

Unleashing natural gas is the solution to affordable energy while helping improve the environment and securing American energy independence.

- Affordable Energy for Our Families
- Abundant Energy for Our Future
- Clean Energy for Our Environment
- Domestic Energy for Our Security

TEA is the common sense alternative to the radical "Green New Deal" tax scheme. TEA engages the American people in a fact-based dialogue about the impact of US energy policy on their daily lives. Helping change the conversation about American energy and providing a fact-based alternative to extreme policies like the Green New Deal, TEA recruits federal, state, and local leaders to sign its Declaration of Energy Independence.

Our data-driven approach identifies pro-American energy supporters as a powerful foundation of citizens willing to stand up for sound policies and voice opposition to radical policies like the Green New Deal. Energy issues cut across party and ideological lines – everyone benefits from an American Energy Independence Agenda. We can run a digital, mail, or door-to-door campaign to any universe of Affordable Energy Voters.

• 74% of registered voters in the US are currently concerned with the affordability of energy in the future. This runs across all party lines and is as close to a universal issue as you get in politics.

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Republicans have a once in a generation chance to reshape the electoral landscape. Dissatisfaction with Biden and democrats' anti-energy energy policies have led to increased prices across the board, which has created a new universe of voters – Affordable Energy Voters.

NATIONAL POVERTY AND AFFORDABILITY STATISTICS

- 20 million U.S households—one out of six households—are behind on their utility bills. ("20 Million American Households Are Behind On Energy Bills," <u>Yahoo</u>, 8/24/22)
- As of July 2022, 59 percent of Americans say they are living paycheck to paycheck. (Jessica Dickler, "Fewer Americans say they are living paycheck to paycheck as inflation begins to ease," <u>CNBC</u>, 8/29/22)
- According to a January 2022 survey, 56 percent of Americans can't cover a \$1,000 emergency expense with savings. (Carmen Reinicke, "56% of Americans can't cover a \$1,000 emergency expense with savings," <u>CNBC</u>, 1/19/22)
- In 2021, over 47 million American households had an income of \$50,000 or less a year. ("Household Income in 2021," 2022 Annual Social and Economic Supplement, Current Population Survey, <u>U.S. Census Bureau</u>, Revised 8/15/22)
- In 2021, over 47 million American households had an income of \$4,275 or less a month. ("Household Income in 2021," 2022 Annual Social and Economic Supplement, Current Population Survey, <u>U.S. Census Bureau</u>, Revised 8/15/22)
- In 2021, 11.6 percent of Americans—37.9 million people—lived in poverty. ("Poverty in the United States: 2021," <u>U.S. Census Bureau</u>, 9/13/22)
- A 2018 survey of low-income households revealed some of the impacts that high energy costs have on these household's health and welfare:
 - o 41 percent went without medical or dental care.
 - o 36 percent went without food for at least one day.

o 31 percent did not fill a prescription or took less than the full dose of a prescribed medication in the past five years.

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- o 25 percent kept their home at a temperature that was unsafe or unhealthy.
- o 17 percent moved in with friends or family.

o 6 percent moved into a shelter or were homeless. (2018 National Energy Assistance Survey Executive Summary, <u>National Energy Assistance Directors' Association</u>, 12/18)



National Voter File Total Registered Voters: 203,942,294

Top number in each box equals total registered voters of that partisan and propensity category

Bottom number in each box equals total supporters of specific issue in that partisan and propensity category

TEA TARGETING MATRIX

Millions spent by GOP affiliated Independent Expenditure Groups to persuade voters to vote GOP



Affordable Energy Voters – No one is talking to them. They tune out partisan voices/messaging

