

[DISCUSSION DRAFT]

1 **TITLE I—MODERNIZING AND**
2 **PROTECTING INFRASTRUCTURE**
3 **Subtitle ____—Energy Reliability**
4 **and Security**

5 **SEC. 1201. RESOLVING ENVIRONMENTAL AND GRID RELI-**
6 **ABILITY CONFLICTS.**

7 (a) COMPLIANCE WITH OR VIOLATION OF ENVIRON-
8 MENTAL LAWS WHILE UNDER EMERGENCY ORDER.—
9 Section 202(c) of the Federal Power Act (16 U.S.C.
10 824a(c)) is amended—

11 (1) by inserting “(1)” after “(c)”; and

12 (2) by adding at the end the following:

13 “(2) With respect to an order issued under this sub-
14 section that may result in a conflict with a requirement
15 of any Federal, State, or local environmental law or regu-
16 lation, the Commission shall ensure that such order re-
17 quires generation, delivery, interchange, or transmission
18 of electric energy only during hours necessary to meet the
19 emergency and serve the public interest, and, to the max-
20 imum extent practicable, is consistent with any applicable
21 Federal, State, or local environmental law or regulation
22 and minimizes any adverse environmental impacts.

1 “(3) To the extent any omission or action taken by
2 a party, that is necessary to comply with an order issued
3 under this subsection, including any omission or action
4 taken to voluntarily comply with such order, results in
5 noncompliance with, or causes such party to not comply
6 with, any Federal, State, or local environmental law or
7 regulation, such omission or action shall not be considered
8 a violation of such environmental law or regulation, or
9 subject such party to any requirement, civil or criminal
10 liability, or a citizen suit under such environmental law
11 or regulation.

12 “(4)(A) An order issued under this subsection that
13 may result in a conflict with a requirement of any Federal,
14 State, or local environmental law or regulation shall expire
15 not later than 90 days after it is issued. The Commission
16 may renew or reissue such order pursuant to paragraphs
17 (1) and (2) for subsequent periods, not to exceed 90 days
18 for each period, as the Commission determines necessary
19 to meet the emergency and serve the public interest.

20 “(B) In renewing or reissuing an order under sub-
21 paragraph (A), the Commission shall consult with the pri-
22 mary Federal agency with expertise in the environmental
23 interest protected by such law or regulation, and shall in-
24 clude in any such renewed or reissued order such condi-
25 tions as such Federal agency determines necessary to min-

1 imize any adverse environmental impacts to the extent
2 practicable. The conditions, if any, submitted by such Fed-
3 eral agency shall be made available to the public. The
4 Commission may exclude such a condition from the re-
5 newed or reissued order if it determines that such condi-
6 tion would prevent the order from adequately addressing
7 the emergency necessitating such order and provides in
8 the order, or otherwise makes publicly available, an expla-
9 nation of such determination.

10 “(5) If an order issued under this subsection is subse-
11 quently stayed, modified, or set aside by a court pursuant
12 to section 313 or any other provision of law, any omission
13 or action previously taken by a party that was necessary
14 to comply with the order while the order was in effect,
15 including any omission or action taken to voluntarily com-
16 ply with the order, shall remain subject to paragraph
17 (3).”.

18 (b) TEMPORARY CONNECTION OR CONSTRUCTION BY
19 MUNICIPALITIES.—Section 202(d) of the Federal Power
20 Act (16 U.S.C. 824a(d)) is amended by inserting “or mu-
21 nicipality” before “engaged in the transmission or sale of
22 electric energy”.

1 **SEC. 1202. RELIABILITY ANALYSIS FOR CERTAIN RULES**
2 **THAT AFFECT ELECTRIC GENERATING FA-**
3 **CILITIES.**

4 (a) **APPLICABILITY.**—This section shall apply with
5 respect to any proposed or final major rule issued by a
6 Federal agency for which compliance with the rule may
7 impact an electric utility generating unit or units, includ-
8 ing by resulting in closure or interruption to operations
9 of such a unit or units.

10 (b) **RELIABILITY ANALYSIS.**—

11 (1) **ANALYSIS OF RULES.**—The Federal Energy
12 Regulatory Commission, in coordination with the
13 Electric Reliability Organization, shall conduct an
14 independent reliability analysis of a proposed or final
15 major rule under this section to evaluate the antici-
16 pated effects of implementation and enforcement of
17 the rule on—

18 (A) national, regional, or local electric reli-
19 ability and resource adequacy;

20 (B) the fuel diversity of the electricity gen-
21 eration portfolio of the United States;

22 (C) the operation of wholesale electricity
23 markets; and

24 (D) energy delivery and infrastructure, in-
25 cluding electric transmission facilities and nat-
26 ural gas pipelines.

1 (2) RELEVANT INFORMATION.—A Federal
2 agency shall provide to the Commission materials
3 and information relevant to the analysis required
4 under paragraph (1) for a rule, including relevant
5 data, modeling, and resource adequacy and reli-
6 ability assessments, prepared or relied upon by such
7 agency in developing the rule.

