

111TH CONGRESS
2^D SESSION

H. R. 5026

IN THE SENATE OF THE UNITED STATES

JUNE 10, 2010

Received; read twice and referred to the Committee on Energy and Natural
Resources

AN ACT

To amend the Federal Power Act to protect the bulk-power system and electric infrastructure critical to the defense of the United States against cybersecurity and other threats and vulnerabilities.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

1 **SECTION 1. SHORT TITLE.**

2 This Act may be cited as the “Grid Reliability and
3 Infrastructure Defense Act” or the “GRID Act”.

4 **SEC. 2. AMENDMENT TO THE FEDERAL POWER ACT.**

5 (a) **CRITICAL ELECTRIC INFRASTRUCTURE SECUR-**
6 **RITY.**—Part II of the Federal Power Act (16 U.S.C. 824
7 et seq.) is amended by adding after section 215 the fol-
8 lowing new section:

9 **“SEC. 215A. CRITICAL ELECTRIC INFRASTRUCTURE SECUR-**
10 **RITY.**

11 “(a) **DEFINITIONS.**—For purposes of this section:

12 “(1) **BULK-POWER SYSTEM; ELECTRIC RELI-**
13 **ABILITY ORGANIZATION; REGIONAL ENTITY.**—The
14 terms ‘bulk-power system’, ‘Electric Reliability Or-
15 ganization’, and ‘regional entity’ have the meanings
16 given such terms in paragraphs (1), (2), and (7) of
17 section 215(a), respectively.

18 “(2) **DEFENSE CRITICAL ELECTRIC INFRA-**
19 **STRUCTURE.**—The term ‘defense critical electric in-
20 frastructure’ means any infrastructure located in the
21 United States (including the territories) used for the
22 generation, transmission, or distribution of electric
23 energy that—

24 “(A) is not part of the bulk-power system;

25 and

1 “(B) serves a facility designated by the
2 President pursuant to subsection (d)(1), but is
3 not owned or operated by the owner or operator
4 of such facility.

5 “(3) DEFENSE CRITICAL ELECTRIC INFRA-
6 STRUCTURE VULNERABILITY.—The term ‘defense
7 critical electric infrastructure vulnerability’ means a
8 weakness in defense critical electric infrastructure
9 that, in the event of a malicious act using electronic
10 communication or an electromagnetic pulse, would
11 pose a substantial risk of disruption of those elec-
12 tronic devices or communications networks, includ-
13 ing hardware, software, and data, that are essential
14 to the reliability of defense critical electric infra-
15 structure.

16 “(4) ELECTROMAGNETIC PULSE.—The term
17 ‘electromagnetic pulse’ means 1 or more pulses of
18 electromagnetic energy emitted by a device capable
19 of disabling, disrupting, or destroying electronic
20 equipment by means of such a pulse.

21 “(5) GEOMAGNETIC STORM.—The term ‘geo-
22 magnetic storm’ means a temporary disturbance of
23 the Earth’s magnetic field resulting from solar activ-
24 ity.

1 “(6) GRID SECURITY THREAT.—The term ‘grid
2 security threat’ means a substantial likelihood of—

3 “(A)(i) a malicious act using electronic
4 communication or an electromagnetic pulse, or
5 a geomagnetic storm event, that could disrupt
6 the operation of those electronic devices or com-
7 munications networks, including hardware, soft-
8 ware, and data, that are essential to the reli-
9 ability of the bulk-power system or of defense
10 critical electric infrastructure; and

11 “(ii) disruption of the operation of such
12 devices or networks, with significant adverse ef-
13 fects on the reliability of the bulk-power system
14 or of defense critical electric infrastructure, as
15 a result of such act or event; or

16 “(B)(i) a direct physical attack on the
17 bulk-power system or on defense critical electric
18 infrastructure; and

19 “(ii) significant adverse effects on the reli-
20 ability of the bulk-power system or of defense
21 critical electric infrastructure as a result of
22 such physical attack.

