

and load changes, which reduce the lifespan of plant components, increase operation and maintenance costs, and decrease overall plant efficiency, resulting in a higher cost of electricity.¹⁵⁷

Additionally, costs would be much higher if fuel-secure generation were not available during times of system stress. NETL specifically noted that simulating the 2017-2018 cold snap “for a future state with anticipated coal retirements is expected to produce higher energy costs (including any costs associated with loss of load). . . .”¹⁵⁸ As another example, IHS Markit noted that PJM was in a fortunate position that a surplus of installed capacity was present at the time of the polar vortex in 2014 with a reported system-wide reserve margin of 22.5% rather than the long-run reserve margin target of about 16%.¹⁵⁹ The study determined, however, that a projection of PJM operating under polar vortex conditions shows that as capacity reserves decline, PJM approaches the point at which further reductions in available supply would likely produce increasingly large outage costs.¹⁶⁰ The study found that “as additional net dependable nuclear capacity is removed from the PJM supply portfolio and replaced by equal amounts of net dependable natural gas-fired capacity, the expected consumer outage costs under polar vortex conditions rose at an increasing rate from \$153 million to \$6.7 billion.”¹⁶¹

V. DOE’s National Security Responsibilities

By statute and executive order, the Secretary of Energy is a member of the National Security Council,¹⁶² responsible for advising the President on “policy issues that affect the national security interests of the United States.”¹⁶³ Also by statute and executive order, the Department is charged with responding to energy supply disruptions and other threats to the reliability and resilience of the Nation’s electric power system. The President also has delegated to the Secretary certain authorities under the Defense Production Act of 1950 with respect to energy matters. DOE’s authorities include its authority under section 202(c) of the Federal Power Act (FPA) to issue emergency orders due to shortages of electric energy, facilities, or fuel and other causes, and its authorities and responsibilities under section 215A of the FPA regarding cyberattacks,

¹⁵⁷ *Id.* at 2.

¹⁵⁸ *Id.*

¹⁵⁹ IHS Markit, “Ensuring Resilient and Efficient Electricity Generation: The Value of the current diverse US power supply portfolio”, Apr. 2018, at 11.

¹⁶⁰ *Id.*

¹⁶¹ *Id.* at 11-12.

¹⁶² Section 101(c)(1) of the National Security Act, as amended, 50 U.S.C. § 3021(c)(1), provides that “[the National Security] Council consists of the President, the Vice President, the Secretary of State, the Secretary of Defense, the Secretary of Energy, the Secretary of the Treasury, and such other officers of the United States Government as the President may designate.” *See also* National Security Presidential Memorandum-4, § A (Apr. 4, 2017) (stating that the Secretary of Energy is to be a regular attendee of the National Security Council), available at <https://www.whitehouse.gov/presidential-actions/national-security-presidential-memorandum-4/> (last visited May 17, 2018). The Secretary of Energy has been a statutory member of the Council since 2007, when section 932 of the Energy Independence and Security Act of 2007 (Pub. L. 110-140, 121 Stat. 1492) amended the National Security Act accordingly.

¹⁶³ Section B of National Security Presidential Memorandum-4 names the Secretary of Energy to the Principals Committee, which is “the Cabinet-level senior interagency forum” for consideration of Security Council issues.

electromagnetic pulse attacks, and geomagnetic disturbances. DOE also has a range of nuclear security responsibilities under the Atomic Energy Act of 1954, as amended,¹⁶⁴ and the National Nuclear Security Administration Act, as amended.¹⁶⁵

A. DOE's Role as Sector-Specific Agency for Energy

DOE is designated as the Sector-Specific Agency (SSA) for Energy under PPD-21, which specifically addresses "Critical Infrastructure Security and Resilience," and subsequent executive orders.¹⁶⁶ As the SSA, it is DOE's responsibility to "take proactive steps to manage risk and strengthen the security and resilience of the Nation's critical infrastructure, considering all hazards that could have a debilitating impact on national security, economic stability, public health and safety, or any combination thereof."¹⁶⁷ DOE is responsible for monitoring and analyzing both natural and man-made threats to the electricity system, gas pipelines, and other critical energy infrastructure, and it has extensive capabilities in this area through its Office of Electricity; Office of Cybersecurity, Energy Security, and Emergency Response; and Office of Intelligence and Counterintelligence.

