

116TH CONGRESS
2D SESSION

H. R. 6113

To establish an Advanced Research Projects Agency–Water, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

MARCH 5, 2020

Mr. KATKO (for himself and Mr. KILDEE) introduced the following bill; which was referred to the Committee on Science, Space, and Technology

A BILL

To establish an Advanced Research Projects Agency–Water, 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 “ARPA–H2O Act of
5 2020”.

6 **SEC. 2. ADVANCED RESEARCH PROJECTS AGENCY–WATER.**

7 (a) ESTABLISHMENT.—There is established within
8 the Environmental Protection Agency the Advanced Re-
9 search Projects Agency–Water, headed by a Director, who
10 shall be appointed by the Administrator to carry out pro-

1 grams to provide funds to eligible entities for projects in-
2 tended to enhance, through the deployment of advanced
3 technologies, the treatment, monitoring, delivery, afford-
4 ability, and safety of—

5 (1) drinking water provided by a water system;

6 (2) wastewater or stormwater discharged by a
7 water system;

8 (3) groundwater or well water used for drinking
9 water; or

10 (4) any other activities carried out by a water
11 system for the purposes of enhancing public health
12 or environmental safety.

13 (b) PROGRAMS.—ARPA–H20 shall be comprised of
14 programs that—

15 (1) provide funds for projects described in sub-
16 section (a), as determined appropriate by the Direc-
17 tor; and

18 (2) are carried out and overseen by program
19 managers under subsection (e).

20 (c) RESEARCH ADVISORY COUNCIL.—

21 (1) IN GENERAL.—The Director shall establish
22 a research advisory council to recommend the con-
23 tent of the programs under ARPA–H20, including
24 annual research priorities for funding consideration.

1 (2) MEMBERSHIP.—The council established
2 under paragraph (1) shall be composed of 12 mem-
3 bers appointed by the Director who represent—

4 (A) public and private water systems in-
5 cluding large decentralized systems;

6 (B) academia;

7 (C) national nonprofits and organizations
8 that represent the water sector and collaborate
9 with the Agency;

10 (D) public or private entities engaged in
11 technology development, deployment, or con-
12 sultation to enhance delivery, reliability, afford-
13 ability, and safety of the operations of water
14 systems; and

15 (E) relevant Federal agencies.

16 (d) RESPONSIBILITIES OF THE DIRECTOR.—The Di-
17 rector shall—

18 (1) approve each grant, contract, cooperative
19 agreement, cash prize, or other transaction to fund
20 projects under this Act;

21 (2) terminate funding for any project under
22 this Act that does not meet the goals of the program
23 through which such project was funded;

24 (3) ensure that projects funded under this Act
25 are not duplicative of other Federal research

1 projects that enhance the delivery, reliability, afford-
2 ability, and safety of the operations of water sys-
3 tems;

4 (4) coordinate with non-governmental entities
5 for demonstration of technologies and research ap-
6 plications to facilitate technology transfer;

7 (5) establish research and development goals to
8 carry out this Act;

9 (6) set criteria for funding and assessment of
10 projects under this Act in addition to the criteria es-
11 tablished in section 3(c); and

12 (7) provide funds through any funding mecha-
13 nism that the Director determines appropriate to eli-
14 gible entities to carry out this Act.

15 (e) PROGRAM MANAGERS.—

16 (1) IN GENERAL.—The Director shall designate
17 managers to carry out the programs established
18 under subsection (b).

19 (2) RESPONSIBILITIES.—A program manager
20 shall—

21 (A) establish research and development
22 goals for the program, including by convening
23 workshops, conferring with outside experts, and
24 publicizing the goals of the program to public
25 and private sector entities;

1 (B) solicit applications for projects in spe-
2 cific areas of particular promise, especially
3 areas that the private sector or the Federal
4 Government are not likely to undertake alone;

5 (C) build research collaborations to carry
6 out the program; and

7 (D) establish a selection process under the
8 program based upon criteria established in sec-
9 tion 3(c).

10 (3) TERM.—The term of a program manager
11 shall be not more than 5 years and such term may
12 be renewed by the Director.

13 **SEC. 3. SELECTION OF RECIPIENTS OF FUNDS.**

14 (a) IN GENERAL.—In carrying out a program under
15 this Act, the program manager shall select projects de-
16 scribed in subsection (b) to receive funds under the pro-
17 gram.