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Total Voters	Hard Dem	Lean Dem	Swing	Lean GOP	Hard GOP
	High Turnout	High Turnout	High Turnout	High Turnout	High Turnout
	Voters	Voters	Voters	Voters	Voters
	23,967,410	8,805,637	13,930,403	9,269,536	23,956,955
	Supporters	Supporters	Supporters	Supporters	Supporters
	11,481,283	4,228,155	6,422,828	4,356,889	11,936,371
203,942,294	Hard Dem	Lean Dem	Swing	Lean GOP	Hard GOP
	Mid Turnout	Mid Turnout	Mid Turnout	Mid Turnout	Mid Turnout
	Voters	Voters	Voters	Voters	Voters
Total Voters In	12,532,065	10,640,680	19,960,898	8,325,461	11,492,032
Grey Boxes	Supporters	Supporters	Supporters	Supporters	Supporters
63,186,731	5,661,028	4,821,296	9,004,215	3,883,990	5,569,089
Total Supporters In Grey Boxes 29,191,016	Hard Dem Low Turnout Voters 7,293,288 Supporters 3,144,902	Lean Dem Low Turnout Voters 10,515,434 Supporters 4,783,870	swing Low Turnout Voters 25,505,291 Supporters 11,813,424	Lean GOP Low Turmout Voters 9,395,081 Supporters 4,489,387	Hard GOP Low Turnout Voters 8,352,122 Supporters 4,037,284

Path to America's Commonsense Energy Policy

- Designating natural gas as green energy. Why it matters: Natural gas is essential to America's energy independence and its national security. American consumers and businesses prosper from low-cost, clean, reliable, and safe energy until a true alternative source of inexpensive, clean, efficient, and safe energy is found.
- 2. **Promote natural gas and energy pipelines.** *Why it matters:* Pipelines are the safest, most efficient, environmentally sound, and effective means of energy transportation. Imagine your body without veins, that is a country without pipelines.
- 3. Encourage all states to prohibit natural gas bans. Why it matters: Access to abundant & reliable natural gas is essential to our energy affordability. Energy is the foundation of economic prosperity for American households and businesses, especially, mid- to low- income earners, fixed-income households, and small businesses.
- 4. Expand and expedite liquid natural gas (LNG) terminals nationwide. Why it *matters:* Natural gas is pound for pound the greenest fuel on earth. America has a century or more of natural gas in reserve. It is an effective means of exporting true green energy and, along with American oil and coal exports, taking a giant bite out of our deficit.
- 5. Enhance export of American energy opportunities. Why it matters: Energy is essential to life on earth. Countries and governments are held hostage with EmpoweringAmerica.org

energy supply. Do such countries want to do business with America or with Russia, OPEC, and China? Just ask the Europeans.

- Promote using natural gas as an energy source in all appropriate applications. Why it matters: Thanks to natural gas abundance & affordability, United States enjoys its cleanest air quality since 1970 when such measurements started. Imagine if natural gas was used as much as possible as transportation fuel, in kitchens & homes, and all possible industrial uses.
- 7. Lead the world in biofuels and renewable natural gas technologies and usage. Why it matters: Humans generate garbage and waste every day and lots of it. Cost-effective capture and reuse of the emissions, unpleasant rotting waste smell we all know well, for energy from landfills, water treatment centers, animal waste, and other sources is a real gain toward a meaningful environmental activism.
- 8. Promote companies and state governments to develop energy industry and technical trades education and training programs. *Why it matters:* America's energy independence will result in energy-intensive industries returning to the U.S. as they did in 2017-20. America must be ready for this economic recovery and opportunity. There are known successful technical training programs that accept students with no experience and only require the individual to have the right aptitude and attitude, and after 1,000 hours of classroom and hands-on training, produce entry-level technical assets.

Affordable Energy for Our Families

- Affordable natural gas has saved an average family of four \$2,500 a year. ("The Value of U.S. Energy Innovation and Policies Supporting the Shale Revolution," <u>The Council of Economic Advisers</u>, 10/19)
- That's a \$203 billion annual savings for U.S. consumers because of affordable natural gas. ("The Value of U.S. Energy Innovation and Policies Supporting the Shale Revolution," <u>The Council of</u> <u>Economic Advisers</u>, 10/19)
- Households that use natural gas for heating, cooking and other appliances save an average \$879 per year compared to homes using electricity for such appliances. ("Natural Gas Act Offers Clear Pathway to American Energy Abundance," <u>American Gas Association</u>, 2/5/20)
- A study concluded that "the drop in natural gas prices in the late 2000s, induced largely by the boom in shale gas production, averted 11,000 winter deaths per year" in the U.S.. (Janjala Chirakijja, Seema Jayachandran and Pinchuan Ong, "Inexpensive Heating Reduces Winter Mortality," <u>National Bureau Of Economic Research</u>, 3/19)

