufen zusammenzubrechen / zerstört zu werden
to cause irreparable damage to something	Hurricane Wilma caused irreparable damage to the coastline several years ago.	irreparablen Schaden an etwas verursachen
to regret something	Stevie regretted not switching to a bike from a car sooner because it is so much easier to travel by bicycle in the city.	etwas bedauern
to be concerned about the future	Children and many members of the younger generation are concerned about the future.	sich Sorgen um die Zukunft machen
to question the necessity / the truth of something	Older politicians have been questioning the necessity of responding to climate change for years.	die Notwendigkeit / den Wahrheitsgehalt von etwas in Frage stellen
to turn out to be a hoax	Howie is convinced that climate change will turn out to be a hoax in a few years.	sich als Schwindel herausstellen
to take part in a climate summit	Gina took part in a climate summit for non-profit organisations last year to talk about potential action plans.	an einem Klimagipfel teilnehmen
to stand out from the crowd	Businesses that are fully committed to becoming climate neutral and who actually work to reduce their carbon emissions stand out from the crowd.	aus der Masse herausstechen
to be in a horrible condition	Many animals' habitats are in a horrible condition due to humans exploiting the land.	sich in einem furchtbaren Zustand befinden
to be high time to do something	Al Gore said it was high time to do something about climate change back in the 1970s.	höchste Zeit sein, etwas zu tun
to be at the end of one's rope	After two years of alternating late-night shifts and studying at night, Josh was at the end of his rope.	am Ende der eigenen Kräfte sein
there is no more time to waste	According to scientists, there is no more time to waste before making drastic change if we want a sustainable future.	es gibt keine Zeit mehr zu verlieren
to be optimistic / pessimistic about the future	Emil is quite optimistic / pessimistic about the future.	optimistisch / pessimistisch in die Zukunft blicken
to not go without notice	It doesn't go without notice how many people care about the environment and yet don't do anything about it.	nicht zu übersehen sein
to be an ecological cost of climate change	A loss of biodiversity is an ecological cost of climate change.	der ökologische Preis / Umweltkosten des Klimawandels sein
to be in jeopardy	Many species of birds and mammals are in jeopardy due to loss of habitat.	in Gefahr sein
to be a human endeavour	Fixing climate change is a human endeavour, and one that needs to occur as soon as possible!	ein menschliches Bemühen / Bestreben sein

to tip towards a catastrophe	The world is rapidly tipping towards a catastrophe.	auf eine Katastrophe zusteuern
to limit global heating / global warming to 1.5 degrees Celsius by the end of the century	One of the main goals of international climate agreements is to limit global heating / global warming to 1.5 degrees Celsius by the end of the century.	die globale Erwärmung bis zum Ende des Jahrhunderts auf 1,5 Grad Celsius begrenzen
to decarbonise the global economy by 2050	Climate summit leaders seek to decarbonise the global economy by 2050.	Kohlenstoffe in der Weltwirtschaft bis 2050 reduzieren
to make coal obsolete	New technologies for electricity production will make coal obsolete within a few years.	Kohle überflüssig / obsolet machen
to take responsibility	Ying took responsibility for not shutting off the lights at her parent's house and vowed not to make the same mistake again.	Verantwortung übernehmen
to not subsidise fossil fuels	The energy sector would change significantly if governments didn't subsidise fossil fuels.	fossile Brennstoffe nicht finanziell unterstützen / subventionieren
to provide the resources that are needed	State governments should instead provide the resources that are needed for citizens to inform themselves about potential carbon-saving alternatives	die notwendigen Ressourcen bereitstellen
to fulfil the <i>Paris Agreement</i>	Currently, member countries are still trying to fulfil the <i>Paris Agreement</i> and meet the goals they set.	das <i>Pariser Klimaabkommen</i> erfüllen
to be on the journey to net zero	Some countries are already on the journey to net zero.	auf dem Weg sein abgasfrei zu werden / Treibhausgas-Emissionen auf null zu reduzieren
to be a powerful vehicle for climate action	Such an ambitious commitment is a powerful vehicle for climate action.	ein wirksames Instrument für den Klimaschutz sein