As the designated SSA for the energy sector with regard to critical infrastructure security and resilience, DOE is a national leader among government agencies in identifying risks and responsive actions. For example, DOE is the co-chair of the Energy Sector Government Coordinating Council (EGCC), which coordinates federal, state, local, and tribal authorities on energy security and resilience. Also, as a member of the National Security Council, the Secretary of Energy receives regular intelligence briefings on threats to critical energy infrastructure. Further, DOE serves as the coordinating agency for Emergency Support Function #12 - Energy (ESF-12) under the National Response Framework (NRF), which guides the Nation's response to disasters and emergencies.¹⁶⁸ In addition, DOE is a primary agency for the Infrastructure Systems Recovery Support Function under the National Disaster Recovery Framework (NRDF), which is a companion plan to the NRF. As the lead for ESF-12, DOE is responsible for providing critical information and analysis about energy disruptions and for helping to facilitate the restoration of damaged energy infrastructure.¹⁶⁹

DOE's working relationships with energy sector leadership also support its expertise in assessing security and resilience issues facing the sector. DOE is well integrated into the functions of the industry-led Electricity Subsector Coordinating Council (ESCC) and the Oil and Natural Gas Subsector Coordinating Council (ONG-SCC), both of which focus on critical energy

¹⁶⁴ 42 U.S.C. § 2011 *et seq.*

¹⁶⁵ Pub. L. 106-65.

¹⁶⁶ PPD-21 at 11.

¹⁶⁷ *Id.* at 2.

¹⁶⁸ See Emergency Support Function #12 – Energy Annex, at ESF #12-1 (June 2016), *available at* https://www.fema.gov/media-library-data/1470149363676-f4f9246fc46b10727523aee39e076a2a/ESF_12_Energy_Annex_20160705_508.pdf.

¹⁶⁹ Written Testimony of William Parks, Senior Technical Advisor, Office of Electricity, U.S. Department of Energy, Before the Subcommittee on National Security Committee on Oversight and Government Reform, U.S. House of Representatives, at 1 (Mar. 21, 2018), *available at* https://oversight.house.gov/wp-content/uploads/2018/03/Parks-DOE_Testimony_03212018.pdf.

infrastructure protection and resilience issues. In addition, to facilitate sharing of threats and prompt dissemination of actionable information with the private sector, DOE regularly briefs the Electricity Information Sharing and Analysis Center (E-ISAC),¹⁷⁰ the Downstream Natural Gas Information Sharing and Analysis Center (DNG-ISAC),¹⁷¹ and the Oil and Natural Gas Information Sharing and Analysis Center (ONG-ISAC).¹⁷²

DOE has additional responsibilities for energy cybersecurity matters. Under Presidential Policy Directive-41 (PPD-41), DOE works in collaboration with other agencies and private sector organizations, including the Federal government's designated lead agencies for coordinating the response to significant cyber incidents: DHS, acting through the National Cybersecurity and Communications Integration Center (NCCIC), and the Department of Justice (DOJ), acting through the Federal Bureau of Investigation (FBI), and the National Cyber Investigative Joint Task Force. A primary purpose of PPD-41 is to clarify the roles and responsibilities of federal government agencies during a "significant cyber incident," which is described as a cyber incident that is "likely to result in demonstrable harm to the national security interests, foreign relations, or economy of the United States or to the public confidence, civil liberties, or public health and safety of the American people."

Further, DOE's role in energy sector cybersecurity was codified through the Fixing America's Surface Transportation (FAST) Act¹⁷³ in 2015, which designated DOE as the lead SSA for cybersecurity for the energy sector.¹⁷⁴ Congress enacted several important energy cybersecurity measures in the FAST Act, notably those amending the FPA.¹⁷⁵ In particular, under

¹⁷⁰ The E-ISAC, operated by the North American Electric Reliability Corporation (NERC), is a voluntary membership organization open to "[a]ll electricity owners and operators in North America." NERC, *E-ISAC Products and Services*, v. 1.1, at 2 (Aug. 2016), available at <https://www.nerc.com/pa/CI/ESISAC/Documents/E-ISAC%20Brochure.pdf>. The E-ISAC "gathers and analyzes security data, shares appropriate data with stakeholders, coordinates incident management, and communicates mitigation strategies with stakeholders," and also, "in collaboration with [DOE] and the Electricity Subsector Coordinating Council (ESCC), serves as the primary security communications channel for the electric industry and enhances industry's ability to prepare for and respond to cyber and physical threats, vulnerabilities, and incidents." NERC, *Electricity Information Sharing and Analysis Center*, available at <https://www.nerc.com/pa/CI/ESISAC/Pages/default.aspx> (last visited May 17, 2018).