8 (c) PROPOSED RULES.—Not later than 90 days after
9 the date of publication in the Federal Register of a pro-
10 posed rule described in subsection (a), the Federal Energy
11 Regulatory Commission shall make available to the public
12 an analysis of the proposed rule conducted in accordance
13 with subsection (b), and any relevant special assessment
14 or seasonal or long-term reliability assessment completed
15 by the Electric Reliability Organization.

16 (d) FINAL RULES.—

17 (1) INCLUSIONS.—A final rule described in sub-
18 section (a) shall include—

19 (A) a copy of the analysis conducted pur-
20 suant to subsection (c) of the rule as proposed;
21 and

22 (B) a section on electric reliability and re-
23 source adequacy that addresses any concerns or
24 issues raised in such analysis or any assessment
25 included pursuant to subsection (c).

1 (2) ANALYSIS.—Not later than 120 days after
2 the date of publication in the Federal Register of a
3 final rule described in subsection (a), the Federal
4 Energy Regulatory Commission shall make available
5 to the public an analysis of the final rule conducted
6 in accordance with subsection (b), and any relevant
7 special assessment or seasonal or long-term reli-
8 ability assessment completed by the Electric Reli-
9 ability Organization.

10 (e) DEFINITIONS.—In this section:

11 (1) ELECTRIC RELIABILITY ORGANIZATION.—
12 The term “Electric Reliability Organization” has the
13 meaning given to such term in section 215(a) of the
14 Federal Power Act (16 U.S.C. 824o(a)).

15 (2) FEDERAL AGENCY.—The term “Federal
16 agency” means an agency, as that term is defined
17 in section 551 of title 5, United States Code.

18 (3) MAJOR RULE.—The term “major rule”
19 means a proposed or final rule that is estimated by
20 the Federal agency issuing the rule, or the Director
21 of the Office of Management and Budget, to result
22 in an annual effect on the economy of
23 \$1,000,000,000 or more.

1 **SEC. 1203. EMERGENCY PREPAREDNESS FOR ENERGY SUP-**
2 **PLY DISRUPTIONS.**

3 (a) FINDING.—Congress finds that recent natural
4 disasters have underscored the importance of having resil-
5 ient oil and natural gas infrastructure and effective ways
6 for industry and government to communicate to address
7 energy supply disruptions.

8 (b) AUTHORIZATION FOR ACTIVITIES TO ENHANCE
9 EMERGENCY PREPAREDNESS FOR NATURAL DISAS-
10 TERS.—The Secretary of Energy shall develop and adopt
11 procedures to—

12 (1) improve communication and coordination
13 between the Department of Energy’s energy re-
14 sponse team, Federal partners, and industry;

15 (2) leverage the Energy Information Adminis-
16 tration’s subject matter expertise within the Depart-
17 ment’s energy response team to improve supply
18 chain situation assessments;

19 (3) establish company liaisons and direct com-
20 munication with the Department’s energy response
21 team to improve situation assessments;

22 (4) streamline and enhance processes for ob-
23 taining temporary regulatory relief to speed up
24 emergency response and recovery;

25 (5) facilitate and increase engagement among
26 States, the oil and natural gas industry, and the De-

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

7 “(2) CRITICAL ELECTRIC INFRASTRUCTURE.—
8 The term ‘critical electric infrastructure’ means a
9 system or asset, whether physical or virtual, used for
10 the generation, transmission, or distribution of elec-
11 tric energy affecting interstate commerce, the inca-
12 pacity or destruction of which would negatively af-
13 fect national security, economic security, public
14 health or safety, or any combination of such mat-
15 ters.

16 “(3) CRITICAL ELECTRIC INFRASTRUCTURE IN-
17 FORMATION.—The term ‘critical electric infrastruc-
18 ture information’ means information related to crit-
19 ical electric infrastructure, or proposed critical elec-
20 trical infrastructure, generated by or provided to the
21 Commission, other than classified national security
22 information, that is designated as critical electric in-
23 frastructure information by the Commission under
24 subsection (d)(2).

1 “(4) DEFENSE CRITICAL ELECTRIC INFRA-
2 STRUCTURE.—The term ‘defense critical electric in-
3 frastructure’ means any infrastructure located in the
4 United States (including the territories) used for the
5 generation, transmission, or distribution of electric
6 energy that—

7 “(A) is not part of the bulk-power system;
8 and

9 “(B) serves a facility designated by the
10 Secretary pursuant to subsection (c), but is not
11 owned or operated by the owner or operator of
12 such facility.

13 “(5) ELECTROMAGNETIC PULSE.—The term
14 ‘electromagnetic pulse’ means 1 or more pulses of
15 electromagnetic energy emitted by a device capable
16 of disabling or disrupting operation of, or destroy-
17 ing, electronic devices or communications networks,
18 including hardware, software, and data, by means of
19 such a pulse.

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

1 “(7) GRID SECURITY EMERGENCY.—The term
2 ‘grid security emergency’ means the imminent dan-
3 ger of—

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

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

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

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

24 “(8) SECRETARY.—The term ‘Secretary’ means
25 the Secretary of Energy.

