

111<sup>TH</sup> CONGRESS  
2<sup>D</sup> SESSION

# H. R. 5026

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## 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:

*Clerk.*



111<sup>TH</sup> CONGRESS  
2<sup>D</sup> SESSION

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## 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.