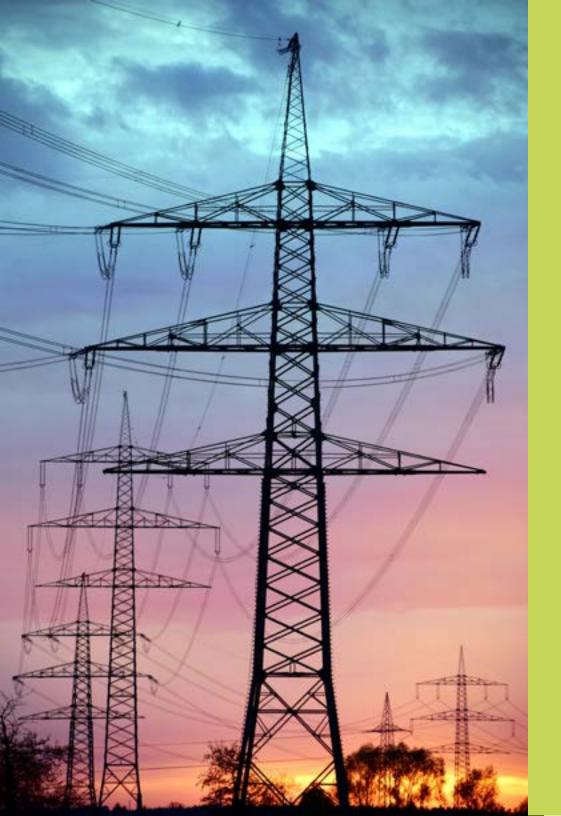
OVERCOMING ENERGY OBJECTIONS

The land pro's guide to addressing landowner concerns.

Part & Parcel.





WHY THIS MATTERS

Part of a land professional's duties is to help energy companies find suitable land for their uses. However, this can come with a ton of pushback, as landowners and residents object to different sources of energy for various reasons. In reality, no energy source is perfect and even those that seem the most virtuous are fraught with unexpected challenges.

This ebook breaks down the most commonly used energy sources, the pros and cons of each, and tips for land pros on how to overcome common objections.



VS



RENEWABLE VS NON RENEWABLE

First thing's first: while it is true that some energy sources are "cleaner" than others, they all have some sort of impact on the environment.

In fact, landowners may be surprised to learn that, during the manufacturing of parts, some green technologies rely on "equally finite" natural resources like metals and minerals. Put simply, to say that any one source is "the best" is not only untrue but potentially harmful rhetoric

RENEWABLES

Landowners may also know/refer to renewable energy as:

alternative energy clean energy green energy sustainable energy

NON-RENEWABLE

Coal was first used for electricity generation in the United States in the 1880s.

By 1961, coal had become the major fuel used to generate electricity in the United States.

WIND

PROS: Wind turbines don't rely on fuel to run and are considered an infinite-ly available energy source. Additionally, the technology is constantly improving, making it possible to generate more energy, require less maintenance, and recycle decommissioned turbine blades. Finally, wind turbines can be built on pre-existing farmland with little to no disruption (even paying farm owners to build on their property in the form of contracts or leases).

CONS: Currently, used turbine blades are being buried in massive plots of land; turbine blades also present danger to avian wildlife; wind turbines require a huge upfront cost, and; wind energy can be intermittent due to inconsistency of the wind itself.



OBJECTION HANDLING

LANDOWNER LAND PRO

"My residents don't want to have to deal with living in the shadows of giant turbines."

There are regulations and ordinances on how much time in a day or a year those vdisturbances can impact a home. Some states have a zero-hour ordinance.

"Aren't wind turbines noisy?"

The sound isn't much louder than a microwave and with advance ments in technology, newer designs have been shown to have an even quieter presence.

SOLAR

PROS: Along with being a non-pollutant to air and water overall, solar energy is abundant, low maintenance, widely available, and completely silent.

CONS: Due to the sheer size of space required to operate and the use of rare and expensive materials, solar power involves a high upfront investment for a solution that, quite frankly, can be quite intermittent. Additionally, solar panel production has raised ethical as well as environmental questions in recent years with the International Renewable Energy Agency predicting large amounts of annual waste in the next decade due to decommissioned solar panels.