1 “(b) AUTHORITY TO ADDRESS GRID SECURITY
2 EMERGENCY.—

3 “(1) AUTHORITY.—Whenever the President
4 issues and provides to the Secretary a written direc-
5 tive or determination identifying a grid security
6 emergency, the Secretary may, with or without no-
7 tice, hearing, or report, issue such orders for emer-
8 gency measures as are necessary in the judgment of
9 the Secretary to protect the reliability of the bulk-
10 power system or of defense critical electric infra-
11 structure during such emergency. As soon as prac-
12 ticable but not later than 180 days after the date of
13 enactment of this section, the Secretary shall, after
14 notice and opportunity for comment, establish rules
15 of procedure that ensure that such authority can be
16 exercised expeditiously.

17 “(2) NOTIFICATION OF CONGRESS.—Whenever
18 the President issues and provides to the Secretary a
19 written directive or determination under paragraph
20 (1), the President shall promptly notify congres-
21 sional committees of relevant jurisdiction, including
22 the Committee on Energy and Commerce of the
23 House of Representatives and the Committee on En-
24 ergy and Natural Resources of the Senate, of the

1 contents of, and justification for, such directive or
2 determination.

3 “(3) CONSULTATION.—Before issuing an order
4 for emergency measures under paragraph (1), the
5 Secretary shall, to the extent practicable in light of
6 the nature of the grid security emergency and the
7 urgency of the need for action, consult with appro-
8 priate governmental authorities in Canada and Mex-
9 ico, entities described in paragraph (4), the Commis-
10 sion, and other appropriate Federal agencies regard-
11 ing implementation of such emergency measures.

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

14 “(A) the Electric Reliability Organization;

15 “(B) a regional entity; or

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

19 “(5) EXPIRATION AND REISSUANCE.—

20 “(A) IN GENERAL.—Except as provided in
21 subparagraph (B), an order for emergency
22 measures issued under paragraph (1) shall ex-
23 pire no later than 30 days after its issuance.

24 “(B) EXTENSIONS.—The Secretary may
25 reissue an order for emergency measures issued

1 under paragraph (1) for subsequent periods,
2 not to exceed 30 days for each such period, pro-
3 vided that the President, for each such period,
4 issues and provides to the Secretary a written
5 directive or determination that the grid security
6 emergency identified under paragraph (1) con-
7 tinues to exist or that the emergency measure
8 continues to be required.

9 “(6) COST RECOVERY.—

10 “(A) BULK-POWER SYSTEM.—If the Com-
11 mission determines that owners, operators, or
12 users of the bulk-power system have incurred
13 substantial costs to comply with an order for
14 emergency measures issued under this sub-
15 section and that such costs were prudently in-
16 curred and cannot reasonably be recovered
17 through regulated rates or market prices for
18 the electric energy or services sold by such own-
19 ers, operators, or users, the Commission shall,
20 after notice and an opportunity for comment,
21 establish a mechanism that permits such own-
22 ers, operators, or users to recover such costs.

23 “(B) DEFENSE CRITICAL ELECTRIC INFRA-
24 STRUCTURE.—To the extent the owner or oper-
25 ator of defense critical electric infrastructure is

1 required to take emergency measures pursuant
2 to an order issued under this subsection, the
3 owners or operators of a facility or facilities
4 designated by the Secretary pursuant to sub-
5 section (c) that rely upon such infrastructure
6 shall bear the full incremental costs of the
7 measures.

8 “(7) TEMPORARY ACCESS TO CLASSIFIED IN-
9 FORMATION.—The Secretary, and other appropriate
10 Federal agencies, shall, to the extent practicable and
11 consistent with their obligations to protect classified
12 information, provide temporary access to classified
13 information related to a grid security emergency for
14 which emergency measures are issued under para-
15 graph (1) to key personnel of any entity subject to
16 such emergency measures to enable optimum com-
17 munication between the entity and the Secretary and
18 other appropriate Federal agencies regarding the
19 grid security emergency.

20 “(c) DESIGNATION OF CRITICAL DEFENSE FACILI-
21 TIES.—Not later than 180 days after the date of enact-
22 ment of this section, the Secretary, in consultation with
23 other appropriate Federal agencies and appropriate own-
24 ers, users, or operators of infrastructure that may be de-
25 fense critical electric infrastructure, shall identify and des-

1 designate facilities located in the United States (including the
2 territories) that are—

3 “(1) critical to the defense of the United States;

4 and

5 “(2) vulnerable to a disruption of the supply of
6 electric energy provided to such facility by an exter-
7 nal provider.

8 The Secretary may, in consultation with appropriate Fed-
9 eral agencies and appropriate owners, users, or operators
10 of defense critical electric infrastructure, periodically re-
11 vise the list of designated facilities as necessary.

12 “(d) PROTECTION AND SHARING OF CRITICAL ELEC-
13 TRIC INFRASTRUCTURE INFORMATION.—

14 “(1) PROTECTION OF CRITICAL ELECTRIC IN-
15 FRASTRUCTURE INFORMATION.—Critical electric in-
16 frastructure information—

17 “(A) shall be exempt from disclosure under
18 section 552(b)(3) of title 5, United States Code;

19 and

20 “(B) shall not be made available by any
21 State, local, or tribal authority pursuant to any
22 State, local, or tribal law requiring disclosure of
23 information or records.

