

# House Calendar No.

111th CONGRESS  
1st Session

## H. RES. \_

[Report No. 111—]

Providing for consideration of the bill (H.R. 3585) to guide and provide for United States research, development, and demonstration of solar energy technologies, and for other purposes.

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### IN THE HOUSE OF REPRESENTATIVES

October 20, 2009

Mr. Polis, from the Committee on Rules, reported the following resolution; which was referred to the House Calendar and ordered to be printed.

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## RESOLUTION

Providing for consideration of the bill (H.R. 3585) to guide and provide for United States research, development, and demonstration of solar energy technologies, and for other purposes.

*Resolved*, That at any time after the adoption of this resolution the Speaker may, pursuant to clause 2(b) of rule XVIII, declare the House resolved into the Committee of the Whole House on the state of the Union for consideration of the bill (H.R. 3585) to guide and provide for United States research, development, and demonstration of solar energy technologies, and for other purposes. The first reading of the bill shall be dispensed with. All points of order against consideration of the bill are waived except those arising under clause 9 or 10 of rule XXI. General debate shall be confined to the bill and shall not exceed one hour equally divided and controlled by the chair and ranking minority member of the Committee on Science and Technology. After general debate the bill shall be considered for amendment under the five-minute rule. It shall be in order to consider as an original bill for the purpose of amendment under the five-minute rule the amendment in the nature of a

substitute recommended by the Committee on Science and Technology now printed in the bill. The committee amendment in the nature of a substitute shall be considered as read. All points of order against the committee amendment in the nature of a substitute are waived except those arising under clause 10 of rule XXI. Notwithstanding clause 11 of rule XVIII, no amendment to the committee amendment in the nature of a substitute shall be in order except those printed in the report of the Committee on Rules accompanying this resolution. Each such amendment may be offered only in the order printed in the report, may be offered only by a Member designated in the report, shall be considered as read, shall be debatable for the time specified in the report equally divided and controlled by the proponent and an opponent, shall not be subject to amendment, and shall not be subject to a demand for division of the question. All points of order against such amendments are waived except those arising under clause 9 or 10 of rule XXI. At the conclusion of consideration of the bill for amendment the Committee shall rise and report the bill to the House with such amendments as may have been adopted. The previous question shall be considered as ordered on the bill and amendments thereto to final passage without intervening motion except one motion to recommit with or without instructions.

Sec. 2. The Chair may entertain a motion that the Committee rise only if offered by the chair of the Committee on Science and Technology or his designee. The Chair may not entertain a motion to strike out the enacting words of the bill (as described in clause 9 of rule XVIII).

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PROVIDING FOR CONSIDERATION OF THE BILL (H.R. 3585) TO  
GUIDE AND PROVIDE FOR UNITED STATES RESEARCH,  
DEVELOPMENT, AND DEMONSTRATION OF SOLAR ENERGY  
TECHNOLOGIES, AND FOR OTHER PURPOSES.

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October 20, 2009.—Referred to the House Calendar and ordered to be  
printed.

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Mr. Polis, from the Committee on Rules, submitted the following

R E P O R T

[To accompany H. Res. \_\_\_]

The Committee on Rules, having had under consideration House Resolution  
\_\_\_, by a nonrecord vote, report the same to the House with the  
recommendation that the resolution be adopted.

SUMMARY OF PROVISIONS OF THE RESOLUTION

The resolution provides for consideration of H.R. 3585, the “Solar  
Technology Roadmap Act,” under a structured rule. The resolution  
provides one hour of general debate equally divided and controlled by the  
chair and ranking minority member of the Committee on Science and  
Technology. The resolution waives all points of order against consideration  
of the bill except those arising under clause 9 or 10 of rule XXI.

The resolution provides that the amendment in the nature of a  
substitute recommended by the Committee on Science and Technology shall  
be considered as an original bill for the purpose of amendment and shall be  
considered as read. The resolution waives all points of order against the  
amendment in the nature of a substitute except those arising under clause  
10 of rule XXI. This waiver does not affect the point of order available under  
clause 9 of rule XXI (regarding earmark disclosure).

The resolution further makes in order only those amendments  
printed in this report. The amendments made in order may be offered only  
in the order printed in this report, may be offered only by a Member

designated in this report, shall be considered as read, shall be debatable for the time specified in this report equally divided and controlled by the proponent and an opponent, shall not be subject to amendment, and shall not be subject to a demand for division of the question. All points of order against the amendments are waived except those arising under clause 9 or 10 of rule XXI.