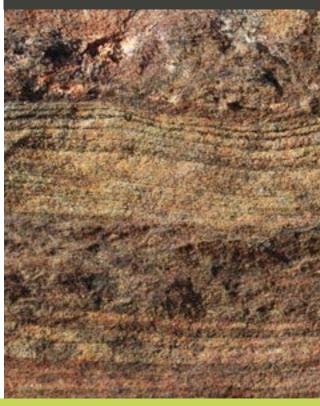
LANDOWNER	LAND PRO
"There's too much of an upfront cost."	Unlike paying utility bills, paying off a solar panel system gets a return on investment — in the long run, solar power lowers your electricity bills and earns you tax incentives. In fact, over a 20-year period, you could save from \$10,000 to \$30,000, depending on your state, home size, and electricity usage.
"Why should I make such a drastic and permanent change to the property?"	Solar panels actually add value to your house —— the average American home produces 14,920 pounds of carbon dioxide each year. Installing solar panels reduces carbon footprint by more than 3,000 pounds/year. Furthermore, taxpayers could potentially claim 30% of installation costs, with benefits varying by state.

GEOTHERMAL

PROS: Geothermal energy (which is sourced from heat inside the earth) produces smaller amounts of carbon dioxide and sulfur components than fossil fuels, is great for heating and cooling, leaves a small environmental footprint, and is both reliable and predictable.

CONS: Much like solar energy, geothermal energy is heavy in upfront costs. It's also only sustainable if reservoirs are appropriately managed (so, not exactly low maintenance).

RENEWABLE ENERGY



OBJECTION HANDLING

LANDOWNER

"A lot of renewable energy isn't stable and is at the mercy of weather conditions that day, how is geothermal energy different?"

"Can I even use geothermal energy for property this size?"

LAND PRO

Unlike wind and solar energy, reservoirs make it so that this resource is always available to be tapped into. Add to that, the energy generated is easy to calculate since it doesn't fluctuate. This makes it easy to predict the power output from a geothermal plant with a high degree of accuracy.

From power plants to commercial or residential use, there are both large- and small-scale applications for geothermal power. Unlike geothermal power plants, geothermal heat pumps take advantage of low-temperature geothermal reservoirs which are available just about everywhere.

PETROLEUM

PROS: Fossil fuels have become the most reliable and technologically advanced source of energy, which, from an investment standpoint remains compelling.

CONS: This energy source presents a major disruption to wildlife and vegetation, has both air and water pollutants, and produces dangerous methane during fracking.



LANDOWNER	LAND PRO
"I'm worried about contributing to the production of harmful byproducts."	The fact is, the use of oil will still be crucial in order to ensure our supply of goods and to avoid the breakdown of certain industries for many years. Currently, many of these byproducts are reused for the production of material goods made out of plastic. Additionally, refined oil provides us with such useful things as gasoline, asphalt base, diesel fuel, kerosene, and more.
"I'd like to avoid anything to do with non renewables if I can help it."	Petroleum actually plays a huge part in the creation of some renewables. Things like solar panels, for example, require it to be manufactured.

NATURAL GAS

PROS: Natural gas is cheaper and cleaner. Natural gas is also a lot safer and easier to store compared to other fossil fuels. And, while most definitely a finite source, there does exist an abundant supply (the US produces most of the natural gas it uses).

CONS: Natural gas is difficult to use/extract and is dangerously combustible. The infrastructure needed to use natural gas is very expensive as long pipes, specialized tanks, and separate plumbing systems need to be used. Long-distance transmission, transportation, and fixing leaky pipes also require an extra cost.

LANDOWNER

other non-renewables?"



LAND PRO

unit price. Environmentally speaking, natural gas is cleaner than other non-renewables — it releases 45% less carbon dioxide

than coal and 30% less than oil.

"Using this energy source feels at odds with my work in agriculture."	Components from natural gas could actually be beneficial for agricultural purposes. If used properly (and not in excess) it's very useful for fertilizer production.
"What makes this energy source any different from	Economically speaking, natural gas is much cheaper in terms of

NATURAL GAS

PROS: Coal is abundant and inexpensive. Additionally, new "clean coal" technology has been created in an effort to remove harmful material from coal before it even reaches the environment.

CONS: Coal often gets a bad rap for its environmental impact. Its potential to pollute the air, soil, and water, and the byproducts of mining it (carbon dioxide, sulfur dioxide, toxic heavy metals, cadmium, arsenic, and mercury), are also huge negatives.



LANDOWNER	LAND PRO
"I don't want to participate in releasing harmful gas- ses into the air by burning coal."	Components from natural gas could actually be beneficial for agricultural purposes. If used properly (and not in excess) it's very useful for fertilizer production.
"Why should I choose coal over a greener source of energy?"	It doesn't necessarily need to be either/or. Coal can be used as a baseload of energy, should alternative sources ever be in short supply.



FINAL REMARKS

If you find yourself in the position of having to discuss the advantages or disadvantages of an energy source with a landowner, the most helpful approach is to view the dialogue not as a debate, but as a frank and honest discussion.

Put simply, don't get so tied up in your "talking points" that you neglect to directly address any and all objections. By keeping an open mind and a respectful demeanor, you're more likely to help them come to a sound and strategic decision.

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