

Calendar No. 532

103D CONGRESS
2D SESSION

S. 617

[Report No. 103-320]

A BILL

To authorize research into the desalinization of water and water reuse and to authorize a program for States, cities, or any qualifying agency which desires to own and operate a desalinization or water reuse facility to develop such facilities.

JULY 27 (legislative day, JULY 20), 1994
Reported with amendments

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IN THE SENATE OF THE UNITED STATES

MARCH 18 (legislative day, MARCH 3), 1993

Mr. SIMON (for himself, Mr. MOYNIHAN, Mr. BRADLEY, Mr. JEFFORDS, Mr. BRYAN, Mr. REID, Mr. SHELBY, Mr. LIEBERMAN, and Mr. ROBB) introduced the following bill; which was read twice and referred to the Committee on Environment and Public Works

JULY 27 (legislative day, JULY 20), 1994

Reported by Mr. BAUCUS, with amendments

[Omit the part struck through and insert the part printed in italic]

A BILL

To authorize research into the desalinization of water and water reuse and to authorize a program for States, cities, or any qualifying agency which desires to own and operate a desalinization or water reuse facility to develop such facilities.

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

1 **SECTION 1. SHORT TITLE.**

2 This Act may be cited as the “Desalinization Re-
3 search and Development Act of ~~1993~~ 1994’.

4 **SEC. 2. DECLARATION OF POLICY.**

5 In view of the increasing shortage of usable surface
6 and ground water in many parts of the United States and
7 the world, it is the policy of the United States to perform
8 research to develop low-cost alternatives in the desaliniza-
9 tion and reuse of saline or biologically impaired water to
10 provide water of a quality suitable for environmental en-
11 hancement, agricultural, industrial, municipal, and other
12 beneficial consumptive or nonconsumptive uses, and to
13 provide, through cooperative activities with local sponsors,
14 desalinization and water reuse processes or facilities which
15 provide proof-of-concept demonstrations of advanced tech-
16 nologies for the purpose of developing and conserving the
17 water resources of this Nation and the world.

18 **SEC. 3. DEFINITIONS.**

19 As used in this Act—

20 (1) the term “desalinization” means the use of
21 any process or technique for the removal and, when
22 feasible, adaptation to beneficial use, of organic and
23 inorganic elements and compounds from saline or
24 biologically impaired waters, by itself or in conjunc-
25 tion with other processes;

1 (2) the term “saline water” means sea water,
 2 brackish water, and other mineralized or chemically
 3 impaired water;

4 (3) the term “United States” means the States
 5 of the United States, the District of Columbia, the
 6 Commonwealth of Puerto Rico, and the territories
 7 and possessions of the United States;

8 (4) the term “usable water” means water of a
 9 high quality suitable for environmental enhance-
 10 ment, agricultural, industrial, municipal, and other
 11 beneficial consumptive or nonconsumptive uses; and

12 (5) the term “sponsor” means any local, State,
 13 or interstate agency responsible for the sale and de-
 14 livery of “~~usable~~” *usable* water that has the legal
 15 and financial authority and capability to provide the
 16 financial and real property requirements needed for
 17 a desalinization facility.

18 **SEC. 4. RESPONSIBILITY FOR THE PROGRAM.**

19 (a) *RESEARCH AND DEVELOPMENT*.—The Secretary
 20 of the Interior shall have primary program management
 21 and oversight for conduct of the research and development
 22 ~~and the Desalinization Development Program~~ *under this*
 23 *Act* and shall coordinate these activities with the Secretary
 24 of the Army.

1 (b) *DESALINIZATION DEVELOPMENT PROGRAM*.—The
 2 Secretary of the Interior shall jointly execute the Desalin-
 3 ization Development Program *established under section 6*
 4 with the Secretary of the Army.

5 **SEC. 5. RESEARCH AND DEVELOPMENT.**

6 (a) *IN GENERAL*.—In order to gain basic knowledge
 7 concerning the most efficient means by which usable water
 8 can be produced from saline water, the Secretary of the
 9 Interior and the Secretary of the Army shall conduct a
 10 basic research and development program as established by
 11 this Act.

