

Union Calendar No. 225

106TH CONGRESS
1ST SESSION

H. R. 1753

[Report No. 106-377, Parts I and II]

A BILL

To promote the research, identification, assessment, exploration, and development of methane hydrate resources, and for other purposes.

OCTOBER 18, 1999

Reported from the Committee on Resources with an amendment; committed to the Committee of the Whole House on the State of the Union and ordered to be printed

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[Report No. 106–377, Parts I and II]

To promote the research, identification, assessment, exploration, and development of methane hydrate resources, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

MAY 11, 1999

Mr. DOYLE (for himself, Mr. CALVERT, and Mr. COSTELLO) introduced the following bill; which was referred to the Committee on Science, and in addition to the Committee on Resources, for a period to be subsequently determined by the Speaker, in each case for consideration of such provisions as fall within the jurisdiction of the committee concerned

OCTOBER 13, 1999

Reported from the Committee on Science with amendments

[Strike out all after the enacting clause and insert the part printed in *italic*]

OCTOBER 13, 1999

Referral to the Committee on Resources extended for a period ending not later than October 18, 1999

OCTOBER 18, 1999

Reported from the Committee on Resources with an amendment; committed to the Committee of the Whole House on the State of the Union and ordered to be printed

[Strike out all after the enacting clause and insert the part printed in **boldface roman**]

[For text of introduced bill, see copy of bill as introduced on May 11, 1999]

A BILL

To promote the research, identification, assessment, explo-

ration, and development of methane hydrate resources, and for other purposes.

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 “Gas Hydrate Research*
5 *and Development Act of 1999”.*

6 **SEC. 2. DEFINITIONS.**

7 *In this Act:*

8 (1) *CONTRACT.*—*The term “contract” means a*
9 *procurement contract within the meaning of section*
10 *6303 of title 31, United States Code.*

11 (2) *COOPERATIVE AGREEMENT.*—*The term “co-*
12 *operative agreement” means a cooperative agreement*
13 *within the meaning of section 6305 of title 31, United*
14 *States Code.*

15 (3) *DIRECTOR.*—*The term “Director” means the*
16 *Director of the National Science Foundation.*

17 (4) *GRANT.*—*The term “grant” means a grant*
18 *awarded under a grant agreement, within the mean-*
19 *ing of section 6304 of title 31, United States Code.*

20 (5) *INSTITUTION OF HIGHER EDUCATION.*—*The*
21 *term “institution of higher education” means an in-*
22 *stitution of higher education, within the meaning of*
23 *section 1201(a) of the Higher Education Act of 1965*
24 *(20 U.S.C. 1141(a)).*

1 (6) *SECRETARY.*—*The term “Secretary” means*
2 *the Secretary of Energy, acting through the Assistant*
3 *Secretary for Fossil Energy.*

4 (7) *SECRETARY OF DEFENSE.*—*The term “Sec-*
5 *retary of Defense” means the Secretary of Defense,*
6 *acting through the Secretary of the Navy.*

7 (8) *SECRETARY OF THE INTERIOR.*—*The term*
8 *“Secretary of the Interior” means the Secretary of the*
9 *Interior, acting through the Director of the United*
10 *States Geological Survey.*

11 **SEC. 3. GAS HYDRATE RESEARCH AND DEVELOPMENT PRO-**
12 **GRAM.**

13 (a) *IN GENERAL.*—

14 (1) *COMMENCEMENT OF PROGRAM.*—*Not later*
15 *than 180 days after the date of enactment of this Act,*
16 *the Secretary, in consultation with the Secretary of*
17 *Defense, the Secretary of the Interior, and the Direc-*
18 *tor, shall commence a program of gas hydrate re-*
19 *search and development.*

20 (2) *DESIGNATIONS.*—*The Secretary, the Sec-*
21 *retary of Defense, the Secretary of the Interior, and*
22 *the Director shall designate individuals to carry out*
23 *this section.*

24 (3) *MEETINGS.*—*The individuals designated*
25 *under paragraph (2) shall meet not later than 120*

1 *days after the date on which all such individuals are*
2 *designated and not less frequently than every 120*
3 *days thereafter to—*

4 *(A) review the progress of the program*
5 *under paragraph (1); and*

6 *(B) make recommendations on future ac-*
7 *tivities to occur subsequent to the meeting.*

8 *(b) GRANTS, CONTRACTS, COOPERATIVE AGREEMENTS,*
9 *INTERAGENCY FUNDS TRANSFER AGREEMENTS, AND FIELD*
10 *WORK PROPOSALS.—*

11 *(1) ASSISTANCE AND COORDINATION.—The Sec-*
12 *retary may award grants or contracts to, or enter*
13 *into cooperative agreements with, institutions of high-*
14 *er education and industrial enterprises to—*

