Calendar No. 417

115TH CONGRESS, 2d Session — SENATE — REPORT 115–250

RELIABLE INVESTMENT IN VITAL ENERGY REAUTHORIZATION ACT

MAY 21, 2018.—Ordered to be printed

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

REPORT

[To accompany S. 1336]

[Including cost estimate of the Congressional Budget Office]

The Committee on Energy and Natural Resources, to which was referred the bill (S. 1336) 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 without amendment, and recommends that the bill do pass.

PURPOSE

The purpose of S. 1336 is to reauthorize hydroelectric production incentives and hydroelectric efficiency improvement incentives, and for other purposes.

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, legislation was enacted to streamline the development of small hydro 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 found that hydropower in the United States could grow from 101 gigawatts (GW) of capacity to nearly

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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 the Department of Energy's testimony at the 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. 1336 reauthorizes both programs through fiscal year 2027.

LEGISLATIVE HISTORY

Senator Gardner introduced S. 1336 on June 12, 2017. The Subcommittee on Energy conducted a hearing on S. 1336 on December 5, 2017. Similar language was included in section 3010 of S. 1460, the Energy and Natural Resources Act of 2017 (Cal. 162).

Companion legislation, H.R. 3256, was introduced by Rep. McKinley and five cosponsors 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 11, 2015. The Energy and Natural Resources Committee conducted a hearing on S. 1270 on May 19, 2015. 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 Committee on Energy and Natural Resources met in open business session on March 8, 2018, and ordered S. 1336 favorably reported.

COMMITTEE RECOMMENDATION

The Senate Committee on Energy and Natural Resources, in open business session on March 8, 2018, by a majority voice vote of a quorum present, recommends that the Senate pass S. 1336.

Senator Lee asked to be recorded as voting no.

SECTION-BY-SECTION ANALYSIS

Section 1 sets forth the short title of the bill.

Section 2 reauthorizes through fiscal year 2027 the incentives for hydroelectric production and hydroelectric efficiency improvements that were originally established in sections 242 and 243 of the Energy Policy Act of 2005 (Public Law 109–58).

COST AND BUDGETARY CONSIDERATIONS

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

Summary: S. 1336 would authorize appropriations for the Department of Energy (DOE) to make payments to owners or operators of certain hydroelectric facilities. Assuming appropriation of the authorized amounts, CBO estimates that implementing S. 1336 would cost $43 million over the 2018–2023 period.

Enacting the bill would not affect direct spending or revenues; therefore, pay-as-you-go procedures do not apply.

CBO estimates that enacting S. 1336 would not increase net direct spending or on-budget deficits in any of the four consecutive 10-year periods beginning in 2029.

S. 1336 contains no intergovernmental or private-sector mandates as defined in the Unfunded Mandates Reform Act (UMRA).

Estimated cost to the Federal Government: The estimated budgetary effect of S. 1336 is shown in the following table. The costs of the legislation fall within budget function 270 (energy).

	By fiscal year, in millions of dollars—						
	2018	2019	2020	2021	2022	2023	2019–2023
INCREASES IN SPENDING SUBJECT TO APPROPRIATION							
Authorization Level	10	10	10	10	10	10	50
Estimated Outlays	0	4	9	10	10	10	43

The bill would authorize the appropriation of $10 million in 2018. CBO does not estimate any outlays for that authorization because appropriations for 2018 have already been enacted.

Basis of estimate: For this estimate, CBO assumes that S. 1336 will be enacted near the start of fiscal year 2019 and that the amounts will be provided each year beginning in 2019.

S. 1336 would authorize the appropriation of $10 million annually over the 2018–2027 period for DOE to provide payments to nonfederal owners and operators of certain facilities that generate and sell hydroelectric energy. Such payments would equal 1.8 cents per kilowatt hour of electricity generated by qualified facilities that use a turbine or other power-generating device that was added to a dam or conduit that was completed before August 8, 2005. Under the bill, to qualify for incentive payments facilities would need to begin operating before August 8, 2025, owners and operators could receive such payments for up to 10 years.

For 2018, the Congress has provided nearly $7 million for payments that would be reauthorized under the bill; for this estimate. CBO assumes no further funding will be provided this year. Assuming appropriation of the authorized amounts over the 2019–2027 period, CBO estimates that implementing S. 1336 would cost $43 million over the 2018–2023 period covered by this estimate and $47 million after 2023. That estimate is based on historical spending patterns for existing activities.

Pay-As-You-Go considerations: None.

Increase in long-term direct spending and deficits: CBO estimates that enacting S. 1336 would not increase net direct spending or on-budget deficits in any of the four consecutive 10-year periods beginning in 2029.

Mandates: S. 1336 contains no intergovernmental or private-sector mandates as defined in UMRA.

Estimate prepared by: Costs: Megan Carroll; Mandates: Jon Sperl.

Estimate reviewed by: Kim P. Cawley, Chief, Natural and Physical Resources Cost Estimates Unit; H. Samuel Papenfuss, Deputy 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. 1336.

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. 1336 as ordered reported.

CONGRESSIONALLY DIRECTED SPENDING

S. 1336, 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 the Energy at the December 5, 2017, hearing on S. 1336 follows:

TESTIMONY OF UNDER SECRETARY MARK MENEZES, U.S. DEPARTMENT OF ENERGY, BEFORE THE U.S. SENATE COMMITTEE ON ENERGY AND NATURAL RESOURCES SUBCOMMITTEE ON 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, 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)

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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.

(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⟧ *20* 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) 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⟧ *30* 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 fiscal years 2018 through 2027*.

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 fiscal years 2018 through 2027*.

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