

**\*\*\*EMBARGOED UNTIL MARCH 18, 2021 at 9 AM EST\*\*\***

**New Meta-Analysis from the REBA Institute and Grid Strategies Lays Out A Roadmap for How Policymakers and Energy Customers Can Accelerate a 21<sup>st</sup> Century Electricity System**

*Research shows that 90 percent of the power system can be decarbonized reliably and affordably using today's technologies, with evolving approaches to planning and operating the grid*

**Washington, D.C. – (March 18, 2021)** – Today, the REBA Institute and Grid Strategies released the [Designing the 21<sup>st</sup> Century Electricity System](#) report, which synthesizes complex energy market research and analyses to create a roadmap of recommendations for leaders dedicated to accelerating the transition to a zero-carbon energy future.

“A re-envisioned 21<sup>st</sup> century electricity system needs to be both resilient for extreme weather events and decarbonized to prevent the worsening damages of climate change,” said Miranda Ballentine, CEO of REBA Institute. “Decarbonizing the power system cannot happen at the rate and scale necessary without updated market design, and that includes integrating insights and needs of customers throughout the process.”

The current power system is designed to optimize an outdated resource mix dependent on fossil-fuel powered sources and there is a lack of consensus on key pathways toward a zero-carbon future. The REBA Institute report cuts through the noise with a clear, comprehensive review of all academic and technical evidence and recommendations to help establish a common understanding of current challenges that hinder decarbonization.

“Key high-impact market design elements – if prioritized by planning institutions – can decarbonize 90 percent of our electricity system,” said Rob Gramlich, founder and president of Grid Strategies. “It’s vital that stakeholders across the markets spectrum – markets experts, operators, transmission planning entities, and the federal government – collaborate to optimize existing structures and methods, and partner with large electricity customers to design the system of the future.”

The 21<sup>st</sup> century power system requires fundamental changes to achieve climate action targets, provide affordable electricity to all customers, and ensure reliability and resilience, including:

- Large regional transmission organizations (RTOs) with best practice market design in all regions to facilitate movement of power across large areas and non-discriminatory access to the transmission system. This includes fast dispatch and locational and value-based pricing along with hedging and circuit-breaker mechanisms to protect consumers.
- Transmission planning and cost allocation to expand regional and interregional capacity based on appropriate recognition of the future electricity portfolio and the resilience value of transmission.
- Resource adequacy assessments and “stress testing” of the integrated power, gas, water, and other infrastructure systems.
- Reliability and generation performance standards to ensure reliability and resilience.
- Well-functioning energy procurement structures, on a voluntary or mandatory basis, to facilitate long-term contracting, resource adequacy, and lower financing costs for the large amount of new generation needed.

- Research and development in two principal areas to bring the costs down and improve the performance of (1) clean long-duration storage sources and (2) high-voltage direct current (HVDC) converter stations.

“The REBA Institute report is distinct in that it encapsulates the entire menu of organized market design concepts needed for the sustainable grid of the future. It helps create a roadmap for large electricity customers to work with key stakeholders to translate conceptual solutions into actionable proposals,” said Peter Freed, Head of Energy Strategy at Facebook. “We are in a pivotal moment for the energy industry transition, and we need a re-envisioned electricity system that can help achieve decarbonization goals quickly, reliably and for the benefit of all electricity customers.”

Large electricity customers have [championed renewable energy](#) for more than a decade by addressing persistent policy and regulatory market barriers that includes developing new contracting structures and utilizing emerging technologies to meet their own ambitious climate goals. The report highlights the particular importance of engaging this group as each customer has created a path to renewables that previously did not exist, and each individual has unique insights that will only strengthen the re-envisioned electricity system of the future.

Read the full report [here](#).

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#### **About REBA Institute**

The REBA Institute is a 501(C)3 that was created alongside the [Renewable Energy Buyers Alliance \(REBA\)](#) in 2020. The REBA Institute is a non-profit (501(c)3) organization that leads transformational research and education to ensure all organizations have a viable, expedient, cost effective path to drive a resilient, zero-carbon energy system. Visit [reba-institute.org](http://reba-institute.org).