

103<sup>D</sup> CONGRESS  
1<sup>ST</sup> SESSION

# S. 617

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.

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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

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## 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,*

3       **SECTION 1. SHORT TITLE.**

4       This Act may be cited as the “Desalinization Re-  
5       search and Development Act of 1993”.

1 **SEC. 2. DECLARATION OF POLICY.**

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

15 **SEC. 3. DEFINITIONS.**

16 As used in this Act—

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

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

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

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

9           (5) the term “sponsor” means any local, State,  
10 or interstate agency responsible for the sale and de-  
11 livery of “usable” water that has the legal and fi-  
12 nancial authority and capability to provide the finan-  
13 cial and real property requirements needed for a de-  
14 salinization facility.

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

16           (a) The Secretary of the Interior shall have primary  
17 program management and oversight for conduct of the re-  
18 search and development and the Desalinization Develop-  
19 ment Program and shall coordinate these activities with  
20 the Secretary of the Army.

21           (b) The Secretary of the Interior shall jointly execute  
22 the Desalinization Development Program with the Sec-  
23 retary of the Army.

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

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

8 (b) For the basic research and development program  
9 the Secretary of the Interior and the Secretary of the  
10 Army shall—

11 (1) conduct, encourage, and promote fundamen-  
12 tal scientific research and basic studies to develop  
13 the best and most economical processes and methods  
14 for converting saline water into “usable” water  
15 through research grants and contracts—

16 (A) to conduct research and technical de-  
17 velopment work,

18 (B) to make studies in order to ascertain  
19 the optimum mix of investment and operating  
20 costs,

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

23 (D) to investigate increasing the economic  
24 efficiency of desalinization processes by using  
25 them as dual-purpose “co-facilities” with other  
26 processes involving the use of water;

1           (2) engage by competitive or noncompetitive  
2 contract or any other means, necessary personnel,  
3 industrial or engineering firms, Federal laboratories  
4 and other facilities, and educational institutions suit-  
5 able to conduct research or other work;

6           (3) study methods for the recovery of byprod-  
7 ucts resulting from the desalinization of water to  
8 offset the costs of treatment and to reduce the envi-  
9 ronmental impact from those byproducts; and

10           (4) prepare a management plan for conduct of  
11 the “Research and Development Program”.

12 **SEC. 6. DESALINIZATION DEVELOPMENT PROGRAM.**

13           (a) The Secretary of the Interior will have program  
14 responsibility.

15           (b) The Secretary of the Army and the Secretary of  
16 the Interior both shall have authority to design and con-  
17 struct facilities under the provision of the Desalinization  
18 Development Program.

19           (c) **SELECTION OF DESALINIZATION DEVELOPMENT**  
20 **FACILITIES.**—Candidate facilities must be submitted by  
21 the sponsor directly to the Secretary of the Army or the  
22 Secretary of the Interior. Sponsors will submit their appli-  
23 cation for the design and construction of a facility and  
24 certification that they can provide the required cost shar-

1 ing. Facilities will be selected subject to availability of  
2 Federal funds.

3 (d) COST SHARING.—

4 (1) The “initial cost” of a facility shall in-  
5 clude—

6 (A) design cost,

7 (B) construction cost,

8 (C) lands, easements, and rights-of-way  
9 costs, and

10 (D) relocation costs.

11 (2) GENERAL RULE.—The sponsor for a facility  
12 under the Desalinization Development Program  
13 shall—

14 (A) pay, during construction, 5 percent of  
15 the “initial cost” of the facility, and

16 (B) provide all lands, easements, and  
17 rights-of-way and perform all related necessary  
18 relocations.

19 (3) 25-PERCENT MINIMUM CONTRIBUTION.—If  
20 the value of the contributions required under para-  
21 graph (2) of this subsection is less than 25 percent  
22 of the “initial cost” of the facility, the sponsor shall  
23 pay during construction of the facility such addi-  
24 tional amounts as are necessary so that the total

1 contribution of the sponsor is equal to 25 percent of  
2 the “initial cost” of the facility.

3 (4) 50-PERCENT MAXIMUM.—The sponsor share  
4 under paragraph (2) shall not exceed 50 percent of  
5 the “initial cost” of the facility.

6 (e) The “initial cost” of a facility may not exceed  
7 \$10,000,000.