18 (b) ELIGIBLE PROJECTS.—Projects related to the
19 following shall be eligible for funding under a program:

20 (1) Advanced technologies for—

21 (A) the security and materials of water
22 systems; or

23 (B) the testing, monitoring, conveyance,
24 distribution, and treatment of—

1 (i) drinking water provided by a water
2 system; or

3 (ii) wastewater or stormwater dis-
4 charged by a water system.

5 (2) Water technologies that may improve effi-
6 ciency and resiliency of water systems, lower life-
7 cycle costs or reduce energy consumption of water
8 systems treatment and conveyance.

9 (3) Methods to detect, monitor, and address
10 contaminants present in drinking water or waste-
11 water.

12 (4) Methods to advance nutrient management
13 for source water protection.

14 (5) Resource recovery of marketable products
15 derived from water systems including, but not lim-
16 ited to, nutrient, biosolids, energy, metals, and recy-
17 cled water.

18 (6) Advancements in beneficial reuse and de-
19 salination that support the diversification of water
20 supplies.

21 (7) Approaches to mitigation, containment, and
22 treatment of stormwater.

23 (8) Methods to test, treat, and study the im-
24 pacts of emerging contaminants.

1 (9) Any other activities carried out by a water
2 system for the purposes of enhancing public health
3 or environmental safety.

4 (c) CRITERIA.—A program manager shall select a
5 project to receive funds under the program based on the
6 demonstration of the applicant of—

7 (1) the scientific and technical merit of the pro-
8 posed project;

9 (2) transformative technological potential;

10 (3) the potential for cost effective technology
11 applications;

12 (4) the capabilities of the applicants to success-
13 fully carry out the proposed project;

14 (5) the consideration of future commercial ap-
15 plications of the project, including the feasibility of
16 partnering with one or more water sector entities;

17 (6) the potential of the applicant to use funds
18 from non-Federal sources in addition to the funds
19 made available under this Act; and

20 (7) any other criteria considered appropriate by
21 the Director.

22 **SEC. 4. TERMINATION; REPORTING REQUIREMENTS.**

23 (a) TERMINATION.—The authority to carry out this
24 Act shall terminate on the date that is 5 years after the

1 date on which the first funds are appropriated for ARPA–
2 H20.

3 (b) REPORTING REQUIREMENTS.—

4 (1) REPORT TO CONGRESS.—Not later than 2
5 years after the date on which funds are first appro-
6 priated to carry out this Act, the Director shall sub-
7 mit to Congress a report with a detailed list of each
8 project funded under the new ARPA–H20 program
9 and a description of the technological achievements
10 and progress made by the project.

11 (2) TRANSPARENCY.—The Director shall pub-
12 lish on a publicly available website a description of
13 each project that receives funds under this Act, in-
14 cluding—

15 (A) the name of the entity that received
16 such funds; and

17 (B) the amount of funds that such entity
18 received.

19 **SEC. 5. DEFINITIONS.**

20 In this Act, the following definitions apply:

21 (1) ARPA–H20.—The term “ARPA–H20”
22 means the Advanced Research Projects Agency–
23 Water established in subsection (a).

1 (2) DIRECTOR.—The term “Director” means
2 the Director of ARPA–H20 appointed in subsection
3 (a).

4 (3) ELIGIBLE ENTITY.—The term “eligible enti-
5 ty” means the following:

6 (A) Nonprofit research organizations.

7 (B) Academic institutions.

8 (C) Private sector entities.

9 (D) Water systems.

10 (E) National labs.

11 (F) Federally funded research and develop-
12 ment centers.

13 (G) Research consortia that consist of enti-
14 ties in industries that the Director determines
15 relevant to the program under this Act.

16 (4) WATER SYSTEMS.—The term “water sys-
17 tem” means an entity that—

18 (A) serves the public;

19 (B) manages the supply, treatment, or con-
20 veyance of—

21 (i) drinking water;

22 (ii) wastewater and water resource re-
23 covery;

24 (iii) stormwater; or

25 (iv) water reuse; and

- 1 (C) large decentralized systems that pro-
- 2 vide treatment for two or more households.

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