12 (b) *CONTENTS OF PROGRAM*.—For the basic research
 13 and development program, the Secretary of the Interior
 14 and the Secretary of the Army shall—

15 (1) conduct, encourage, and promote fundamen-
 16 tal scientific research and basic studies to develop
 17 the best and most economical processes and methods
 18 for converting saline water into ~~“usable”~~ *usable*
 19 water through research grants and contracts—

20 (A) to conduct research and technical de-
 21 velopment work,

22 (B) to make studies in order to ascertain
 23 the optimum mix of investment and operating
 24 costs,

1 (C) to determine the best designs for dif-
 2 ferent conditions of operation, and

3 (D) to investigate increasing the economic
 4 efficiency of desalinization processes by using
 5 them as dual-purpose “~~co-facilities~~” *co-facilities*
 6 with other processes involving the use of water;

7 (2) engage, by competitive or noncompetitive
 8 contract or any other means, necessary personnel,
 9 industrial or engineering firms, Federal laboratories
 10 and other facilities, and educational institutions suit-
 11 able to conduct research or other work;

12 (3) study methods for the recovery of byprod-
 13 ucts resulting from the desalinization of water to
 14 offset the costs of treatment and to reduce the envi-
 15 ronmental impact from those byproducts; and

16 (4) prepare a management plan for conduct of
 17 the “~~Research and Development Program~~”; *research*
 18 *and development program established under this sec-*
 19 *tion.*

20 **SEC. 6. DESALINIZATION DEVELOPMENT PROGRAM.**

21 (a) *PROGRAM RESPONSIBILITY.*—The Secretary of the
 22 Interior ~~will~~ *shall* have program responsibility *for the Desa-*
 23 *linization Development Program established under this sec-*
 24 *tion (referred to in this section as the “Desalinization De-*
 25 *velopment Program”).*

1 (b) *DESIGN AND CONSTRUCTION*.—The Secretary of
 2 the Army and the Secretary of the Interior both shall have
 3 authority to design and construct facilities under the pro-
 4 vision of the Desalinization Development Program.

5 (c) *SELECTION OF DESALINIZATION DEVELOPMENT*
 6 *FACILITIES*.—Candidate facilities ~~must~~ *shall* be submitted
 7 by the sponsor directly to the Secretary of the Army or
 8 the Secretary of the Interior. Sponsors ~~will~~ *shall* submit
 9 their application for the design and construction of a facil-
 10 ity and certification that they can provide the required
 11 cost sharing. Facilities ~~will~~ *shall* be selected subject to
 12 availability of Federal funds.

13 (d) *COST SHARING*.—

14 (1) *INITIAL COST*.—The “~~initial cost~~” *initial*
 15 *cost* of a facility shall include—

16 (A) design cost,

17 (B) construction cost,

18 (C) lands, easements, and rights-of-way
 19 costs, and

20 (D) relocation costs.

21 (2) *GENERAL RULE*.—The sponsor for a facility
 22 under the Desalinization Development Program
 23 shall—

24 (A) ~~pay, during construction, 5 percent of~~
 25 the “~~initial cost~~” of the facility, and

1 ~~(B) provide all lands, easements, and~~
 2 ~~rights-of-way and perform all related necessary~~
 3 ~~relocations.~~

4 *shall pay, during construction, at least 25 percent of*
 5 *the initial cost of the facility, including providing all*
 6 *lands, easements, and rights-of-way and performing*
 7 *all related necessary relocations.*

8 (3) 25-PERCENT MINIMUM CONTRIBUTION.—If
 9 the value of the contributions required under para-
 10 graph (2) of this subsection is less than 25 percent
 11 of the ~~“initial cost”~~ *initial cost* of the facility, the
 12 sponsor shall pay during construction of the facility
 13 such additional amounts as are necessary so that the
 14 total contribution of the sponsor is equal to 25 per-
 15 cent of the ~~“initial cost”~~ *initial cost* of the facility.

16 (4) 50-PERCENT MAXIMUM.—The sponsor share
 17 under paragraph (2) shall not exceed 50 percent of
 18 the ~~“initial cost”~~ *initial cost* of the facility.

19 (e) *MAXIMUM INITIAL COST.*—The ~~“initial cost”~~ *ini-*
 20 *tial cost* of a facility under subsection (d)(1) may not ex-
 21 ceed \$10,000,000.

