

113TH CONGRESS
1ST SESSION

S. _____

To reduce energy waste, strengthen energy system resiliency, increase industrial competitiveness, and promote local economic development by helping public and private entities to assess and implement energy systems that recover and use waste heat and local renewable energy resources.

IN THE SENATE OF THE UNITED STATES

Mr. FRANKEN introduced the following bill; which was read twice and referred to the Committee on _____

A BILL

To reduce energy waste, strengthen energy system resiliency, increase industrial competitiveness, and promote local economic development by helping public and private entities to assess and implement energy systems that recover and use waste heat and local renewable energy resources.

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

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Local Energy Supply
5 and Resiliency Act of 2013”.

6 **SEC. 2. FINDINGS AND PURPOSES.**

7 (a) FINDINGS.—Congress finds that—

1 (1) a quantity of energy that is more than—

2 (A) 27 percent of the total energy con-
3 sumption in the United States is released from
4 power plants in the form of waste heat; and

5 (B) 36 percent of the total energy con-
6 sumption in the United States is released from
7 power plants, industrial facilities, and other
8 buildings in the form of waste heat;

9 (2) waste heat can be—

10 (A) recovered and distributed to meet
11 building heating or industrial process heating
12 requirements;

13 (B) converted to chilled water for air con-
14 ditioning or industrial process cooling; or

15 (C) converted to electricity;

16 (3) renewable energy resources in communities
17 in the United States can be used to meet local ther-
18 mal and electric energy requirements;

19 (4) use of local energy resources and implemen-
20 tation of local energy infrastructure can strengthen
21 the reliability and resiliency of energy supplies in the
22 United States in response to extreme weather
23 events, power grid failures, or interruptions in the
24 supply of fossil fuels;

1 (5) use of local waste heat and renewable en-
2 ergy resources—

3 (A) strengthens United States industrial
4 competitiveness;

5 (B) helps reduce reliance on fossil fuels
6 and the associated emissions of air pollution
7 and carbon dioxide;

8 (C) increases energy supply resiliency and
9 security; and

10 (D) keeps more energy dollars in local
11 economies, thereby creating jobs;

12 (6) district energy systems represent a key op-
13 portunity to tap waste heat and renewable energy re-
14 sources;

15 (7) district energy systems are important for
16 expanding implementation of combined heat and
17 power (CHP) systems because district energy sys-
18 tems provide infrastructure for delivering thermal
19 energy from a CHP system to a substantial base of
20 end users;

21 (8) district energy systems serve colleges, uni-
22 versities, hospitals, airports, military bases, and
23 downtown areas;

1 (9) district energy systems help cut peak power
2 demand and reduce power transmission and distribu-
3 tion system constraints by—

4 (A) shifting power demand through ther-
5 mal storage;

6 (B) generating power near load centers
7 with a CHP system; and

8 (C) meeting air conditioning demand
9 through the delivery of chilled water produced
10 with heat generated by a CHP system or other
11 energy sources;

12 (10) evaluation and implementation of district
13 energy systems—

14 (A) is a complex undertaking involving a
15 variety of technical, economic, legal, and insti-
16 tutional issues and barriers; and

17 (B) often requires technical assistance to
18 successfully navigate these barriers; and

19 (11) a major constraint to the use of local
20 waste heat and renewable energy resources is a lack
21 of low-interest, long-term capital funding for imple-
22 mentation.

23 (b) PURPOSES.—The purposes of this Act are—

24 (1) to encourage the use and distribution of
25 waste heat and renewable thermal energy—

- 1 (A) to reduce fossil fuel consumption;
2 (B) to enhance energy supply resiliency,
3 reliability, and security;
4 (C) to reduce air pollution and greenhouse
5 gas emissions;
6 (D) to strengthen industrial competitive-
7 ness; and
8 (E) to retain more energy dollars in local
9 economies; and

10 (2) to facilitate the implementation of a local
11 energy infrastructure that accomplishes the goals de-
12 scribed in paragraph (1) by—

- 13 (A) providing technical assistance to evalu-
14 ate, design, and develop projects to build local
15 energy infrastructure; and
16 (B) facilitating low-cost financing for the
17 construction of local energy infrastructure
18 though the issuance of loan guarantees.

19 **SEC. 3. DEFINITIONS.**

20 (1) COMBINED HEAT AND POWER SYSTEM.—
21 The term “combined heat and power system” or
22 “CHP system” means generation of electric energy
23 and heat in a single, integrated system that meets
24 the efficiency criteria in clauses (ii) and (iii) of sec-
25 tion 48(c)(3)(A) of the Internal Revenue Code of

1 1986, under which heat that is conventionally re-
2 jected is recovered and used to meet thermal energy
3 requirements.