15 *(A) conduct basic and applied research to*
16 *identify, explore, assess, and develop gas hydrate*
17 *as a source of energy;*

18 *(B) assist in developing technologies re-*
19 *quired for efficient and environmentally sound*
20 *development of gas hydrate resources;*

21 *(C) undertake research programs to provide*
22 *safe means of transport and storage of gas pro-*
23 *duced from gas hydrates;*

1 (D) promote education and training in gas
2 hydrate resource research and resource develop-
3 ment;

4 (E) conduct basic and applied research to
5 assess and mitigate the environmental impacts of
6 hydrate degassing (including both natural
7 degassing and degassing associated with commer-
8 cial development); and

9 (F) develop technologies to reduce the risks
10 of drilling through gas hydrates.

11 (2) *COMPETITIVE MERIT-BASED REVIEW.*—Funds
12 made available under paragraph (1) shall be made
13 available based on a competitive merit-based process.

14 (c) *CONSULTATION.*—The Secretary may establish an
15 advisory panel consisting of experts from industry, institu-
16 tions of higher education, and Federal agencies to—

17 (1) advise the Secretary on potential applica-
18 tions of gas hydrate; and

19 (2) assist in developing recommendations and
20 priorities for the gas hydrate research and develop-
21 ment program carried out under subsection (a)(1).

22 (d) *LIMITATIONS.*—

23 (1) *ADMINISTRATIVE EXPENSES.*—Not more than
24 5 percent of the amount made available to carry out
25 this section for a fiscal year may be used by the Sec-

1 *retary for expenses associated with the administration*
2 *of the program carried out under subsection (a)(1).*

3 (2) *CONSTRUCTION COSTS.—None of the funds*
4 *made available to carry out this section may be used*
5 *for the construction of a new building or the acquisi-*
6 *tion, expansion, remodeling, or alteration of an exist-*
7 *ing building (including site grading and improve-*
8 *ment and architect fees).*

9 (e) *RESPONSIBILITIES OF THE SECRETARY.—In car-*
10 *rying out subsection (b)(1), the Secretary shall—*

11 (1) *facilitate and develop partnerships among*
12 *government, industry, and institutions of higher edu-*
13 *cation to research, identify, assess, and explore gas*
14 *hydrate resources;*

15 (2) *undertake programs to develop basic infor-*
16 *mation necessary for promoting long-term interest in*
17 *gas hydrate resources as an energy source;*

18 (3) *ensure that the data and information devel-*
19 *oped through the program are accessible and widely*
20 *disseminated as needed and appropriate;*

21 (4) *promote cooperation among agencies that are*
22 *developing technologies that may hold promise for gas*
23 *hydrate resource development; and*

24 (5) *report annually to Congress on accomplish-*
25 *ments under this section.*

1 **SEC. 4. AMENDMENTS TO THE MINING AND MINERALS POL-**
2 **ICY ACT OF 1970.**

3 *Section 201 of the Mining and Minerals Policy Act*
4 *of 1970 (30 U.S.C. 1901) is amended—*

5 *(1) in paragraph (6)—*

6 *(A) in subparagraph (F), by striking “and”*
7 *at the end;*

8 *(B) by redesignating subparagraph (G) as*
9 *subparagraph (H); and*

10 *(C) by inserting after subparagraph (F) the*
11 *following:*

12 *“(G) for purposes of this section and sec-*
13 *tions 202 through 205 only, methane hydrate;*
14 *and”;*

15 *(2) by redesignating paragraph (7) as para-*
16 *graph (8); and*

17 *(3) by inserting after paragraph (6) the fol-*
18 *lowing:*

19 *“(7) The term ‘methane hydrate’ means a meth-*
20 *ane clathrate that—*

21 *“(A) is in the form of a methane-water ice-*
22 *like crystalline material; and*

23 *“(B) is stable and occurs naturally in deep-*
24 *ocean and permafrost areas.”.*

1 **SEC. 5. AUTHORIZATION OF APPROPRIATIONS.**

2 *There are authorized to be appropriated to the Sec-*
3 *retary of Energy to carry out this Act—*

4 *(1) \$5,000,000 for fiscal year 2000;*

5 *(2) \$7,500,000 for fiscal year 2001;*

6 *(3) \$10,000,000 for fiscal year 2002;*

7 *(4) \$10,000,000 for fiscal year 2003; and*

8 *(5) \$10,000,000 for fiscal year 2004.*

9 *Amounts authorized under this section shall remain avail-*
10 *able until expended.*

11 **SEC. 6. SUNSET.**

12 *Section 3 of this Act shall cease to be effective after*
13 *the end of fiscal year 2004.*

14 Amend the title so as to read: “A bill to promote the
15 research, identification, assessment, exploration, and de-
16 velopment of gas hydrate resources, and for other pur-
17 poses.”.