22 (f) *OPERATION AND MAINTENANCE.*—Operation,
 23 maintenance, repair, and rehabilitation of facilities shall
 24 be the responsibility of the sponsor.

1 (g) REVENUE.—All revenue generated from the sale
 2 of “~~usable water~~” *usable water* from the facilities shall be
 3 retained by the sponsors.

4 **SEC. 7. PARTICIPATION BY INTERESTED AGENCIES AND**
 5 **OTHER PERSONS.**

6 (a) COORDINATION WITH OTHER AGENCIES.—

7 (1) *IN GENERAL*.—Research and development
 8 activities undertaken by the Secretary of the Interior
 9 under this Act shall be coordinated or conducted
 10 jointly, as appropriate, ~~with~~—

11 (A) *with* the Department of Commerce,
 12 specifically with respect to marketing and inter-
 13 national competition, *and*

14 (B) ~~as appropriate~~ *with*—

15 (i) the Departments of Defense, Agri-
 16 culture, State, Health and Human Re-
 17 ~~sources~~ *Services*, and Energy,

18 (ii) the Environmental Protection
 19 Agency,

20 (iii) the Agency for International De-
 21 velopment, and

22 (iv) other concerned Government and
 23 private entities.

24 (2) *OTHER AGENCIES*.—Other interested agen-
 25 cies may furnish appropriate resources to the Sec-

1 retary of the Interior to further the activities in
2 which they are interested.

3 (b) AVAILABILITY OF RESEARCH.—All research
4 sponsored or funded under authority of this Act shall be
5 provided in such manner that information, products, proc-
6 esses, and other developments resulting from Federal ex-
7 penditures or authorities ~~will~~ *shall* (with exceptions nec-
8 essary for national defense and the protection of patent
9 rights) be available to the general public consistent with
10 this Act.

11 (c) PATENTS AND INVENTIONS.—

12 (1) Subject to paragraph (2), section 9 (a)
13 through (k) and (m) of the Federal Nonnuclear En-
14 ergy, Research and Development Act of 1974 (43
15 U.S.C. 5908 (a) through (k) and (n)) shall apply to
16 any invention made or conceived in the course of or
17 under any contract of the Secretary of the Interior
18 pursuant to this Act, except that for the purposes of
19 this Act, the words “Administrator” and “Adminis-
20 tration” in that section shall be deemed to refer to
21 the Secretary and Department of the Interior, re-
22 spectively.

23 (2) Paragraph (1) shall not be construed to af-
24 fect the application of the Stevenson-Wydler Tech-
25 nology Innovation Act of 1980 (15 U.S.C. 3701 et

1 ~~seq.) to research under this Act that is performed at~~
2 a Federal laboratory.

3 ~~(d)~~ (c) RELATIONSHIP TO ANTITRUST LAWS.—Sec-
4 tion 10 of the Federal Nonnuclear Energy Research and
5 Development Act of 1974 (42 U.S.C. 5909) shall apply
6 to the activities of individuals, corporations, and other
7 business organizations in connection with grants and con-
8 tracts made by the Secretary of the Interior pursuant to
9 this Act.

10 **SEC. 8. TECHNICAL AND ADMINISTRATIVE ASSISTANCE.**

11 The Secretary of the Interior is authorized to accept
12 technical and administrative assistance from a State, pub-
13 lic, or private agency in connection with research and de-
14 velopment activities relating to desalinization of water and
15 may enter into contracts or agreements stating the pur-
16 pose for which the assistance is contributed and, in appro-
17 priate circumstances, providing for the sharing of costs be-
18 tween the Secretary of the Interior and such agency.

