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I. CHOOSE HOPE



This guide offers 24 reasons to be hopeful about the climate crisis. Even as the reality of the crisis becomes more apparent and urgent by the day, we choose hope. We know we can solve this crisis and we're optimistic about the future.

YOU SHOULD BE TOO.

When your world is in danger, you've got to speak up.

You've seen the headlines and seen the reality: Fossil fuels are creating a climate crisis all around the Earth. Hurricanes hitting harder. Wildfires burning hotter. Temperatures going up, up, up. You know we must change.

BUT HERE'S THE GOOD NEWS: WE CAN CHANGE. AND WE WILL CHANGE.

Because today, people like you are seeing the destruction. They're seeing the denial infecting our politics and standing up to be the voice of reality. They're standing with community, business, and government activists everywhere to speak truth to power and inspire change with everything they see and do.

Plus, with clean energy technologies like wind and solar getting better and more affordable all the time, we finally have the tools to make a global shift away from the dirty fossil fuels driving climate change and power our lives and economies without destroying our planet.

Change is happening. A better future is in our grasp. Here are 24 reasons why.

II. PROGRESS IN TECHNOLOGY

1. RENEWABLES ARE GROWING AND GETTING CHEAPER

Due to declining costs and improvements in renewable technologies, solar and wind projects are being built in more places around the globe more cheaply than any time in history.

<u>Some studies estimate</u> that 100 percent of the world's energy needs could be met with renewable sources by mid-century, as long as the right, supportive public policies are put in place to help implement them. That's where our leaders come in – <u>and where you come in too.</u>

2. ROOFTOP SOLAR IS BECOMING COST-COMPETITIVE

In many places around the world, not only is solar power becoming more affordable than ever before, it's actually becoming cost-competitive with most utility rates for energy from fossil fuels.

When solar power costs the same (or less!) as purchasing power from the grid, it's called solar grid parity, and it's an important milestone in demonstrating the cost-effectiveness of harnessing the power of the sun. Even the US is moving forward and now well on the way to achieving the SunShot Initiative's 2020 goal of solar grid parity.



3. ENERGY STORAGE KEEPS IMPROVING

How we create energy with renewables is important. How we store this energy – so we can use it when needed – is just as critical. That's because the sun doesn't shine 24 hours a day every day, nor is it always windy. The good news is this: we're seeing incredible progress in energy storage as batteries get better <u>and demand keeps growing</u>.

The numbers here are headed in the right direction. "Roughly 790 megawatts of [renewable] energy were stored last year and overall capacity is expected to hit 45 gigawatts in seven years," <u>Bloomberg New Energy Finance reported in July 2017</u>. (And in case you're not an engineer, that's a whole lot of energy.)

4. THE ELECTRIC GRID IS EVOLVING

Just like energy storage is important for renewable energy to thrive, a smarter and more flexible electric grid that pulls power from multiple sources – rather than a single dominant plant that can be taken offline by extreme weather or other climate events – is critical too. Smart grids improve energy efficiency, save money, and can improve reliability – all great reasons to move away from fossil fuels and toward cleaner sources of energy. And since the grid is evolving and more renewables are being introduced, there is huge potential to revolutionize the energy market – for the benefit of the environment and economy.

5. THE ELECTRIC VEHICLE MARKET IS BOOMING

Relatively new on the streets, global annual sales of electric vehicles – or EVs for short – have grown tenfold in just five years. There are now more than 3 million EVs on the road today. That's 3 million cars not puttering around on dirty fossil fuels, and these numbers are projected to rise. More and more vehicles are plugging in every day.

As just one <u>excellent example among many</u>, the city of Seattle, Washington, is spurring the mass electrification of many modes of transport, including passenger cars, trucks, transit, off-road vehicles, and maritime transportation through its Drive Clean Initiative, in order to help reach its ambitious goal of eliminating greenhouse gas emissions from transport by 2050.



6. TRANSPORTATION IS MORE EFFICIENT AND PUBLIC TRANSIT IS GROWING

A 2016 survey by Consumer Reports found that the overwhelming majority of Americans (84 percent, in fact) believe automakers should keep making cars and trucks more and more fuel efficient. And while the Trump Administration has been working to weaken existing vehicle emissions regulations in the US, many automakers have continued to move forward – in part to remain competitive in markets like the EU, where everincreasing fuel efficiency requirements are non-negotiable.



