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Headline: Electricity Grids and Secure Energy Transitions

Article Link: https://iea.blob.core.windows.net/assets/70f2de45-6d84-4e07-bfd0-93833e205c81/ElectricityGridsandSecureEnergyTransitions.pdf

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Tweet: An @EIAgov analysis notes global electrical production needs to grow 20% faster this decade than it did in the previous decade. They estimate that 80mm kilometers of grid (the equivalent of the current grid) needs to be built by 2040.

Summary: Global electricity demand is projected to increase at a rate of 2.7% per year in the APS, more than doubling from just under 25,000 TWh in 2021 to nearly 54,000 TWh in 2050. The buildings sector continues to consume the most electricity, followed closely by industry, each accounting for more than one-third of total demand throughout the period. Transport makes up just 2% of global electricity demand currently, but this rises to 15% in 2050. Hydrogen production via electrolysis adds significantly to electricity demand growth, from less than 2 TWh in 2021 to over 5,700 TWh in 2050 in the APS. More rapid electrification of end uses in the NZE Scenario further accelerates electricity demand growth to 3.2% per year to 2050, reaching over 62,000 TWh in 2050. Demand growth is expected to be accompanied by improvements in efficiency. Hydrogen production and EVs account for more than half the growth in electricity demand to 2050. Related: Gridlock: How a Lack of Power Lines Will Delay the Age of Renewables and Elon Musk's Latest Mission: Rev Up the Electricity Industry and What Have We Learned About the Neutral Rate?

Primary Topic: Energy

Topics: Energy, Investment, Productivity, Weekly

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