climate benefits will be enormous	The climate benefits will be enormous if fewer plastic products are used and thrown away.	die Vorteile für das Klima werden enorm sein
to thrive in harmony with nature	Humans should focus on thriving in harmony with nature.	im Einklang mit der Natur gedeihen
to harness technology	Engineers harness technology to create fuel out of seaweed and create electricity from wind.	Technologie nutzbar machen
to bridge the energy divide	Even with modern technology, it can be difficult to bridge the energy divide between countries that can afford a large infrastructure and those that can't.	die Energiekluft überbrücken
climate devastation	It's crucial to slow the melting of the polar ice caps and glaciers to avoid climate devastation.	Klimazerstörung
droughts / floods / wildfires	Weather events like droughts, floods and wildfires are becoming more frequent as climate change progresses.	Dürren / Überschwemmungen / Waldbrände
to reach ... degrees Celsius of global warming by ... (year)	It is possible that the Earth reaches 5 degrees Celsius of global warming by 2060.	... Grad Celsius globaler Erwärmung bis ... (Jahr) erreichen
to exceed ... degrees Celsius within the next two decades	Certain polar regions could exceed an increase of 2 degrees Celsius within the next two decades.	... Grad Celsius innerhalb der nächsten zwei Jahrzehnte überschreiten
to reach the temperature threshold	Once the Earth reaches the temperature threshold, it will become even more difficult to reverse the effects of climate change.	die Temperaturschwelle erreichen
to come with costly consequences	Decisions to heat with oil or subsidise fossil fuels come with costly consequences.	mit kostspieligen Konsequenzen einhergehen

to offer policy-makers a clear-eyed view of the current state	A report detailing the urgency of the situation offered policy-makers a clear-eyed view of the current state and a necessary path for action.	den politischen Entscheidungs-trägern/-trägerinnen einen klaren Blick auf den aktuellen Stand ermöglichen
to be on course to do something	Even though the outlook is grim, many organisations and countries are already on course to do something impactful and make a difference.	auf dem Weg sein etwas zu tun
to (not) take a carbon-intensive pathway	Policy-makers often take a carbon-intensive pathway and make it easier to damage the climate than care for it.	(nicht) einen kohlenstoffintensiven Weg einzuschlagen
to (not) face destructive extreme weather events	Harold has already faced destructive extreme weather events on the coast of Louisiana, including a devastating hurricane.	(nicht) mit zerstörerischen Extremwetterereignissen konfrontiert sein
to prevent the most severe climate impacts	Humankind needs rapid change in order to prevent the most severe climate impacts.	die schlimmsten Klima- auswirkungen verhindern
to need rapid change	The world's energy infrastructure needs rapid change and restructuring to include renewable options and save the climate.	einen schnellen Wandel brauchen
to redefine the way energy is produced and used	Maisie wants to redefine the way energy is produced and used with her business, which builds batteries for storing renewable energy from wind turbines.	die Art und Weise, wie Energie erzeugt und genutzt wird, neu festlegen / neu definieren
to (not) be reversible	Certain effects of climate change are reversible, and some are not.	(nicht) umkehrbar sein
melting ice sheets / melting glaciers	Melting ice sheets and melting glaciers will cause oceans levels to rise.	schmelzende Eisdecke / schmelzende Gletscher
thawing permafrost	Land erosion and landslides can be triggered by thawing permafrost.	auftauender Permafrost
rising sea levels	Rising sea levels will significantly affect a great many coastal communities.	Anstieg des Meeresspiegels
species loss	Species loss directly result from humans spreading out into wild spaces and driving animal populations into smaller areas.	Artenschwund
acidic oceans	Acidic oceans can lead to many aquatic animals having to adapt quickly or perish.	Übersäuerung der Ozeane
landslides	Landslides pose a significant threat in mountainous communities with high rainfall.	Erdrutsche / Hangrutschungen
Talking about different energy sources		
to rely on hydropower	Canada relies primarily on hydropower to generate renewable energy.	auf Wasserkraft setzen
to generate electricity	A magnet moving through a coil of metal wire generates electricity.	Strom erzeugen
