

DESALINATION WATER SUPPLY SHORTAGE PREVENTION  
ACT OF 2005

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FEBRUARY 28, 2006.—Committed to the Committee of the Whole House on the State  
of the Union and ordered to be printed

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Mr. POMBO, from the Committee on Resources,  
submitted the following

R E P O R T

[To accompany H.R. 1071]

[Including cost estimate of the Congressional Budget Office]

The Committee on Resources, to whom was referred the bill (H.R. 1071) to direct the Secretary of Energy to make incentive payments to the owners or operators of qualified desalination facilities to partially offset the cost of electrical energy required to operate such facilities, and for other purposes, having considered the same, report favorably thereon with an amendment and recommend that the bill as amended do pass.

The amendment is as follows:

Strike all after the enacting clause and insert the following:

**SECTION 1. SHORT TITLE.**

This Act may be cited as the “Desalination Water Supply Shortage Prevention Act of 2005”.

**SEC. 2. DEFINITIONS.**

(a) **QUALIFIED DESALINATION FACILITY.**—The term “qualified desalination facility” means a facility that—

(1) produces for sale to domestic customers desalinated seawater, brackish groundwater, or surface water whose source water is greater than 1000 parts per million total dissolved solids; and

(2) is owned or operated by—

(A) a State or any political subdivision, agency, authority, or instrumentality of a State;

(B) an Indian tribe; or

(C) a corporation responsible for providing municipal water service pursuant to State or tribal law;

(3) is first used to produce commercial desalinated water for sale during the 10-year period beginning on October 1 of the first fiscal year occurring after the date of the enactment of this Act; and

(4) uses the best available technology as determined by the Secretary.

(b) INDIAN TRIBE.—The term “Indian Tribe” means with respect to the contiguous 48 states, any federally recognized Indian tribe, organized band, pueblo, or community and with respect to Alaska, the Metlakatla Indian Community.

(c) SECRETARY.—The term “Secretary ” means the Secretary of Energy.

(d) STATE.—The term “State” means the several States, the District of Columbia, Puerto Rico, American Samoa, the Virgin Islands, Guam, and the Northern Mariana Islands.

**SEC. 3. DESALINATED WATER PRODUCTION INCENTIVE PAYMENTS.**

(a) INCENTIVE PAYMENTS.—The Secretary shall make incentive payments in an amount determined under subsection (d) to the owners or operators of qualified desalination facilities to partially offset the cost of electrical energy required to operate such facilities.

(b) AGREEMENT; DEADLINE.—The Secretary may not make any payment to the owner or operator of a qualified desalination facility under this section, unless, not later than the end of fiscal year 2016, the Secretary enters into a written agreement with the owner or operator to make such payment.

(c) PAYMENT PERIOD.—The Secretary may make payments to the owner or operator of a qualified desalination facility under this section for a period not to exceed 10 years—

(1) beginning on the date on which the facility is first used to produce desalinated water; and

(2) ending not later than September 30, 2026.

(d) AMOUNT OF PAYMENT.—

(1) IN GENERAL.—Payments made by the Secretary under this section to the owner or operator of any qualified desalination facility shall be based on the amount of desalinated water produced by the facility during the payment period described in subsection (c). For any facility, the amount of such payment shall be 62 cents for every thousand gallons of desalinated water produced and sold, adjusted as provided in paragraph (2).

(2) ADJUSTMENTS.—The amount of the payment made to any person under this subsection as provided in paragraph (1) shall be adjusted for inflation for each fiscal year beginning after calendar year 2006 in the same manner as provided in the provisions of section 29(d)(2)(B) of the Internal Revenue Code of 1986 (26 U.S.C. 29(d)(2)(B)), except that in applying such provisions the calendar year 2006 shall be substituted for calendar year 1979.

(e) APPLICATION.—The Secretary may not make a grant to the owner or operator of a qualified desalination facility under this section unless the facility submits an application to the Secretary in such form, at such time, and containing such information and assurances as the Secretary may require.

