

117TH CONGRESS  
1ST SESSION

**S.** \_\_\_\_\_

To establish the Open Access Evapotranspiration (OpenET) Data Program.

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IN THE SENATE OF THE UNITED STATES

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Ms. CORTEZ MASTO introduced the following bill; which was read twice and referred to the Committee on \_\_\_\_\_

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**A BILL**

To establish the Open Access Evapotranspiration (OpenET) Data Program.

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 “Open Access  
5 Evapotranspiration Data Act”.

6 **SEC. 2. DEFINITIONS.**

7 In this Act:

8 (1) **EVAPOTRANSPIRATION.**—The term  
9 “evapotranspiration” means the process by which  
10 water is transferred from the land to the atmosphere  
11 by—

1 (A) evaporation from soil and other sur-  
2 faces; and

3 (B) transpiration from plants.

4 (2) PROGRAM.—The term “program” means  
5 the Open Access Evapotranspiration (OpenET) Data  
6 Program established under section 4(a).

7 (3) PROGRAM PARTNER.—The term “program  
8 partner” means—

9 (A) an institution of higher education;

10 (B) a State (including a State agency);

11 (C) a private sector entity;

12 (D) a nongovernmental organization; or

13 (E) any other entity determined to be ap-  
14 propriate by the Secretary.

15 (4) SECRETARY.—The term “Secretary” means  
16 the Secretary of the Interior, acting through the Di-  
17 rector of the United States Geological Survey.

18 **SEC. 3. FINDINGS.**

19 Congress finds that—

20 (1) evapotranspiration is the second largest  
21 component of the water budget, which is an account-  
22 ing of the allocation of water resources to various  
23 water uses;

24 (2) evapotranspiration is a measure of the  
25 water that is consumed and lost from a water sys-

1       tem, removed from available supplies, and unavail-  
2       able for other uses within a watershed;

3           (3) accurate information on evapotranspiration  
4       is required to balance water supply and water de-  
5       mand in a watershed and ensure that adequate  
6       water supplies for beneficial uses are available over  
7       time;

8           (4) water users and managers are impeded in  
9       more efficient decisionmaking by—

10           (A) the lack of consistent and comprehen-  
11       sive water use data; and

12           (B) the fact that access to existing data is  
13       often limited and cost-prohibitive; and

14           (5) evapotranspiration data may be applied for  
15       the purposes of—

16           (A) assisting users and decisionmakers to  
17       better manage resources and protect financial  
18       viability of farm operations during drought;

19           (B) developing more accurate water budg-  
20       ets and innovative management programs to  
21       better promote conservation and sustainability  
22       efforts; and

23           (C) employing greater groundwater man-  
24       agement practices and understanding impacts  
25       of consumptive water use.

1 **SEC. 4. OPEN ACCESS EVAPOTRANSPIRATION (OPENET)**  
2 **DATA PROGRAM.**

3 (a) **ESTABLISHMENT.**—The Secretary shall establish  
4 an Open Access Evapotranspiration (OpenET) Data Pro-  
5 gram under which the Secretary shall provide for the deliv-  
6 ery of satellite-based evapotranspiration data—

7 (1) to advance the quantification of evaporation  
8 and consumptive water use; and

9 (2) to provide data users with field-scale esti-  
10 mates of evapotranspiration data across large land-  
11 scapes over certain periods of time.

12 (b) **PURPOSE.**—The purpose of the program is to  
13 support the operational distribution of satellite-based  
14 evapotranspiration data generated under the program to  
15 sustain and enhance water resources in the United States.

16 (c) **DUTIES.**—In carrying out the program, the Sec-  
17 retary shall—

18 (1) evaluate, use, and modify sources of sat-  
19 ellite-based evapotranspiration data based on best  
20 available science and technologies; and

21 (2) coordinate and consult with—

22 (A) the heads of other relevant Federal  
23 agencies, including—

24 (i) the Commissioner of Reclamation;

25 (ii) the Administrator of the National  
26 Aeronautics and Space Administration;

- 1 (iii) the Administrator of the National  
2 Oceanic and Atmospheric Administration;  
3 (iv) the Administrator of the Agricul-  
4 tural Research Service; and  
5 (v) the Chief of the Natural Resources  
6 Conservation Service; and  
7 (B) program partners.