4 (2) DISTRICT ENERGY SYSTEM.—The term
5 “district energy system” means a system that pro-
6 vides thermal energy to buildings and other energy
7 consumers from 1 or more plants to individual build-
8 ings to provide space heating, air conditioning, do-
9 mestic hot water, industrial process energy, and
10 other end uses.

11 (3) LOAN GUARANTEE PROGRAM.—The term
12 “Loan Guarantee Program” means the Local En-
13 ergy Infrastructure Loan Guarantee Program estab-
14 lished under section 5.

15 (4) LOCAL ENERGY INFRASTRUCTURE.—The
16 term “local energy infrastructure” means a system
17 that—

18 (A) recovers or produces useful thermal or
19 electric energy from waste energy or renewable
20 energy resources;

21 (B) generates electricity using a combined
22 heat and power system;

23 (C) distributes electricity in microgrids;

24 (D) stores thermal energy; or

1 (E) distributes thermal energy or transfers
2 thermal energy to building heating and cooling
3 systems via a district energy system.

4 (5) MICROGRID.—The term “microgrid” means
5 a group of interconnected loads and distributed en-
6 ergy resources within clearly defined electrical
7 boundaries that—

8 (A) acts as a single controllable entity with
9 respect to the grid; and

10 (B) can connect and disconnect from the
11 grid to enable the microgrid to operate in both
12 grid-connected or island-mode.

13 (6) RENEWABLE ENERGY RESOURCE.—The
14 term “renewable energy resource” means —

15 (A) closed-loop and open-loop biomass (as
16 defined in paragraphs (2) and (3), respectively,
17 of section 45(c) of the Internal Revenue Code
18 of 1986);

19 (B) gaseous or liquid fuels produced from
20 the materials described in subparagraph (A);

21 (C) geothermal energy (as defined in sec-
22 tion 45(c)(4) of such Code);

23 (D) municipal solid waste (as defined in
24 section 45(c)(6) of such Code); or

1 (E) solar energy (which is used, undefined,
2 in section 45 of such Code).

3 (7) RENEWABLE THERMAL ENERGY.—The term
4 “renewable thermal energy” means—

5 (A) heating or cooling energy derived from
6 a renewable energy resource;

7 (B) natural sources of cooling such as cold
8 lake or ocean water; or

9 (C) other renewable thermal energy
10 sources, as determined by the Secretary.

11 (8) SECRETARY.—The term “Secretary” means
12 the Secretary of Energy.

13 (9) THERMAL ENERGY.—The term “thermal
14 energy” means—

15 (A) heating energy in the form of hot
16 water or steam that is used to provide space
17 heating, domestic hot water, or process heat; or

18 (B) cooling energy in the form of chilled
19 water, ice or other media that is used to provide
20 air conditioning, or process cooling.

21 (10) WASTE ENERGY.—The term “waste en-
22 ergy” means energy that—

23 (A) is contained in—

1 (i) exhaust gases, exhaust steam, con-
2 denser water, jacket cooling heat, or lubri-
3 cating oil in power generation systems;

4 (ii) exhaust heat, hot liquids, or flared
5 gas from any industrial process;

6 (iii) waste gas or industrial tail gas
7 that would otherwise be flared, incinerated,
8 or vented;

9 (iv) a pressure drop in any gas, ex-
10 cluding any pressure drop to a condenser
11 that subsequently vents the resulting heat;

12 (v) condenser water from chilled water
13 or refrigeration plants; or

14 (vi) any other form of waste energy,
15 as determined by the Secretary; and

16 (B)(i) in the case of an existing facility, is
17 not being used; or

18 (ii) in the case of a new facility, is not con-
19 ventionally used in comparable systems.

20 **SEC. 4. TECHNICAL ASSISTANCE PROGRAM.**

21 (a) ESTABLISHMENT.—

22 (1) IN GENERAL.—The Secretary shall establish
23 a program to disseminate information and provide
24 technical assistance, directly or through grants pro-
25 vided so that recipients may contract to obtain tech-

1 nical assistance, to assist eligible entities in identi-
2 fying, evaluating, planning, and designing local en-
3 ergy infrastructure.

4 (2) TECHNICAL ASSISTANCE.—The technical
5 assistance under paragraph (1) shall include assist-
6 ance with 1 or more of the following:

7 (A) Identification of opportunities to use
8 waste energy or renewable energy resources.

9 (B) Assessment of technical and economic
10 characteristics.

11 (C) Utility interconnection.

12 (D) Negotiation of power and fuel con-
13 tracts.

14 (E) Permitting and siting issues.

15 (F) Marketing and contract negotiations.

16 (G) Business planning and financial anal-
17 ysis.

18 (H) Engineering design.

19 (3) INFORMATION DISSEMINATION.—The infor-
20 mation dissemination under paragraph (1) shall in-
21 clude—

22 (A) information relating to the topics iden-
23 tified in paragraph (2), including case studies
24 of successful examples; and

1 (B) computer software for assessment, de-
2 sign, and operation and maintenance of local
3 energy infrastructure.

