

Supporting Statement
FERC-521, Payments for Benefits from Headwater Improvements

The Federal Energy Regulatory Commission (FERC or Commission) requests that the Office of Management and Budget (OMB) review and approve the information collection FERC-521 (Payments for Benefits from Headwater Improvements) for a three-year period.

1. CIRCUMSTANCES THAT MAKE THE COLLECTION OF INFORMATION NECESSARY

The Commission has authority for the filing of headwater benefits information as mandated by Part 1 of the Federal Power Act¹ (FPA), Section 10(f). Under Section 10(f), an owner of a hydropower project is required to reimburse upstream headwater project owners for an equitable part of the benefits it receives. This includes paying equitable portions of the annual charges for interest, maintenance, and depreciation of the headwater project to the U.S. Treasury. The Commission collects about \$7.9 million annually, which it returns to the U.S. Treasury. The Commission's regulations provide for apportionment of these costs between the headwater project and downstream projects based on downstream energy gains and propose an equitable apportionment methodology that can be applied to all river basins in which headwater improvements are built.

The Commission focuses its efforts on assessing headwater benefits derived from upstream federal storage projects constructed and operated by the U.S. Army Corps of Engineers and the Bureau of Reclamation. Headwater benefits are the additional energy production possible at downstream hydropower projects resulting from the regulation of river flows by an upstream storage reservoir. The purpose of determining the headwater benefits is to assess the downstream beneficiaries for a portion of the annual charges of the headwater project. The Commission implements these requirements in the 18 CFR Part 11.10.

2. HOW, BY WHOM, AND FOR WHAT PURPOSE THE INFORMATION IS TO BE USED AND THE CONSEQUENCES OF NOT COLLECTING THE INFORMATION

¹ 16 USC Section 803

FERC-521 implements the existing regulations and is necessary for the determination of headwater benefits derived by downstream parties. The regulations set forth a formula² for determining an equitable apportionment of the annual charges for interest, maintenance, and depreciation for a storage reservoir or other headwater improvement owned by the United States, a licensee, or a pre-1920 permittee. Energy gains are determined by FERC using various analytical methods. The method chosen depends upon the complexity of the river basin and the potential headwater benefits. Complex river basins that include a large number of headwater and downstream projects often require a detailed computer analysis using FERC's computer modeling simulation program Headwater Benefits Energy Gain Model (HWBEG). For river basins that are not complex or in which the headwater benefits are expected to be small, the Commission relies on a flow duration methodology to determine energy gains. Investigations are based on the determination of the average energy gains of a project. To determine how much annual energy is produced, it is necessary to calculate how much energy the downstream project would have produced if the upstream projects did not exist. The amount of energy that a hydropower project produces depends primarily on the following factors:

- Stream flow;
- Reservoir storage;
- Head;
- Size and efficiency of the turbines and generators;
- Load to be served.

In determining energy gains, the size and efficiency of the turbines and the generators, and the load to be served will remain constant, while stream flow, reservoir storage, and head will vary depending on the operation conditions of the upstream reservoirs. Because head and stream flow determine the amount of energy produced at the

$${}^2 P = \frac{C_p * E_n}{(E_j + E_d)} ; \text{ In this formula the following applies:}$$

- **P** = annual payment to be made for headwater benefits received by downstream project
- **C_p** = Annual Section 10(f) cost of headwater project
- **E_n** = Annual energy gains received at a downstream project (or group of projects)
- **E_j** = portion of annual energy generated at the headwater project assigned to the joint-use power cost
- **E_d** = annual energy gains received at all downstream projects (except ones specified in 18 CFR 11.10(b))

hydropower project, a relationship of generation as a function of the head and stream flow can be developed. Commission experience has shown that the relationship between generation and stream flow is an adequate tool for estimating generation in calculating gains.

If the information were not collected, there would be no data available to determine the benefits received from downstream parties from the operation of storage reservoirs, or other headwater improvements.

3. DESCRIBE ANY CONSIDERATION OF THE USE OF IMPROVED INFORMATION TECHNOLOGY TO REDUCE THE BURDEN AND TECHNICAL OR LEGAL OBSTACLES TO REDUCING BURDEN

FERC continually considers the use of improved information technology to reduce burden in the filing requirements for submission of information concerning headwater benefits. FERC-521 may be eFiled as shown at <https://www.ferc.gov/docs-filing/efiling/filing.pdf> .

4. DESCRIBE EFFORTS TO IDENTIFY DUPLICATION AND SHOW SPECIFICALLY WHY ANY SIMILAR INFORMATION ALREADY AVAILABLE CANNOT BE USED OR MODIFIED FOR USE FOR THE PURPOSE(S) DESCRIBED IN INSTRUCTION NO. 2

In an effort to alleviate duplication, filing requirements are periodically reviewed as OMB review dates arise, or as the Commission may deem necessary in carrying out its regulatory responsibilities.

The reporting requirements associated with FERC-521 are basic filing requirements pertaining to headwater benefits. There are no similar sources of information available.

5. METHODS USED TO MINIMIZE THE BURDEN IN COLLECTION OF INFORMATION INVOLVING SMALL ENTITIES

The filing requirements are imposed on both large and small entities. Specific efforts have been made to minimize the burden imposed on small entities who file the data. For example, only those hydropower projects with an installed generating capacity greater than 1.5 MW are subject to headwater benefits charges. No final charge assessed may

exceed 85 percent of the value of the energy gains for the assessment period. The data required is specific to each respondent. Therefore, the reporting burden varies between each respondent.