7. WIND ENERGY IS BLOWING AWAY ALL EXPECTATIONS

These days, more and more of the energy powering every aspect of our lives comes from wind – whether we know it or not.

In the first six months of 2017, <u>wind energy supplied</u> 57 percent of Scotland's total energy needs, and the nation <u>opened the world's first floating wind farm</u>, expanding the possibility of installing turbines on stretches of ocean that were previously unavailable. When you travel by rail in the Netherlands, you're <u>traveling by wind</u>. Germany, the Netherlands, and Denmark are building a <u>wind energy island</u> that could provide clean energy to a whopping 80 million people. And in America, the <u>first off</u><u>shore wind farm</u> opened off Rhode Island – saving 1 million gallons of diesel per year.

Critically, this shift is creating more than just electricity. In the US, analysts project the increasing number of wind jobs means that wind turbine service technician <u>will be the fastest-growing occupation</u> through 2024.

III. PEOPLE ARE STANDING UP

Are you one of them?

From major businesses and brands seeing the financial value of a clean energy economy to millions of people from all corners of the globe and all walks of life raising their voices in support of a sustainable future for the planet, there has never been more demand for action or more reasons to be hopeful.

8. FINANCIAL INSTITUTIONS AREN'T BANKING ON DIRTY ENERGY

Large banks and financial institutions are seeing that investment in fossil fuels is risky business. As renewable energy becomes more affordable and pressure builds for the world to reduce carbon emissions, it's starting to look like the finance industry is wising up. . The World Bank Group, along with several other major players, is already limiting the funding of new coal power plants. *Ca-ching!*

9. LARGE BUSINESSES AND GLOBAL BRANDS ARE GOING GREEN

Lots of your everyday brands have been making small environmental changes for many years now, but recently, several huge businesses have embraced clean energy in a big way. Kohl's and Whole Foods receive over 100 percent of their total electricity use from renewables. And tech giants Google and Apple both <u>recently announced</u> they <u>reached 100 percent renewable energy</u> for their global operations.

Many more have announced similar goals – certainly moving in the right direction.

10. FAITH COMMUNITIES ARE EMBRACING RENEWABLES

Religious communities across the globe – spanning everywhere from the Himalayas to small islands – have also seen the light on renewable energy. Most notable might be the Vatican: in 2015, Pope Francis called for urgent dialogue on global environmental issues, including climate change. When it comes to action, religious groups like Interfaith Power and Light are often on the front lines, organizing people of faith by the thousands to support a sustainable future. Amen to that!

11. YOUNG PEOPLE ARE GETTING INVOLVED

Young people are maybe the most vocal group in the climate fight, perhaps because they have the most to lose. Student groups have led the charge for more solar-powered schools and divestment from fossil fuels. They've planted thousands of trees. And they've worked together to advance a network of educational institutions helping one another achieve sustainability. The drive we see from young people today to preserve our planet is reason enough to support leaders who can make a real change for their futures.

12. THE TIDE IS TURNING ON PUBLIC OPINION

If all the different groups listed above aren't proof that people are getting on board with action to create a clean energy future, a 2017 Pew Research survey showed that an overwhelming majority of people worldwide believe the climate crisis is a major threat – with respondents in 13 countries, mostly in Latin America and Africa, identifying global climate change as the topmost threat to their nation. A whopping 78 percent of respondents in another global Pew survey supported their country limiting greenhouse gas emissions as part of an international accord like the Paris Agreement.

In the US, hundreds of thousands have <u>taken to the streets and marched</u> for climate solutions and over <u>70 percent of the population</u> wants the US to "emphasize the development of alternative energy such as wind and solar power."

We hear your message – <u>loud and clear</u>.

IV. THE BENEFITS ARE CLEAR

There's another reason support for clean energy and other climate solutions is growing around the world: the benefits are there to see for anyone with eyes. From helping fight poverty to cleaning up the air we breathe, the real-world results of shifting to renewables are just too positive and powerful to ignore.

13. RENEWABLES ARE REDUCING GLOBAL POVERTY AND EXPANDING ENERGY ACCESS

Currently, nearly one-fifth of the world's population lacks access to electricity, mostly in rural areas of the developing world unable to connect to power grids. But with solar, batteries, LED lights, and efficient appliances getting more affordable all the time and entrepreneurs developing new approaches both to technology and support for rural communities, it shouldn't be for long. *The Christian Science Monitor*, for example, has hailed off-grid solar in Africa as "a potential market worth billions of dollars." Meanwhile, <u>Tesla deployed solar to Puerto Rico</u> as the island worked to recover from Hurricane Maria, and projects in Bangladesh, Peru, and rural villages of India are bringing electricity where there was once none – all through the power of the sun.