(f) LIMITATION.—In any fiscal year not more than 60 percent of the funds made available by the Secretary under this section shall be made available to the owners or operators of qualified desalination facilities that obtain source water directly from the sea, an estuary, or from in-bank extraction wells that are of seawater origin

(g) PRIORITY.—In awarding incentive payments under this section, the Secretary shall give priority to any application for a project that—

(1) uses innovative technologies to reduce the energy demand of the project;

(2) uses renewable energy supplies in the desalination process;

(3) provides regional water supply benefits;

(4) provides a secure source of new water supplies for national defense activities;

(5) reduces the threat of a water supply disruption as a result of a natural disaster or acts of terrorism;

(6) uses technologies that minimize the damage to marine life; or

(7) provides significant water quality benefits.

(h) BUDGET ACT COMPLIANCE.—The authority provided by this section may be exercised only in such amounts or to such extent as provided in advance in appropriations Acts.

(i) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary \$200,000,000 to carry out this section from fiscal year 2006 through fiscal year 2016.

**SEC. 4. NOVEL DESALINATION TECHNOLOGY.**

(a) IN GENERAL.—The Secretary shall support research and development of promising novel technology approaches for the cost-effective desalination of water.

(b) AUTHORIZATION OF APPROPRIATION.—There are authorized to be appropriated to the Secretary for carrying out this section \$10,000,000 from fiscal year 2006 through fiscal year 2016.

## PURPOSE OF THE BILL

The purpose of H.R. 1071 is to direct the Secretary of Energy to make incentive payments to the owners or operators of qualified desalination facilities to partially offset the cost of electrical energy required to operate such facilities, and for other purposes.

## BACKGROUND AND NEED FOR LEGISLATION

As water supplies become more scarce, communities are increasingly looking to desalination as a way to create new potable water. The Federal Government first recognized the potential benefits desalination could bring with passage of the Saline Water Act of 1952, and since that time has continued to fund research and development into new technologies. Desalination, which is accomplished through various methods, separates the water into two parts: fresh water and brine (water with high concentrations of salts). There are over 1,000 desalination plants in operation nationwide; most are small and designed to treat brackish water. In light of growing regional water scarcity, large scale desalination of seawater and brackish water is being developed in California, Texas, and Florida.

Major hurdles in the widespread use of desalinated water include, but are not limited to, high energy costs, federal and state permitting procedures and disposal of salt by-products. Total desalination costs can vary considerably from one site to another based on a number of factors, such as the amount of salts to be removed, capacity of the desalting plant, treatment process, brine disposal, land costs, permitting procedures, and water conveyance. Over the past twenty years, costs associated with desalination have dropped due to improved membrane efficiencies, but energy costs still continue to be the largest component of desalination's total water costs (sometimes over 40%). This legislation addresses high energy costs.

H.R. 1071 authorizes the Secretary of Energy to make incentive payments to the owners and operators of qualified desalination facilities that are built after the bill's enactment. These facilities can be owned or operated by any state, municipal agency, Indian tribe, or private corporation responsible for providing municipal water service. The payments would partially offset the cost of electrical energy required for operation. The facility has up to ten years after enactment to submit an application to the Secretary for incentive payments. These incentive payments will then be available up to ten years after the written agreement is finalized.

In many situations, development of large-scale desalinated water supplies has been cost prohibitive when compared to other sources of water. The energy payments in this bill could be an incentive for water providers to construct more desalination plants and use future economies of scale to bring the costs down to the level of other water sources. The bill authorizes \$200 million to carry out this program. Under H.R. 1071, incentive payments from the Secretary of Energy to qualified facilities would be \$0.62 per thousand gallons (or approximately \$200 per acre foot) of desalinated water produced.