¹⁷¹ The DNG-ISAC "serves natural gas utility (distribution) and pipeline (transmission) companies by facilitating communications between participants, the federal government, and other critical infrastructures" and "promptly disseminates threat information and indicators from government and other sources and provides analysis, coordination and summarization of related industry-affecting information." See <https://www.dngisac.com> (last visited May 17, 2018). Members include "[a]ll American Gas Association Full Members" and "[a]ll Interstate Natural Gas Association of America (INGAA) members." See <https://www.dngisac.com/Home/Participation> (last visited May 17, 2018).

¹⁷² The ONG-ISAC "was created in 2014 to provide shared intelligence on cyber incidents, threats, vulnerabilities, and associated responses present throughout [the oil and gas] industry." See <http://ongisac.org> (last visited May 17, 2018). "All oil and natural gas industry companies (private or public) and recognized trade associations with a presence in North America" may join the ONG-ISAC. *Id.*

¹⁷³ Pub. L. No. 114-94, 129 Stat. 1312 (Dec. 4, 2015).

¹⁷⁴ *Id.* § 61003(c)(2)(A), 129 Stat. at 1779.

¹⁷⁵ 16 U.S.C. § 791a *et seq.*

subsection 215A(b)(1) of the FPA, the Secretary of Energy is authorized, upon declaration by the President of a Grid Security Emergency, to issue emergency orders to protect or restore critical electric infrastructure or defense critical electric infrastructure.¹⁷⁶ This authority allows DOE to respond as needed to the threat of cyber and physical attacks on the grid.

B. Statutory Authorities

DOE is authorized to address energy production and supply issues under a number of statutory provisions.

1. Defense Production Act

Under DPA section 101(a), the Secretary, by presidential directive,¹⁷⁷ has ordered [INSERT]. The DPA provides that “the security of the United States is dependent on the ability of the domestic industrial base to supply materials and services for the national defense and to prepare for and respond to military conflicts, natural or man-caused disasters, or acts of terrorism within the United States.”¹⁷⁸ The DPA further includes the finding that to ensure the “vitality” of the domestic industrial base, action is needed “to promote industrial resource preparedness.”¹⁷⁹ National defense preparedness specifically requires action to “assure the availability of domestic energy supplies.” Congress, in the DPA, also establishes a policy that DPA authorities should be used “to reduce the vulnerability of the United States to terrorist attacks”¹⁸⁰ and to “encourage the geographic dispersal of industrial facilities in the United States to discourage the concentration of such productive facilities within limited geographic areas that are vulnerable to attack by an enemy of the United States.”¹⁸¹ Under the DPA, “national defense” is defined broadly to include critical infrastructure and “energy production.”¹⁸²

Under DPA section 101(a), the Secretary, by delegation from the President,¹⁸³ “is authorized (1) to require that performance under contracts or orders . . . which he deems necessary

¹⁷⁶ *Id.* § 824o-1(b)(1).

¹⁷⁷ [cite Presidential memorandum]. Previously, by Executive Order No. 13,603 (Mar. 16, 2012), the President delegated to the Secretary of Energy, with respect to all forms of energy, the authority of the President conferred by section 101 of the Defense Production Act of 1950 (DPA) to promote the national defense over performance of any other contracts or orders, and to allocate materials, services, and facilities as deemed necessary or appropriate to promote the national defense. Further, the authorities of the President under section 101(c)(1)–(2) of the Act are delegated to the Secretary of Commerce, with the exception that the authority to make findings regarding domestic energy that materials, services, and facilities are critical and essential, as described in section 101(c)(2)(A) of the Act, is delegated to the Secretary of Energy. DOE also has had delegated DPA authority dating back to 1974.