8 (f) Operation, maintenance, repair, and rehabilitation  
9 of facilities shall be the responsibility of the sponsor.

10 (g) REVENUE.—All revenue generated from the sale  
11 of “usable water” from the facilities shall be retained by  
12 the sponsors.

13 **SEC. 7. PARTICIPATION BY INTERESTED AGENCIES AND**  
14 **OTHER PERSONS.**

15 (a) COORDINATION WITH OTHER AGENCIES.—

16 (1) Research and development activities under-  
17 taken by the Secretary of the Interior under this Act  
18 shall be coordinated or conducted jointly, as appro-  
19 priate, with—

20 (A) the Department of Commerce, specifi-  
21 cally with respect to marketing and inter-  
22 national competition,

23 (B) as appropriate—

1 (i) the Department of Defense, Agri-  
2 culture, State, Health and Human Re-  
3 sources, and Energy,

4 (ii) the Environmental Protection  
5 Agency,

6 (iii) the Agency for International De-  
7 velopment, and

8 (iv) other concerned Government and  
9 private entities.

10 (2) Other interested agencies may furnish ap-  
11 propriate resources to the Secretary of the Interior  
12 to further the activities in which they are interested.

13 (b) AVAILABILITY OF RESEARCH.—All research  
14 sponsored or funded under authority of this Act shall be  
15 provided in such manner that information, products, proc-  
16 esses, and other developments resulting from Federal ex-  
17 penditures or authorities will (with exceptions necessary  
18 for national defense and the protection of patent rights)  
19 be available to the general public consistent with this Act.

20 (c) PATENTS AND INVENTIONS.—

21 (1) Subject to paragraph (2), section 9 (a)  
22 through (k) and (m) of the Federal Nonnuclear En-  
23 ergy, Research and Development Act of 1974 (43  
24 U.S.C. 5908 (a) through (k) and (n)) shall apply to  
25 any invention made or conceived in the course of or



1 under any contract of the Secretary of the Interior  
2 pursuant to this Act, except that for the purposes of  
3 this Act, the words “Administrator” and “Adminis-  
4 tration” in that section shall be deemed to refer to  
5 the Secretary and Department of the Interior, re-  
6 spectively.

7 (2) Paragraph (1) shall not be construed to af-  
8 fect the application of the Stevenson-Wydler Tech-  
9 nology Innovation Act of 1980 (15 U.S.C. 3701 et  
10 seq.) to research under this Act that is performed at  
11 a Federal laboratory.

12 (d) RELATIONSHIP TO ANTITRUST LAWS.—Section  
13 10 of the Federal Nonnuclear Energy Research and Devel-  
14 opment Act of 1974 (42 U.S.C. 5909) shall apply to the  
15 activities of individuals, corporations, and other business  
16 organizations in connection with grants and contracts  
17 made by the Secretary of the Interior pursuant to this Act.

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

19 The Secretary of the Interior is authorized to accept  
20 technical and administrative assistance from a State, pub-  
21 lic or private agency in connection with research and de-  
22 velopment activities relating to desalinization of water and  
23 may enter into contracts or agreements stating the pur-  
24 pose for which the assistance is contributed and, in appro-

1 p r i a t e c i r c u m s t a n c e s , p r o v i d i n g f o r t h e s h a r i n g o f c o s t s b e -  
2 t w e e n t h e S e c r e t a r y o f t h e I n t e r i o r a n d s u c h a g e n c y .

3 **SEC. 9. MISCELLANEOUS AUTHORITIES.**

4 I n c a r r y i n g o u t t h i s A c t , t h e S e c r e t a r y o f t h e I n t e r i o r  
5 o r t h e S e c r e t a r y o f t h e A r m y , a s a p p r o p r i a t e , m a y —

6 (1) m a k e g r a n t s t o e d u c a t i o n a l a n d s c i e n t i f i c  
7 i n s t i t u t i o n s ;

8 (2) c o n t r a c t w i t h e d u c a t i o n a l a n d s c i e n t i f i c i n -  
9 s t i t u t i o n s a n d e n g i n e e r i n g a n d i n d u s t r i a l f i r m s ;

10 (3) e n g a g e , b y c o m p e t i t i o n o r n o n c o m p e t i t i v e  
11 c o n t r a c t o r a n y o t h e r m e a n s , n e c e s s a r y p e r s o n n e l ,  
12 i n d u s t r i a l a n d e n g i n e e r i n g f i r m s a n d e d u c a t i o n a l i n -  
13 s t i t u t i o n s ;