14. CLEAN ENERGY SAVES LIVES AND MAKES THE WORLD MORE SECURE

With a warming climate come the challenges of <u>ensuring food and water security for millions</u>, sometimes spurring human migrations and further destabilizing vulnerable countries. But when we embrace clean energy, as militaries around the world are doing, the benefits can be big. Not only is making the shift cutting costs, but it's actually making our world more secure.

Now that's something worth fighting for.

15. CLEAN ENERGY IMPROVES PUBLIC HEALTH

It's simple: burning fossil fuels pollutes our air, water, and land, and exposure to this pollution can result in deadly illnesses. Harnessing the power of the sun, wind, and water...well...it doesn't pollute our precious resources. With clean energy, we can all breathe (and drink and farm) easier.



16. WE'RE PROTECTING THE FORESTS AND THE TREES

Deforestation accounts for approximately 10-12 percent of global emissions – that's about the same, if not slightly more, than transportation. But countries like Mexico and India are creating policies to drastically reduce deforestation as key parts of their strategies for cutting greenhouse gas emissions and meeting their commitments in the Paris Agreement. When we protect forests, which store hundreds of billions of metric tons of carbon worldwide, we're keeping that carbon where it belongs. We speak for the trees, and we say thanks!

17. CLIMATE-SMART AGRICULTURE IS GROWING

According to the IPCC, agriculture, forestry, and other land use accounts for roughly 24 percent of global greenhouse gas emissions, but the good news is this: we're getting smarter about how we farm. Some studies and trial programs have suggested that adopting more sustainable agricultural management techniques could drastically reduce global greenhouse gas emissions, while providing our booming world population with fresh, healthy food grown in a sustainable soil ecosystem.



18. CLEAN ENERGY IS CREATING JOBS

We've got some very good news – last year, the renewable energy industry put 9.8 million people worldwide to work. And by 2030, if we double the share of renewable energy in the global energy mix, the sector could employ more than 24 million people. In the US alone, solar energy is the top employer in the US electric power sector, accounting for 43 percent of the total jobs in the field, and is creating jobs nine times faster than the rest of the US economy.

You don't have to take our word for it – this 2017 headline in the New York Times said it all: "<u>Today's Energy Jobs Are in Solar, Not Coal</u>."

V. LOCAL ACTION IS TAKING OFF

One of the biggest reasons for hope comes from people like you. Why? Because today, people all over the globe are taking their futures into their own hands and joining the fight for climate solutions in their own back yards.

19. US MAYORS ARE STEPPING UP

On June 1, 2017, 402 American mayors from towns and cities both big and small <u>pledged</u> to "adopt, honor, and uphold the commitments to the goals enshrined in the Paris Agreement" through the <u>Climate Mayors</u> effort. Representing more than 68 million Americans, the initiative has mayors from across the country taking the lead to strengthen local efforts for reducing greenhouse gas emissions. The pledge has been signed by the leaders of some of the nation's largest cities, including Los Angeles, New York, Boston, Houston, Chicago, and Philadelphia.

20. NEARLY 3,000 CITIZENS BECAME CLIMATE REALITY LEADERS IN 2017

The <u>Climate Reality Leadership Corps</u> takes great leaders and makes them exceptional, providing training in climate science, communications, and organizing in order to better tell the story of climate change and inspire their communities to take action. Last year, Climate Reality held training events in Denver, Colorado; Greater Seattle, Washington; and Pittsburgh, Pennsylvania, to provide everyday activists with the tools to shape the conversation on climate in forums from family dinners to international summits and build a twenty-first century movement for solutions. Our Pittsburgh training was our largest (out of 37 and counting!) yet, with 1,349 new Climate Reality Leaders trained.





21. STATES, PROVINCES, AND OTHER SUBNATIONAL GOVERNMENTS ARE TAKING A STAND

All around the world, momentum for clean energy is growing rapidly at state, local, and regional levels. In Canada, provincial governments are implementing effective carbon taxes. States in India are vying with each other to develop the most solar power. Nineteen countries in Africa have joined forces to fuel sustainable growth and energy security. US states like California and New York are pressing forward with aggressive climate action plans. We could go on and on – and it's inspiring to see.