## COMMITTEE ACTION

H.R. 1071 was introduced on March 3, 2005, by Congressman Jim Davis (D-FL). The bill was referred to the Committee on Resources, and within the Committee to the Subcommittee on Water and Power. On May 24, 2005, the Subcommittee held a hearing on the bill. On November 16, 2005, the Full Resources Committee met to consider the bill (Printed Hearing 109-14). The Subcommittee on Water and Power was discharged from further consideration of the bill by unanimous consent. Congressman George Radanovich (R-CA) offered an amendment in the nature of a substitute to change the short title of the bill and add provisions involving definitions and grant priority criteria. The amendment was adopted by unanimous consent. The bill, as amended, was then ordered favorably reported to the House of Representatives by unanimous consent.

## SECTION-BY-SECTION ANALYSIS OF THE BILL AS ORDERED REPORTED

*Section 1. Short title*

This section cites the short title as the “Desalination Water Supply Shortage Prevention Act of 2005.”

*Section 2. Definitions*

This section defines various terms in the bill.

*Section 3. Desalinated water production incentive payments*

This section authorizes a total of \$200 million to be appropriated through fiscal year 2016 for the Secretary of Energy to make incentive payments to owners or operators of qualified desalination facilities to partially offset the cost of electrical energy required to produce desalinated water. The qualified facilities shall receive 62 cents for every thousand gallons of desalinated water produced. Each facility will have ten years to apply to the Secretary and enter into a written agreement, then have up to ten years to collect those payments. This section places a limitation on how much funding will go to particular types of desalination facilities, while also giving the Secretary discretion to prioritize how those incentive payments will be disbursed. The Congressional Research Service has indicated that the Secretary has considerable discretion on the implementation of this section, as set forth in Sections 3(e) and 3(g) of the bill. Since this legislation primarily impacts electricity payments provided after construction of a qualified desalination facility, it is generally expected that most federal and state permits required for construction will cover many of the analyses required under applicable federal environmental laws.

*Section 4. Novel desalination technology*

This section authorizes a total of \$10 million through fiscal year 2016 for the Secretary of Energy to support research and development of promising novel technology for the cost-effective desalination of water.

## COMMITTEE OVERSIGHT FINDINGS AND RECOMMENDATIONS

Regarding clause 2(b)(1) of rule X and clause 3(c)(1) of rule XIII of the Rules of the House of Representatives, the Committee on Re-

sources' oversight findings and recommendations are reflected in the body of this report.

#### CONSTITUTIONAL AUTHORITY STATEMENT

Article I, section 8 of the Constitution of the United States grants Congress the authority to enact this bill.

#### COMPLIANCE WITH HOUSE RULE XIII

1. Cost of Legislation. Clause 3(d)(2) of rule XIII of the Rules of the House of Representatives requires an estimate and a comparison by the Committee of the costs which would be incurred in carrying out this bill. However, clause 3(d)(3)(B) of that Rule provides that this requirement does not apply when the Committee has included in its report a timely submitted cost estimate of the bill prepared by the Director of the Congressional Budget Office under section 402 of the Congressional Budget Act of 1974.

2. Congressional Budget Act. As required by clause 3(c)(2) of rule XIII of the Rules of the House of Representatives and section 308(a) of the Congressional Budget Act of 1974, this bill does not contain any new budget authority, spending authority, credit authority, or an increase or decrease in revenues or tax expenditures.

3. General Performance Goals and Objectives. As required by clause 3(c)(4) of rule XIII, the general performance goal or objective of this bill is to direct the Secretary of Energy to make incentive payments to the owners or operators of qualified desalination facilities to partially offset the cost of electrical energy required to operate such facilities.

4. Congressional Budget Office Cost Estimate. Under clause 3(c)(3) of rule XIII of the Rules of the House of Representatives and section 403 of the Congressional Budget Act of 1974, the Committee has received the following cost estimate for this bill from the Director of the Congressional Budget Office:

#### *H.R. 1071—Desalination Water Supply Shortage Prevention Act*

Summary: H.R. 1071 would authorize the appropriation of up to \$200 million over the 2006–2016 period for the Department of Energy (DOE) to subsidize the operating costs of new water desalination projects. Under this bill, DOE would make payments of 62 cents (adjusted annually for inflation) per thousand gallons of desalinated water produced and sold from eligible projects for a period of 10 years. The bill also would authorize the appropriation of a total of \$10 million over the 2006–2016 period for DOE research and development (R&D) on desalination technologies.