24 “(2) DESIGNATION AND SHARING OF CRITICAL
25 ELECTRIC INFRASTRUCTURE INFORMATION.—The

1 Commission shall promulgate such regulations and
2 issue such orders as necessary to—

3 “(A) designate information as critical elec-
4 tric infrastructure information;

5 “(B) prohibit the unauthorized disclosure
6 of critical electric infrastructure information;

7 “(C) ensure there are appropriate sanc-
8 tions in place for Commissioners, officers, em-
9 ployees, or agents of the Commission who
10 knowingly and willfully disclose critical electric
11 infrastructure information in a manner that is
12 not authorized under this section; and

13 “(D) provide standards for and authorize
14 the appropriate voluntary sharing of critical
15 electric infrastructure information with, be-
16 tween, and by—

17 “(i) Federal, State, local, and tribal
18 authorities;

19 “(ii) the Electric Reliability Organiza-
20 tion;

21 “(iii) regional entities;

22 “(iv) information sharing and analysis
23 centers established pursuant to Presi-
24 dential Decision Directive 63;

1 “(v) owners, operators, and users of
2 the bulk-power system in the United
3 States; and

4 “(vi) other entities determined appro-
5 priate by the Commission.

6 “(3) CONSIDERATIONS.—In promulgating regu-
7 lations and issuing orders under paragraph (2), the
8 Commission shall take into consideration the role of
9 State commissions in reviewing the prudence and
10 cost of investments, determining the rates and terms
11 of conditions for electric services, and ensuring the
12 safety and reliability of the bulk-power system and
13 distribution facilities within their respective jurisdic-
14 tions.

15 “(4) PROTOCOLS.—The Commission shall, in
16 consultation with Canadian and Mexican authorities,
17 develop protocols for the voluntary sharing of critical
18 electric infrastructure information with, between,
19 and by Canadian and Mexican authorities and own-
20 ers, operators, and users of the bulk-power system
21 outside the United States.

22 “(5) NO REQUIRED SHARING OF INFORMA-
23 TION.—Nothing in this section shall require a person
24 or entity in possession of critical electric infrastruc-
25 ture information to share such information with

1 Federal, State, local, or tribal authorities, or any
2 other person or entity.

3 “(6) DISCLOSURE OF NON-CRITICAL ELECTRIC
4 INFRASTRUCTURE INFORMATION.—In implementing
5 this section, the Commission shall segregate critical
6 electric infrastructure information within documents
7 and electronic communications, wherever feasible, to
8 facilitate disclosure of information that is not des-
9 ignated as critical electric infrastructure informa-
10 tion.

11 “(e) SECURITY CLEARANCES.—The Secretary shall
12 facilitate and, to the extent practicable, expedite the acqui-
13 sition of adequate security clearances by key personnel of
14 any entity subject to the requirements of this section, to
15 enable optimum communication with Federal agencies re-
16 garding threats to the security of the critical electric infra-
17 structure. The Secretary, the Commission, and other ap-
18 propriate Federal agencies shall, to the extent practicable
19 and consistent with their obligations to protect classified
20 and critical electric infrastructure information, share time-
21 ly actionable information regarding grid security with ap-
22 propriate key personnel of owners, operators, and users
23 of the critical electric infrastructure.

24 “(f) CLARIFICATIONS OF LIABILITY.—

1 “(1) COMPLIANCE WITH OR VIOLATION OF THIS
2 ACT.—Except as provided in paragraph (4), to the
3 extent any action or omission taken by an entity
4 that is necessary to comply with an order for emer-
5 gency measures issued under subsection (b)(1), in-
6 cluding any action or omission taken to voluntarily
7 comply with such order, results in noncompliance
8 with, or causes such entity not to comply with any
9 rule, order, regulation, or provision of this Act, in-
10 cluding any reliability standard approved by the
11 Commission pursuant to section 215, such action or
12 omission shall not be considered a violation of such
13 rule, order, regulation, or provision.

14 “(2) RELATION TO SECTION 202(c).—Except as
15 provided in paragraph (4), an action or omission
16 taken by an owner, operator, or user of the bulk-
17 power system or of defense critical electric infra-
18 structure to comply with an order for emergency
19 measures issued under subsection (b)(1) shall be
20 treated as an action or omission taken to comply
21 with an order issued under section 202(c) for pur-
22 poses of such section.

23 “(3) SHARING OR RECEIPT OF INFORMATION.—
24 No cause of action shall lie or be maintained in any
25 Federal or State court for the sharing or receipt of

1 information under, and that is conducted in accord-
2 ance with, subsection (d).

3 “(4) RULE OF CONSTRUCTION.—Nothing in
4 this subsection shall be construed to require dis-
5 missal of a cause of action against an entity that,
6 in the course of complying with an order for emer-
7 gency measures issued under subsection (b)(1) by
8 taking an action or omission for which they would
9 be liable but for paragraph (1) or (2), takes such ac-
10 tion or omission in a grossly negligent manner.”.

11 (b) CONFORMING AMENDMENTS.—

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

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

19 **SEC. 1205. STRATEGIC TRANSFORMER RESERVE.**

20 (a) FINDING.—Congress finds that the storage of
21 strategically located spare large power transformers will
22 diminish the vulnerability of the United States to multiple
23 risks facing electric grid reliability, including physical at-
24 tack, cyber attack, electromagnetic pulse, geomagnetic dis-
25 turbances, severe weather, and seismic events.