23 “(7) GRID SECURITY VULNERABILITY.—The
24 term ‘grid security vulnerability’ means a weakness
25 that, in the event of a malicious act using electronic

1 communication or an electromagnetic pulse, would
2 pose a substantial risk of disruption to the operation
3 of those electronic devices or communications net-
4 works, including hardware, software, and data, that
5 are essential to the reliability of the bulk-power sys-
6 tem.

7 “(8) LARGE TRANSFORMER.—The term ‘large
8 transformer’ means an electric transformer that is
9 part of the bulk-power system.

10 “(9) PROTECTED INFORMATION.—The term
11 ‘protected information’ means information, other
12 than classified national security information, des-
13 ignated as protected information by the Commission
14 under subsection (e)(2)—

15 “(A) that was developed or submitted in
16 connection with the implementation of this sec-
17 tion;

18 “(B) that specifically discusses grid secu-
19 rity threats, grid security vulnerabilities, de-
20 fense critical electric infrastructure
21 vulnerabilities, or plans, procedures, or meas-
22 ures to address such threats or vulnerabilities;
23 and

24 “(C) the unauthorized disclosure of which
25 could be used in a malicious manner to impair

1 the reliability of the bulk-power system or of
2 defense critical electric infrastructure.

3 “(10) SECRETARY.—The term ‘Secretary’
4 means the Secretary of Energy.

5 “(11) SECURITY.—The definition of ‘security’
6 in section 3(16) shall not apply to the provisions in
7 this section.

8 “(b) EMERGENCY RESPONSE MEASURES.—

9 “(1) AUTHORITY TO ADDRESS GRID SECURITY
10 THREATS.—Whenever the President issues and pro-
11 vides to the Commission (either directly or through
12 the Secretary) a written directive or determination
13 identifying an imminent grid security threat, the
14 Commission may, with or without notice, hearing, or
15 report, issue such orders for emergency measures as
16 are necessary in its judgment to protect the reli-
17 ability of the bulk-power system or of defense critical
18 electric infrastructure against such threat. As soon
19 as practicable but not later than 180 days after the
20 date of enactment of this section, the Commission
21 shall, after notice and opportunity for comment, es-
22 tablish rules of procedure that ensure that such au-
23 thority can be exercised expeditiously.

24 “(2) NOTIFICATION OF CONGRESS.—Whenever
25 the President issues and provides to the Commission

1 (either directly or through the Secretary) a written
2 directive or determination under paragraph (1), the
3 President (or the Secretary, as the case may be)
4 shall promptly notify congressional committees of
5 relevant jurisdiction, including the Committee on
6 Energy and Commerce of the House of Representa-
7 tives and the Committee on Energy and Natural Re-
8 sources of the Senate, of the contents of, and jus-
9 tification for, such directive or determination.

10 “(3) CONSULTATION.—Before issuing an order
11 for emergency measures under paragraph (1), the
12 Commission shall, to the extent practicable in light
13 of the nature of the grid security threat and the ur-
14 gency of the need for such emergency measures, con-
15 sult with appropriate governmental authorities in
16 Canada and Mexico, entities described in paragraph
17 (4), the Secretary, and other appropriate Federal
18 agencies regarding implementation of such emer-
19 gency measures.

20 “(4) APPLICATION.—An order for emergency
21 measures under this subsection may apply to—

22 “(A) the Electric Reliability Organization;

23 “(B) a regional entity; or

1 “(C) any owner, user, or operator of the
2 bulk-power system or of defense critical electric
3 infrastructure within the United States.

4 “(5) DISCONTINUANCE.—The Commission shall
5 issue an order discontinuing any emergency meas-
6 ures ordered under this subsection, effective not
7 later than 30 days after the earliest of the following:

8 “(A) The date upon which the President
9 issues and provides to the Commission (either
10 directly or through the Secretary) a written di-
11 rective or determination that the grid security
12 threat identified under paragraph (1) no longer
13 exists.