The resolution provides one motion to recommit with or without instructions. The resolution provides that the Chair may entertain a motion that the Committee rise only if offered by the chair of the Committee on Science and Technology or his designee. Finally, the resolution provides that the Chair may not entertain a motion to strike out the enacting words of the bill.

#### EXPLANATION OF WAIVERS

Although the rule waives all points of order against consideration of the bill (except those arising under clause 9 or 10 of rule XXI), the Committee is not aware of any points of order against consideration of the bill. The waiver is prophylactic.

Although the rule waives all points of order against the amendment in the nature of a substitute (except those arising under clause 10 of rule XXI), the Committee is not aware of any points of order. The waiver is prophylactic.

## SUMMARY OF AMENDMENTS TO BE MADE IN ORDER

1. Gordon (TN): Would make conforming and technical changes; require that at least one demonstration project be awarded in fiscal year 2011 for the demonstration of organic photovoltaic cell technologies; require the Secretary to study potential applications of micropower stations using solar power technology in underserved communities lacking in basic electric or traditional power infrastructure and make recommendations to Congress for increasing access to and implementation of solar technology in such communities; ensure that demonstration project grants authorized under the Act emphasize initiatives that promote accessibility and community implementation of the technology; require the Roadmap Committee to establish demonstration goals with recommended timeframes for improving the cost effectiveness and quality control of domestic manufacturing of implements and devices used in the production of solar energy; permit research and development into photovoltaics and related electronic components, including inverters, charge controllers, and energy monitors; include within the Roadmap the development of best practices for Department of Energy National Labs in their collaborations with institutions of higher education and private industry to bring new solar technologies to the marketplace more efficiently and effectively; add, within the Photovoltaic Performance Study, an assessment of current consumer solar financing models used to address high upfront costs for the long term economic benefits of solar energy; require the Roadmap Committee to consider technologies used to condition solar energy, including inverters, DC/DC converters, and battery chargers, when determining how and when to integrate solar energy into the electricity grid; include federally-funded research and development centers on the list of entities eligible to receive research, development and demonstration awards; establish a pilot program within the Department of Energy to create grants for projects to protect against solar technology equipment theft, including projects for mapping large-scale solar projects and equipment serial number registries; provide that grant awards could be used for the operation of the project for 3 years using a monitoring methodology approved by the Secretary; require the Roadmap Committee to consider ways to reduce regional disparity in the use of solar technologies; require the Energy Secretary, when appointing members to the Committee, to consider individuals that represent diverse geographic regions of the United States; require that demonstration project awards are located in geographically-dispersed regions of the country and not concentrated in any single geographic region of the country; require the Roadmap Committee to consult with the Interior Department, National Park Service, Defense Department, and the General Services Administration on the potential for solar demonstration projects on Federal lands. (30 minutes)
2. Broun (GA): Would change the number of years for which the Committee is authorized in the bill from five to three. It also would reduce to \$250,000,000 the amount authorized in each of the three years, from 2011 to 2013. (10 minutes)
3. Hastings, Alcee (FL): Would ensure that a representative from a

minority-serving institution is a member of the Solar Technology Roadmap Committee. (10 minutes)

4. Cardoza (CA): Would expand the types of technology the Energy Secretary can consider from "solar thermal electric technology" to "solar thermal power technology." It also would require the Secretary, in carrying out demonstration projects, to include at least 2 solar thermal technology projects, with thermal storage, that generate between 1 and 3 megawatts continuously for a 24-hour period from energy provided entirely by the sun. (10 minutes)
5. Kaptur (OH): Would require the Roadmap Committee to provide recommendations to strengthen the use of research and development strategies in making domestic industry more competitive and to assist the commercialization of solar technologies. (10 minutes)
6. Marshall (GA): Would require the Secretary, when carrying out solar technology demonstration projects, to evaluate the potential to establish large photovoltaic facilities that produce at least 100 gigawatts, including an evaluation of the electrical grid, current, voltage, and energy storage requirements associated with large photovoltaic facilities. (10 minutes)
7. Klein, Ron (FL): Would include research on solar energy storage technology as eligible for funding under the Secretary of Energy's research and development program. (10 minutes)
8. Titus (NV), Teague (NM), Cohen (TN): Would include the development of solar technology products that are water efficient as a focus of the bill. (10 minutes)
9. Heinrich (NM): Would require the Solar Technology Roadmap Committee to release a draft Roadmap to the public at least one month prior to publication in order to receive public input. (10 minutes)
10. Himes (CT): Would clarify that solar thermal technologies and concentrating solar photovoltaic technologies will be included within the scope of the research and development program authorized by the bill. (10 minutes)
11. Murphy, Scott (NY): Would require the Solar Technology Roadmap Committee to submit an annual report to the Secretary of Energy and the Congress on its activities over the prior 12-month period. (10 minutes)