8 (d) COMPONENTS.—In carrying out the program, the  
9 Secretary shall carry out activities that would develop,  
10 maintain, establish, expand, or advance delivery of sat-  
11 ellite-based evapotranspiration data to advance the quan-  
12 tification of evaporation and consumptive water use, with  
13 an emphasis on carrying out activities that would—

- 14 (1) support the development and maintenance  
15 of evapotranspiration data and software systems and  
16 associated research and development in a manner  
17 that ensures that program data are reflective of the  
18 best available science, including by providing support  
19 to program partners, or coordinating activities with  
20 other programs within the Department of the Inte-  
21 rior, that have developed and are maintaining  
22 evapotranspiration software systems and datasets;
- 23 (2) demonstrate or test new and existing  
24 evapotranspiration measurement technology;

1           (3) improve evapotranspiration measurement  
2 science and technology; and

3           (4) develop or refine the application of satellite-  
4 based evapotranspiration data available to Federal  
5 agencies, States, and Indian Tribes, including the  
6 integration of program data into—

7                   (A) the Water Availability and Use Science  
8 Program, the National Water Census, and Inte-  
9 grated Water Availability Assessments by the  
10 United States Geological Survey; and

11                   (B) activities under the WaterSMART pro-  
12 gram authorized by subtitle F of title IX of the  
13 Omnibus Public Land Management Act of 2009  
14 (42 U.S.C. 10361 et seq.).

15       (e) USE AND AVAILABILITY OF PROGRAM DATA.—  
16 The Secretary—

17           (1) shall incorporate, to the maximum extent  
18 practicable, program information and data for pur-  
19 poses of determining consumptive water use on irri-  
20 gated or other vegetated landscapes for use in water  
21 allocation decisions, water budget accounting, and  
22 water use reporting;

23           (2) shall coordinate data analyses, use, and col-  
24 lection efforts with other Federal agencies, States,

1 and Tribal governments through existing coordi-  
2 nating organizations, such as—

3 (A) the Western States Water Council; and

4 (B) the Western States Federal Agency  
5 Support Team; and

6 (3) may provide information collected and ana-  
7 lyzed under the program to program partners  
8 through appropriate mechanisms, including through  
9 interagency agreements with Federal agencies,  
10 States (including State agencies), or Indian Tribes,  
11 leases, contracts, cooperative agreements, grants,  
12 loans, and memoranda of understanding.

13 (f) COOPERATIVE AGREEMENTS.—The Secretary  
14 shall—

15 (1) enter into cooperative agreements with pro-  
16 gram partners to provide for the efficient and cost-  
17 effective administration of the program, including  
18 through cost-sharing or by providing additional in-  
19 kind resources necessary to carry out the program;  
20 and

21 (2) provide nonreimbursable matching funding  
22 for programmatic and operational activities under  
23 this section, in consultation with program partners.

24 (g) ENVIRONMENTAL LAWS.—Nothing in this Act  
25 modifies any obligation of the Secretary to comply with

1 applicable Federal and State environmental laws in car-  
2 rying out this Act.

3 **SEC. 5. REPORT.**

4 Not later than 4 years after the date of enactment  
5 of this Act, the Secretary shall submit to the Committees  
6 on Energy and Natural Resources, Agriculture, Nutrition,  
7 and Forestry, and Appropriations of the Senate and the  
8 Committees on Natural Resources, Agriculture, and Ap-  
9 propriations of the House of Representatives a report that  
10 includes—

11 (1) a status update on the operational incorpor-  
12 ation of program data into modeling, water plan-  
13 ning, and reporting efforts of relevant Federal agen-  
14 cies, including the Water Availability and Use  
15 Science Program of the United States Geological  
16 Survey and the WaterSMART program authorized  
17 by subtitle F of title IX of the Omnibus Public Land  
18 Management Act of 2009 (42 U.S.C. 10361 et seq.);  
19 and

20 (2) a list of Federal agencies and program part-  
21 ners that are applying program data to beneficial  
22 use, including a description of examples of beneficial  
23 uses.



**1 SEC. 6. AUTHORIZATION OF APPROPRIATIONS.**

2       There is authorized to be appropriated to the Sec-  
3 retary to carry out this Act \$14,000,000 for each of fiscal  
4 years 2022 through 2026, to remain available until ex-  
5 pended.