14 “(B) The date upon which the Commission
15 issues a written determination that the emer-
16 gency measures are no longer needed to address
17 the grid security threat identified under para-
18 graph (1), including by means of Commission
19 approval of a reliability standard under section
20 215 that the Commission determines adequately
21 addresses such threat.

22 “(C) The date that is 1 year after the
23 issuance of an order under paragraph (1).

24 “(6) COST RECOVERY.—If the Commission de-
25 termines that owners, operators, or users of the

1 bulk-power system or of defense critical electric in-
2 frastructure have incurred substantial costs to com-
3 ply with an order under this subsection and that
4 such costs were prudently incurred and cannot rea-
5 sonably be recovered through regulated rates or
6 market prices for the electric energy or services sold
7 by such owners, operators, or users, the Commission
8 shall, after notice and an opportunity for comment,
9 establish a mechanism that permits such owners, op-
10 erators, or users to recover such costs.

11 “(c) MEASURES TO ADDRESS GRID SECURITY
12 VULNERABILITIES.—

13 “(1) COMMISSION AUTHORITY.—If the Commis-
14 sion, in consultation with appropriate Federal agen-
15 cies, identifies a grid security vulnerability that the
16 Commission determines has not adequately been ad-
17 dressed through a reliability standard developed and
18 approved under section 215, the Commission shall,
19 after notice and opportunity for comment and after
20 consultation with the Secretary, other appropriate
21 Federal agencies, and appropriate governmental au-
22 thorities in Canada and Mexico, promulgate a rule
23 or issue an order requiring implementation, by any
24 owner, operator, or user of the bulk-power system in
25 the United States, of measures to protect the bulk-

1 power system against such vulnerability. Before pro-
2 mulgating a rule or issuing an order under this
3 paragraph, the Commission shall, to the extent prac-
4 ticable in light of the urgency of the need for action
5 to address the grid security vulnerability, request
6 and consider recommendations from the Electric Re-
7 liability Organization regarding such rule or order.
8 The Commission may establish an appropriate dead-
9 line for the submission of such recommendations.

10 “(2) CERTAIN EXISTING CYBERSECURITY
11 VULNERABILITIES.—Not later than 180 days after
12 the date of enactment of this section, the Commis-
13 sion shall, after notice and opportunity for comment
14 and after consultation with the Secretary, other ap-
15 propriate Federal agencies, and appropriate govern-
16 mental authorities in Canada and Mexico, promul-
17 gate a rule or issue an order requiring the imple-
18 mentation, by any owner, user, or operator of the
19 bulk-power system in the United States, of such
20 measures as are necessary to protect the bulk-power
21 system against the vulnerabilities identified in the
22 June 21, 2007, communication to certain ‘Electricity
23 Sector Owners and Operators’ from the North
24 American Electric Reliability Corporation, acting in

1 its capacity as the Electricity Sector Information
2 and Analysis Center.

3 “(3) RESCISSION.—The Commission shall ap-
4 prove a reliability standard developed under section
5 215 that addresses a grid security vulnerability that
6 is the subject of a rule or order under paragraph (1)
7 or (2), unless the Commission determines that such
8 reliability standard does not adequately protect
9 against such vulnerability or otherwise does not sat-
10 isfy the requirements of section 215. Upon such ap-
11 proval, the Commission shall rescind the rule pro-
12 mulgated or order issued under paragraph (1) or (2)
13 addressing such vulnerability, effective upon the ef-
14 fective date of the newly approved reliability stand-
15 ard.