TEXT OF AMENDMENTS TO BE MADE IN ORDER

1. AN AMENDMENT TO BE OFFERED BY REPRESENTATIVE GORDON, BART OF TENNESSEE OR HIS DESIGNEE, DEBATABLE FOR 30 MINUTES

33 revised

**AMENDMENT TO H.R. 3585, AS REPORTED  
OFFERED BY MR. GORDON OF TENNESSEE**

Page 4, line 21, amend paragraph (1) to read as follows:

- 1 (1) photovoltaics and related electronic compo-
- 2 nents, including inverters, charge controllers, and
- 3 energy monitors;

Page 5, line 16, insert "Federally-Funded Research and Development Centers," after "national laboratories,".

Page 6, lines 9 through 12, amend subsection (e) to read as follows:

- 4 (e) LIMITATION.—The Department of Energy shall
- 5 provide awards to projects for research, development, and
- 6 demonstration of solar technologies and solar manufac-
- 7 turing in the United States.

Page 8, line 9, strike "and".

Page 8, line 11, insert "and" after the semicolon.

Page 8, after line 11, insert the following new clause:

1 (v) the technologies used to condition  
2 solar energy, including inverters, DC/DC  
3 converters, and battery chargers;

Page 8, line 21, strike “; and” and insert a semi-  
colon.

Page 8, line 22, redesignate subparagraph (H) as  
subparagraph (I).

Page 8, after line 21, insert the following new sub-  
paragraph:

4 (H) ways to reduce regional disparity in  
5 the use of solar technologies; and

Page 9, line 8, strike “and”.

Page 9, line 11, strike the semicolon and insert “;  
and”.

Page 9, after line 11, insert the following new sub-  
paragraph:

6 (E) improving the cost effectiveness and  
7 quality control of domestic manufacturing of  
8 implements and devices used in the production  
9 of solar energy;

Page 9, lines 12 and 15, redesignate paragraphs (4)  
and (5) as paragraphs (5) and (6), respectively.

Page 9, after line 11, insert the following new paragraph:

1           (4) identify best practices for Department of  
2           Energy national laboratories in their collaborations  
3           with institutions of higher education and private in-  
4           dustry to more efficiently and effectively bring new  
5           solar technologies to the marketplace;

Page 10, after line 3, insert the following new subsection:

6           (d) CONSULTATION.—The Solar Roadmap Com-  
7           mittee shall consult with the Department of the Interior,  
8           the National Park Service, the Department of Defense,  
9           and the General Services Administration on the potential  
10          for solar demonstration projects on Federal lands.

Page 10, line 15, insert “, solar applications developers,” after “including manufacturers”.

Page 12, after line 21, insert the following new paragraph:

11           (7) GEOGRAPHIC DISTRIBUTION.—The Sec-  
12           retary shall consider individuals that represent di-  
13           verse geographic regions of the United States for  
14           membership of the Committee.

Page 13, line 3, insert “, applications,” after “solar technologies”.

Page 13, line 16, redesignate subsection (e) as subsection (f).

Page 13, after line 15, insert the following new subsection:

1       (e) LIMITATION.—The Committee shall provide guid-  
2       ance on technological goals and activities but, consistent  
3       with requirements for the selection of recipients of funding  
4       on a merit-reviewed, competitive basis under section  
5       101(b), shall not recommend or select specific recipients  
6       of funds.

Page 14, lines 17 and 18, amend subparagraph (A) to read as follows:

7               (A) are located in geographically dispersed  
8               regions of the country and are not concentrated  
9               in any single geographical region of country;

Page 15, line 10, insert “, as well as promote accessibility and community implementation of demonstrated technologies,” after “energy costs”.

Page 16, lines 3 and 4, amend paragraph (5) to read as follows:

1 (5) operation for a minimum of 3 years, using  
2 a monitoring methodology approved by Secretary;  
3 and

Page 16, after line 19, insert the following new sub-  
section:

4 (f) ORGANIC PHOTOVOLTAIC CELL TECH-  
5 NOLOGIES.—At least 1 demonstration project awarded  
6 under this section during fiscal year 2011 shall be for the  
7 demonstration of organic photovoltaic cell technologies.

