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RELIABLE INVESTMENT IN VITAL ENERGY REAUTHORIZATION ACT

SEPTEMBER 10, 2019.—Ordered to be printed

Ms. MURKOWSKI, from the Committee on Energy and Natural
Resources, submitted the following

R E P O R T

[To accompany S. 859]

[Including cost estimate of the Congressional Budget Office]

The Committee on Energy and Natural Resources, to which was referred the bill (S. 859) to amend the Energy Policy Act of 2005 to reauthorize hydroelectric production incentives and hydroelectric efficiency improvement incentives, and for other purposes, having considered the same, reports favorably thereon with an amendment in the nature of a substitute and recommends 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 “Reliable Investment in Vital Energy Reauthorization Act” or the “RIVER Act”.

SEC. 2. HYDROELECTRIC PRODUCTION INCENTIVES AND EFFICIENCY IMPROVEMENTS.

(a) HYDROELECTRIC PRODUCTION INCENTIVES.—Section 242 of the Energy Policy Act of 2005 (42 U.S.C. 15881) is amended—

(1) in subsection (b), by striking paragraph (1) and inserting the following:

“(1) QUALIFIED HYDROELECTRIC FACILITY.—The term ‘qualified hydroelectric facility’ means a turbine or other generating device owned or solely operated by a non-Federal entity—

“(A) that generates hydroelectric energy for sale; and

“(B)(i) that is added to an existing dam or conduit; or

“(ii)(I) that has a generating capacity of not more than 10 megawatts;

“(II) for which the non-Federal entity has received a construction authorization from the Federal Energy Regulatory Commission, if applicable; and

“(III) that is constructed in a region in which there is inadequate electric service, as determined by the Secretary.”;

- (2) in subsection (c), by striking “10” and inserting “22”;
- (3) in subsection (e)(2), by striking “section 29(d)(2)(B)” and inserting “section 45K(d)(2)(B)”;
- (4) in subsection (f), by striking “20” and inserting “32”; and
- (5) in subsection (g), by striking “each of the fiscal years 2006 through 2015” and inserting “each of fiscal years 2019 through 2036”.

(b) HYDROELECTRIC EFFICIENCY IMPROVEMENT.—Section 243(c) of the Energy Policy Act of 2005 (42 U.S.C. 15882(c)) is amended by striking “each of the fiscal years 2006 through 2015” and inserting “each of fiscal years 2019 through 2036”.

PURPOSE

The purpose of S. 859 is to amend the Energy Policy Act of 2005 (EPAct 2005, Public Law 109–58) to reauthorize hydroelectric production incentives and hydroelectric efficiency improvement incentives.

BACKGROUND AND NEED

Hydropower is the nation’s largest renewable energy resource—providing reliable and inexpensive power to more than 30 million homes. In recent years, there has been increased interest in small hydroelectric project development, and in 2013, the Hydropower Regulatory Efficiency Act of 2013 was enacted to streamline the development of small hydropower and conduit hydroelectric projects (Public Law 113–23).

With only three percent of the nation’s existing 80,000 dams currently generating electricity, there is growing interest in adding hydropower capacity to non-powered dams. As outlined in its 2016 report, *Hydropower Vision*, the Department of Energy (DOE) found that hydropower in the United States could grow from 101 gigawatts (GW) of capacity to nearly 150 GW by 2050. Under this modeled scenario, this capacity growth would result from a combination of 13 GW of new hydropower generation capacity (upgrades to existing plants, adding power at existing dams and canals, and limited development of new stream-reaches), and 36 GW of new pumped storage capacity.

The Energy Policy Act of 2005 (Public Law 109–58) established two hydropower incentive programs. As explained in DOE’s testimony at the Subcommittee on Energy’s December 5, 2017 hearing, hydropower production incentives “are paid to qualifying hydropower facilities based on the amount of electricity they generate,” while hydropower generation efficiency incentives “support capital improvements to existing hydropower facilities that increase their efficiency.” S. 859 reauthorizes both programs through fiscal year (FY) 2036. The bill also expands the definition of facilities eligible for hydroelectric production incentives to include small hydropower projects of not more than 10 MW which have received construction authorizations from the Federal Energy Regulatory Commission (FERC) and are located in regions with inadequate electric service.

LEGISLATIVE HISTORY

On March 25, 2019, Senator Gardner introduced S. 859. Companion legislation, H.R. 3361, was introduced by Representative McKinley on June 19, 2019, in the House of Representatives and referred to the Committee on Energy and Commerce.