1 (b) DEFINITIONS.—In this section:

2 (1) BULK-POWER SYSTEM.—The term “bulk-
3 power system” has the meaning given such term in
4 section 215(a) of the Federal Power Act (16 U.S.C.
5 824o(a)).

6 (2) CRITICALLY DAMAGED LARGE POWER
7 TRANSFORMER.—The term “critically damaged large
8 power transformer” means a large power trans-
9 former that—

10 (A) has sustained extensive damage such
11 that—

12 (i) repair or refurbishment is not eco-
13 nomically viable; or

14 (ii) the extensive time to repair or re-
15 furbish the large power transformer would
16 create an extended period of instability in
17 the bulk-power system; and

18 (B) prior to sustaining such damage, was
19 part of the bulk-power system.

20 (3) ELECTRIC RELIABILITY ORGANIZATION.—
21 The term “Electric Reliability Organization” has the
22 meaning given such term in section 215(a) of the
23 Federal Power Act (16 U.S.C. 824o(a)).

24 (4) LARGE POWER TRANSFORMER.—The term
25 “large power transformer” means a power trans-

1 former with a maximum nameplate rating of 100
2 megavolt-amperes or higher, including related crit-
3 ical equipment, that is, or is intended to be, a part
4 of the bulk-power system.

5 (5) SECRETARY.—The term “Secretary” means
6 the Secretary of Energy.

7 (6) SPARE LARGE POWER TRANSFORMER.—The
8 term “spare large power transformer” means a large
9 power transformer that is stored within the Stra-
10 tegic Transformer Reserve to be available to tempo-
11 rarily replace a critically damaged large power trans-
12 former.

13 (c) STRATEGIC TRANSFORMER RESERVE PLAN.—

14 (1) PLAN.—Not later than one year after the
15 date of enactment of this Act, the Secretary, acting
16 through the Office of Electricity Delivery and En-
17 ergy Reliability, shall, in consultation with the Elec-
18 tric Reliability Organization, prepare and submit to
19 Congress for approval a plan to establish a Strategic
20 Transformer Reserve for the storage, in strategi-
21 cally-located facilities, of spare large power trans-
22 formers in sufficient numbers to temporarily replace
23 critically damaged large power transformers.

24 (2) INCLUSIONS.—The Strategic Transformer
25 Reserve plan shall include a description of—

1 (A) the appropriate number of spare large
2 power transformers and total capacity in
3 megawatts necessary in the Strategic Trans-
4 former Reserve to provide or restore sufficient
5 resiliency to the bulk-power system to mitigate
6 significant impacts to the electric grid resulting
7 from—

- 8 (i) physical attack;
9 (ii) cyber attack;
10 (iii) electromagnetic pulse attack;
11 (iv) geomagnetic disturbances;
12 (v) severe weather; or
13 (vi) seismic events;

14 (B) the potential locations for, and feasi-
15 bility and appropriate number of, strategic stor-
16 age locations, including consideration of—

- 17 (i) the physical security of such loca-
18 tions;
19 (ii) the protection of the confiden-
20 tiality of such locations; and
21 (iii) the proximity of such locations to
22 sites of potentially critically damaged large
23 power transformers, so as to enable effi-
24 cient delivery of spare large power trans-
25 formers to such sites;

1 (C) the necessary degree of flexibility of
2 spare large power transformers to be included
3 in the Strategic Transformer Reserve to con-
4 form to different substation configurations, in-
5 cluding consideration of transformer—

6 (i) power and voltage rating for each
7 winding;

8 (ii) overload requirements;

9 (iii) impedance between windings;

10 (iv) configuration of windings; and

11 (v) tap requirements;

12 (D) an estimate of the direct cost of the
13 Strategic Transformer Reserve, as proposed, in-
14 cluding—

15 (i) the cost of storage facilities for the
16 spare large power transformers;

17 (ii) the cost of the spare large power
18 transformers; and

19 (iii) management, maintenance, and
20 operation costs;

21 (E) the funding options available to estab-
22 lish, stock, manage, and maintain the Strategic
23 Transformer Reserve, including consideration of
24 public-private cost-sharing options;

- 1 (F) the ease and speed of transportation,
2 installation, and energization of spare large
3 power transformers to be included in the Stra-
4 tegic Transformer Reserve, including consider-
5 ation of factors such as—
- 6 (i) transformer transportation weight;
 - 7 (ii) transformer size;
 - 8 (iii) topology of critical substations;
 - 9 (iv) availability of appropriate trans-
10 former mounting pads;
 - 11 (v) flexibility of the spare large power
12 transformers as described in subparagraph
13 (C); and
 - 14 (vi) ability to rapidly transition a
15 spare large power transformer from stor-
16 age to energization;
- 17 (G) eligibility criteria for withdrawal of
18 spare large power transformers from the Stra-
19 tegic Transformer Reserve to replace critically
20 damaged large power transformers, including
21 consideration of related existing industry pro-
22 grams;
- 23 (H) the process by which owners of criti-
24 cally damaged large power transformers may

1 apply for a withdrawal from the Strategic
2 Transformer Reserve;

3 (I) the process by which spare large power
4 transformers withdrawn from the Strategic
5 Transformer Reserve are returned to the Stra-
6 tegic Transformer Reserve;

7 (J) any cost-share or rental fees deter-
8 mined appropriate for restocking returned spare
9 large power transformers to the Strategic
10 Transformer Reserve to be paid by owners of
11 critically damaged large power transformers
12 that have withdrawn such spare large power
13 transformers; and

14 (K) other considerations for designing,
15 constructing, stocking, and managing the Stra-
16 tegic Transformer Reserve.

