Executive Order on Securing the United States Bulk-Power System

Status: Issued 5/1/2020; implementation underway

The wide-ranging executive order by the White House declares a national emergency associated with threats to the U.S. electric grid and directs the Secretary of Energy to develop a regime to control risk in the supply chain of the bulk power system (BPS). The order prohibits import and installation of BPS equipment from vendors associated with a country that the Secretary of Energy deems a foreign adversary. The order defines a list of BPS equipment subject to controls and directs the Secretary of Energy to establish rules and processes for controlling such transactions, including methods to pre-qualify specific equipment and vendors.

On May 1, 2020, the White House issued the Executive Order on Securing the United States Bulk-Power System. This executive order declares “a national emergency with respect to the threat to the United States bulk-power system,” citing the intent of foreign adversaries to create and exploit vulnerabilities in BPS electric equipment to adversely affect U.S. national security, foreign policy, and economic activity. Such national emergency is declared under the authorities outlined in the International Emergency Economic Powers Act (50 U.S.C. 1701 et seq.) (IEEPA), the National Emergencies Act (50 U.S.C. 1601 et seq.) (NEA), and section 301 of title 3, United States Code.

MAY 18 UPDATE: In response to significant stakeholder inquiries, the Department of Energy (DOE) has held multiple briefings and released an initial FAQ document.

Order Summary

Definition of BPS Equipment

The order defines the BPS as (1) “facilities and control systems necessary for operating an interconnected electric energy transmission network (or any portion thereof);” and (2) “electric energy from generation facilities needed to maintain transmission reliability.” Transmission lines rated to 69 kV or higher are included in this definition, diverging from NERC’s traditional definition of 100 kV. The order qualifies this by saying it “does not include facilities used in the local distribution of electric energy.”

The order defines BPS equipment as “items used in bulk-power system substations, control rooms, or power generating stations” and goes on to describe an explicit list of equipment:
“...reactors, capacitors, substation transformers, current coupling capacitors, large generators, backup generators, substation voltage regulators, shunt capacitor equipment, automatic circuit reclosers, instrument transformers, coupling capacity voltage transformers, protective relaying, metering equipment, high voltage circuit breakers, generation turbines, industrial control systems, distributed control systems, and safety instrumented systems.”

The order declares that items not explicitly listed “and that have broader application of use beyond the bulk-power system” are outside the scope of the order.

**MAY 18 UPDATE:** ESA understands that DOE expects to prioritize certain BPS equipment considered of higher concern for “defense-critical electric infrastructure” and equipment associated with black-start critical paths. DOE intends to focus, in this order:

1. electric transformers;
2. generators (including for back-up);
3. control systems; and
4. relay/sensing/metering/capacitance equipment.

Additionally, DOE intends to implement a phased approach to facilities:

1. Federally owned BPS equipment, such as in Power Marketing Administrations;
2. Other federally procured BPS equipment; and finally
3. Commercial industry.

**Prohibition on BPS Equipment from Foreign Adversaries**

The order prohibits the import and installation of BPS equipment subject to three determinations by the Secretary of Energy: (1) that the transaction occurred after the date of the order; (2) that the transaction involves BPS equipment “designed, developed, manufactured, or supplied by persons owned by, controlled by, or subject to the jurisdiction or direction of a foreign adversary;” and (3) the transaction poses undue risk of sabotage of the BPS, of catastrophic effects on critical infrastructure or the economy, or of national security. The order empowers the Secretary of Energy to develop measures to serve as a precondition for approval for otherwise prohibited transactions, including pre-qualification of specific BPS equipment and/or vendors. The Secretary of Energy may take actions on BPS equipment transactions with wide discretion, including prior to the publication of implementing rules.