Page 17, line 17, strike “; and” and insert a semi-  
colon.

Page 17, line 21, strike the period and insert “;  
and”.

Page 17, after line 21, insert the following new  
paragraph:

8 (6) assessment of current financing models  
9 available to consumers used to offset high upfront  
10 costs by accounting for the long term economic bene-  
11 fits of solar energy.

Page 18, line 5, and page 19, lines 18 and 22, re-  
designate sections 107 through 109 as sections 108  
through 110, respectively.

Page 18, after line 4, insert the following new section:

1 **SEC. 107. REPORT.**

2 Not later than 180 days after the date of enactment  
3 of this Act, the Secretary shall commence a study evalu-  
4 ating potential applications of micro power stations using  
5 solar power technology in underserved communities lack-  
6 ing in basic electric or traditional power infrastructure,  
7 and make recommendations to Congress for increasing ac-  
8 cess to and implementation of solar energy technology in  
9 such underserved communities.

Page 20, after line 9, insert the following new section:

10 **SEC. 111. SOLAR TECHNOLOGY EQUIPMENT THEFT.**

11 (a) **PILOT PROGRAM.**—Not later than 1 year after  
12 the date of enactment of this Act, the Secretary of Energy  
13 shall establish a pilot program to make grants for projects  
14 to protect against solar technology equipment theft, in-  
15 cluding projects for mapping of large-scale solar projects  
16 and equipment serial number registries.

17 (b) **REPORT TO CONGRESS.**—Not later than 1 year  
18 after the establishment of the pilot program under sub-  
19 section (a), the Secretary of Energy shall transmit to the  
20 Congress a report on the effectiveness of projects sup-

1 ported under this section, which shall include rec-  
2 ommendations for the continuation or alteration of the  
3 program under this section or any other appropriate Fed-  
4 eral legislation.



2. AN AMENDMENT TO BE OFFERED BY REPRESENTATIVE  
BROUN, PAUL OF GEORGIA OR HIS DESIGNEE, DEBATABLE FOR  
10 MINUTES

*Carl C. Brown*

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**AMENDMENT TO H.R. 3585, AS REPORTED  
OFFERED BY MR. BROUN OF GEORGIA**

Page 18, lines 7 through 12, strike "section 101(a)" and all that follows through "2015" and insert "section 101(a) \$250,000,000 for each of the fiscal years 2011 through 2013".



3. AN AMENDMENT TO BE OFFERED BY REPRESENTATIVE HASTINGS, ALCEE OF FLORIDA OR HIS DESIGNEE, DEBATABLE FOR 10 MINUTES

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**AMENDMENT TO H.R. 3585, AS REPORTED  
OFFERED BY MR. HASTINGS OF FLORIDA**

Page 10, line 22, strike "and".

Page 10, line 23, redesignate subparagraph (G) as  
subparagraph (H).

Page 10, after line 22, insert the following new sub-  
paragraph:

1 (G) minority-serving institutions; and



4. AN AMENDMENT TO BE OFFERED BY REPRESENTATIVE CARDOZA, DENNIS OF CALIFORNIA OR HIS DESIGNEE, DEBATABLE FOR 10 MINUTES

**AMENDMENT TO H.R. 3585, AS REPORTED  
OFFERED BY MR. CARDOZA OF CALIFORNIA**

Page 4, lines 1 through 3, amend subparagraph (B)  
to read as follows:

1           (B) solar thermal power technology, in-  
2           cluding linear concentrator systems, dish/engine  
3           systems, power tower systems, and other  
4           means;

Page 14, line 15, strike "and".

Page 14, line 16, redesignate paragraph (3) as para-  
graph (4).

Page 14, after line 15, insert the following new  
paragraph:

5           (3) include at least 2 solar thermal technology  
6           projects, with thermal storage, that generate be-  
7           tween 1 and 3 megawatts continuously for a 24-hour  
8           period from energy provided entirely by the sun; and



5. AN AMENDMENT TO BE OFFERED BY REPRESENTATIVE  
KAPTUR, MARCY OF OHIO OR HER DESIGNEE, DEBATABLE FOR  
10 MINUTES

**AMENDMENT TO H.R. 3585, AS REPORTED  
OFFERED BY MS. KAPTUR OF OHIO**

Page 9, line 14, strike "and".

Page 9, line 15, redesignate paragraph (5) as paragraph (7).