In the 115th Congress, Senator Gardner introduced similar legislation, S. 1336, on June 12, 2017. The Subcommittee on Energy

conducted a hearing on S. 1336 on December 5, 2017 (S. Hrg. 115–493). Similar language was included in section 3010 of S. 1460, the Energy and Natural Resources Act of 2017 (Cal. 162). The Committee on Energy and Natural Resources met in open business session on March 8, 2018, and ordered S. 1336 favorably reported (S. Rept. 115–250). Companion legislation, H.R. 3256, was introduced by Representative McKinley on July 14, 2017, in the House of Representatives and referred to the Committee on Energy and Commerce.

In the 114th Congress, Senator Gardner introduced similar legislation, S. 1270, on May 19, 2015. The Energy and Natural Resources Committee conducted a hearing on S. 1270 on May 19, 2015 (S. Hrg. 114–118). The measure was also included in section 3002 of S. 2012, the Energy Policy Modernization Act of 2016, which the Senate passed, as amended, on April 20, 2016.

The Senate Committee on Energy and Natural Resources met in open business session on July 16, 2019, and ordered S. 859 favorably reported, as amended.

COMMITTEE RECOMMENDATION

The Senate Committee on Energy and Natural Resources, in open business session on July 16, 2019, by a majority voice vote of a quorum present, recommends that the Senate pass S. 859, if amended as described herein. Senator Lee asked to be recorded as voting no.

COMMITTEE AMENDMENT

During its consideration of S. 859, the Committee adopted an amendment in the nature of a substitute. The substitute amendment expands the definition of a “qualified hydroelectric facility” eligible for hydropower production incentives under section 242 of EAct 2005 to include small hydropower facilities of not more than 10 MW which have received construction authorizations from FERC and are located in regions with inadequate electric service.

SECTION-BY-SECTION ANALYSIS

Section 1. Short title

Section 1 sets forth the short title of the bill.

Sec. 2. Hydroelectric production incentives and efficiency improvements

Section 2 reauthorizes through FY 2036 the incentives for hydroelectric production and hydroelectric efficiency improvements that were originally established in sections 242 and 243 of EAct 2005. This section also expands the definition of a “qualified hydroelectric facility” eligible for hydroelectric production incentives to include hydropower generation facilities owned by a non-Federal entity that are 10 MW or less, authorized for construction by FERC, if applicable, and constructed in a region with inadequate electric service, as determined by the Secretary of Energy.

COST AND BUDGETARY CONSIDERATIONS

The following estimate of the costs of this measure has been provided by the Congressional Budget Office:

S. 859, Reliable Investment in Vital Energy Reauthorization Act			
As ordered reported by the Senate Committee on Energy and Natural Resources on July 16, 2019			
By Fiscal Year, Millions of Dollars	2019	2019-2024	2019-2029
Direct Spending (Outlays)	0	0	0
Revenues	0	0	0
Increase or Decrease (-) in the Deficit	0	0	0
Spending Subject to Appropriation (Outlays)	0	76	176
Statutory pay-as-you-go procedures apply?	No	Mandate Effects	
Increases on-budget deficits in any of the four consecutive 10-year periods beginning in 2030?	No	Contains intergovernmental mandate?	No
		Contains private-sector mandate?	No

S. 859 would amend existing law regarding incentive payments made by the Department of Energy (DOE) to nonfederal owners or operators of certain hydroelectric facilities. DOE currently is authorized to provide two types of incentives to eligible projects: payments based on the amount of hydroelectricity generated by the facility and payments that defray some of the cost of measures that improve the efficiency of existing facilities. For 2019, the Congress has provided nearly \$7 million for generation-based payments; no funding was provided for hydroelectricity efficiency payments.

S. 859 would authorize the appropriation of \$10 million annually over the 2019–2036 period for payments based on hydropower generation and another \$10 million a year over that period for payments based on investments in hydropower efficiency measures. In addition, the bill would modify the deadlines and eligibility criteria for receiving such assistance.

Based on historical spending for similar activities, and assuming the appropriation of the authorized amounts, CBO estimates that implementing S. 859 would cost \$76 million over the 2020–2024 period and \$176 million over the 2020–2029 period. The costs of the legislation (detailed in Table 1) fall within budget function 270 (energy).

