

'Reddy' or Not, Winter Is Coming

Can you imagine scanning the skies, seeing it's a calm, overcast day, and then realizing you're in danger? That is the energy world environmentalists are pushing us into.

The looming threat of a dull day is something warned about in a new report from the Colorado Public Utilities Commission. It's what would critically disrupt an electric system made to rely on weather-dependent renewable energy sources instead of traditional energy sources (coal, natural gas, and nuclear).

As [reported](#) by Colorado Public Radio, more solar and wind facilities on the grid would mean that "long periods of still, overcast weather," rather than extreme temperature events, pose the greatest challenge. As report author Nicholas Garza put it, "What we would think of as very benign or very boring weather, where you have just persistent cloud coverage and really no wind, that's actually going to pose the most significant threat."

Making it worse, those times are most likely to occur in the winter, when people will especially be relying on electricity for heat to survive.

Access to readily available electricity is vital. Electricity is a basic human necessity. Fickle, uncertain electricity is up there with dirty water as a hallmark of backwoods isolation or Third World privation.

The thought that American electricity consumers, families with small children, people who need breathing machines, poor parents who just made their one grocery run of the pay period, schools, nursing facilities, and hospitals, would have to live in dread of dull days is an abomination. But for environmentalists and renewable energy zealots who want zero-

emissions electricity generation without the dependability (or efficient land use) of [zero-emissions nuclear](#), it's a necessity.

This intolerable thought is a complete inversion of the heady promises of American electrification.

"Reddy, willing and able"

I am always there

With lots of power to spare

Because I'm Reddy Kilowatt!

So sang the longtime electricity mascot in a [1950s advertisement](#). At the end of the jingle, "Reddy Kilowatt" jumped into a wall outlet, telling everyone, "Remember: just plug in. I'm Reddy!"

Reddy Kilowatt goes back to 1926, and his creation was truly a flash of inspiration. Ashton B. Collins, general commercial manager of the Alabama Power Company, had returned from an electricity convention seeking a way to persuade people that electricity could serve their needs. About that time, he saw a bolt of lightning diverging in different directions. [Legend](#) has it that, "For a split-second, that lightning reminded Collins of a human figure, and at that moment Reddy Kilowatt sprang from his brow full-grown, like Athena from that of Zeus."

Reddy was a lightning-bolt stick figure with a lightbulb nose, socket ears, and an affable smile, and he became the mascot for investor-owned utilities in the 1930s, the early days of rural electrification. The name drove home the intended selling point: *electricity is ready to be a "servant to mankind."* Over 300 companies used Reddy's likeness in marketing materials, and eventually he became [trademarked around the world](#). Today, old Reddy promotional materials are

of great interest to collectors.

The aim here is not to wax nostalgic over a spunky old cartoon character, but to uphold the spirit of electricity that's always there. Power that's ready, known in electricity generation as *dispatchable*, has long been people's expectation. Power at the flip of a switch. Energy that's immediately available. Just plug in.

Governments mandating and incentivizing *nondispatchable* sources of electricity generation, however, have endangered that spirit. People have grown so accustomed to power at the flip of a switch ("servant to mankind") that they now take it for granted. From that perspective, that dispatchability just *is*, they can be persuaded that replacing "fossil fuel" sources (dispatchable) with "renewable" sources of electricity (entirely dependent upon weather and the time of day) is a simple thing. It's not. You don't just "plug in" a generating source that needs Mother Nature's permission to power things.

The governor of North Carolina, Democrat Roy Cooper, ought to know. The application by the company that built a five-megawatt (MW) solar facility on the Governor's Nash County property noted the following in its application: "[Solar is an intermittent energy source, and therefore the maximum dependable capacity is 0 MW.](#)" In other words, the most electricity generation the governor or anyone else could expect at any given time is *nothing*.

Nevertheless, Cooper has ordered the state to convert to "carbon neutral" electricity generation by 2050. Because it avoids new nuclear facilities, his demand would require *significant overbuilding* of renewable facilities. Dealing with such unreliable generation sources requires a great deal of expensive redundancy. Consequently, [the state's generating capacity would increase by nearly three times the rate of population increase](#), which is no small matter

considering North Carolina is one of the fastest-growing states in the nation.

Europe is already showing what happens to people when governments heedlessly discard dispatchable power generation for electricity at nature's whim. Last year's European "[wind drought](#)" was a warning. Forecasts for the upcoming winter predict exceptional cold. Worse, the dreaded "[Dunkelflaute](#)" is setting in again, the "dark doldrums" of still air (no wind) and little sunlight in the winter months.

For the US, the [2022 State of Reliability](#) report by the North American Electric Reliability Corporation (NERC) highlighted fast emerging threats to grid reliability outside of peak demand. As to those, the Institute for Energy Research discussed several of NERC's [key findings regarding renewable resources and grid reliability](#). They included that peak demand is no longer the only time of clear risk to grid reliability, it's also "when weather-dependent generation is impacted by abnormal atmospheric conditions or when extreme conditions disrupt fuel supplies."

Furthermore, there is a greater risk of energy shortfalls (blackouts) thanks to "the resource mix evolv[ing] toward renewable energy," which means "less flexible generation that is fuel-assured, weatherized and dispatchable."

As the [Institute for Energy Research](#) explained, "Wind and solar are making the grid more unreliable as they gain share." Any time, but especially in the depths of the cold, electricity consumers must still be able to count on electricity "always there/with lots of power to spare" as they have for 100 years. Benign, boring days should never be a threat to the power grid. Doldrums shouldn't be deadly.

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