Climate Framework and Laws Early in her first term, Governor Gretchen Whitmer signed two directives that address climate change. Executive Directive 2019-12 pledged Michigan to join the U.S. Climate Alliance and ordered the state to implement policies that advance the goals of the Paris Agreement, aiming to reduce greenhouse gas (GHG) emissions by at least 26–28% below 2005 levels by 2025; track and report progress to the global community, including when the world convenes to take stock of the Paris Agreement; and accelerate new and existing policies to reduce carbon pollution and promote clean energy deployment at the state and federal level. Executive Order 2019-06 created the Office of Climate and Energy to coordinate the activities of state departments and agencies on climate response; provide insight and recommendations to state government and local units of government on how to mitigate climate impact and adapt to climate change; and provide guidance and assistance for the reduction of GHG emissions, renewable energy and energy efficiency, and climate adaptation and resilience. In August 2019, Governor Whitmer announced new lead-by-example efforts that will make state facilities, parks, fish hatcheries, and prisons more sustainable. Michigan saw 4% growth in clean energy jobs from 2017 to 2018, which represents 2.5 times the state’s overall jobs growth rate; 2.5% of all Michigan jobs (1 in 40) are now in clean energy.
**Power Generation** Michigan’s *Clean, Renewable, and Efficient Energy Act*, signed into law in December 2016, requires Michigan electric providers to achieve a retail supply portfolio that increases from 10% in 2015 to 15% in 2021. Michigan’s 2016 integrated resource planning process is resulting in utilities including more efficiency and renewables in their long-term plans than required under the renewable energy standard (RES) and energy waste reduction standard. Nearly all electric utilities regulated by the Michigan Public Service Commission (MPSC) have committed to carbon-reduction targets and renewable energy beyond statutory requirements. This year, the MPSC held a state-hosted energy storage symposium for stakeholders. Michigan’s overall coal use declined from 66% to 37% between 2008 and 2017. The Michigan Energy Assistance Program provides $50 million in energy assistance to low-income customers. Michigan’s Voluntary Green Power green tariffs program allows customers to specify a certain amount of electricity they buy from a utility is to be generated using renewable energy sources and has many corporate leaders participating.

**Energy Efficiency** Michigan’s Public Acts 341 and 342 of 2016 set a state standard of an incremental 1% energy-efficiency target per year, requiring all electric providers (other than alternative electric suppliers) and all rate-regulated natural gas utilities to file energy optimization (efficiency) programs with the MPSC. Utilities have been consistently exceeding minimum targets for energy efficiency.

**Transportation** The Michigan Climate and Energy Office is working toward accelerating economic growth by encouraging investment to advance mobility, manufacturing, and healthy communities. The office recently funded a study to optimize electric vehicle (EV) charging station placement in Michigan, and the MPSC has approved more than $23 million in utility investment in EV charging. In April 2019, they hosted an EV ride-and-drive event that gave residents the opportunity to look at, ride in, or drive in a variety of EVs.

**Resilience** During two periods of extreme weather with record-low temperatures during the 2018–19 winter, Governor Whitmer signed a state-of-emergency declaration and activated the State Emergency Operations Center (SEOC). Following these emergencies, the governor directed the MPSC to review the supply, engineering, and deliverability of Michigan’s natural gas, electricity, and propane and evaluate if Michigan’s energy systems are adequate to account for changing system conditions and extreme weather events. The *Statewide Energy Assessment* and accompanying recommendations will be released in September 2019.

**Climate Finance** Michigan Saves is a nonprofit organization operating as a green bank that offers financing programs for energy-efficiency improvements throughout the state. Established in 2009 through a grant from the MPSC, Michigan Saves makes affordable financing and incentives available through grants and partnerships with private-sector lenders and energy providers. They authorize and monitor a network of contractors and provide technical assistance for both customers and contractors. Their portfolio includes programs for residential, commercial, and municipal customers, and supports energy efficiency, geothermal, and solar PV projects. As of 2018, Michigan Saves financed more than $172 million in energy efficiency and renewable energy improvements. Michigan has authorized property-assessed clean energy (PACE) financing and now 25 counties and 15 municipalities (representing a majority of Michigan residents) have PACE financing in their community. Michigan has authorized on-bill financing for municipal electric utilities and investor-owned utilities. The state has also updated its performance contracting laws in recent years, including authorizing tax-exempt lease purchase options for energy upgrades.

**Natural and Working Lands** The *Michigan Wildlife Action Plan for 2015–2025* provides a framework to coordinate wildlife and habitat conservation and considers the climate vulnerability of focal species of greatest conservation need. In June 2019, the Michigan Department of Agriculture and Rural Development announced its decision to allow land currently enrolled in the Farmland and Open Space Preservation Program, which provides tax incentives to landowners who keep their land under agreements for agricultural use, to be used for commercial solar array purposes.