

## Macro Roundup Article

**Headline:** [The U.S. Urgently Needs a Bigger Grid. Here's a Fast Solution](#)

**Article Link:** <https://www.nytimes.com/2024/04/09/climate/electric-grid-more-power.html>

Author(s)	Brad Plumer
Publication	New York Times
Publication Date	April 10, 2024

**Tweet:** Existing power lines use steel cores surrounded by aluminum strands. Replacing these with carbon fiber-based cores, a process known as "advanced reconductoring," could double the capacity of current lines.

**Summary:** Replacing existing power lines with cables made from state-of-the-art materials could roughly double the capacity of the electric grid in many parts of the country, making room for much more wind and solar power. This technique, known as "advanced reconductoring," is widely used in other countries. Many U.S. utilities have been slow to embrace it because of their unfamiliarity with the technology as well as regulatory and bureaucratic hurdles. Replacing old lines can be done relatively quickly. In 2011, AEP, a utility in Texas, urgently needed to deliver more power to the Lower Rio Grande Valley to meet soaring population growth. It would have taken too long to acquire land and permits and to build towers for a new transmission line. Instead, AEP replaced 240 miles of wires on an existing line with advanced conductors, which took less than three years and increased the carrying capacity of the lines by 40%.

**Related Articles:** [Resurgent US Electricity Demand Sparks Power Grid Warnings and Electricity Grids and Secure Energy Transitions](#) and [Gridlock: How a Lack of Power Lines Will Delay the Age of Renewables](#)

**Primary Topic:** Energy

**Topics:** Database, Energy, Investment, News article, Productivity

**Permalink:** <https://www.edwardconard.com/macro-roundup/existing-power-lines-use-steel-cores-surrounded-by-aluminum-strands-replacing-these-with-carbon-fiber-based-cores-a-process-known-as-advanced-reconductoring-could-double-the-capacity-of-current?view=detail>

**Featured Image Link:** <https://www.edwardconard.com/wp-content/uploads/2024/04/Grid.png>