**Implementing Regulations Required within 150 Days**

The order requires the Secretary of Energy, in consultation with other agencies, to publish implementing rules by September 28, 2020. Chief among such rules may be a determination of persons and countries that constitute a foreign adversary—which the order states can be a determination made exclusively for the purposes of the order (i.e., not needing designation by other departments or under other authorities). Other rules may include identifying which vendors and BPS equipment warrant greater scrutiny; procedures to license transactions otherwise prohibited; and other mechanisms to mitigate concerns among affected parties.

Outside of the 150-day timeline, the Secretary of Energy is directed “as soon as practicable” to identify existing BPS equipment of concern and develop recommendations to monitor or replace such items.
**Task Force on Federal Procurement**

The order establishes a Task Force on Federal Energy Infrastructure Procurement Policies Related to National Security, convened by the Department of Energy and including the Departments of Defense, Homeland Security, and other relevant agencies. The Task Force will develop recommendations for integrating national security considerations into federal energy infrastructure procurement, to be submitted by May 1, 2021. While the order is focused on BPS equipment, the Task Force is also directed to engage with distribution system industry groups as well, citing that “attacks on the bulk-power system can originate through the distribution system.” Noticing of an amendment to Federal Acquisition Regulation is required within 180 days of submittal of Task Force recommendations.

**Order Analysis**

The executive order is written expansively to consider all potential threats from a wide range of BPS equipment and vendors. The order also declares wide discretion and authority for the Secretary of Energy to approve or disapprove specific transactions involving BPS equipment going forward.

At this time, there are several ambiguities and key considerations for which formal guidance from DOE is required to assess the impact on energy storage systems:

- It is unclear whether and to what extent grid energy storage projects or components will be included among the list of BPS equipment subject to scrutiny or prohibition.
  - The definition of the BPS matches that of NERC and is focused on “transmission reliability” as a key consideration, suggesting that further guidance may exclude energy storage that does not serve a transmission reliability function. However, given that all assets connected to the transmission system can adversely impact its reliable operations, an expansive reading of the language could possibly include any equipment connected at 69 kV or higher.
  - The BPS equipment definition may exclude battery cells or packs, as items with “broader application of use beyond the bulk-power system” are outside the scope of the order. However, while the list of BPS equipment does not include energy storage, it refers to equipment in “power generating stations” beyond substations and other energy infrastructure. The inclusion of control systems leaves open the possibility that inverters and other power control equipment may be included within the definition of BPS equipment.

- It is unclear what countries and vendors will be deemed a foreign adversary. The order notes that the determination of “foreign adversary” is specific to threats to the BPS and can be determined separately from any other official designations. The Administration has repeatedly cited the People’s Republic of China as a country of concern, and it remains to be seen what BPS equipment supply relationships will be considered a risk to the U.S. meriting controls on import and installation.
• The Secretary of Energy is directed to make decisions regarding BPS transactions that occur on or after May 1, 2020, suggesting that transactions currently underway could be subject to controls if the equipment or vendor are deemed a risk per the terms of the order. However, the order also says that prohibitions apply “notwithstanding any contract entered into or any license or permit granted prior to the date of this order.” While this may seem to reference the utilization of BPS equipment, it is ultimately ambiguous. Altogether, the order poses significant uncertainty to businesses importing or installing transmission-connected energy storage systems, particularly if the equipment has a linkage to Chinese entities (e.g., design, manufacture, acquisition, etc.).

• It is unclear to what extent already-installed BPS equipment will be affected. Outside of the 150-day timeline for implementing regulations, the order directs the Secretary of Energy to identify and develop recommendations on how to monitor or replace existing BPS equipment of concern. The order poses significant uncertainty to businesses operating imported BPS equipment, particularly if it has a linkage to Chinese entities (e.g., design, manufacture, acquisition, etc.).

**MAY 18 UPDATE:** Although ESA does not yet have full clarity on the Order, DOE has expressed a strong interest in working with the storage industry to avoid international supply chain disruptions in the course of pursuing its mandate to protect the BPS from foreign threats.

**Further Information**

The full text of the executive order is available [here](#).

An initial FAQ document can be found [here](#).

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