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- From 2009 to 2020, the natural gas industry saved U.S. businesses \$121 billion. ("Natural Gas Act Offers Clear Pathway to American Energy Abundance," <u>American Gas Association</u>, 2/5/20)
- From 2013 to 2018, natural gas development generated \$101 billion in real GDP growth each year. (American Gas Association, et al, <u>Letter to Members of the United States House of Representatives</u> <u>Committee on Energy & Commerce Subcommittee on Energy</u>, 2/3/20)
- This growth resulted in approximately 730,000 more jobs that contributed \$87 billion more in annual disposable income. (American Gas Association, et al, <u>Letter to Members of the United States</u> <u>House of Representatives Committee on Energy & Commerce Subcommittee on Energy</u>, 2/3/20)
- A full ban on hydraulic fracturing in the U.S. would eliminate 19 million jobs and reduce U.S. GDP by \$7.1 trillion. ("What if hydraulic fracturing was banned?," <u>U.S. Chamber of Commerce Global Energy</u> <u>Institute</u>, 12/19)
- A "zero-emission" power grid would cost the U.S. \$4.5 trillion. (Dan Shreve, "Deep decarbonisation: the multi-trillion-dollar question," <u>Wood Mackenzie</u>, 6/27/19)
- That cost would equate to \$35,000 per U.S. household, or nearly \$2,000 a year over the course of a 20-year plan. (Dan Shreve, "Deep decarbonisation: the multi-trillion-dollar question," <u>Wood</u> <u>Mackenzie</u>, 6/27/19)
- A zero-emissions transportation system could cost an average American household from \$9,000 to \$20,000 through 2029. (Douglas Holtz-Eakin, Dan Bosch, Ben Gitis, Dan Goldbeck, and Philip Rossetti, "The Green New Deal: Scope, Scale, And Implications," <u>American Action Forum</u>, 2/25/19)
- The annual cost of replacing all coal, gas, petroleum, and nuclear capacity with wind and solar facilities, would be about \$357 billion per year, or about \$2,799 a year per U.S. household. (Benjamin Zycher, "The Green New Deal: Economics And Policy Analytics," <u>America Enterprise Institute</u>, 3/26/19)
- A household that adds a new electric vehicle can be expected to consume approximately double the amount of electricity. (Garrett Hering, "EV Impact: Rise of electric vehicles heightens grid-integration imperative," <u>S&P Global</u>, 9/23/21)

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Clean Energy for Our Environment

