

# To Get What We Have Never Gotten

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Opinion paper based on research: Film review of “Kilowatt Ours: A Plan to Re-Energize America by Jeff Barrie”

The Earth is warming. This simple statement has flooded the media and startled people across the country for the past decade. Never before, however, had I seen the distressing truth of this problem's causes and effects expressed as clearly as they were by Jeff Barrie in his film, *Kilowatt Ours: A Plan to Re-Energize America* by Jeff Barrie. The clear, to the point statistics, scenarios, images and interviews implemented throughout the film very effectively evoked strong sentiments of shock and inspiration. I would not hesitate to recommend this film to peers. I feel that it is both informative and useful and can teach everyone something about doing their part to protect their planet. Learning the long term consequences of our current abuse of the Earth's resources was disturbing, but realizing that simple changes to our daily lives could make such a tremendous difference was equally uplifting. The film placed great importance on making responsible personal choices that could help preserve the environment. In addition, it showed me all the ways that one could potentially conserve or generate power. *Kilowatt Ours* was a powerful, moving film.

The film opened with an awe-inspiring quote: "when you do what you always have, you'll get what you've always gotten." Jeff Barrie, who narrated the film, went on to explain that the current energy situation is not a favorable one and that the subsequent results are not acceptable. Barrie explains that mining for coal to be used as energy is inefficient, since, in a particular case he explored, 2400 tons of earth were displaced in order to yield a measly 4 tons of coal. Mountains were leveled, streams obliterated, floods caused, and ecosystems destroyed as a result of the mining. Barrie then places emphasis on just how much coal is used for energy, pointing out that one pound of coal yields one kilowatt hour, which can power ten light bulbs for an hour, a refrigerator for half an hour, or a water heater for fifteen minutes. If an average American family uses 30 pounds of coal daily, then, Barrie says, the amount of coal used by

Americans in a year could circle the world several times. He then points out that the overuse of coal power is contributing to the onset of global warming. Pausing to dismiss nuclear energy as an unclean and expensive energy source, Barrie continues to explain that in order to remedy the situation, energy must be used efficiently and that green power (clean, renewable energy sources) should be explored. His plan suggested, in essence, doing things we have never done in order to obtain results we have never gotten. Most of Barrie's suggestions were both environmentally *and* economically rewarding for all those involved. Amongst all of the sources of "green power" discussed, I favor wind and solar power as the most reasonable and realistic sources of energy that America could pursue.

Wind energy is the fastest-growing energy source in the world and is one of the lowest-priced renewable energy technologies available today ("Advantages and Disadvantages of Wind Energy"). Wind energy is generally harvested in wind farms, which are strategically located in windy locations, such as flat hilltops, plains, and shorelines. Since wind speed increases with the altitude, positions such as hilltops make great places to harness the power of the wind ("Wind Energy- Energy from Moving Air"). The world's largest wind farm is located at the Horse Hollow Wind Energy Center in Texas; according to the Energy Information Administration, it plays host to 421 wind turbines that generate enough electricity to power 220,000 homes per year. Wind energy is a clean fuel source, which means that it does not pollute the air or produce atmospheric emissions that can cause acid rain or greenhouse gases, like the burning of fossil fuels does ("Advantages"). Wind speeds vary throughout the country, but fortunately, "these seasonal variations are a good match for the electricity demands of the regions" ("Wind Energy"). Wind is abundant in the United States and cannot be used up, and building windmills in rural areas will help bolster the economy of these regions. Interestingly, as explained by the

U.S. Department of Energy, “wind is actually a form of solar energy; winds are caused by the heating of the atmosphere by the sun, the rotation of the earth, and the earth's surface irregularities” (“Advantages”).

The use of wind energy does have some drawbacks, however. Wind does not always blow when electricity is needed; its speed and availability fluctuates unpredictably (“Advantages”). In addition, wind energy cannot be stored without batteries. Another troublesome problem is that, according to the U.S. Department of Energy, “Good wind sites are often located in remote locations, far from cities where the electricity is needed.” Some might consider wind turbines an eyesore, while others may complain about the noise produced by the rotor blades. These blades have been known to kill birds that fly into the rotors (“Wind Energy”). These problems have been resolved, however, by properly citing the turbines in remote locations (“Advantages”). The effect of wind energy harvesting on the environment compared to that of deriving energy from fossil fuels, however, is minimal. A more serious problem that prevents further use of wind energy is that “wind power must compete with conventional generation sources on a cost basis” (“Advantages”). The cost of wind power has drastically decreased in the last decade, but creating wind farms still requires a larger initial investment than the purchasing of fossil-fueled generators. If wind energy is not cost competitive, it will not catch on as the dominant energy source for Americans, despite its many advantages.

Another potential source of green energy for Americans is solar power. Solar energy is the sun’s rays that reach the Earth, and it can be converted into thermal energy and produce steam, which can in turn be converted into electricity to power our homes and businesses (“Solar Energy- Energy from the Sun”). Solar energy is a cost efficient way to heat water in homes,

buildings, or swimming pools. The people interviewed in Barrie's film took this idea a step further, integrating solar panels into their commercial endeavors. For example, the owner of Taco Burrito King now uses solar panels to heat the water used for cooking, and a Laundromat owner uses similar panels to run his business as well. Both business owners mentioned that the systems would pay for themselves in the near future, making them cost effective. "Currently in the United States, solar power represents around 1 percent of energy used from renewable resources" ("Solar Energy"). Solar power is considered "green" because it does not emit any pollutants ("Power from Renewable Sources: Solar Power"). As was shown in *Kilowatt Ours*, any large flat space can be used to collect solar power, such as the tops of homes or even parking garages.

Some disadvantages of solar energy include the inconsistency in the amount of sunlight that reaches the Earth. This varies greatly depending on time of day and year and weather conditions. Additionally, collecting a substantial amount of solar power requires an expansive amount of surface area ("Solar Energy"). The cost of equipment for generating solar power is expensive, which means that the electricity generated from solar panels cannot compete with the cost of electricity from most utility companies ("Power").

Ultimately, the film *Kilowatt Ours* effectively proved that it is important not only to find alternative sources of energy but also to cut back our energy usage. I had never considered the fact that the most inexpensive way to "produce" energy is to simply reduce our expenditure of it. Renewable energy does have some disadvantages. Among these is the fact that generating as much electricity as is produced by traditional fossil fuel generators is extremely difficult. A variety of sources of "green" energy would be needed in order to even come close to supporting

our current energy expenditure, and a reduction in this expenditure would be necessary as well (“Renewable Energy”). Renewable energy sources are unreliable, and often depend on weather conditions. These energy sources are often far more expensive than that which is generated by means of fossil fuels (“Renewable Energy”). Nonetheless, I firmly believe that making a permanent switch to renewable sources of energy would be a worthwhile investment for this country. In my opinion, eliminating our nation’s dependence on foreign oil would also improve our diplomatic relations with the world at large, particularly the Middle East, which could in turn help promote world peace. Our Earth is a valuable and precious gift, but also a tremendous responsibility. It is the job of every citizen of the world to do his or her part to reduce his or her energy usage and make an effort to use green energy whenever possible. Our exploitation of the Earth’s resources has had devastating results. It is now our job to make amends for our actions, for our own sakes as well as for the generations to come.

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