¹⁷⁸ DPA sec. 2(a)(2).

¹⁷⁹ DPA sec. 2(a)(2)(A).

¹⁸⁰ 2(b)(5).

¹⁸¹ 2(b)(6).

¹⁸² sec 702(14).

¹⁸³ [cite Presidential memorandum]. Previously, by Executive Order No. 13,603 (Mar. 16, 2012), the President delegated to the Secretary of Energy, with respect to all forms of energy, the authority of the President conferred by section 101 of the Defense Production Act of 1950 (DPA) to promote the national defense over performance of any other contracts or orders, and to allocate materials, services, and facilities as deemed necessary or appropriate to promote the national defense. Further, the authorities of the President

or appropriate to promote the national defense shall take priority over performance under any other contract or order, and, for the purpose of assuring such priority, to require acceptance and performance of such contracts or orders in preference to other contracts or orders by any person he finds to be capable of their performance, and (2) to allocate materials, services, and facilities in such manner, upon such conditions, and to such extent as he shall deem necessary or appropriate to promote the national defense.”¹⁸⁴ Further, “national defense” includes “programs for military and energy production or construction . . . homeland security, stockpiling . . . and any directly related activity. . . . and critical infrastructure protection and restoration.”¹⁸⁵

Under DPA section 101(c),¹⁸⁶ the Secretary of Energy, through a delegation from the President,¹⁸⁷ “may . . . require the allocation of, or the priority performance under contracts or orders . . . relating to, materials, equipment, and services in order to maximize domestic energy supplies” based on findings that:

- (A) such materials, services, and facilities are scarce, critical, and essential—
 - (i) to maintain or expand exploration, production, refining, transportation;
 - (ii) to conserve energy supplies; or
 - (iii) to construct or maintain energy facilities; and
- (B) maintenance or expansion of exploration, production, refining, transportation, or conservation of energy supplies or the construction and maintenance of energy facilities cannot reasonably be accomplished without exercising [this] authority . . .

The authority under section 101(c) may be exercised “[n]otwithstanding any other provision of this Act,” and is therefore not subject to the “national defense” requirement of § 101(a).¹⁸⁸

In early 2001, to address the California energy crisis, which left Pacific Gas and Electric Company (PG&E) on the verge of bankruptcy, the President declared in a January 19, 2001 memorandum to the Secretary of Energy that an electric energy shortage existed in California that threatened the continued availability of natural gas to consumers in the central and northern regions of California.¹⁸⁹ Because continuity of supply in those regions of California was dependent on the continued ability of the natural gas distributor in those regions to acquire and transport natural gas to all consumers throughout those regions, the President found, *inter alia*, that natural gas supplies within those regions of California were scarce, critical, and essential within the meaning of the Defense Production Act of 1950, and that assuring maintenance of natural gas supplies to those regions of California could not reasonably be accomplished without use of these authorities and

under section 101(c)(1)–(2) of the Act are delegated to the Secretary of Commerce, with the exception that the authority to make findings regarding domestic energy that materials, services, and facilities are critical and essential, as described in section 101(c)(2)(A) of the Act, is delegated to the Secretary of Energy. DOE also has delegated DPA authority dating back to 1974.

¹⁸⁴ 50 U.S.C. § 4511.

¹⁸⁵ 50 U.S.C. § 4552(14).

¹⁸⁶ 50 U.S.C. § 4511(c).

¹⁸⁷ [cite Presidential memo].

¹⁸⁸ 50 U.S.C. § 4511(c).

¹⁸⁹ Memorandum for the Secretary of Energy Re Electrical Energy Shortage in California (Jan. 19, 2001).

was necessary and appropriate to maximize domestic energy supplies (including electricity) and to promote the national defense. Accordingly, DOE was authorized and directed “to exercise as to continuity of supplies of natural gas to the central and northern regions of California all authorities under the Defense Production Act of 1950, in accordance with the findings of scarcity, essentiality, and criticality made herein, pursuant to Executive Order 11790, as continued in force by Executive Order 12919, without the prior approval of any other officer, notwithstanding any procedural provisions generally specified in regulations that ordinarily would govern the Secretary of Energy’s invocation of the authorities under the Defense Production Act of 1950, including in particular those under section 101(c) thereof.”¹⁹⁰ In response, DOE issued an order requiring natural gas sellers, pursuant to sections 101(a) and (c) of the DPA, to perform and prioritize contracts to sell gas needed for electric generation to PG&E.¹⁹¹