- Since 1970, combined emissions of key pollutants have dropped by 78% in the U.S. ("Our Nation's Air: Trends Through 2021," <u>Environmental Protection Agency</u>, 2022)
- The U.S. is the world leader in lowering carbon emissions, largely because of increased use of natural gas for electricity generation. (Mark Perry, "Some Charts and Commentary Based on BP's Annual Report on World Energy Statistics," <u>American Enterprise Institute</u>, 7/9/21)
- Increased use of natural gas for electricity generation is the top reason for U.S. power sector emissions reductions over the past 15 years. (Connor Roese, "EARTH DAY 2022: NATURAL GAS LEADING THEWAY IN REDUCING U.S. POWER SECTOR CO2 EMISSIONS," <u>Energy In Depth</u>, 4/22/22)
- In 2020 alone, the shift to natural gas provided an emissions reduction equivalent to 150 coal-fired power plants operating for a year. (Connor Roese, "EARTH DAY 2022: NATURAL GAS LEADING THEWAY IN REDUCING U.S. POWER SECTOR CO2 EMISSIONS," <u>Energy In Depth</u>, 4/22/22)
- Since 2005, natural gas has cut 50 percent more emissions than wind and solar power combined. ("Natural Gas: A Boon to the U.S. Economy...and Environment," Energy In Depth, 4/19/18)
- Natural gas is responsible for 61 percent of U.S. electricity generation CO2 reductions. ("Natural Gas: A Boon to the U.S. Economy...and Environment," <u>Energy In Depth</u>, 4/19/18)
- In 2017, the surge of natural gas for power generation helped the sector reach a 30-year low for carbon dioxide emissions. (Seth Whitehead, "Report: Power Sector Co2 Emissions At Lowest Levels Since 1988 — Thanks Largely To Natural Gas," <u>Energy In Depth</u>, 4/4/18)
- Even though the U.S. is producing less air pollution, smog levels are still rising in the western U.S. because of pollutants released in Asian countries that then drift over the Pacific Ocean. (Bill Chappell, "Smog In Western U.S. Starts Out As Pollution In Asia, Researchers Say," <u>NPR</u>, 3/3/17; Meiyun Lin et al, "US Surface Ozone Trends And Extremes From 1980 To 2014: Quantifying The Roles Of Rising Asian Emissions, Domestic Controls, Wildfires, And Climate," <u>Atmospheric Chemistry and Physics</u>, 3/1/17)
- China's mining of rare earth minerals has "poisoned water and soil have caused abnormal disease rates in 'cancer villages' from which impoverished residents cannot afford to move." (Alice Su, "The hidden costs of China's rare-earth trade," *Los Angeles Times*, 7/29/19)
- Wind turbines, solar panels, and batteries, which are a critical part of their productivity, currently have about a 20-30 year shelf-life. They are then disposed of in landfills, creating the need for more landfill space. (Amy Joi O'Donoghue, "The dark side of 'green energy' and its threat to the nation's environment," <u>Deseret News</u>, 1/31/21; Chris Martin, "Wind Turbine Blades Can't Be Recycled, So They're Piling Up in Landfills," <u>Bloomberg</u>, 2/5/20; Andrew Sheldon, "Are Electric Car Batteries Bad for the Environment?," <u>Your AAA Today</u>, 4/20/22)

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- Production of electric cars emits between 1.3 and 2 times the amount of greenhouse gases than that of traditional vehicles. (Andrew Sheldon, "Are Electric Car Batteries Bad for the Environment?," <u>Your AAA Today</u>, 4/20/22)
- Electric vehicles are only as green as the electricity used to power them, some of which is still
 produced by coal-fired power plants. Thus, claims of zero emissions are not necessarily accurate.
 (Andrew Sheldon, "Are Electric Car Batteries Bad for the Environment?," <u>Your AAA Today</u>, 4/20/22)
- Between 2020 and 2024, about 8,000 aging wind turbine blades will be retired in the U.S. (Chris Martin, "Wind Turbine Blades Can't Be Recycled, So They're Piling Up in Landfills," <u>Bloomberg</u>, 2/5/20)
- Wind turbine blades cannot be easily crushed, recycled or repurposed. (Chris Martin, "Wind Turbine Blades Can't Be Recycled, So They're Piling Up in Landfills," <u>Bloomberg</u>, 2/5/20)
- It is estimated the U.S. will have more than 720,000 tons of blade material to dispose of over the next 20 years. ("The Cost of Decommissioning Wind Turbines is Huge," <u>Institute for Energy Research</u>, 11/1/19)
- Projections show that by 2050, up to 78 million metric tons of solar panels will have reached the end of their life, and the world will be generating about 6 million metric tons of new solar e-waste annually. (Maddie Stone, "Solar panels are starting to die. What will we do with the megatons of toxic trash?," <u>Grist</u>, 8/13/20)
- Solar panels use hazardous chemicals and heavy metals that can be environmentally harmful pollutants if not handled properly both during production and when obsolete installations are retired. ("Solar explained: Solar energy and the environment," <u>U.S. Energy Information</u> <u>Administration</u>, Updated 2/25/22)
- Experts estimate that only about 10% of solar panels are recycled. The rest go to landfills. (Casey Crownhart, "Solar panels are a pain to recycle. These companies are trying to fix that.," <u>MIT</u> <u>Technology Review</u>, 8/19/21)
- Solar installation can require large amounts of water for cleaning and cooling that "in some arid locations may affect the ecosystems that depend on these water resources." ("Solar explained: Solar energy and the environment," U.S. Energy Information Administration, Updated 2/25/22)
- Wind turbines can cause bird and bat deaths that "contribute to declines in the population of species also affected by other human-related impacts." ("Wind explained: Wind energy and the environment," U.S. Energy Information Administration, Updated 12/17/21)
- Lithium mining necessary for EV batteries requires "an immense amount of water is pumped down into salt flats, bringing mineral-rich saltwater to the surface" and can potentially contaminate local water supplies. (Andrew Sheldon, "Are Electric Car Batteries Bad for the Environment?," <u>Your AAA</u> <u>Today</u>, 4/20/22)