TABLE 1.—ESTIMATED INCREASES IN SPENDING SUBJECT TO APPROPRIATION UNDER S. 859

	By fiscal year, millions of dollars—													
	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2019–2024	2019–2029	
Hydropower Generation Incentives:														
Authorization	10	10	10	10	10	10	10	10	10	10	10	60	110	
Estimated Outlays	0	1	9	10	10	10	10	10	10	10	10	40	90	
Hydropower Efficiency Incentives:														
Authorization	10	10	10	10	10	10	10	10	10	10	10	60	110	
Estimated Outlays	0	1	6	10	10	10	10	10	10	10	10	36	86	
Total Changes:														
Authorization	0	20	20	20	20	20	20	20	20	20	20	120	220	

TABLE 1.—ESTIMATED INCREASES IN SPENDING SUBJECT TO APPROPRIATION UNDER S. 859—
Continued

	By fiscal year, millions of dollars—													2019– 2024	2019– 2029
	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029				
Estimated Outlays	0	2	14	20	20	20	20	20	20	20	20	20	76	176	

Components may not sum due to rounding.

The CBO staff contact for this estimate is Kathleen Gramp. The estimate was reviewed by Theresa A. Gullo, Assistant Director for Budget Analysis.

REGULATORY IMPACT EVALUATION

In compliance with paragraph 11(b) of rule XXVI of the Standing Rules of the Senate, the Committee makes the following evaluation of the regulatory impact which would be incurred in carrying out S. 859. The bill is not a regulatory measure in the sense of imposing Government-established standards or significant economic responsibilities on private individuals and businesses.

No personal information would be collected in administering the program. Therefore, there would be no impact on personal privacy.

Little, if any, additional paperwork would result from the enactment of S. 859, as ordered reported.

CONGRESSIONALLY DIRECTED SPENDING

S. 859, as ordered reported, does not contain any congressionally directed spending items, limited tax benefits, or limited tariff benefits as defined in rule XLIV of the Standing Rules of the Senate.

EXECUTIVE COMMUNICATIONS

The testimony provided by the Department of Energy at the December 5, 2017, hearing on S. 1336, similar legislation to S. 859, follows:

TESTIMONY OF UNDER SECRETARY MARK MENEZES, U.S. DEPARTMENT OF ENERGY

S. 1336—RELIABLE INVESTMENT IN VITAL ENERGY REAUTHORIZATION

This bill reauthorizes hydropower production and efficiency upgrade incentives established in the Energy Policy Act of 2005 for an additional 10 years. Hydropower production incentives, which are paid to qualifying hydropower facilities based on the amount of electricity they generate, are reauthorized from 2018 through 2027. Hydropower generation efficiency incentives, which support capital improvements to existing hydropower facilities that increase their efficiency, are likewise reauthorized from 2018 through 2027.

Hydropower has significant capabilities to support economic competitiveness and electricity system reliability by providing low-cost, flexible generation. The recent Staff Report to the Secretary on Electricity Markets and Reliability

found that while some hydropower plants are operated as baseload resources, many also support the dynamic behavior of grid operations by providing a full range of ancillary services. This flexibility has historically complemented other traditional forms of baseload generation, such as coal and nuclear.

DOE appreciates the goal S. 1336 attempts to achieve. Hydropower furthers goals of economic competitiveness and electricity system reliability, and it appears this bill incentivizes both hydropower generation and efficiency upgrades.

CHANGES IN EXISTING LAW

In compliance with paragraph 12 of rule XXVI of the Standing Rules of the Senate, the changes in existing law made by the original bill, as reported, are shown as follows (existing law proposed to be omitted is enclosed in black brackets, new matter is printed in italic, existing law in which no change is proposed is shown in roman):

ENERGY POLICY ACT OF 2005

Public Law 109–58

* * * * *

SEC. 242. HYDROELECTRIC PRODUCTION INCENTIVES.

(a) INCENTIVE PAYMENTS.—For electric energy generated and sold by a qualified hydroelectric facility during the incentive period, the Secretary shall make, subject to the availability of appropriations, incentive payments to the owner or operator of such facility. The amount of such payment made to any such owner or operator shall be as determined under subsection (e) of this section. Payments under this section may only be made upon receipt by the Secretary of an incentive payment application which establishes that the applicant is eligible to receive such payment and which satisfies such other requirements as the Secretary deems necessary. Such application shall be in such form, and shall be submitted at such time, as the Secretary shall establish.