17 (d) CONGRESSIONAL APPROVAL OF STRATEGIC
18 TRANSFORMER RESERVE PLAN.—The Secretary may not
19 establish a Strategic Transformer Reserve until Congress
20 has approved the plan submitted pursuant to subsection
21 (c).

22 (e) AUTHORIZATION OF APPROPRIATIONS.—There is
23 authorized to be appropriated, out of funds provided for
24 the Office of Energy Efficiency and Renewable Energy

1 within the Department of Energy,
2 **【\$_____】** to carry out this section.

3 **SEC. 1206. CYBER SENSE.**

4 (a) IN GENERAL.—The Secretary of Energy shall es-
5 tablish, in consultation with the Federal Energy Regu-
6 latory Commission and the National Institute of Stand-
7 ards and Technology, a voluntary Cyber Sense program
8 to identify and promote cyber-secure products and tech-
9 nologies intended for use in the bulk-power system, as de-
10 fined in section 215(a) of the Federal Power Act (16
11 U.S.C. 824o(a)).

12 (b) PROGRAM REQUIREMENTS.—In carrying out sub-
13 section (a), the Secretary of Energy shall—

14 (1) establish a Cyber Sense certification process
15 to identify and certify cyber-secure products and
16 technologies intended for use in the bulk-power sys-
17 tem, including products relating to industrial control
18 systems, such as supervisory control and data acqui-
19 sition systems;

20 (2) establish and maintain performance and
21 technological cybersecurity criteria by which a prod-
22 uct or component may be Cyber Sense-certified (in
23 this section referred to as “Cyber Sense criteria”);

24 (3) annually review Cyber Sense criteria and, if
25 appropriate, update such criteria;

1 (4) provide appropriate lead time, as deter-
2 mined by the Secretary, prior to the applicable effec-
3 tive date for a new or significant revision to Cyber
4 Sense criteria, taking into account the timing re-
5 quirements of the manufacturing, training, distribu-
6 tion, and implementation process with respect to
7 such revisions;

8 (5) provide reasonable notice to the public, and
9 solicit comments from the public, prior to estab-
10 lishing or revising Cyber Sense criteria;

11 (6) oversee Cyber Sense certifications made by
12 third parties;

13 (7) conduct reviews of Cyber Sense-certified
14 products in use in the bulk-power system to ensure
15 that such products continue to meet the Cyber Sense
16 criteria under which such products were certified,
17 and take corrective action in any case in which such
18 a product fails to meet such criteria; and

19 (8) consider incentives to encourage the use of
20 Cyber Sense-certified products in the bulk-power
21 system.

1 **SEC. 1207. STATE CONSIDERATION OF RESILIENCY AND AD-**
2 **VANCED ENERGY ANALYTICS TECHNOLOGIES**
3 **AND BASELOAD GENERATION.**

4 (a) CONSIDERATION.—Section 111(d) of the Public
5 Utility Regulatory Policies Act of 1978 (16 U.S.C.
6 2621(d)) is amended by adding the following at the end:

7 “(20) IMPROVING THE RESILIENCE OF ELEC-
8 TRIC INFRASTRUCTURE.—

9 “(A) IN GENERAL.—Each State regulatory
10 authority (with respect to each electric utility
11 for which it has ratemaking authority) shall
12 consider requiring each such electric utility to
13 develop a plan to increase the utilization of re-
14 siliency-related technologies designed to improve
15 the resilience of electric infrastructure, mitigate
16 power outages, continue delivery of vital serv-
17 ices and maintain the flow of power to facilities
18 critical to public health, safety, and welfare.

19 “(B) RESILIENCY-RELATED TECH-
20 NOLOGIES.—For purposes of this paragraph,
21 examples of resiliency-related technologies in-
22 clude—

23 “(i) advanced grid technologies capa-
24 ble of isolating or repairing problems re-
25 motely, such as advanced metering infra-
26 structure, high-tech sensors, grid moni-

1 toring and control systems, and remote re-
2 configuration and redundancy systems;

3 “(ii) distributed and back-up genera-
4 tion to power critical facilities and oper-
5 ations;

6 “(iii) microgrids;

7 “(iv) combined heat and power;

8 “(v) waste heat resources;

9 “(vi) energy storage technologies;

10 “(vii) wiring, cabling, and other dis-
11 tribution components, including submers-
12 ible distribution components, and enclo-
13 sures; and

14 “(viii) electronically-controlled re-
15 closers and similar technologies for power
16 restoration.