6. CONSEQUENCE TO FEDERAL PROGRAM IF COLLECTION WERE CONDUCTED LESS FREQUENTLY

If the information were collected less frequently, the Commission would be placed at a disadvantage due to not having available data for determining the benefits from headwater improvements.

7. EXPLAIN ANY SPECIAL CIRCUMSTANCES RELATING TO THE INFORMATION COLLECTION

There are no special circumstances as described in 5 CFR 1320.5(d)(2) related to FERC-521.

8. DESCRIBE EFFORTS TO CONSULT OUTSIDE THE AGENCY: SUMMARIZE PUBLIC COMMENTS AND THE AGENCY'S RESPONSE

In accordance with OMB requirements, each FERC rulemaking (both proposed and final rules) and information collection renewals are published in the Federal Register thereby providing public utilities and licensees, state commissions, Federal agencies, and other interested parties an opportunity to submit data, views, comments or suggestions concerning the collection of data. The Commission published a 60-day notice³ in Docket No. IC17-4 regarding this information collection on 3/22/2017.

A 30-day Notice⁴ was issued on 6/1/2017 and will be published in the Federal Register.

9. EXPLAIN ANY PAYMENT OR GIFTS TO RESPONDENTS

The Commission does not make payments or provide gifts for respondents related to FERC-521.

³ 82 FR 14710

⁴ The Notice is posted in FERC's eLibrary at <https://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=14604422>.

10. DESCRIBE ANY ASSURANCE OF CONFIDENTIALITY PROVIDED TO RESPONDENTS

The information submitted to the Commission is public, therefore, the information is not considered confidential. Specific requests for confidential treatment will be considered pursuant to 18 C.F.R. Section 388.112.

11. PROVIDE ADDITIONAL JUSTIFICATION FOR ANY QUESTIONS OF A SENSITIVE NATURE, SUCH AS SEXUAL BEHAVIOR AND ATTITUDES, RELIGIOUS BELIEFS, AND OTHER MATTERS THAT ARE COMMONLY CONSIDERED PRIVATE.

There are no questions of a sensitive nature associated with the FERC-521 reporting requirements.

12. ESTIMATED BURDEN OF COLLECTION OF INFORMATION

The Commission estimates the Public Reporting burden for the FERC-521 information collection as follows:

FERC-521: Payments for Benefits from Headwater Improvements						
	Number of Respondents (1)	Annual Number of Responses per Respondent (2)	Total Number of Responses (1)*(2)=(3)	Average Burden & Cost Per Response (4)	Total Annual Burden Hours & Total Annual Cost (3)*(4)=(5)	Cost per Respondent (\$) (5)÷(1)

Federal and Non-Federal hydropower project owners	3	1	3	40 hrs.; \$3,060	120 hrs.; \$9,180	\$3,060
TOTAL COST					120 hrs.; \$9,180	\$3,060

The total estimated annual cost burden to respondents is \$9,180 [120 hours * \$76.50/hour⁵ = \$9,180].

13. ESTIMATE OF THE TOTAL ANNUAL COST BURDEN TO RESPONDENTS

The costs for this collection are entirely related to burden hours and are provided in Questions #12 and #15.

14. ESTIMATED ANNUALIZED COST TO FEDERAL GOVERNMENT

The Commission bases its estimate of 0.12 Full-Time Employees (FTE's) for the "Analysis and Processing of filings" cost to the Federal Government on salaries and benefits for professional and clerical support. This estimated cost represents staff analysis, decision-making, and review of any actual filings submitted in response to the information collection.

The estimated annualized cost to the Federal Government for FERC-521 is:

	Number of Employees (FTEs)	Estimated Annual Federal Cost
Analysis and Processing of filings ⁶	0.12	\$19,049
PRA ⁷ Administrative Cost ⁸		\$5,723

⁵ Commission staff thinks that respondents to this collection are similarly compensated in terms of salary and benefits. \$76.50/hour is the average FERC employee hourly salary plus benefits for 2017.

⁶ Based upon 2017 FERC average annual salary plus benefits (\$158,754)

⁷ Paperwork Reduction Act of 1995

⁸ The PRA Administrative Cost is the average annual FERC cost associated with preparing, issuing, and submitting materials necessary to comply with the PRA for

FERC Total		\$24,772
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15. REASONS FOR CHANGES IN BURDEN INCLUDING THE NEED FOR ANY INCREASE

There are no changes to reporting requirements. Moreover, there is no foreseeable change in either the number of respondents or the frequency with which they must respond. Therefore, there is no change to the estimated reporting burden.

FERC-521	Total Request	Previously Approved	Change due to Adjustment in Estimate	Program Change Due to Agency Discretion
Annual Number of Responses	3	3	0	0
Annual Time Burden (Hr.)	120	120	0	0
Annual Cost Burden (\$)	\$ 0	\$ 0	\$ 0	\$ 0

The format, label, and definitions of the table above follow the Office of Management and Budget’s online submittal system for information collection requests.

16. TIME SCHEDULE FOR PUBLICATION OF DATA

There is no plan for publication of this information collection.

17. DISPLAY OF EXPIRATION DATE

The expiration date is displayed at <http://www.ferc.gov/docs-filing/info-collections.asp>.

18. EXCEPTIONS TO THE CERTIFICATION STATEMENT

There are no exceptions.

rulemakings, orders, or any other vehicle used to create, modify, extend, or discontinue an information collection. It also includes the cost of publishing the necessary notices in the Federal Register.