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 As little as 5% of the world's lithium batteries are recycled, while in the U.S. 99% of lead car batteries are recycled. (Andrew Sheldon, "Are Electric Car Batteries Bad for the Environment?," <u>Your</u> <u>AAA Today</u>, 4/20/22)

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American Energy for Our Families

- The U.S. has been the world's top producer of natural gas since 2011, when it overtook Russia, and it has been a net exporter since 2017. (Lindsay Maizland and Anshu Siripurapu, "How the U.S. Oil and Gas Industry Works," <u>Council on Foreign Relations</u>, 8/11/22)
- In 2018, the U.S. surpassed Russia and Saudi Arabia to become the world's top producer of natural gas AND oil largely because of the U.S. shale revolution. ("The U.S. Leads Global Petroleum And Natural Gas Production With Record Growth In 2018," <u>U.S. Energy Information Administration</u>, 8/20/19; "What countries are the top producers and consumers of oil?," <u>U.S. Energy Information Administration</u>, Updated 12/8/21)
- In December 2020, for the first time in 35 years, the U.S. imported no weekly crude oil from Saudi Arabia. (Sheela Tobben and Julian Lee, "U.S. Imports No Saudi Crude for First Time in 35 Years," <u>Bloomberg</u>, 1/6/21)
- The United States was a total petroleum net exporter in 2020 and 2021. ("Oil and petroleum products explained," U.S. Energy Information Administration, Updated 4/21/22)
- From 2008 to 2018, the U.S. energy trade deficit was reduced by 87%, or \$363 billion. (Nikos Tsafos, "Can Energy Close America's Trade Deficit?," <u>Center For Strategic & International Studies</u>, 7/10/18)
- In 2022, the U.S. will be the largest exporter of LNG by volume in the world. ("Exports," <u>Center for</u> <u>Liquefied Natural Gas</u>, Accessed 3/14/22)
- As of 2022, we have shipped U.S. LNG to over 35 countries around the globe and counting. ("Exports," <u>Center for Liquefied Natural Gas</u>, Accessed 3/14/22)
- According to the Center for Liquid Natural Gas, "Secure, reliable U.S. liquefied natural gas (LNG) is playing a critical role in stabilizing global energy markets, especially those in Europe." ("U.S. LNG Exports: Regulatory Certainty in Time of Crisis," <u>Center for Liquefied Natural Gas</u>, Accessed 3/14/22)
- China has at least 85% of the world's capacity to process rare earth ores—needed for renewable energy and EVs—into material manufacturers can use. (James MacDonald, "The Downside To Renewable Energy, <u>JSTOR Daily</u>, 5/6/19; "U.S. Dependence On China's Rare Earth: Trade War Vulnerability," <u>Reuters</u>, 6/27/19)
- China supplied 80% of the rare earths imported by the United States from 2014 to 2017. ("U.S. Dependence On China's Rare Earth: Trade War Vulnerability," <u>Reuters</u>, 6/27/19)
- Russia is the largest natural gas importer to Europe. ("Europe relies primarily on imports to meet its natural gas needs," U.S. Energy Information Administration, 2/11/22)
- The EU gets about 40% of its natural gas imports from Russia. Germany, the biggest importer, relied on Russia for more than two-thirds of its natural gas in 2020. Italy, the second biggest buyer, received almost half of its imports from Russia. (Josh Ulick, "How Europe Hopes to Wean Itself From Russian Natural Gas," *The Wall Street Journal*, 3/13/22)

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Abundant Energy for Our Future