Assuming appropriation of the authorized amounts, CBO estimates that implementing this bill would cost \$8 million over the 2006–2010 period and a total of \$201 million after 2010. Enacting H.R. 1071 would have no effect on direct spending or revenues.

H.R. 1071 contains no intergovernmental or private-sector mandates as defined in the Unfunded Mandates Reform Act (UMRA) and would impose no costs on state, local, or tribal governments. The bill would benefit water agencies that produce desalinated water by authorizing incentive payments that partially offset their operating costs. Any costs those agencies might face would be incurred voluntarily.

Estimated cost to the Federal Government: The estimated budgetary impact of H.R. 1071 is shown in the following table. The costs of this legislation fall within budget function 270 (energy).

	By fiscal year, in millions of dollars—				
	2006	2007	2008	2009	2010
CHANGES IN SPENDING SUBJECT TO APPROPRIATION					
Subsidy for Desalination Plants <sup>a</sup> :					
Estimated Authorization Level .....	0	0	50	50	50
Estimated Outlays .....	0	0	0	0	5
Research and Development:					
Estimated Authorization Level .....	0	1	1	1	1
Estimated Outlays .....	0	*	1	1	1
Total Changes:					
Estimated Authorization Level .....	0	51	51	51	51
Estimated Outlays .....	0	*	1	1	6

a. Most of the authorized cost for this activity would occur after 2010.

Note: \* = Less than \$500,000.

Basis of estimate: For this estimate, CBO assumes that the bill will be enacted in fiscal year 2006 and that the authorized amounts will be appropriated as necessary to implement the subsidy and R&D programs. The cost estimate assumes that the \$10 million authorized for R&D by DOE would be spread evenly over the 2007–2016 period.

CBO expects that the subsidies authorized by the bill would facilitate the financing of desalination projects. Thus, we anticipate that DOE would obligate funds for the subsidies when a project's financing is arranged, which is likely to occur after sponsors complete the planning and permitting process but before the facility is built. Although several projects are on the drawing boards in California, Florida, Texas, and other states, it is unclear how many projects would secure financing by 2010. Given the lead times needed for planning and permitting a desalination project, CBO expects that DOE would not begin obligating funds for the subsidies until 2008.

Most of the projects currently under consideration would range in size from about 10 million to 25 million gallons per day, with output likely range from 50 percent to 90 percent of the design capacity. At 62 cents per thousand gallons (adjusted annually for inflation), CBO estimates the cost of subsidizing a project with a daily capacity of 25 million gallons for 10 years would total about \$50 million. For this estimate, CBO assumes that three such projects would be approved over the 2008–2010 period, one in each of those fiscal years. CBO estimates that the remaining \$50 million in subsidies would be obligated after 2010.

DOE would not make any payments from this subsidy program until a plant actually produced and sold desalinated water. Because the construction and initial testing of such facilities typically takes two or three years, most of the outlays for this program would occur after 2010.

Intergovernmental and private-sector impact: H.R. 1071 contains no intergovernmental or private-sector mandates as defined in UMRA and would impose no costs on state, local, or tribal governments. The bill would benefit water agencies that produce desalinated water by authorizing incentive payments that partially

offset their operating costs. Any costs those agencies might face would be incurred voluntarily.

Estimate prepared by: Federal Costs: Kathleen Gramp. Impact on State, Local, and Tribal Governments: Lisa Ramirez-Branum. Impact on the Private Sector: Craig Cammarata.

Estimate approved by: Peter H. Fontaine, Deputy Assistant Director for Budget Analysis.

COMPLIANCE WITH PUBLIC LAW 104-4

This bill contains no unfunded mandates.

PREEMPTION OF STATE, LOCAL OR TRIBAL LAW

This bill is not intended to preempt any State, local or tribal law.

CHANGES IN EXISTING LAW

If enacted, this bill would make no changes in existing law.

