

networks to achieve the objectives described in paragraph (2);

(C) ensures a reliable, resilient, affordable, safe, and secure electric grid; and

(D) acknowledges and accounts for different priorities, electric systems, and rate structures across States and regions.

(2) Objectives

The pathways established under paragraph (1) shall facilitate achievement of as many of the following objectives as practicable:

(A) Near real-time situational awareness of the electric system.

(B) Data visualization.

(C) Advanced monitoring and control of the advanced electric grid.

(D) Enhanced certainty of policies for investment in the electric grid.

(E) Increased innovation.

(F) Greater consumer empowerment.

(G) Enhanced grid resilience, reliability, and robustness.

(H) Improved—

(i) integration of distributed energy resources;

(ii) interoperability of the electric system; and

(iii) predictive modeling and capacity forecasting.

(I) Reduced cost of service for consumers.

(J) Diversification of generation sources.

(3) Steering committee

Not later than 90 days after December 27, 2020, the Secretary shall establish a steering committee to help develop the pathways under paragraph (1), to be composed of members appointed by the Secretary, consisting of persons with appropriate expertise representing a diverse range of interests in the public, private, and academic sectors, including representatives of—

(A) the Federal Energy Regulatory Commission;

(B) the National Laboratories;

(C) States;

(D) State regulatory authorities;

(E) transmission organizations;

(F) representatives of all sectors of the electric power industry;

(G) institutions of higher education;

(H) independent research institutes; and

(I) other entities.

(b) Technical assistance

The Secretary may provide technical assistance to States, Indian Tribes, or units of local government to adopt or implement one or more elements of the pathways developed under subsection (a)(1), including on a pilot basis.

(Pub. L. 116–260, div. Z, title VIII, §8008, Dec. 27, 2020, 134 Stat. 2586.)

Editorial Notes

CODIFICATION

Section was enacted as part of the Energy Act of 2020, and not as part of the Energy Independence and Security Act of 2007 which comprises this chapter.

§ 17391. Voluntary state, regional, and local electricity distribution planning

(a) In general

On the request of a State, regional organization, or electric utility, the Secretary of Energy shall provide assistance to States, regional organizations, and electric utilities to facilitate the development of State, regional, and local electricity distribution plans by—

(1) conducting a resource assessment and analysis of future demand and distribution requirements; and

(2) developing open source tools for State, regional, and local planning and operations.

(b) Risk and security analysis

The assessment under subsection (a)(1) shall include—

(1) the evaluation of the physical security, cybersecurity, and associated communications needs of an advanced distribution management system and the integration of distributed energy resources; and

(2) advanced use of grid architecture to analyze risks in an all-hazards approach that includes communications infrastructure, control systems architecture, and power systems architecture.

(c) Designation

The information collected for the assessment and analysis under subsection (a)(1)—

(1) shall be considered to be critical electric infrastructure information under section 8240–1 of title 16; and

(2) shall only be released in compliance with regulations implementing that section.

(d) Technical assistance

For the purpose of assisting in the development of State and regional electricity distribution plans, the Secretary shall provide technical assistance to—

(1) States;

(2) regional reliability entities; and

(3) other distribution asset owners and operators.

(e) Withdrawal

A State or any entity that has requested technical assistance under this section may withdraw the request for technical assistance at any time, and on such withdrawal, the Secretary shall terminate all assistance efforts.

(f) Effect

Nothing in this section authorizes the Secretary to require any State, regional organization, regional reliability entity, asset owner, or asset operator to adopt any model, tool, plan, analysis, or assessment.

(Pub. L. 116–260, div. Z, title VIII, §8010, Dec. 27, 2020, 134 Stat. 2588.)

Editorial Notes

CODIFICATION

Section was enacted as part of the Energy Act of 2020, and not as part of the Energy Independence and Security Act of 2007 which comprises this chapter.

§ 17392. Micro-grid and integrated micro-grid systems program

(a) Definitions

In this section:

(1) Integrated micro-grid system

The term “integrated micro-grid system” means a micro-grid system that—

(A) comprises generation from both conventional and renewable energy resources; and

(B) may use grid-scale energy storage.

(2) Isolated community

The term “isolated community” means a community that is powered by a stand-alone electric generation and distribution system without the economic and reliability benefits of connection to a regional electric grid.

(3) Micro-grid system

The term “micro-grid system” means a localized grid that operates autonomously, regardless of whether the grid can operate in connection with another grid.

(4) Rural electric cooperative

The term “rural electric cooperative” means an electric cooperative (as defined in section 796 of title 16) that sells electric energy to persons in rural areas.

(5) Strategy

The term “strategy” means the strategy developed pursuant to subsection (b)(2)(B).

(b) Program

(1) Establishment

The Secretary of Energy (in this section referred to as the “Secretary”) shall establish a program to promote the development of—

(A) integrated micro-grid systems for isolated communities; and

(B) micro-grid systems to increase the resilience of critical infrastructure.

(2) Requirements

The program established under paragraph (1) shall—

(A) develop a feasibility assessment for—

(i) integrated micro-grid systems in isolated communities; and

(ii) micro-grid systems to enhance the resilience of critical infrastructure;

(B) develop an implementation strategy, in accordance with paragraph (3), to promote the development of integrated micro-grid systems for isolated communities, particularly for those communities exposed to extreme weather conditions and high energy costs, including electricity, space heating and cooling, and transportation;

(C) develop an implementation strategy to promote the development of micro-grid systems that increase the resilience of critical infrastructure; and

(D) carry out cost-shared demonstration projects, based upon the strategies developed under subparagraph (B) that include the development of physical and cybersecurity plans to take appropriate measures to protect and secure the electric grid.

(3) Requirements for strategy

In developing the strategy under paragraph (2)(B), the Secretary shall consider—

(A) opportunities for improving the efficiency of existing integrated micro-grid systems;

(B) the capacity of the local workforce to operate, maintain, and repair a integrated micro-grid system as well as opportunities to improve that capacity;

(C) leveraging existing capacity within local or regional research organizations, such as organizations based at institutions of higher education, to support development of integrated micro-grid systems, including by testing novel components and systems prior to field deployment;

(D) the need for basic infrastructure to develop, deploy, and sustain a integrated micro-grid system;

(E) input of traditional knowledge from local leaders of isolated communities in the development of a integrated micro-grid system;

(F) the impact of integrated micro-grid systems on defense, homeland security, economic development, and environmental interests;

(G) opportunities to leverage existing interagency coordination efforts and recommendations for new interagency coordination efforts to minimize unnecessary overhead, mobilization, and other project costs; and

(H) any other criteria the Secretary determines appropriate.

(c) Collaboration

The program established under subsection (b)(1) shall be carried out in collaboration with relevant stakeholders, including, as appropriate—

(1) States;

(2) Indian Tribes;

(3) regional entities and regulators;

(4) units of local government;

(5) institutions of higher education; and

(6) private sector entities.

(d) Report

Not later than 180 days after December 27, 2020, and annually thereafter until calendar year 2029, the Secretary shall submit to the Committee on Energy and Natural Resources of the Senate and the Committee on Energy and Commerce of the House of Representatives a report on the efforts to implement the program established under subsection (b)(1) and the status of the strategy developed under subsection (b)(2)(B).

(e) Barriers and benefits to micro-grid systems

(1) Report

Not later than 270 days after December 27, 2020, the Secretary shall submit to the Committee on Energy and Natural Resources of the Senate and the Committee on Energy and Commerce of the House of Representatives a report on the benefits of, and barriers to, implementing resilient micro-grid systems that are—