- About 40% of U.S. electricity generation comes from natural gas. ("What is U.S. electricity generation by energy source?," U.S. Energy Information Administration, 3/4/22)
- The U.S. has enough natural gas to power the nation for nearly a century—and the potential for even more. ("How Much Natural Gas Does The United States Have, And How Long Will It Last?," U.S. Energy Information Administration, Updated 3/7/22)
- From 2004 to 2019, natural gas reserves in the U.S. increased more than 148 percent. ("U.S. LNG Exports: Delivering Certainty in Time of Crisis," <u>Center for Liquefied Natural Gas</u>, Accessed 3/14/22)
- The U.S. oil and natural gas industry supports nearly 11 million American jobs. ("Powering the Workforce of the Future," <u>American Petroleum Institute</u>, Accessed 4/4/22)
- Over the last decade, the surge in production from the shale revolution helped create 1.4 million new manufacturing jobs for Americans. ("U.S. Energy: The Key to the Reviving of U.S. Manufacturing," <u>ShaleCrescent USA</u>, 10/20; <u>Federal Reserve Bank of St. Louis</u>, Updated 12/8/20)
- Besides being an energy source, natural gas provides the base ingredient for everyday products like plastic, chemicals, fertilizer, anti-freeze, fabrics and much more. ("Uses In Industry," <u>NaturalGas.org</u>, 9/20/13; "Natural gas explained," <u>U.S. Energy Information Administration</u>, Updated 5/24/22)
- Natural gas is integral to the health care industry both as a heating source and a key ingredient in many health products. (Sean Hackbarth, "Infographic: Health Care Would Be In A World Of Hurt Without Petroleum," <u>U.S. Chamber of Commerce</u>, 4/29/16; "Energy Characteristics and Energy Consumed in Large Hospital Buildings in the United States in 2007," <u>U.S. Energy Information</u> <u>Administration</u>, Released 8/17/12)
- Natural gas powers more than 175,000 vehicles in the United States and roughly 23 million vehicles worldwide. ("Natural Gas Vehicles," <u>U.S Department Of Energy Alternative Fuels Data Center</u>, Accessed 9/13/22)
- Only 1 in 112 customers are expected to experience a natural gas outage in any given year. Electric distribution systems have an average of one outage per year per customer. (William Liss and Patricia Rowley, "Assessment of Natural Gas and Electric Distribution Service Reliability," <u>Gas Technology</u> <u>Institute</u>, 7/19/19)
- In 2016, fewer than 100,000 natural gas customers nationally experienced disruptions, while 8.1 million Americans experienced electricity outages. ("Natural Gas Systems: Reliable & Resilient," Natural Gas Council, 7/17)
- About 12% of U.S. electricity generation comes from wind and solar energy. ("What is U.S. electricity generation by energy source?," U.S. Energy Information Administration, 3/4/22)
- Replacing traditional energy sources with solar power would require 57,048 square miles of land an area equivalent to the size of New York and Vermont—for 18.8 billion solar panels. (Paul Driessen, "Protecting the Environment from the reputer Green Wey Deal," <u>The Heartland Institute</u>, 12/19) The Empowerment Alliance | 155 East Main Street Suite 260 Lexington, KY 40507