14 (4) u s e t h e f a c i l i t i e s a n d p e r s o n n e l o f F e d e r a l ,  
15 S t a t e , m u n i c i p a l , a n d p r i v a t e s c i e n t i f i c l a b o r a t o r i e s ;

16 (5) c o n t r a c t f o r o r e s t a b l i s h a n d o p e r a t e f a c i l i -  
17 t i e s a n d t e s t s t o c o n d u c t r e s e a r c h , t e s t i n g , a n d d e -  
18 v e l o p m e n t n e c e s s a r y f o r t h e p u r p o s e s o f t h i s A c t ;

19 (6) a c q u i r e p r o c e s s e s , d a t a , i n v e n t i o n s , p a t e n t  
20 a p p l i c a t i o n s , p a t e n t s , l i c e n s e s , l a n d s , i n t e r e s t s i n  
21 l a n d s a n d w a t e r , f a c i l i t i e s , a n d o t h e r p r o p e r t y b y  
22 p u r c h a s e , l i c e n s e , l e a s e , o r d o n a t i o n ;

23 (7) a s s e m b l e a n d m a i n t a i n d o m e s t i c a n d f o r e i g n  
24 s c i e n t i f i c l i t e r a t u r e a n d i s s u e p e r t i n e n t b i b l i o -  
25 g r a p h i c a l d a t a ;

1           (8) conduct inspections and evaluations of do-  
2           mestic and foreign facilities and cooperate and par-  
3           ticipate in their development;

4           (9) conduct and participate in regional, na-  
5           tional, and international conferences relating to the  
6           desalinization of water;

7           (10) coordinate, correlate, and publish informa-  
8           tion which will advance the development of the desa-  
9           linization of water; and

10          (11) cooperate with Federal, State, and municipi-  
11          pal departments, agencies and instrumentalities, and  
12          with private persons, firms, educational institutions,  
13          and other organizations, including foreign govern-  
14          ments, departments, agencies, companies, and in-  
15          strumentalities, in effectuating the purposes of this  
16          Act.

17 **SEC. 10. DESALINIZATION CONFERENCE.**

18          (a) ESTABLISHMENT.—The President shall instruct  
19          the Agency for International Development to sponsor an  
20          international desalinization conference within twelve  
21          months following the date of the enactment of this Act.  
22          Participants in such conference should include scientists,  
23          private industry experts, desalinization experts and opera-  
24          tors, government officials from the nations that use and  
25          conduct research on desalinization, and those from nations

1 that could benefit from low-cost desalinization technology,  
2 particularly in the developing world, and international fi-  
3 nancial institutions.

4 (b) PURPOSE.—The conference established in sub-  
5 section (a) shall explore promising new technologies and  
6 methods to make affordable desalinization a reality in the  
7 near term, and shall further propose a research agenda  
8 and a plan of action to guide longer-term development of  
9 practical desalinization applications.

10 (c) FUNDING.—Funding for the international desa-  
11 linization conference may come from operating or program  
12 funds of the Agency for International Development, and  
13 the Agency for International Development shall encourage  
14 financial and other support from other nations, including  
15 those that have desalinization technology and those that  
16 might benefit from it.

17 **SEC. 11. REPORTS.**

18 Prior to the expiration of the twelve-month period fol-  
19 lowing the date of enactment of this Act, and each twelve-  
20 month period thereafter, the Secretary of the Interior, in  
21 consultation with the Secretary of the Army, shall prepare  
22 a report to the President and Congress concerning the ad-  
23 ministration of this Act. Such report shall include the ac-  
24 tions taken by the Secretary of the Interior and the Sec-  
25 retary of the Army during the calendar year preceding the

1 calendar year in which such report is filed, and shall in-  
2 clude actions planned for the next following calendar year.

3 **SEC. 12. AUTHORIZATION OF APPROPRIATIONS.**

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

9 (b) There is authorized to be appropriated  
10 \$50,000,000 over a five-year period for the purposes of  
11 section 6 of this Act. Any of the funds appropriated will  
12 be made available equally to the Department of the Inte-  
13 rior or the Army Corps of Engineers civil works program.

○