2. Federal Power Act Section 202(c)

Section 202(c) of the Federal Power Act (FPA) (codified at 16 U.S.C. § 824a(c)), through section 301(b) of the Department of Energy Organization Act (codified at 42 U.S.C. § 7151(b)), authorizes the Secretary of Energy, upon finding “that an emergency exists by reason of a sudden increase in the demand for electric energy, or a shortage of electric energy or of facilities for the generation or transmission of electric energy, or of fuel or water for generating facilities, or other causes,” to issue an order “requir[ing]...such temporary connections of facilities and such generation, delivery, interchange, or transmission of electric energy as in [the Secretary’s] judgment will best meet the emergency and serve the public interest.” 16 U.S.C. § 824a(c)(1).

DOE may act either upon application or upon its own motion, and orders under this authority may take effect without prior notice or hearing.¹⁹² Prior to the enactment of the DOE Organization Act, this provision was administered by the Federal Power Commission. Section

¹⁹⁰ *Id.* at 2.

¹⁹¹ Department of Energy, *Temporary Emergency Natural Gas Purchase and Sale Order* (Jan. 19, 2001). Although preceding the creation of the Department, the DPA was used to bolster infrastructure construction in the mid-1970s, in conjunction with the Federal Energy Administration (whose responsibilities were later subsumed into DOE). In September 1974, to speed construction of the Trans-Alaska Pipeline System and following a determination “that undue delay incident to material shortages in the construction of the Pipeline System constitutes an unusual situation within the terms of Title I of the Defense Production Act,” section 101(a) of the Defense Production Act was invoked to authorize “priorities and allocation support” for the Alyeska Pipeline Service Company. General Services Administration and Federal Energy Administration, *Trans-Alaska Pipeline Priorities Assistance for Construction*, 39 Fed. Reg. 34,608 (Sept. 26, 1974). The authorization was soon expanded to cover “field facilities for the production of North Slope oil resources” (40 Fed. Reg. 26 (Jan. 2, 1975)) and amended several more times over the next two years to cover particular construction materials and activities (see 40 Fed. Reg. 5409 (Feb. 5, 1975); 40 Fed. Reg. 19,238 (May 2, 1975); 41 Fed. Reg. 44,476, 44,477 (Oct. 8, 1976); 41 Fed. Reg. 53,391 (Dec. 6, 1976)).

¹⁹² *Id.*

301(b)¹⁹³ of the Department of Energy Organization Act¹⁹⁴ transferred the responsibilities under section 202(c) to the Secretary of Energy.

The Secretary is authorized to determine that an emergency exists for a wide range of reasons, including a “shortage of electric energy or of facilities for the generation or transmission of electric energy, or of fuel ... for generating facilities, or other causes.”¹⁹⁵

DOE’s regulations note that a 202(c) action is “envisioned as meeting a specific inadequate power supply situation.”¹⁹⁶ However, for an emergency to exist within the meaning of 202(c), it is not necessary that a blackout have already taken place, or that an attack or natural disaster be imminent. The legislative history of section 202(c) shows that Congress contemplated the use of the provision not merely to react to actual disasters, but to act in a preventive manner. A variety of man-made and natural threat conditions require, as noted above, “a Federal agency ready to do all that can be done in order to prevent a breakdown in electric supply.”¹⁹⁷ For this reason, under the Department’s regulations, an emergency can result from, among other causes, “an inability to obtain adequate amounts of the necessary fuels to generate electricity, or a regulatory action which prohibits the use of certain electric power supply facilities.”¹⁹⁸ Also, power supply shortfalls resulting from “inadequate planning or the failure to construct necessary facilities can result in an emergency as contemplated in these regulations.”¹⁹⁹

DOE does not rely solely upon the analysis of the entity requesting an emergency order under 202(c). Rather, DOE engages in an independent analysis to determine that an emergency exists.²⁰⁰ Additionally, in order to minimize burden on entities ordered to take actions under 202(c) and to prevent conflict with environmental laws or regulations, DOE has limited its orders in scope to be tailored to the particular emergency. Finally, DOE’s past orders have targeted facilities of different fuel types depending on the nature of the emergency. For instance, the orders discussed above directed continued operation of the Potomac River and Yorktown coal-fired power plants due to their proximity and ability to provide power to the areas in need.

