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Coal Questions & Answers

What is the Sierra Club position on new coal technology?

If coal is to remain a part of our energy future, it must be mined responsibly, burned cleanly and guaranteed to not worsen global warming pollution. At this time, there is no existing coal technology that meets these standards, including Integrated Gasification Combined Cycle (IGCC) or carbon capture and sequestration (CCS).

If we don't build all these new coal-fired power plants now, won't we be setting ourselves up for rolling blackouts and jeopardizing our energy future?

Coal is a very inefficient source of energy. In fact the average coal plant in the U.S. is only 33% efficient—that's a lot of wasted resources. There are many, more efficient alternatives to coal-fired power plants that can both guarantee our energy future and provide cleaner, healthier options for meeting our energy needs. Instead of wasting more resources on coal, we can invest in efficiency technologies and renewables that don't cause serious health problems and global warming pollution.

What role can coal play in a cleaner, healthier energy future?

There is nothing clean about coal-fired power plants—from being the largest source of toxic mercury pollution to releasing 40% of our nation's total carbon dioxide emissions every year, coal-fired power plants are the dirtiest source of energy we use today. While we won't be able to wean ourselves off of coal tomorrow, we should be moving away from coal energy and cleaning up the existing plants that are the worst polluters. A truly cleaner and healthier energy future relies on smart solutions like efficiency and renewables, not on dirty coal.

Isn't coal the most affordable energy choice, providing energy at half the cost of other fuels?

Wrong. Coal is very expensive. The cost of coal prices has skyrocketed over the past year, and the cost of building coal plants has escalated more than 50 percent in some instances. And consider other costs associated with coal: From lung disease to the loss of mountaintops because of irresponsible mining to health care and environmental destruction, the hidden costs of coal are immense. Future carbon dioxide regulations may also increase the cost of coal. With the cost of efficiency and renewables now equal to or less than the cost of coal in many places, building new coal-fired power plants is a poor investment for our pocketbooks and our future.

Can't coal help reduce our reliance on oil?

Even though coal-to-liquids plants have been around since World War II, the truth is that liquid coal is not a practical way to lessen our dependence on oil. Liquid coal plants are costly and complex, requiring huge investments to produce even the smallest amount of synthetic fuels. Replacing a mere 10% of our fuel with liquid coal would require an increase in coal mining of over 40%, increasing the already devastating effects of mining on communities across the country. Burning liquid coal creates almost double the global warming

emissions as the petroleum-based gas we use now. Instead of wasting our tax dollars on these plants, we should be investing in proven ways to cut our oil dependence like increasing fuel efficiency standards.

Don't we have a 250 year supply of coal right here in America?

Although the coal industry claims that we have a near endless supply of coal right here in America, the truth is that it is already becoming increasingly harder to mine, leading to the increased use of destructive techniques like mountaintop removal mining. Much of our nation's coal reserves are so hard to access that it simply doesn't make economic sense to mine them. Coal is a limited resource, and it will run out even sooner if we double our consumption by building a new rush of coal-fired power plants.

Isn't clean energy too far away and too expensive to be practical?

No, in fact many states across the nation are already investing heavily in efficiency and making the switch to renewable energy. California's aggressive efficiency programs have held per capita electricity use constant for over 10 years, while other states have seen energy use more than double. Thirty-four states currently get at least some of their power from wind and over 20 states already require a percentage of their energy to come from renewable sources. Minnesota recently adopted a 30% renewable energy standard by 2020, while New Jersey has a 22.5% by 2020 requirement and New York is poised to get 24% of its electricity from renewable sources by 2013.

Not only is clean energy good for the environment, it is good for the economy, too. In 2007 the development of new wind energy added \$9 billion to the U.S. economy. Not to mention wind is already competitively priced and is cheaper than coal in many places. The cost of efficiency is as little as half the cost of new coal-fired power plants. A greater investment in renewables and efficiency would not only help lower our energy prices but would also help local economies. A recent study by the Apollo Alliance found that renewable energy generated 40% more jobs per dollar invested than coal.

What about "clean coal" technologies, like IGCC?

Integrated Gasification Combined Cycle (IGCC) technology has gotten a lot of attention because it can emit lower amounts of soot and smog pollution than traditional plants. However, while IGCC can be slightly more efficient and lower some emissions, it still emits enormous amounts of global warming pollution like other coal plants. There is no such thing as clean coal today. Although the coal companies have promised future technological innovations that will allow us to generate electricity from coal with less pollution somewhere down the road, that technology is not yet commercially available for use in new coal-fired power plants. And, even though technologies do exist that can make coal plants cleaner, coal companies have been dragging their feet on installing these modern pollution controls. Not surprisingly most of the proposed new plants are the same pulverized coal plants that were built in our grandparents' era—only bigger and more polluting.

What about carbon capture and sequestration demonstration projects like the now-cancelled FutureGen plant?

Right now, there are no commercially available or widely demonstrated technologies including carbon capture and sequestration (CCS) that make it technologically possible or financially feasible to burn coal without accelerating global warming. Due to the prevalence of coal use and its status as the most carbon-intensive fuel, research efforts on effective carbon capture and sequestration are important. However, it will still be years before we see if any of these demonstration projects are successful in capturing and storing their carbon emissions, and until then it is critical that no additional coal plants are permitted or constructed without CCS capacity. While we wait and see how these technologies develop, we should be focusing on the

clean energy solutions that are available today, including energy efficiency and renewables like wind and solar.

Can replacing light bulbs really reduce the need to build new coal fired power plants?

Yes, it is a start. A study by McKinsey and Company found that by increasing energy efficiency we could cut our energy consumption by more than half. Switching to compact fluorescent light bulbs, which use 75% less electricity than regular bulbs, better insulating our homes, and buying Energy Star appliances are small actions that can make our energy savings really add up. Of course, light bulbs alone won't solve the entire problem—but they are a step in the right direction. We also need states to take action and provide incentives for our utilities to help us save energy, instead of rewarding utilities when they sell more electricity. The energy saved by reducing waste will actually add-up to be America's greatest, least tapped power source. By thinking of efficiency as another fuel at our disposal we can lower energy demand, which will keep energy prices low and combat global warming—all while eliminating the need for dirty and expensive new coal plants.

What should we do about existing coal plants?

Old coal-fired power plants, which are the worst contributors to global warming, smog, acid rain and respiratory problems, need to be cleaned up and retired. We should work towards reducing our dependence on coal and achieving a 2% reduction per year in global warming emissions through energy efficiency and renewable energy that can both guarantee our energy future and provide cleaner, healthier options for meeting our energy needs. We have the technology available today to begin moving beyond coal by meeting our energy needs with sources that are clean, safe, reliable and affordable.

Don't we need to aggressively move ahead with new coal technology because China and India are going full-speed into their own coal rush?

That's why we're promoting the America Leads scenario. By setting an example and developing new technologies, we can make it more likely that developing nations will leap frog over the industrial nation's fossil fuel based development model into an energy system based on renewables. China has already launched a campaign to get 15% of its energy from renewables by 2020. It also has a higher fuel economy standard for new vehicles of 33 mpg in 2005 and 36 mpg in 2008.