17 “(C) RATE RECOVERY.—Each State regu-
18 latory authority (with respect to each electric
19 utility for which it has ratemaking authority)
20 shall consider authorizing each such electric
21 utility to recover any capital, operating expendi-
22 ture, or other costs of the electric utility related
23 to the procurement, deployment, or use of resil-
24 iency-related technologies, including a reason-
25 able rate of return on the capital expenditures

1 of the electric utility for the procurement, de-
2 ployment, or use of resiliency-related tech-
3 nologies.

4 “(21) RATE DESIGN MODIFICATIONS TO PRO-
5 MOTE INVESTMENTS IN ADVANCED ENERGY ANA-
6 LYTICS TECHNOLOGY.—

7 “(A) RATE RECOVERY.—To promote elec-
8 tric utility investments in advanced energy ana-
9 lytics technology, each State regulatory author-
10 ity (with respect to each electric utility for
11 which it has ratemaking authority) shall con-
12 sider authorizing each such electric utility to re-
13 cover the costs of the electric utility relating to
14 the procurement, deployment, or use of ad-
15 vanced energy analytics technology, including a
16 reasonable rate of return on all such costs in-
17 curred by the electric utility for the procure-
18 ment, deployment, or use of advanced energy
19 analytics technology, provided such technology
20 is used by the electric utility for purposes of re-
21 alizing operational efficiencies, cost savings, en-
22 hanced energy management and customer en-
23 gagement, improvements in system reliability,
24 safety, and cybersecurity, or other benefits to
25 ratepayers.

1 “(B) ADVANCED ENERGY ANALYTICS
2 TECHNOLOGY.—For purposes of this para-
3 graph, examples of advanced energy analytics
4 technology include internet-based and cloud-
5 based computing solutions and subscription and
6 licensing models, including software as a serv-
7 ice, platform as a service, and infrastructure as
8 a service.

9 “(22) ASSURING ELECTRIC RELIABILITY WITH
10 BASELOAD GENERATION.—

11 “(A) STATE CONSIDERATION.—Each State
12 regulatory authority (with respect to each elec-
13 tric utility for which it has ratemaking author-
14 ity) shall consider the adoption or modification
15 of policies to ensure that each such electric util-
16 ity incorporates sufficient baseload generation
17 into its integrated resource plan to assure the
18 reliable availability of electric energy over a 10-
19 year planning period.

20 “(B) BASELOAD GENERATION.—For pur-
21 poses of this paragraph, ‘baseload generation’
22 means large-output electric generation facilities
23 with reliability attributes that include—

24 “(i) operational characteristics that
25 enable the generation of electric energy on

1 a continuous basis for an extended period
2 of time per day over a period of not less
3 than 30 days;

4 “(ii) in order to generate electric en-
5 ergy on a continuous basis for an extended
6 period of time—

7 “(I) for each day over a period of
8 not less than 30 days—

9 “(aa) possession of adequate
10 fuel on-site; or

11 “(bb) the operational ability
12 to generate electric energy from
13 more than one fuel source; or

14 “(II) fuel certainty, through con-
15 tractual obligations, that ensures ade-
16 quate fuel supply at stable pricing
17 without risk of interruption;

18 “(iii) operational characteristics that
19 enable the generation of electric energy
20 during emergency and severe weather con-
21 ditions; and

22 “(iv) essential reliability services, in-
23 cluding frequency support and voltage sup-
24 port, to maintain electric reliability.”.

25 (b) COMPLIANCE.—

1 (1) TIME LIMITATIONS.—Section 112(b) of the
2 Public Utility Regulatory Policies Act of 1978 (16
3 U.S.C. 2622(b)) is amended by adding at the end
4 the following:

5 “(7)(A) Not later than 1 year after the date of
6 enactment of this paragraph, each State regulatory
7 authority (with respect to each electric utility for
8 which it has ratemaking authority) shall commence
9 the consideration referred to in section 111, or set
10 a hearing date for consideration, with respect to the
11 standard established by paragraph (20) of section
12 111(d).

13 “(B) Not later than 2 years after the date of
14 enactment of this paragraph, each State regulatory
15 authority (with respect to each electric utility for
16 which it has ratemaking authority) shall complete
17 the consideration, and shall make the determination,
18 referred to in section 111 with respect to the stand-
19 ard established by paragraph (20) of section 111(d).

20 “(8)(A) Not later than 6 months after the date
21 of enactment of this paragraph, each State regu-
22 latory authority (with respect to each electric utility
23 for which it has ratemaking authority) shall com-
24 mence the consideration referred to in section 111,
25 or set a hearing date for consideration, with respect

1 to the standard established by paragraph (21) of
2 section 111(d).

3 “(B) Not later than 1 year after the date of en-
4 actment of this paragraph, each State regulatory au-
5 thority (with respect to each electric utility for which
6 it has ratemaking authority) shall complete the con-
7 sideration, and shall make the determination, re-
8 ferred to in section 111 with respect to the standard
9 established by paragraph (21) of section 111(d).

10 “(9)(A) Not later than 1 year after the date of
11 enactment of this paragraph, each State regulatory
12 authority (with respect to each electric utility for
13 which it has ratemaking authority) shall commence
14 the consideration referred to in section 111, or set
15 a hearing date for consideration, with respect to the
16 standard established by paragraph (22) of section
17 111(d).