DOE’s regulations further provide guidelines for defining “inadequate fuel or energy supply capability” and specifically for determining whether a “utility system fuel inventory or energy supply” is inadequate. Factors include “fuels in stock, fuels en route, transportation time, and constraints on available storage facilities.”²⁰¹ DOE’s regulations expressly address coal storage at electric utilities as a factor in determining fuel inadequacy, as when “[s]ystem coal stocks are reduced to 30 days (or less) of normal burn days and a continued downward trend in stock is

¹⁹³ 42 U.S.C. § 7151(b) (“Except as provided in title IV, there are hereby transferred to, and vested in, the Secretary the function of the Federal Power Commission, or of the members, officers, or components thereof”).

¹⁹⁴ Pub. L. 95-91, as amended.

¹⁹⁵ 16 U.S.C. § 824a(c)(1).

¹⁹⁶ 10 C.F.R. § 205.371.

¹⁹⁷ S. Rep. No. 621, 74th Cong., 1st Sess., p. 49 (1935).

¹⁹⁸ 10 C.F.R. § 205.371.

¹⁹⁹ *Id.*

²⁰⁰ *See e.g.*, Order No. 202-05-3, at 3

²⁰¹ 10 C.F.R. § 205.375.

projected.”²⁰² The Federal Power Commission, which held the section 202(c) authority until 1977, first adopted a version of this provision in 1974 in response to major changes in generation portfolios resulting from the 1973 oil embargo,²⁰³ and DOE has retained the language with minor modifications since that time.²⁰⁴

Section 202(c) authority is exercised within a context of broad policy considerations, both domestic and international. As the FPC stated in 1974:

Foreign events and international affairs of 1973, as they continue to the present time, as well as domestic fuel supply and other considerations affecting electric utilities, impact upon state, regional, and Federal interests in the continuing supply of electric power and energy. The Commission’s preparations for exercise of its 202(c) authority, if such exercise becomes necessary, is directed to meet those interests.²⁰⁵

In that order, the FPC cited factors of concern including the Arab oil embargo, labor negotiations in the coal industry, the restrictive effect of environmental laws on the use of coal and oil as electric utility fuel stocks, and related delays in construction of new nuclear and fossil-fired electric generating facilities and transmission facilities. The combined result of these factors “has been to substantially narrow the band of flexibility of fuel supply and operations, within which the electric utility industry can adjust to shortages of any of its major fuel resources, or other causes of ‘emergencies,’ and still meet its service obligations.”²⁰⁶ Considering these factors, the FPC found that “the maintenance or expansion of system or regional fuel stocks not only bear upon the maintenance of an adequate and reliable bulk power supply in the course of day-to-day operations of electric systems, but also are important factors directly relevant to the exercise of authority under Section 202(c)...”²⁰⁷ In conclusion, the FPC found that “[s]uch conditions, in the words of the legislative history of section 202(c), call for ‘a Federal agency ready to do all that can be done in order to prevent a breakdown in electric supply.’”²⁰⁸

Over the years, DOE (and the FPC previously) has issued section 202(c) orders responding to a variety of different types of emergencies, taking advantage of the statutory and regulatory flexibility afforded it to tailor the scope and duration of an order to the particular emergency. DOE’s orders have come in a variety of contexts, including (1) during wartime to ensure continued production of essentials; (2) post-disruption, such as following a natural disaster or blackout, to

²⁰² *Id.* § 205.375(1).

²⁰³ *Fed. Power Comm’n*, Order No. 520, 52 F.P.C. 155, 1569 (Nov. 29, 1974) (“[A] system may be considered to have an inadequate fuel or energy supply capability when, [under certain circumstances,]... (a) system coal stocks are reduced to 30 days (or less) of normal burn days and a continued downward trend in stocks is projected.”).

²⁰⁴ Final Rule, 46 Fed. Reg. 39,984, 39,985 (Aug. 6, 1981).

²⁰⁵ Order No. 520, 52 F.P.C at 1556.

