

Linda Intro: Sustainable Idaho is brought to you by the Port of Resource Council.

Parker Intro: On today's episode, I interview Ben Otto, a clean energy consultant to explore the future of coal power plants. We discussed their environmental impact, the arguments to keep them in place, and what lies ahead for clean energy in Idaho. After moving to Idaho from law school, Ben began working with the Idaho Conservation League.

P: Focusing on keeping electricity bills affordable, ensuring grid reliability, and transitioning to cleaner energy. While Idaho doesn't have its own coal-fired power plants, its utilities, own shares and plants across neighboring states

P: with many different factors playing into climate change, what impact do coal power plants have on climate change, and what are some other impacts that they have on the environment?

Ben: Our current climate change is attributed to burning fossil fuels, and that really happens in three places, happens in coal plants, happens in our transportation, and then industry up into the two thousands, coal was the biggest source of those fossil fuels emissions. And what that is, is things that cause climate change.

B: So we hear about carbon dioxide is a big one, but also coal emits a bunch of local pollutants. So they're called acid gases, nitrous oxide, and sulfur oxide. They make acid, rain or smog. Um, little particulates that get your lungs and cause health problems. A lot of water pollution problems, a lot of strip mining, open pit mining.

B: So coal plants have a big impact on the environment.

P: When Ben refers to it he is talking about his previous work with the Idaho conservation League

And so it wasn't just about climate change, it was about also local impacts to the communities where the plants are located. And really that's the stuff that's more regulated and controlled.

P: According to the Clean Air Task Force, an organization that focuses on the use of scientific evidence to identify pragmatic climate solutions, there has been a sharp decline in US deaths from coal plant pollution. Demonstrating the benefits of stricter regulations for both people and the environment.

P: According to the US Energy Information Administration website, the amount of coal that the US has consumed over the past 25 years has dramatically decreased compared to natural gas, nuclear power, and renewables. Would you please explain why the amount of coal consumed in the US is decreasing?

B: Yeah, so it's really driven by costs. So the cost to mine, coal, and then to burn it and to meet all the environmental regulations was just getting increasingly expensive. Meanwhile, the alternatives were getting less expensive and they performed as good or better than a coal plant. So the grid has to be really flexible and react, especially as we use more stuff.

B: And coal plants are not very flexible. They kind of run or not. Where things like a mix of batteries and renewables and hydro that's super flexible and really cheap. Natural gas played a big role in that just because we found a lot in the United States and it got real cheap. So that was kind of in the two thousands.

B: More recently though, renewables have been far cheaper and also quicker and easier to build. So lately, all the recent editions that we see in the west and around the country. Are things like wind and solar and batteries. 'cause they perform great, they cost less and you can actually build them fast. So that's why we're seeing the trend.

B: You had also mentioned nuclear, something that has kind of held steady, not really grown or dropped, but held steady. And so it becoming a bigger part of the mix. Is

P: According to Energy Innovation, an organization dedicated to reducing carbon emissions through in-depth research, 72% of U.S. coal plants were more expensive to operate than renewable energy sources in 2021. Highlighting the coal's growing economic disadvantage.

P: Despite the evidence that coal-fired power plants have a negative impact on our environment, some people still push for their use. Why is this?

B: So you see the arguments for coal plants kind of break out in two categories. One are coming from the communities where these Plants and mines are located and these are significant economic drivers of jobs and investment, and that's a real issue.

B: You have to address worker transition and economic impacts. So most deals to close a coal plant do address that, but it's a stressor. And so that's a source of pressure to keep plants open. Another one comes from, there's this belief that coal plants aren't required to keep the grid steady. That big base load power that's always on.

B: And that has been true in the past, but now with the modern technologies and mechanisms and better grid operations. Flexibility is becoming far more important than just having a big plant that runs all the time. But that idea is new and evolving. So you see a lot of people saying, we need coal for reliability.

P: Since many small town economies rely on coal power plants, it's encouraging to see viable job transition opportunities when these plants shut down.

P: How do companies replace the jobs that are lost from the removal of coal power plants?

B: It's really, um, community dependent. And I know there's been efforts to try and retrain people around like computer programming.

B: 'cause you can do that from anywhere. You don't have to move and that has relative success. Some of the jobs are super highly skilled, like machinists and welders and actual, like people who build infrastructure. And that's still important. You've gotta build wind turbines and geothermal plants. So there's some transfer there.

P: With significant overlap in the skills required for both renewable energy and coal power plants, the transition to cleaner alternatives becomes more accessible and promising.

P: If the coal power plant number reaches zero, what would that look like for the environment and the economy?

B: Well, as we're seeing, we've had a good run of coal plants closing across the country for economic reasons, and what we're seeing is both power bills are remaining affordable. The lights are staying on, in fact, more reliable 'cause we're just spreading across more resources, and that's a more reliable system.

B: And then in terms of the environment, we can see because all these plants are monitored, that there's less air pollution from coal plants. How that plays out on a global scale is super hard because there's so many factors, but it just is logical to say that less pollution going into the atmosphere is good for all of us, and that's what's happening.

P: With over 100 coal power plants shut down or transition to cleaner energy, the future of renewable energy looks increasingly promising and sustainable.

P: With the new Trump administration pulling away from the use of renewable energy, how do you expect that to impact coal power plants?

B: That's a tough one. You know, this is all happening so fast and it's such a drastic change in policy that's a little bit hard to forecast the impacts other than to say they could be drastic. So traditionally, a lot of power decisions have been made by states and not the federal government, and that will continue. That's the tradition since the beginning of time, and we expect that to continue.

B: So states will still have a lot of authority to decide on the types of resources our utilities use. So where this plays out are in like things like tax credits and as solar and batteries and winds continue to outcompete the tax credits become less important. And then you have things like siting on federal lands of projects, and I think that's a wild card because you could see arguments both ways with an uncertain future ahead.

P: It is reassuring to know that the state leaders will have the authority to make key decisions in the best interests of their communities.

P: Most Idahoans purchase their electrical power through a power utility. What can they do to make sure their power doesn't come from sources that don't burn fossil fuels?

B: The rule in the United States is um, you have to buy from your utility. You can't start a little power company yourself and sell to your neighbors, so you have two options. You can address what you need at your own house through energy efficiency. Or rooftop solar or you can influence what your utility is providing you by engaging with them and engaging with the state because you don't get to pick your power company.

B: The power company is heavily regulated by the state. That makes up for, you know, what would be competition. I think part of our core success. In Idaho is really to make clear we don't have fossil fuels in our boundaries like it's a geographical fact. So we would be importing coal, coal power, gas, gas, power, all of our gasoline and all that money just drains out of our state.

And so a lot of our message and a lot of this progress is built on focusing around the question of what does Idaho have and where is the smart place to spend our money? And I think it's really interesting to see that framing result in good at environmental outcomes. And that's something that I think is really a solid takeaway from how to achieve progress in Idaho

P: with multiple ways for individuals to advocate for cleaner energy.

The future holds great promise for a more sustainable tomorrow.

P Outro: Thank you to Ben Otto for discussing the future of coal power plants. Idaho's largest electric utility, Idaho Power, plans to phase out coal-fired power generation by 2028, and is investing heavily in clean energy sources like solar and hydropower, aiming for 100% clean energy by 2045. As renewable energy continues to outcompete coal power plants, there is a bright future ahead.

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