Page 9, after line 14, insert the following new paragraphs:

1           (5) provide recommendations on the necessary  
2           steps required to strengthen the link between solar  
3           technology research and the commercialization of  
4           those technologies into full scale manufacturing, in-  
5           cluding the retooling and reworking of the Nation's  
6           existing technological and manufacturing base, as  
7           well as coordinating the national strategy in regions  
8           where solar technology clusters currently exist;

9           (6) provide recommendations to Federal agen-  
10          cies on corresponding strategies to accelerate domes-  
11          tic commercialization of newly developed solar tech-  
12          nologies; and



6. AN AMENDMENT TO BE OFFERED BY REPRESENTATIVE MARSHALL, JIM OF GEORGIA OR HIS DESIGNEE, DEBATABLE FOR 10 MINUTES

**AMENDMENT TO H.R. 3585, AS REPORTED  
OFFERED BY MR. MARSHALL OF GEORGIA**

Page 14, line 15, strike "and".

Page 15, line 15, strike the period and insert "  
and".

Page 15, after line 15, insert the following new  
paragraph:

- 1 (4) evaluate the potential to establish large pho-
- 2 tovoltaic facilities that produce at least 100
- 3 gigawatts, including an evaluation of the electrical
- 4 grid, current, voltage, and energy storage require-
- 5 ments associated with large photovoltaic facilities.



7. AN AMENDMENT TO BE OFFERED BY REPRESENTATIVE KLEIN,  
RON OF FLORIDA OR HIS DESIGNEE, DEBATABLE FOR 10  
MINUTES

**AMENDMENT TO H.R. 3585, AS REPORTED  
OFFERED BY MR. KLEIN OF FLORIDA**

Page 5, line 9, strike "and".

Page 5, line 10, redesignate paragraph (7) as paragraph (8).

Page 5, after line 9, insert the following new paragraph:

- 1           (7) development of storage technologies that
- 2           can be used to increase the usefulness and value of
- 3           solar technologies; and



8. AN AMENDMENT TO BE OFFERED BY REPRESENTATIVE TITUS,  
DINA OF NEVADA OR HER DESIGNEE, DEBATABLE FOR 10  
MINUTES

5

**AMENDMENT TO H.R. 3585, AS REPORTED  
OFFERED BY MS. TITUS OF NEVADA**

Page 5, line 9, strike “and”.

Page 5, line 10, redesignate paragraph (7) as paragraph (8).

Page 5, after line 9, insert the following new paragraph:

- 1 (7) development of solar technology products
- 2 that are water efficient; and

Page 8, line 21, strike “and”.

Page 8, line 22, redesignate subparagraph (H) as subparagraph (I).

Page 8, after line 21, insert the following new subparagraph:

- 3 (H) the development of solar technology
- 4 products that are water efficient; and



9. AN AMENDMENT TO BE OFFERED BY REPRESENTATIVE HEINRICH, MARTIN OF NEW MEXICO OR HIS DESIGNEE, DEBATABLE FOR 10 MINUTES

**AMENDMENT TO H.R. 3585, AS REPORTED**

**OFFERED BY** MR. HENRICH OF NEW MEXICO

Page 9, line 18, redesignate subsection (c) as subsection (d).

Page 9, after line 17, insert the following new subsection:

- 1 (c) PUBLIC INPUT.—The Committee shall release a
- 2 draft Roadmap to the public at least one month prior to
- 3 publication in order to receive input from the public.



10. AN AMENDMENT TO BE OFFERED BY REPRESENTATIVE HIMES,  
JAMES OF CONNECTICUT OR HIS DESIGNEE, DEBATABLE FOR  
10 MINUTES

**AMENDMENT TO H.R. 3585, AS REPORTED  
OFFERED BY MR. HIMES OF CONNECTICUT**

Page 4, line 24, insert “, including both solar thermal and concentrating solar photovoltaic technologies” after “solar power”.



11. AN AMENDMENT TO BE OFFERED BY REPRESENTATIVE MURPHY, SCOTT OF NEW YORK OR HIS DESIGNEE, DEBATABLE FOR 10 MINUTES

**AMENDMENT TO H.R. 3585, AS REPORTED**

**OFFERED BY** Scott Murphy (NY-20)

Page 13, lines 10 and 16, redesignate subsections (d) and (e) as subsections (e) and (f), respectively.

Page 13, after line 9, insert the following new subsection:

1 (d) REPORTING.—Not later than 1 year after the  
2 date of enactment of this Act, and annually thereafter,  
3 the Committee shall submit a report to the Secretary and  
4 the Congress on its activities over the prior 12-month pe-  
5 riod.

