IMEA
INDIANA MUNICIPAL ELECTRIC ASSOCIATION
SINCE 1941

2021 Renewable Energy Industry Outlook

eSource Newsletter

2021 Renewable Energy Industry Outlook

Exploring renewable energy trends and the impact of COVID-19

The potential for increasing renewable energy demand, combined with the electrification of transportation and industrials and oil and gas companies' increased participation in the electricity value chain, is accelerating industry convergence. Explore how these trends could help foster collaboration and what the year ahead may look like for the renewable energy industry.

Accelerating energy industry convergence

Accelerating energy industry convergence
In 2020 states, cities, utilities, and businesses continued to announce or pursue decarbonization plans, despite the onset of a global pandemic and an economic recession. Even without a direct incentive for green infrastructure development in the economic stimulus measures passed in response to COVID-19, clean energy demand in the United States proved resilient as renewables and storage recorded declining costs and rising capacity and usage factors. What's more, renewables edged out other electricity generation sources when electric demand fell this year. As of early December, the share of renewables had exceeded that of coal in generation for 153 days compared with 39 days in 2019. According to the US Energy Information Administration (EIA), electricity consumption will likely fall by 3.9% year over year in 2020 and increase 1.3% in 2021.
Renewable growth may accelerate as the new administration starts to execute on a platform that includes rejoining the Paris Climate Accord, investing $2 trillion in clean energy, and fully decarbonizing the power sector by 2035 in order to achieve a larger goal of net-zero carbon emissions by 2050.

A new administration is expected to wield its executive authority to facilitate the deployment of renewables. This may include powers over emissions, public lands, procurement, foreign relations, trade, and agency appointments.
For an industry that has focused heavily on solar and wind, supportive federal actions could help progress timelines for further expansion into new technologies, including advanced batteries and other forms of storage, offshore wind, and green hydrogen technology. As these new technologies, especially green hydrogen production and storage, move toward commercialization, we may see more power-to-x projects to store, convert, and reconvert surplus solar and wind power into carbon-neutral fuels and chemicals.
The potential for increasing renewable energy demand, as well as the electrification of the transportation and industrial sectors and oil and gas companies' plans to increase participation in the electricity value chain, are accelerating energy industry convergence. These trends may foster collaboration that gives rise to new business models and helps advance the energy transition.

Five trends that could propel collaboration and convergence

1 *Consolidate the Competitive Landscape*

Deal activity rises across the value chain as stakeholders consolidate positions

Renewable energy deal-making will likely rise as companies, utilities, and governments prepare to meet ambitious climate targets. Different types of industry players will likely consolidate their positions across the value chain.

(Continued, Page 2)

(Continued)

And a growing number of special-purpose acquisition companies (SPACs) entering the clean energy space may also boost investment in renewable companies.

2 *Create New Economies*

Emerging hydrogen economy expands clean energy infrastructure

As decarbonization proceeds, many industry stakeholders are considering hydrogen production and storage projects, in addition to wind and solar, to find ways to cut carbon emissions. In 2021, as renewable penetration on the grid increases, green hydrogen development is expected to follow because of its potential to act as seasonal storage of fuel available on demand to generate power for grid balancing.

3 *Reinvent battery business models*

New battery business models emerge at both utility and residential scale

Energy storage is becoming one of the fastest-growing asset classes in the energy industry. Falling costs and maturing technology are making use cases for storage more economical, which could enable storage to provide multiple functions, from ancillary grid services to on-demand power.

4 *Scale up with new entrants and frontiers*

Wind is going offshore

The wind industry's frontiers are expected to increasingly move offshore in 2021. As utilities focus on decarbonization and create net-zero targets, offshore wind holds great promise for many, thanks to its high-capacity factors and deployment potential.

5 *Fortify disaster readiness*

Onshoring to address COVID-19 and digitalizing supply chains

Review of supply chains is likely to become a priority for stakeholders as the renewable energy industry strives to thrive in the post-pandemic era. In fact, shifts in sourcing have already been underway since 2018, as many installers have started diversifying their supply and announcing new manufacturing plants in the United States.

The year ahead for the renewable energy market

As the timeline to commercialize green hydrogen and new storage technologies accelerates, more power-to-x projects may emerge at the intersection of the power sector and adjacent industries. The resulting increased participation of multiple cross-sectoral players may accelerate energy industry convergence and increase deal activity across the electricity value chain. Battery storage business models could proliferate at the front of the meter due to increasingly efficient hybrid projects, as well as behind the meter thanks to FERC's recent order enabling distributed energy resources to participate in wholesale markets. In addition to state initiatives, federal support may help the offshore wind sector overcome the complexity of multiple permit levels that can cause potential delays. Finally, the renewables industry is expected to become increasingly resilient as it invests in safeguarding technology and data from cyberattacks and in mitigating the risks of supply chain disruption via onshoring and digitization. *Article Publisher: Jim Thomson (US Power, Utilities & Renewables Leader)*

EVENT CALENDAR

March 8-12, 2021
IMEA 613 Advanced Construction and Maintenance Workshop
Class # 031918
Mid-America Science Park (Scottsburg, IN.
Register Today! www.imea.com / workshops

March 22-26, 2021
IMEA 611 Basic Construction and Maintenance Workshop
Class # 032320
Mid-America Science Park (Scottsburg, IN.)
Register Today! www.imea.com / workshops

April 5-9, 2021
IMEA 612 Intermediate Construction and Maintenance Workshop
Class # 031819
Mid-America Science Park (Scottsburg, IN.)
Register Today! www.imea.com / workshops

April 19-30, 2021
IMEA 610 Wood Pole Climbing Workshop
Class # 041921
Lebanon Utilities
Register Today! www.imea.com / workshops

June 9-11, 2021
IMEA Top Out Exam
Class # 032717 / 092517
Mid-America Science Park (Scottsburg, IN.)
Register Today! www.imea.com / workshops

Jobs in Public Power

INDIANA MUNICIPAL ELECTRIC ASSOCIATION

Public power is more to communities than just an essential utility. It is a source of unique and fulfilling career opportunities in your local community. Employees make a difference by serving their own neighborhoods and families. Talented high school, college and technical college graduates—and even technology, environmental and public service professionals—will find that competitive salaries aren't the only thing attractive about careers in public power.

To post a classified ad to our Jobs in Public Power page, please email text to janel@imea.com.

Do you have important news or photos that you would like to share in our bi-weekly newsletters?

Please email all news and photos to janel@imea.com

INDIANA MUNICIPAL ELECTRIC ASSOCIATION

176 W. LOGAN ST. #225

NOBLESVILLE, IN. 46060

765.366.5506 | imeainfo@imea.com