- "Solar energy technologies require use of materials, such as metals and glass, that are energy
 intensive to make" and it can take 1-4 years for a solar system to produce an equivalent amount of
 energy required for that material production. ("Solar explained: Solar energy and the environment,"
 U.S. Energy Information Administration, Updated 2/25/22)
- Replacing traditional energy sources with wind power would require 2.12 million turbines on 500,682 square miles of land—an area equivalent to Arizona, California, Nevada, Oregon, and much of West Virginia. (Paul Driessen, "Protecting the Environment from the Green New Deal," <u>The</u> <u>Heartland Institute</u>, 12/19)
- To adapt to a 100 percent renewable power grid, 1,600 gigawatts of wind and solar capacity—more than 11 times the U.S.'s current capacity—would have to be added. (Nichola Groom, "Weaning U.S. power sector off fossil fuels would cost \$4.7 trillion: study," <u>Reuters</u>, 6/27/19)
- To adapt to a 100 percent renewable power grid, 900 GW of energy storage—900 times more than
 is currently installed—would be necessary to compensate for when the weather is not conducive to
 wind and solar. (Nichola Groom, "Weaning U.S. power sector off fossil fuels would cost \$4.7 trillion:
 study," <u>Reuters</u>, 6/27/19)
- To adapt to a 100 percent renewable power grid, 200,000 miles of high voltage transmission lines would be needed to get wind and solar energy to major metropolitan areas. (Nichola Groom, "Weaning U.S. power sector off fossil fuels would cost \$4.7 trillion: study," <u>*Reuters*</u>, 6/27/19)
- Globally, solar panels produced 720 terawatt-hours of energy in 2019, accounting for around 3% of the world's electricity generation. And it took about 46 million metric tons of solar panels to do it. (Casey Crownhart, "Solar panels are a pain to recycle. These companies are trying to fix that.," <u>MIT</u> <u>Technology Review</u>, 8/19/21)
- The average electric vehicle requires 25-30 kilowatt-hours to travel 100 miles, "the same amount of electricity an average American home uses each day to run appliances, computers, lights and heating and air conditioning." (Alex Brown, "Electric Cars Will Challenge State Power Grids," <u>PEW</u> <u>Trusts</u>, 1/9/20; <u>www.fueleconomy.gov</u>, U.S. Department of Energy Office of Energy Efficiency & Renewable Energy, Accessed 6/8/22)
- If you plugged in 50 electric vehicles at once to 50 chargers, it would draw as much electricity as a high-rise office building for as long as the cars were being refueled. (Will Englund, "Plug-in cars are the future. The grid isn't ready.," *The Washington Post*, 10/13/21)
- U.S. electric capacity would need to more than double if just 66 percent of cars were EVs by 2050. (Nichola Groom and Tina Bellon, "EV rollout will require huge investments in strained U.S. power grids," <u>Reuters</u>, 3/5/21)

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Guide to Understanding the Impact of Wind and Solar Projects

Most of the agreements will likely revolve around securing these terms, establishing the compensation package for the landowner, and defining the other parameters of the parties' legal relationship.

While much more could be written about the issues to be considered in evaluating a solar or wind energy agreement, here are important questions for you to ask as you evaluate the proposed wind or solar agreement and determine whether it is suitable for you.

Do your due diligence. Use these questions as you make a decision regarding your property. Consult an attorney who is familiar with property owners' rights, if possible.

Remember, the solar and wind companies are in business to make a profit and have their best interests in mind, not necessarily yours. So proceed with caution.

If a promise is made verbally, make sure it is also in writing. Protect yourself and your assets.

Pre-Agreement

How will current uses of the property be affected by the project or how will the lease affect my present and future farming operation?

How long will the agreement last? How will the landowner be compensated?

How are property owners, schools and local governments guaranteed the funding promised by the company in the event of default?

What are the landowner's obligations under the agreement?

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Who is responsible should an adjacent property or person be damaged by a solar panel or wind blade that came from your land or activities during construction of the installation?

Contingency Plans

- What happens if there are maintenance issues involved and what access and rights is the land owner giving up to the company?
- What happens if a tornado or other weather damage occurs and there is pollution? Who is responsible?
- Where do you plan to purchase your panels? Is there an assurance that there is no hazardous material within them?

Aestheics

- What fencing do you plan to use around your project? Options include a six-foot chain link with three strands of barbed wire or agricultural style.
- What will be your setbacks from non-participating land owners? Property lines as well as distance from primary dwellings and set-back from roads?
- Noxious weed control during and after construction. Who is responsible for this?
- Road Use Maintenance Agreement. Who is responsible for any damage to the roadway or in the event damage that occurs outside of the project area?
- Vegetative screening around the project. Is there a vegetative screening maintenance plan and review for replacement of dead plants, trees and bushes with a time frame?

Post-Project Issues

- Decommissioning. While there is a requirement to have a bond with the Ohio PUCO to do this, is there an additional protection for the county where the project is located? This likely varies by county and township zoning laws and each state may have its own.
- What happens if the renewable company goes bankrupt or fails to meet its obligation? Is there specific language in the contract to¹/address this?

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Who is responsible for the overall clean-up and the costs associated with that if a project is decommissioned?

Sources: https://opsb.ohio.gov/ https://nationalaglawcenter.org/wp-content/uploads/assets/articles/ferrell-solar.pdf

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