16 “(4) GEOMAGNETIC STORMS.—Not later than 1
17 year after the date of enactment of this section, the
18 Commission shall, after notice and an opportunity
19 for comment and after consultation with the Sec-
20 retary and other appropriate Federal agencies, issue
21 an order directing the Electric Reliability Organiza-
22 tion to submit to the Commission for approval under
23 section 215, not later than 1 year after the issuance
24 of such order, reliability standards adequate to pro-
25 tect the bulk-power system from any reasonably

1 foreseeable geomagnetic storm event. The Commis-
2 sion’s order shall specify the nature and magnitude
3 of the reasonably foreseeable events against which
4 such standards must protect. Such standards shall
5 appropriately balance the risks to the bulk-power
6 system associated with such events, including any
7 regional variation in such risks, and the costs of
8 mitigating such risks.

9 “(5) LARGE TRANSFORMER AVAILABILITY.—

10 Not later than 1 year after the date of enactment
11 of this section, the Commission shall, after notice
12 and an opportunity for comment and after consulta-
13 tion with the Secretary and other appropriate Fed-
14 eral agencies, issue an order directing the Electric
15 Reliability Organization to submit to the Commis-
16 sion for approval under section 215, not later than
17 1 year after the issuance of such order, reliability
18 standards addressing availability of large trans-
19 formers. Such standards shall require entities that
20 own or operate large transformers to ensure, individ-
21 ually or jointly, adequate availability of large trans-
22 formers to promptly restore the reliable operation of
23 the bulk-power system in the event that any such
24 transformer is destroyed or disabled as a result of
25 a reasonably foreseeable physical or other attack or

1 geomagnetic storm event. The Commission’s order
2 shall specify the nature and magnitude of the rea-
3 sonably foreseeable attacks or events that shall pro-
4 vide the basis for such standards. Such standards
5 shall—

6 “(A) provide entities subject to the stand-
7 ards with the option of meeting such standards
8 individually or jointly; and

9 “(B) appropriately balance the risks asso-
10 ciated with a reasonably foreseeable attack or
11 event, including any regional variation in such
12 risks, and the costs of ensuring adequate avail-
13 ability of spare transformers.

14 “(d) CRITICAL DEFENSE FACILITIES.—

15 “(1) DESIGNATION.—Not later than 180 days
16 after the date of enactment of this section, the
17 President shall designate, in a written directive or
18 determination provided to the Commission, facilities
19 located in the United States (including the terri-
20 tories) that are—

21 “(A) critical to the defense of the United
22 States; and

23 “(B) vulnerable to a disruption of the sup-
24 ply of electric energy provided to such facility
25 by an external provider.

1 The number of facilities designated by such directive
2 or determination shall not exceed 100. The Presi-
3 dent may periodically revise the list of designated fa-
4 cilities through a subsequent written directive or de-
5 termination provided to the Commission, provided
6 that the total number of designated facilities at any
7 time shall not exceed 100.

8 “(2) COMMISSION AUTHORITY.—If the Commis-
9 sion identifies a defense critical electric infrastruc-
10 ture vulnerability that the Commission, in consulta-
11 tion with owners and operators of any facility or fa-
12 cilities designated by the President pursuant to
13 paragraph (1), determines has not adequately been
14 addressed through measures undertaken by owners
15 or operators of defense critical electric infrastruc-
16 ture, the Commission shall, after notice and an op-
17 portunity for comment and after consultation with
18 the Secretary and other appropriate Federal agen-
19 cies, promulgate a rule or issue an order requiring
20 implementation, by any owner or operator of defense
21 critical electric infrastructure, of measures to protect
22 the defense critical electric infrastructure against
23 such vulnerability. The Commission shall exempt
24 from any such rule or order any specific defense
25 critical electric infrastructure that the Commission

1 determines already has been adequately protected
2 against the identified vulnerability. The Commission
3 shall make any such determination in consultation
4 with the owner or operator of the facility designated
5 by the President pursuant to paragraph (1) that re-
6 lies upon such defense critical electric infrastructure.

7 “(3) COST RECOVERY.—An owner or operator
8 of defense critical electric infrastructure shall be re-
9 quired to take measures under paragraph (2) only to
10 the extent that the owners or operators of a facility
11 or facilities designated by the President pursuant to
12 paragraph (1) that rely upon such infrastructure
13 agree to bear the full incremental costs of compli-
14 ance with a rule promulgated or order issued under
15 paragraph (2).