to (not) release carbon dioxide or pollutants	New forms of energy generation should not release carbon dioxide or any other pollutants.	Kohlendioxid oder Schadstoffe (nicht) freisetzen
to not be without an environmental cost	Building facilities to produce renewable energy is not without an environmental cost.	Umweltkosten bedingen, auf Kosten der Umwelt gehen
to wreak havoc on species and their ecosystems	Commercial farming wreaks havoc on species and their ecosystems.	den Arten und ihren Ökosystemen Schaden zufügen
to restore wildlife	A main goal of the National Parks is to restore wildlife to their natural habitats and protect the land from development.	die Tierwelt wiederherstellen
to reduce the environmental impact	Biking to work reduces the environmental impact Des has due to his commute.	die Umweltauswirkung verringern
to threaten regions throughout the world	Dangerously high temperatures threaten regions throughout the world.	Regionen auf der ganzen Welt bedrohen

to prompt unusual weather patterns	Unseasonable temperatures prompt unusual weather patterns, like thunderstorms in winter.	ungewöhnliche Wetterlagen auslösen
to make innovative solutions more urgent	The dependency of our societal structure on large amounts of unsustainable fossil fuels makes innovative solutions more urgent.	innovative Lösungen dringender notwendig machen
to transition to a low or zero carbon grid	Representatives have already outlined a plan to transition to a low or zero carbon grid and derive all required energy from renewable sources.	zu einem kohlenstoffarmen oder kohlenstofffreien Netz übergehen
to enhance climate resilience	Changing the structures of coastal buildings can enhance their climate resilience, as they'll be more likely to remain standing even in high winds.	Klimaresistenz / Widerstandsfähigkeit gegenüber Klimaeinflüssen verbessern
Talking about electric cars		
to run on gasoline	Most cars on the road today run on gasoline.	mit Benzin betreiben
to power a car	It takes a great deal of energy to power a car for longer trips.	ein Auto antreiben
to be refined from crude oil	A great deal of modern products are refined from crude oil.	aus Rohöl raffiniert werden
to have many drawbacks	Using fossil fuels has many drawbacks.	viele Nachteile haben
to be as efficient as gas-powered cars	Some electric vehicles are just as efficient at transporting goods from point A to point B as gas-powered cars.	so effizient sein wie Autos mit Verbrennungsmotoren
to avoid greenhouse gas emissions	Cars powered by electricity generated through renewable sources avoid greenhouse gas emissions completely.	Treibhausgasemissionen vermeiden
to use clean energy	Bev uses clean energy to power the irrigation system for her garden.	saubere Energie nutzen
to make carbon-neutral fuels from plants	An innovative start-up makes carbon-neutral fuels from plants and is marketing it as "green gas".	kohlenstoffneutrale Kraftstoffe aus Pflanzen herstellen
to subsidise electric vehicles	Governments have already started subsidising electric vehicles as an attempt to get more eco-friendly cars on the road.	Elektrofahrzeuge finanziell unterstützen / subventionieren
to take advantage of tax credits	Many people take advantage of tax credits to pay less if they own an electric car.	Steuerabsetzbeträge in Anspruch nehmen
electric cars tend to be quieter	Electric cars tend to be quieter because they have less moving internal machinery than gas-powered vehicles.	Elektroautos sind tendenziell leiser
to require less maintenance	Appliances that require less maintenance are environmentally friendlier than those that constantly need upkeep.	weniger Wartung erfordern
to reduce costs for fuel	Going electric reduces costs for fuel to a significant degree, especially if you're only taking short trips.	die Kosten für Treibstoff reduzieren
to be tough to find a charging station	Because not many electric cars are being driven, it is tough to find a charging station.	schwierig sein, eine Ladestation zu finden
to not be suitable for long-distance travel	Many electric cars are not suitable for long-distance travel.	nicht für Langstreckenfahrten geeignet sein
charging the car might be a lengthy process	Charging the new solar-powered van might be a lengthy process when it's a cloudy day.	das Aufladen des Fahrzeugs kann ein langwieriger Prozess sein
to require high upfront costs	Many eco-friendly modifications to current appliances or systems require high upfront costs.	hohe Anschaffungskosten / Investitionskosten erfordern