19 **SEC. 9. MISCELLANEOUS AUTHORITIES.**

20 In carrying out this Act, the Secretary of the Interior
21 or the Secretary of the Army, as appropriate, may—

22 (1) make grants to educational and scientific
23 institutions;

24 (2) contract with educational and scientific in-
25 stitutions and engineering and industrial firms;

1 (3) engage, by competition or noncompetitive
2 contract or any other means, necessary personnel,
3 industrial and engineering firms and educational in-
4 stitutions;

5 (4) use the facilities and personnel of Federal,
6 State, municipal, and private scientific laboratories;

7 (5) contract for or establish and operate facili-
8 ties and tests to conduct research, testing, and de-
9 velopment necessary for the purposes of this Act;

10 (6) acquire processes, data, inventions, patent
11 applications, patents, licenses, lands, interests in
12 lands and water, facilities, and other property by
13 purchase, license, lease, or donation;

14 (7) assemble and maintain domestic and foreign
15 scientific literature and issue pertinent biblio-
16 graphical data;

17 (8) conduct inspections and evaluations of do-
18 mestic and foreign facilities and cooperate and par-
19 ticipate in their development;

20 (9) conduct and participate in regional, na-
21 tional, and international conferences relating to the
22 desalinization of water;

23 (10) coordinate, correlate, and publish informa-
24 tion which will advance the development of the desa-
25 linization of water; and

1 (11) cooperate with Federal, State, and municipi-
2 pal departments, agencies and instrumentalities, and
3 with private persons, firms, educational institutions,
4 and other organizations, including foreign govern-
5 ments, departments, agencies, companies, and in-
6 strumentalities, in effectuating the purposes of this
7 Act.

8 **SEC. 10. DESALINIZATION CONFERENCE.**

9 (a) ESTABLISHMENT.—The President shall instruct
10 the Agency for International Development to sponsor an
11 international desalinization conference within twelve
12 months following the date of the enactment of this Act.
13 Participants in such conference should include scientists,
14 private industry experts, desalinization experts and opera-
15 tors, government officials from the nations that use and
16 conduct research on desalinization, and those from nations
17 that could benefit from low-cost desalinization technology,
18 particularly in the developing world, and international fi-
19 nancial institutions.

20 (b) PURPOSE.—The conference established in sub-
21 section (a) shall explore promising new technologies and
22 methods to make affordable desalinization a reality in the
23 near term, and shall further propose a research agenda
24 and a plan of action to guide longer-term development of
25 practical desalinization applications.

1 (c) FUNDING.—Funding for the international desa-
2 linization conference may come from operating or program
3 funds of the Agency for International Development, ~~and~~
4 ~~the~~. *The* Agency for International Development shall en-
5 courage financial and other support from other nations,
6 including those that have desalinization technology and
7 those that might benefit from it.

8 **SEC. 11. REPORTS.**

9 Prior to the expiration of the twelve-month period fol-
10 lowing the date of enactment of this Act, and each twelve-
11 month period thereafter, the Secretary of the Interior, in
12 consultation with the Secretary of the Army, shall prepare
13 a report to the President and Congress concerning the ad-
14 ministration of this Act. Such report shall include the ac-
15 tions taken by the Secretary of the Interior and the Sec-
16 retary of the Army during the calendar year preceding the
17 calendar year in which such report is filed, and shall in-
18 clude actions planned for the next following calendar year.

19 **SEC. 12. AUTHORIZATION OF APPROPRIATIONS.**

20 (a) There is authorized to be appropriated
21 \$5,000,000 for fiscal year 1994, \$10,000,000 for fiscal
22 year 1995, and for each of the fiscal years 1996, 1997,
23 and 1998, such sums as may be necessary for the purposes
24 of carrying out section 5 of this Act.

1 (b) There is authorized to be appropriated
 2 \$50,000,000 over a five-year period for the purposes of
 3 section 6 of this Act. Any of the funds appropriated will
 4 be made available equally to the Department of the Inte-
 5 rior or the Army Corps of Engineers civil works program.

6 **SEC. 12. AUTHORIZATION OF APPROPRIATIONS.**

7 (a) *RESEARCH AND DEVELOPMENT.*—There are au-
 8 thorized to be appropriated to carry out section 5
 9 \$5,000,000 for fiscal year 1995, \$10,000,000 for fiscal year
 10 1996, and such sums as may be necessary for each of fiscal
 11 years 1997 through 1999.

12 (b) *DESALINIZATION DEVELOPMENT PROGRAM.*—
 13 There are authorized to be appropriated to carry out section
 14 6 such sums as may be necessary, up to a total of
 15 \$50,000,000, for fiscal years 1995 through 1999. Funds
 16 made available under this subsection shall be made avail-
 17 able in equal amounts to the Department of the Interior
 18 and the civil works program of the Army Corps of Engi-
 19 neers.

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