16 “(e) PROTECTION OF INFORMATION.—

17 “(1) PROHIBITION OF PUBLIC DISCLOSURE OF
18 PROTECTED INFORMATION.—Protected informa-
19 tion—

20 “(A) shall be exempt from disclosure under
21 section 552(b)(3) of title 5, United States Code;
22 and

23 “(B) shall not be made available pursuant
24 to any State, local, or tribal law requiring dis-
25 closure of information or records.

1 “(2) INFORMATION SHARING.—

2 “(A) IN GENERAL.—Consistent with the
3 Controlled Unclassified Information framework
4 established by the President, the Commission
5 shall promulgate such regulations and issue
6 such orders as necessary to designate protected
7 information and to prohibit the unauthorized
8 disclosure of such protected information.

9 “(B) SHARING OF PROTECTED INFORMA-
10 TION.—The regulations promulgated and orders
11 issued pursuant to subparagraph (A) shall pro-
12 vide standards for and facilitate the appropriate
13 sharing of protected information with, between,
14 and by Federal, State, local, and tribal authori-
15 ties, the Electric Reliability Organization, re-
16 gional entities, and owners, operators, and
17 users of the bulk-power system in the United
18 States and of defense critical electric infrastruc-
19 ture. In promulgating such regulations and
20 issuing such orders, the Commission shall take
21 account of the role of State commissions in re-
22 viewing the prudence and cost of investments
23 within their respective jurisdictions. The Com-
24 mission shall consult with appropriate Canadian
25 and Mexican authorities to develop protocols for

1 the sharing of protected information with, be-
2 tween, and by appropriate Canadian and Mexi-
3 can authorities and owners, operators, and
4 users of the bulk-power system outside the
5 United States.

6 “(3) SUBMISSION OF INFORMATION TO CON-
7 GRESS.—Nothing in this section shall permit or au-
8 thorize the withholding of information from Con-
9 gress, any committee or subcommittee thereof, or
10 the Comptroller General.

11 “(4) DISCLOSURE OF NON-PROTECTED INFOR-
12 MATION.—In implementing this section, the Com-
13 mission shall protect from disclosure only the min-
14 imum amount of information necessary to protect
15 the reliability of the bulk-power system and of de-
16 fense critical electric infrastructure. The Commission
17 shall segregate protected information within docu-
18 ments and electronic communications, wherever fea-
19 sible, to facilitate disclosure of information that is
20 not designated as protected information.

21 “(5) DURATION OF DESIGNATION.—Informa-
22 tion may not be designated as protected information
23 for longer than 5 years, unless specifically redesign-
24 nated by the Commission.

1 “(6) REMOVAL OF DESIGNATION.—The Com-
2 mission may remove the designation of protected in-
3 formation, in whole or in part, from a document or
4 electronic communication if the unauthorized disclo-
5 sure of such information could no longer be used to
6 impair the reliability of the bulk-power system or of
7 defense critical electric infrastructure.

8 “(7) JUDICIAL REVIEW OF DESIGNATIONS.—
9 Notwithstanding subsection (f) of this section or sec-
10 tion 313, a person or entity may seek judicial review
11 of a determination by the Commission concerning
12 the designation of protected information under this
13 subsection exclusively in the district court of the
14 United States in the district in which the complain-
15 ant resides, or has his principal place of business, or
16 in the District of Columbia. In such a case the court
17 shall determine the matter de novo, and may exam-
18 ine the contents of documents or electronic commu-
19 nications designated as protected information in
20 camera to determine whether such documents or any
21 part thereof were improperly designated as protected
22 information. The burden is on the Commission to
23 sustain its designation.

