YES, 100% DECARBONIZED POWER DELIVERY IS POSSIBLE

FLEXENERGY SOLUTIONS

WITH RESILIENT, RELIABLE POWER FROM FLEX TURBINES®

Achieving a 100% clean energy future

As 2020 kicks off, a total of nine US states, Washington D.C., and Puerto Rico, have enacted policies to move toward a 100% Clean Future by 2050 or earlier with wind, solar, and storage displacing traditional power plants. Achieving an entire electric grid that provides 100% renewable energy is feasible and increasingly affordable, thanks to rapidly falling costs for wind, solar, and the technology to store it. However, achieving a 100% renewable-powered grid will require scaling up over time and will necessitate a mix of other technologies and back-up generation for resiliency.

Carbon-neutral power

100% decarbonization requires a carbon-neutral power grid with a combination of renewable generation resources, (primarily wind and solar) in addition to storage. But storage alone will not be sizable enough to compensate for times when wind and/or solar generation falls short of demand. Currently, many power plants rely on combined-cycle gas turbines to compensate for gaps in wind or solar generation. But these turbines can take up to four hours to start and usually must run for a minimum of four to six hours. Therefore, to be effective, these combined-cycle turbines are typically run at minimum load as spinning reserve so they can be quickly dispatched. However, this produces more CO_2 emissions and adds additional fuel and maintenance costs.

MORE THAN **117** GW HOURS OF POWER

ARE GENERATED BY FLEX TURBINES FOR CHP APPLICATIONS EACH YEAR IN COMMERCIAL AND INDUSTRIAL SITES ACROSS THE GLOBE.

The cleanest, most reliable solution to supplemental power

Flex Turbines can run consistently on carbon-neutral renewable fuels and ultimately replace combined-cycle gas turbines. Flex Turbines can operate at 50% of rated load, providing base load support while consuming a minimum of fuel, and quickly ramp up to full power when demand outstrips renewable and storage capacity. Because they produce much lower emissions of carbon monoxide and oxides of nitrogen than reciprocating engines, Flex Turbines don't require an oxidation catalyst or selective catalytic reduction to meet emissions regulations. Flex Turbines can charge grid storage when the adjacent renewables are not available. Most importantly, with their extremely wide fuel tolerance, Flex Turbines can efficiently use renewable, carbon neutral biofuels, and even synthetic methane to generate power for a true, 100% carbon-neutral power grid.

Contact Flex Energy Solutions today at **720-573-7664** or **Info@Flexenergy.com** to request a consultation.