(b) DEFINITIONS.—For purposes of this section:

[(1) QUALIFIED HYDROELECTRIC FACILITY.—The term “qualified hydroelectric facility” means a turbine or other generating device owned or solely operated by a non-Federal entity which generates hydroelectric energy for sale and which is added to an existing dam or conduit.]

(1) QUALIFIED HYDROELECTRIC FACILITY.—The term “qualified hydroelectric facility” means a turbine or other generating device owned or solely operated by a non-Federal entity—

(A) that generates hydroelectric energy for sale; and

(B)(i) that is added to an existing dam or conduit; or

(ii)(I) that has a generating capacity of not more than 10 megawatts;

(II) for which the non-Federal entity has received a construction authorization from the Federal Energy Regulatory Commission, if applicable; and

(III) that is constructed in a region in which there is inadequate electric service, as determined by the Secretary.

(2) EXISTING DAM OR CONDUIT.—The term “existing dam or conduit” means any dam or conduit the construction of which was completed before the date of the enactment of this section and which does not require any construction or enlargement of impoundment or diversion structures (other than repair or reconstruction) in connection with the installation of a turbine or other generating device.

(3) CONDUIT.—The term “conduit” has the same meaning as when used in section 30(a)(2) of the Federal Power Act (16 U.S.C. 823a(a)(2)).

The terms defined in this subsection shall apply without regard to the hydroelectric kilowatt capacity of the facility concerned, without regard to whether the facility uses a dam owned by a governmental or nongovernmental entity, and without regard to whether the facility begins operation on or after the date of the enactment of this section.

(c) ELIGIBILITY WINDOW.—Payments may be made under this section only for electric energy generated from a qualified hydroelectric facility which begins operation during the period of **[10]** 22 fiscal years beginning with the first full fiscal year occurring after the date of enactment of this subtitle.

(d) INCENTIVE PERIOD.—A qualified hydroelectric facility may receive payments under this section for a period of 10 fiscal years (referred to in this section as the “incentive period”). Such period shall begin with the fiscal year in which electric energy generated from the facility is first eligible for such payments.

(e) AMOUNT OF PAYMENT.—

(1) IN GENERAL.—Payments made by the Secretary under this section to the owner or operator of a qualified hydroelectric facility shall be based on the number of kilowatt hours of hydroelectric energy generated by the facility during the incentive period. For any such facility, the amount of such payment shall be 1.8 cents per kilowatt hour (adjusted as provided in paragraph (2)), subject to the availability of appropriations under subsection (g), except that no facility may receive more than \$750,000 in 1 calendar year.

(2) ADJUSTMENTS.—The amount of the payment made to any person under this section as provided in paragraph (1) shall be adjusted for inflation for each fiscal year beginning after calendar year 2005 in the same manner as provided in the provisions of **[section 29(d)(2)(B)]** *section 45K(d)(2)(B)* of the Internal Revenue Code of 1986, except that in applying such provisions the calendar year 2005 shall be substituted for calendar year 1979.

(f) SUNSET.—No payment may be made under this section to any qualified hydroelectric facility after the expiration of the period of **[20]** 32 fiscal years beginning with the first full fiscal year occurring after the date of enactment of this subtitle, and no payment may be made under this section to any such facility after a payment has been made with respect to such facility for a period of 10 fiscal years.

(g) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to the Secretary to carry out the purposes of this section \$10,000,000 for **each of the fiscal years 2006 through 2015** *each of the fiscal years 2019 through 2036*.

SEC. 243. HYDROELECTRIC EFFICIENCY IMPROVEMENT.

(a) INCENTIVE PAYMENTS.—The Secretary shall make incentive payments to the owners or operators of hydroelectric facilities at existing dams to be used to make capital improvements in the facilities that are directly related to improving the efficiency of such facilities by at least 3 percent.

(b) LIMITATIONS.—Incentive payments under this section shall not exceed 10 percent of the costs of the capital improvement concerned and not more than 1 payment may be made with respect to improvements at a single facility. No payment in excess of \$750,000 may be made with respect to improvements at a single facility.

(c) AUTHORIZATION OF APPROPRIATIONS.—There are authorized to be appropriated to carry out this section not more than \$10,000,000 for **each of the fiscal years 2006 through 2015** *each of the fiscal years 2019 through 2036*.

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