24 “(f) JUDICIAL REVIEW.—The Commission shall act
25 expeditiously to resolve all applications for rehearing of

1 orders issued pursuant to this section that are filed under
2 section 313(a). Any party seeking judicial review pursuant
3 to section 313 of an order issued under this section may
4 obtain such review only in the United States Court of Ap-
5 peals for the District of Columbia Circuit.

6 “(g) PROVISION OF ASSISTANCE TO INDUSTRY IN
7 MEETING GRID SECURITY PROTECTION NEEDS.—

8 “(1) EXPERTISE AND RESOURCES.—The Sec-
9 retary shall establish a program, in consultation with
10 other appropriate Federal agencies, to develop tech-
11 nical expertise in the protection of systems for the
12 generation, transmission, and distribution of electric
13 energy against geomagnetic storms or malicious acts
14 using electronic communications or electromagnetic
15 pulse that would pose a substantial risk of interrup-
16 tion to the operation of those electronic devices or
17 communications networks, including hardware, soft-
18 ware, and data, that are essential to the reliability
19 of such systems. Such program shall include the
20 identification and development of appropriate tech-
21 nical and electronic resources, including hardware,
22 software, and system equipment.

23 “(2) SHARING EXPERTISE.—As appropriate,
24 the Secretary shall offer to share technical expertise
25 developed under the program under paragraph (1),

1 through consultation and assistance, with owners,
2 operators, or users of systems for the generation,
3 transmission, or distribution of electric energy lo-
4 cated in the United States and with State commis-
5 sions. In offering such support, the Secretary shall
6 assign higher priority to systems serving facilities
7 designated by the President pursuant to subsection
8 (d)(1) and other critical-infrastructure facilities,
9 which the Secretary shall identify in consultation
10 with the Commission and other appropriate Federal
11 agencies.

12 “(3) SECURITY CLEARANCES AND COMMUNICA-
13 TION.—The Secretary shall facilitate and, to the ex-
14 tent practicable, expedite the acquisition of adequate
15 security clearances by key personnel of any entity
16 subject to the requirements of this section to enable
17 optimum communication with Federal agencies re-
18 garding grid security threats, grid security
19 vulnerabilities, and defense critical electric infra-
20 structure vulnerabilities. The Secretary, the Com-
21 mission, and other appropriate Federal agencies
22 shall, to the extent practicable and consistent with
23 their obligations to protect classified and protected
24 information, share timely actionable information re-
25 garding grid security threats, grid security

1 vulnerabilities, and defense critical electric infra-
2 structure vulnerabilities with appropriate key per-
3 sonnel of owners, operators, and users of the bulk-
4 power system and of defense critical electric infra-
5 structure.

6 “(h) CERTAIN FEDERAL ENTITIES.—For the 11-year
7 period commencing on the date of enactment of this sec-
8 tion, the Tennessee Valley Authority and the Bonneville
9 Power Administration shall be exempt from any require-
10 ment under subsection (b) or (c) (except for any require-
11 ment addressing a malicious act using electronic commu-
12 nication).”.

13 (b) CONFORMING AMENDMENTS.—

14 (1) JURISDICTION.—Section 201(b)(2) of the
15 Federal Power Act (16 U.S.C. 824(b)(2)) is amend-
16 ed by inserting “215A,” after “215,” each place it
17 appears.

18 (2) PUBLIC UTILITY.—Section 201(e) of the
19 Federal Power Act (16 U.S.C. 824(e)) is amended
20 by inserting “215A,” after “215,”.

21 **SEC. 3. BUDGETARY COMPLIANCE.**

22 The budgetary effects of this Act, for the purpose of
23 complying with the Statutory Pay-As-You-Go Act of 2010,
24 shall be determined by reference to the latest statement
25 titled “Budgetary Effects of PAYGO Legislation” for this

1 Act, submitted for printing in the Congressional Record
2 by the Chairman of the House Budget Committee, pro-
3 vided that such statement has been submitted prior to the
4 vote on passage.

Passed the House of Representatives June 9, 2010.

Attest: LORRAINE C. MILLER,
Clerk.