22. MAJOR CITIES ARE LEADING THE FIGHT ON CLIMATE SOLUTIONS

Where to begin? Copenhagen: aims to be carbon neutral by 2025. San Francisco: plans to achieve 100 percent renewable energy supply by 2020. Barcelona: requires 60 percent of hot water to be generated with solar energy. Los Angeles: plans to become coal-free by 2025. These four only scrape the surface – so many more are following in the footsteps of these trailblazers.

23. COMMUNITIES ARE CLEANING UP TRANSPORTATION

As technology has advanced throughout human history, we've found better and better ways to get around. Just like people abandoned the horse and buggy, we're moving on to better, cleaner ways to get from point A to point B.

By gradually implementing policies like promoting bike- and car-sharing services (among many others) over the coming years, Paris hopes to achieve its goal of reducing transportation emissions by 60 percent by 2020. Last year, Taiyuan, in Northern China's Shanxi province, became one of the first cities in the world to replace its entire taxi fleet with electric vehicles. And many US cities are following suit – from Seattle's Drive Clean Initiative to <u>Pittsburgh's planned fleet of hybrid police cruisers</u>.



24. THERE ARE MORE WAYS THAN EVER TO MAKE A BIG DIFFERENCE

How do you translate your desire for climate solutions into action that makes a real difference beyond changing your lightbulbs and recycling your soda cans? In the US, more than 600 utilities already offer customers the option to choose green power from renewables like wind and solar. The programs all basically work the same way: the utility either generates the power with clean sources or buys renewable energy certificates from other clean energy providers. By signing up wherever it is available, you help drive further demand for more and more renewables!

Around the world, "community solar" – where a community comes together to purchase or develop a solar farm whose electricity is then shared – is taking off, and at the same time the price of personal rooftop solar continues to drop (65 percent in the last five years alone). Incentives through governmental programs can make the choice even more affordable, and more and more providers are offering options to lease panels.

From the outside, choosing clean energy for your home can seem intimidating, but spend five minutes online and you'll see that chances are, there's a path that's right for you.

VI. WHAT NOW?

Solving the climate crisis is within our grasp, but we need people like you to be the voice of reality. Because it's our planet in danger. Our future at stake. And we will have a voice.

Use yours to write a letter to the editor, or simply share your concerns about the climate crisis widely with your social networks.

When you talk, your friends and family listen. Discussing the reality of the climate crisis is your chance to change minds and ensure the people you care about know what is happening to the planet – and what they can do about it.

LETTER TO THE EDITOR (LTE)

A letter to the editor (LTE) is a short opinion piece written by individual readers of any given newspaper. An LTE can be anywhere from 150-250 words on average, and usually discusses topical issues or responds to a recent article in the newspaper itself.

The opinion section of the newspaper is among its most widely read, after sports or the front page. By publishing there, your issue will be front-and-center for hundreds, perhaps even thousands, to read. It's an incredible education tool. For some, it will be the first time they've heard of the issue; for others, it'll be an excellent way to catapult them into action.

Writing an LTE is simple. There are only three tips you need to follow: (i.) Keep it simple, making only one point throughout; (ii.) keep it short, 150–200 words should be your max; and (iii.) make it personal – LTEs that tell a personal story are published much more often and get much better reception than non–personal LTEs. The best LTEs also include a call to action at the end. They don't just discuss the problem; they give readers an opportunity for a solution.

To get your LTE published, look up the local newspaper(s) in your area and find the opinion section. There, they'll often provide an email address expressly for LTEs. A web form where you can submit your content may be provided instead. (Remember to quickly proofread your entry before sending it off to make sure there are no glaring errors and that it conveys your message fully and powerfully.)

Once you've submitted an LTE, you'll want to follow up within two to three business days. Send an email to the editor asking about the status of your LTE. Be as friendly as possible!

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Founded and chaired by former US Vice President and Nobel Laureate Al Gore, The Climate Reality Project is dedicated to catalyzing a global solution to the climate crisis by making urgent action a necessity across every level of society.

Today, climate change is standing in the way of a healthy tomorrow for all of us. But we know that practical solutions are right in front of us. We can create a healthy, sustainable, and prosperous future by making a planet-wide shift from dirty fossil fuels to clean, reliable, and affordable renewable energy. At Climate Reality, we combine digital media initiatives, global organizing events, and peer-to-peer outreach programs to share this good news with citizens everywhere and build overwhelming popular support for policies that accelerate the global transition to a clean energy economy.

To learn more, visit www.climaterealityproject.org