18 “(B) Not later than 2 years after the date of
19 enactment of this paragraph, each State regulatory
20 authority (with respect to each electric utility for
21 which it has ratemaking authority) shall complete
22 the consideration, and shall make the determination,
23 referred to in section 111 with respect to the stand-
24 ard established by paragraph (22) of section
25 111(d).”.

1 (2) FAILURE TO COMPLY.—Section 112(c) of
2 the Public Utility Regulatory Policies Act of 1978
3 (16 U.S.C. 2622(c)) is amended by—

4 (A) inserting “, as applicable,” after “non-
5 regulated electric utility”; and

6 (B) adding the following at the end: “In
7 the case of the standards established by para-
8 graphs (20) through (22) of section 111(d), the
9 reference contained in this subsection to the
10 date of enactment of this Act shall be deemed
11 to be a reference to the date of enactment of
12 such paragraphs.”.

13 (3) PRIOR STATE ACTIONS.—Section 112 of the
14 Public Utility Regulatory Policies Act of 1978 (16
15 U.S.C. 2622(d)) is amended by adding at the end
16 the following new subsection:

17 “(g) PRIOR STATE ACTIONS.—Subsections (b) and
18 (c) of this section shall not apply to a standard established
19 by paragraph (20), (21), or (22) of section 111(d) in the
20 case of any electric utility in a State if, before the date
21 of enactment of this subsection—

22 “(1) the State has implemented for such utility
23 the standard concerned (or a comparable standard);

24 “(2) the State regulatory authority for such
25 State has conducted a proceeding to consider imple-

1 mentation of the standard concerned (or a com-
2 parable standard) for such utility; or

3 “(3) the State legislature has voted on the im-
4 plementation of the standard concerned (or a com-
5 parable standard) for such utility.”.

6 **SEC. 1208. RELIABILITY AND PERFORMANCE ASSURANCE**
7 **IN REGIONAL TRANSMISSION ORGANIZA-**
8 **TIONS.**

9 Part II of the Federal Power Act (16 U.S.C. 824 et
10 seq.), as amended by section 1204, is further amended by
11 adding after section 215A the following new section:

12 **“SEC. 215B. RELIABILITY AND PERFORMANCE ASSURANCE**
13 **IN REGIONAL TRANSMISSION ORGANIZA-**
14 **TIONS.**

15 “(a) EXISTING CAPACITY MARKETS.—

16 “(1) FILING.—Not later than 30 days after the
17 date of enactment of this section, the Commission
18 shall direct each Regional Transmission Organiza-
19 tion, and each Independent System Operator, that
20 operates a capacity market, or a comparable market
21 intended to ensure the procurement and availability
22 of sufficient future electric energy resources, to dem-
23 onstrate, by filing a new schedule under section 205,
24 or, if appropriate, filing a declaration with respect to
25 a schedule or schedules under such section then in

1 force, that the structure of such market meets the
2 following criteria:

3 “(A) The structure of such market is
4 based on integrated system planning practices
5 that include—

6 “(i) a diverse and flexible generation
7 portfolio;

8 “(ii) long-term reliability and stable
9 pricing for customers;

10 “(iii) price adequacy and certainty for
11 power generators over a long-term plan-
12 ning and investment horizon; and

13 “(iv) enhanced operational perform-
14 ance assurance during peak-demand peri-
15 ods;

16 “(B) The structure of such market pro-
17 vides for a sufficient supply of reliable electric
18 energy to load-serving entities (as defined in
19 section 217) from physical generation facilities
20 that have reliability attributes that include—

21 “(i) operational characteristics that
22 enable the generation of electric energy on
23 a continuous basis for an extended period
24 of time for each day over a period of not
25 less than 30 days;

1 “(ii) in order to generate electric en-
2 ergy on a continuous basis for an extended
3 period of time—

4 “(I) for each day over a period of
5 not less than 30 days—

6 “(aa) possession of adequate
7 fuel on-site; or

8 “(bb) the operational ability
9 to generate electric energy from
10 more than one fuel source; or

11 “(II) fuel certainty, through con-
12 tractual obligations, that ensures ade-
13 quate fuel supply at stable pricing
14 without risk of interruption;

15 “(iii) operational characteristics that
16 enable the generation of electric energy
17 during emergency and severe weather con-
18 ditions; and

19 “(iv) essential reliability services, in-
20 cluding frequency support and voltage sup-
21 port, to maintain reliability of the bulk-
22 power system (as defined in section 215).

23 “(2) INITIAL DETERMINATION.—The Commis-
24 sion shall determine whether each filing made pursu-
25 ant to paragraph (1) adequately demonstrates that

1 the structure of the market addressed in such filing
2 meets the criteria under paragraph (1).

3 “(b) COMMISSION DETERMINATION FOR NEW
4 SCHEDULES.—Except as provided in subsection (a)(2),
5 whenever a new schedule is filed under section 205 by a
6 Regional Transmission Organization, or an Independent
7 System Operator, that operates or intends to operate a
8 market described in subsection (a)(1), the Commission
9 shall determine whether, in light of the potential impacts
10 of such new schedule, the structure of such market meets
11 the criteria under subsection (a)(1).”.