4 (b) ELIGIBLE ENTITY.—Any nonprofit or for-profit
5 entity shall be eligible to receive assistance under the pro-
6 gram established under subsection (a).

7 (c) ELIGIBLE COSTS.—On application by an eligible
8 entity, the Secretary may award grants to an eligible enti-
9 ty to provide funds to cover not more than—

10 (1) 100 percent of the cost of initial assessment
11 to identify local energy opportunities;

12 (2) 75 percent of the cost of feasibility studies
13 to assess the potential for the implementation of
14 local energy infrastructure;

15 (3) 60 percent of the cost of guidance on over-
16 coming barriers to the implementation of local en-
17 ergy infrastructure, including financial, contracting,
18 siting, and permitting issues; and

19 (4) 45 percent of the cost of detailed engineer-
20 ing of local energy infrastructure.

21 (d) APPLICATIONS.—

22 (1) IN GENERAL.—An eligible entity desiring
23 technical assistance under this section shall submit
24 an application to the Secretary at such time, in such
25 manner, and containing such information as the Sec-

1 retary may require under the rules and procedures
2 adopted under subsection (f).

3 (2) APPLICATION PROCESS.—The Secretary
4 shall seek applications for technical assistance under
5 this section—

6 (A) on a competitive basis; and

7 (B) on a periodic basis, but not less fre-
8 quently than once every 12 months.

9 (e) PRIORITIES.—In evaluating projects, the Sec-
10 retary shall give priority to projects that have the greatest
11 potential for—

12 (1) maximizing elimination of fossil fuel use;

13 (2) strengthening the reliability of local energy
14 supplies and boosting the resiliency of energy infra-
15 structure to the impact of extreme weather events,
16 power grid failures, and interruptions in supply of
17 fossil fuels;

18 (3) minimizing environmental impact, including
19 regulated air pollutants, greenhouse gas emissions,
20 and use of ozone-depleting refrigerants;

21 (4) facilitating use of renewable energy re-
22 sources;

23 (5) increasing industrial competitiveness; and

24 (6) maximizing local job creation.

1 (f) RULES AND PROCEDURES.—Not later than 180
2 days after the date of enactment of this Act, the Secretary
3 shall adopt rules and procedures for the administration
4 of the program established under this section, consistent
5 with the provisions of this Act.

6 (g) AUTHORIZATION OF APPROPRIATIONS.—There is
7 authorized to be appropriated to carry out this section
8 \$150,000,000 for the period of fiscal years 2014 through
9 2018, to remain available until expended.

10 **SEC. 5. LOAN GUARANTEES FOR LOCAL ENERGY INFRA-**
11 **STRUCTURE.**

12 (a) LOCAL ENERGY INFRASTRUCTURE LOAN GUAR-
13 ANTEE PROGRAM.—

14 (1) IN GENERAL.—Title XVII of the Energy
15 Policy Act of 2005 (42 U.S.C. 16511 et seq.) is
16 amended by adding at the end the following:

17 **“SEC. 1706. LOCAL ENERGY INFRASTRUCTURE LOAN GUAR-**
18 **ANTEE PROGRAM. —**

19 “(a) IN GENERAL.—The Secretary may make guar-
20 antees under this section for commercial or innovative
21 projects defined as ‘local energy infrastructure’ in section
22 3 of the Local Energy Supply and Resiliency Act of 2013.

23 “(b) MODIFICATION OF EXISTING AUTHORITY.—The
24 Secretary shall reserve \$4,000,000,000 of the loan guar-

1 antee authority remaining under section 1703 to provide
2 loan guarantees under this section.

3 “(c) USE OF OTHER APPROPRIATED FUNDS.—To
4 the maximum extent practicable, the Secretary shall use
5 funds appropriated to carry out section 1703 that remain
6 unobligated as of the date of enactment of this section
7 for the cost of loan guarantees under this section.”.

8 (2) TABLE OF CONTENTS AMENDMENT.—The
9 table of contents for the Energy Policy Act of 2005
10 (42 U.S.C. 15801 et seq.) is amended by inserting
11 after the item relating to section 1705 the following
12 new item:

“Sec. 1706. Local energy infrastructure loan guarantee program.”.

13 **SEC. 6. DEFINITION OF INVESTMENT AREA.**

14 Section 103(16) of the Community Development
15 Banking and Financial Institutions Act of 1994 (12
16 U.S.C. 4702(16)) is amended—

17 (1) in subparagraph (A)(ii), by striking “or” at
18 the end;

19 (2) in subparagraph (B), by striking the period
20 at the end and inserting “; or”; and

21 (3) by adding at the end the following:

22 “(C) has the potential for implementation
23 of local energy infrastructure as defined in the
24 Local Energy Supply and Resiliency Act of
25 2013.”.