18 **SECTION 1. SHORT TITLE.**

19 **This Act may be cited as the “Methane Hy-**
20 **drate Research and Development Act of 1999”.**

21 **SEC. 2. DEFINITIONS.**

22 **In this Act:**

23 **(1) CONTRACT.—The term “contract”**
24 **means a procurement contract within the**
25 **meaning of section 6303 of title 31, United**
26 **States Code.**

1 (2) **COOPERATIVE AGREEMENT.**—The
2 term “cooperative agreement” means a
3 cooperative agreement within the mean-
4 ing of section 6305 of title 31, United
5 States Code.

6 (3) **DIRECTOR.**—The term “Director”
7 means the Director of the National
8 Science Foundation.

9 (4) **GRANT.**—The term “grant” means a
10 grant awarded under a grant agreement,
11 within the meaning of section 6304 of
12 title 31, United States Code.

13 (5) **INSTITUTION OF HIGHER EDU-**
14 **CATION.**—The term “institution of higher
15 education” means an institution of higher
16 education, within the meaning of section
17 1201(a) of the Higher Education Act of
18 1965 (20 U.S.C. 1141(a)).

19 (6) **METHANE HYDRATE.**—The term
20 “methane hydrate” means a methane
21 clathrate that—

22 (A) is in the form of a methane-
23 water ice-like crystalline material;
24 and

1 **(B) is stable and occurs naturally**
2 **in deep-ocean and permafrost areas.**

3 **(7) SECRETARY.—The term “Secretary”**
4 **means the Secretary of Energy, acting**
5 **through the Assistant Secretary for Fossil**
6 **Energy.**

7 **(8) SECRETARY OF COMMERCE.—The**
8 **term “Secretary of Commerce” means the**
9 **Secretary of Commerce, acting through**
10 **the Administrator of the National Oce-**
11 **anic and Atmospheric Administration.**

12 **(9) SECRETARY OF DEFENSE.—The term**
13 **“Secretary of Defense” means the Sec-**
14 **retary of Defense, acting through the Sec-**
15 **retary of the Navy.**

16 **(10) SECRETARY OF THE INTERIOR.—The**
17 **term “Secretary of the Interior” means**
18 **the Secretary of the Interior, acting**
19 **through the Director of the United States**
20 **Geological Survey and the Director of the**
21 **Minerals Management Service.**

22 **SEC. 3. METHANE HYDRATE RESEARCH AND DEVELOP-**
23 **MENT PROGRAM.**

24 **(a) IN GENERAL.—**

1 **(1) COMMENCEMENT OF PROGRAM.—Not**
2 **later than 180 days after the date of en-**
3 **actment of this Act, the Secretary, in con-**
4 **sultation with the Secretary of Com-**
5 **merce, the Secretary of Defense, the Sec-**
6 **retary of the Interior, and the Director,**
7 **shall commence a program of methane**
8 **hydrate research and development.**

9 **(2) DESIGNATIONS.—The Secretary, the**
10 **Secretary of Commerce, the Secretary of**
11 **Defense, the Secretary of the Interior,**
12 **and the Director shall designate individ-**
13 **uals to carry out this section.**

14 **(3) MEETINGS.—The individuals des-**
15 **ignated under paragraph (2) shall meet**
16 **not later than 120 days after the date on**
17 **which all such individuals are designated**
18 **and not less frequently than every 120**
19 **days thereafter to—**

20 **(A) review the progress of the**
21 **program under paragraph (1); and**

22 **(B) make recommendations on fu-**
23 **ture activities to occur subsequent to**
24 **the meeting.**

1 **(b) GRANTS, CONTRACTS, COOPERATIVE**
2 **AGREEMENTS, INTERAGENCY FUNDS TRANSFER**
3 **AGREEMENTS, AND FIELD WORK PROPOSALS.—**

4 **(1) ASSISTANCE AND COORDINATION.—**

5 **The Secretary may award grants or con-**
6 **tracts to, or enter into cooperative agree-**
7 **ments with, institutions of higher edu-**
8 **cation and industrial enterprises to—**

9 **(A) conduct basic and applied re-**
10 **search to identify, explore, assess,**
11 **and develop methane hydrate as a**
12 **source of energy;**

13 **(B) assist in developing tech-**
14 **nologies required for efficient and en-**
15 **vironmentally sound development of**
16 **methane hydrate resources;**

