

## Macro Roundup Article

**Headline:** [Growing Pains: The Renewable Transition in Adolescence](#)

**Article Link:** <https://am.jpmorgan.com/us/en/asset-management/institutional/insights/market-insights/eye-on-the-market/energy-paper/>

Author(s)	Michael Cembalest
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**Tweet:** Michael Cembalest @jpmorgan argues that effective load carrying capacity (ELCC) is a better metric than the levelized cost of energy (LCOE) since this metric reflects the intermittent availability of wind and solar power.

**Summary:** One example: assume that California builds a deeply decarbonized system with 20 GW of wind, 150 GW of solar and 75 GW of storage. This system would only have 50 GW of reliable load with which to meet demand (ELCC=50 GW). Alternatively stated: if this system needed 50 GW of reliable power and was designed with renewables only, it would need 245 GW of wind, solar and storage to make it work. The marginal ELCC of wind, solar and storage are at their highest when renewables are first added to the system; their contribution to system reliability falls rapidly after that. LCOE reflects none of these realities, which is why the ISOs and utilities shown in the text box look at ELCC instead.

**Primary Topic:** Energy

**Topics:** Data, Energy, Investment, Other Source, Weekly

**Permalink:** <https://www.edwardconard.com/macro-roundup/michael-cembalest-jpmorgan-argue-s-that-effective-load-carrying-capacity-elcc-is-a-better-metric-than-the-levelized-cost-of-energy-lcoe-since-this-metric-reflects-the-intermittent-availability-of?view=detail>

### Featured Image

**Link:** <https://www.edwardconard.com/wp-content/uploads/2023/03/CA-ELCC.jpg>