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Regional Clean Energy Innovation Act

Background

Clean energy technology deployment has exploded over the past decade. Renewable energy as a proportion of total U.S. electricity has doubled, electric vehicle sales have grown, and commercial battery storage has skyrocketed. Although existing clean energy technologies will help us reach a 100 percent clean energy economy, developing and deploying new and emerging technologies will be essential to getting us to this goal.

In a 2021 report, the International Energy Agency considered clean energy technologies needed to meet global emissions reductions targets. It found that 35 percent of all CO2 emissions reductions needed to meet Paris Agreement climate goals will come from technologies currently at the prototype or demonstration phases. Rapidly moving clean energy technologies through the stages of innovation has been challenging globally and nationally. Historically, U.S. investments in innovation often focus on the conceptual and early research stages. This results in valuable projects succumbing to the "valley of death," an inability to transition from the research stage to demonstration, and eventually deployment and commercialization.

The federal government should help address the commercialization valley of death by making sure federal funds complement regional pathways to decarbonization. Regions differ in their energy resources, markets, and innovation ecosystems, which is why regional solutions are necessary. For example, in Northwest Oregon, we recognize the potential of marine energy, but those same resources are not accessible in landlocked states. Federally funded innovation generally has not reflected regional capabilities and market needs. To successfully deploy clean energy resources on an enormous scale and rapidly reduce greenhouse gas emissions, we must align federal investment with regional net-zero pathways.

In 2016, the National Academies of Sciences, Engineering, and Medicine released a report highlighting the value of regional partnerships to advance clean energy deployment and commercialization. The report called for Regional Energy Innovation and Development Institutes (REIDIs) to "spur the development of both early-stage innovations and innovations that show appropriate promise." The Regional Clean Energy Innovation Act builds on these recommendations.

The Regional Clean Energy Innovation Act Summary

Establish Regional Energy Innovation and Development Institutes (REIDIs). REIDIs would be partnerships of two or more eligible entities, including local and state governments, academia, national laboratories, businesses, Tribes, labor organizations, and other clean energy stakeholders. REIDIS would help clean energy technologies overcome the commercialization valley of death by addressing regulatory barriers, connecting technologies with test beds and other resources including National Labs, and designing initiatives to stimulate market demand for clean energy technologies.

Create a DOE Office of Advanced Clean Energy Technologies. The Office would manage a network of REIDIs to advance mid-stage and late-stage innovation, development, demonstration, and commercialization of clean energy technologies, in accordance with regional capabilities and market needs, to further regional net-zero greenhouse gas emissions pathways. The Office will oversee the REIDI program and will assess regional innovation capabilities and potential market opportunities to inform REIDI designation. It will designate REIDIs, accounting for criteria such as the extent to which a REIDI benefits environmental justice communities, geographic diversity, and job growth potential. It also will promote collaboration and resource sharing between the REIDIS, provide technical and financial assistance, assess REIDI effectiveness, and determine whether any REIDIS should be terminated. The Office will work with other DOE offices and in collaboration with other Agencies to maximize coordination and prevent duplication.