17 **(C) undertake research programs**
18 **to provide safe means of transport**
19 **and storage of methane produced**
20 **from methane hydrates;**

21 **(D) promote education and train-**
22 **ing in methane hydrate resource re-**
23 **search and resource development;**

24 **(E) conduct basic and applied re-**
25 **search to assess and mitigate the en-**

1 **vironmental impacts of hydrate**
2 **degassing (including both natural**
3 **degassing and degassing associated**
4 **with commercial development); and**

5 **(F) develop technologies to re-**
6 **duce the risks of drilling through**
7 **methane hydrates.**

8 **(2) COMPETITIVE MERIT-BASED RE-**
9 **VIEW.—Funds made available under para-**
10 **graph (1) shall be made available based**
11 **on a competitive merit-based process.**

12 **(c) CONSULTATION.—The Secretary shall es-**
13 **tablish an advisory panel consisting of ex-**
14 **perts from industry, institutions of higher**
15 **education, and Federal agencies to—**

16 **(1) advise the Secretary on potential**
17 **applications of methane hydrate;**

18 **(2) assist in developing recommenda-**
19 **tions and priorities for the methane hy-**
20 **drate research and development program**
21 **carried out under subsection (a)(1); and**

22 **(3) report to the Congress within 2**
23 **years after the date of the enactment of**
24 **this Act, or at such later date as the Sec-**
25 **retary considers advisable, on the impact**

1 on global climate change from methane
2 hydrate extraction and consumption.

3 **(d) LIMITATIONS.—**

4 (1) **ADMINISTRATIVE EXPENSES.—**Not
5 more than 5 percent of the amount made
6 available to carry out this section for a
7 fiscal year may be used by the Secretary
8 for expenses associated with the adminis-
9 tration of the program carried out under
10 subsection (a)(1).

11 (2) **CONSTRUCTION COSTS.—**None of the
12 funds made available to carry out this
13 section may be used for the construction
14 of a new building or the acquisition, ex-
15 pansion, remodeling, or alteration of an
16 existing building (including site grading
17 and improvement and architect fees).

18 **(e) RESPONSIBILITIES OF THE SECRETARY.—**

19 In carrying out subsection (b)(1), the Sec-
20 retary shall—

21 (1) facilitate and develop partner-
22 ships among government, industry, and
23 institutions of higher education to re-
24 search, identify, assess, and explore
25 methane hydrate resources;

1 **(2) undertake programs to develop**
2 **basic information necessary for pro-**
3 **moting long-term interest in methane hy-**
4 **drate resources as an energy source;**

5 **(3) ensure that the data and informa-**
6 **tion developed through the program are**
7 **accessible and widely disseminated as**
8 **needed and appropriate;**

9 **(4) promote cooperation among agen-**
10 **cies that are developing technologies that**
11 **may hold promise for methane hydrate**
12 **resource development; and**

13 **(5) report annually to Congress on ac-**
14 **complishments under this section.**

15 **SEC. 4. AMENDMENTS TO THE MINING AND MINERALS POL-**
16 **ICY ACT OF 1970.**

17 **Section 201 of the Mining and Minerals**
18 **Policy Act of 1970 (30 U.S.C. 1901) is**
19 **amended—**

20 **(1) in paragraph (6)—**

21 **(A) in subparagraph (F), by strik-**
22 **ing “and” at the end;**

23 **(B) by redesignating subpara-**
24 **graph (G) as subparagraph (H); and**

1 (C) by inserting after subpara-
2 graph (F) the following:

3 “(G) for purposes of this section
4 and sections 202 through 205 only,
5 methane hydrate; and”;

6 (2) by redesignating paragraph (7) as
7 paragraph (8); and

8 (3) by inserting after paragraph (6)
9 the following:

10 “(7) The term ‘methane hydrate’
11 means a methane clathrate that—

12 “(A) is in the form of a methane-
13 water ice-like crystalline material;
14 and

15 “(B) is stable and occurs naturally
16 in deep-ocean and permafrost areas.”.

17 SEC. 5. AUTHORIZATION OF APPROPRIATIONS.

18 There are authorized to be appropriated
19 to the Secretary of Energy to carry out this
20 Act—

21 (1) \$5,000,000 for fiscal year 2000;

22 (2) \$11,000,000 for fiscal year 2001;

23 (3) \$11,000,000 for fiscal year 2002;

24 (4) \$12,000,000 for fiscal year 2003;

25 and

1 **(5) \$12,000,000 for fiscal year 2004.**
2 **Amounts authorized under this section shall**
3 **remain available until expended.**
4 **SEC. 6. SUNSET.**
5 **Section 3 of this Act shall cease to be ef-**
6 **fective after the end of fiscal year 2004.**