²⁰⁶ *Id.* at 1557.

²⁰⁷ *Id.* at 1561.

²⁰⁸ S. Rep. No. 621, 74th Cong., 1st Sess., p. 49 (1935).

restore and maintain reliability; and (3) preventatively to stave off issues related to anticipated spikes in demand or lack of supply.

Depending on the nature of the emergency, 202(c) orders have taken different forms. Many past orders have ordered temporary interconnections to provide power to a particular locality or region experiencing current or anticipated electricity shortages. Some of these orders have authorized interconnections for short periods, such as an order lasting one month to alleviate widespread power outages following Hurricanes Katrina and Rita.²⁰⁹ Other orders have extended much longer, such as one lasting up to two years to prevent possible outages in the City of Cleveland due to insufficient energy infrastructure, while construction of a longer-term solution was completed.²¹⁰

Other 202(c) orders have ordered the continued operation of generation facilities that otherwise would have shutdown. Some of these orders fall in the category of orders that have sought to prevent a breakdown in supply by ensuring that adequate generation remains available if needed. In 2005, for example, DOE granted a request by the District of Columbia Public Service Commission to order the Mirant Corporation to continue operations at its Potomac River Generating Station despite an inability to meet the Environmental Protection Agency's (EPA) National Ambient Air Quality Standards, finding that a failure to operate would create a "reasonable possibility" of extended blackouts affecting a large number of important facilities in the Washington, D.C. area, thus violating reliability standards.²¹¹ More recently, DOE granted a 202(c) request from PJM to order Dominion Energy Virginia to continue operations at its Yorktown Power Station despite an inability to meet EPA's Mercury and Air Toxics Standards, finding electric system reliability at risk due to anticipated electricity demand and peak load conditions associated with hot summer weather.²¹² In both these cases, DOE's determination that an emergency existed rested upon reasonably anticipated, rather than currently existing or imminent, conditions.

Depending on the nature of the emergency, 202(c) orders have taken different forms. Many past orders have ordered temporary interconnections to provide power to a particular locality or region experiencing current or anticipated electricity shortages. Some of these orders have authorized interconnections for short periods, such as an order lasting one month to alleviate widespread power outages following Hurricanes Katrina and Rita.²¹³ Other orders have extended much longer, such as one lasting up to two years to prevent possible outages in the City of Cleveland due to insufficient energy infrastructure, while construction of a longer-term solution was completed.²¹⁴

²⁰⁹ See *Department of Energy*, Order No. 202-05-1 (Sept. 28, 2005).

²¹⁰ See *City of Cleveland v. Cleveland Electric Illuminating Co.*, 47 F.P.C. 1412, 1414 (1972).

²¹¹ See *Department of Energy*, Order No. 202-05-3, at 6 (Dec. 20, 2005).

²¹² See *Department of Energy*, Order No. 202-17-2, at 1-2 (June 16, 2017).

²¹³ See *Department of Energy*, Order No. 202-05-1 (Sept. 28, 2005).

²¹⁴ See *City of Cleveland v. Cleveland Elec. Illuminating Co.*, 47 F.P.C. 1412, 1414 (1972).

In order to minimize the burden on entities ordered to take actions under 202(c) and to prevent conflict with environmental laws or regulations, DOE has limited its orders in scope to be tailored to the particular emergency. For instance, neither of the preventative DOE orders involving Mirant and Dominion envisioned or resulted in the subject power stations being forced into continuous operation. Rather, the orders clearly stated that the generators would serve only as back-up power in the event that other existing sources of power are unavailable.²¹⁵ Finally, DOE's past orders have targeted facilities of different fuel types depending on the nature of the emergency. For instance, the orders discussed above directed continued operation of the Potomac River and Yorktown coal-fired power plants due to their proximity and ability to provide power to the areas in need. In response to the energy crisis in California in 2000-01, however, DOE ordered power supplied to California from a variety of sources without regard to fuel type.²¹⁶

²¹⁵ See Order No. 202-05-3, at 8-9, 10; Order No. 202-17-2, at 2 (stating that "this Order authorizes operation...only when called upon by PJM for reliability purposes").

²¹⁶ See *Department of Energy*, Order Pursuant to Section 202(c) of the Federal Power Act (Dec. 14, 2000).