

CECW-EG Engineer Regulation 1110-2-1	Department of the Army U.S. Army Corps of Engineers Washington, DC 20314-1000	ER 1110-2-1 28 January 1982
	Engineering and Design PROVISIONS FOR FUTURE HYDROPOWER INSTALLATIONS AT CORPS OF ENGINEERS PROJECTS	
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DAEN-CWE-HY

Regulation
No. 1110-2-1

29 January 1982

Engineering and Design
PROVISIONS FOR FUTURE HYDROPOWER INSTALLATION
AT CORPS OF ENGINEERS PROJECTS

1. Purpose. This regulation prescribes procedures for obtaining the Secretary of the Army's approval to provide minimum facilities for future hydroelectric power development at Corps projects.

2. Applicability. This regulation applies to all field operating activities having civil works responsibilities.

3. Authority. The 1938 Flood Control Act, Public Law 761-75, and all subsequent Flood Control (River and Harbor) Acts require that:

"Penstocks and other similar facilities adapted to possible future use in the development of hydroelectric power shall be installed in any dam authorized in this act for construction by the Department of the Army when approved by the Secretary of the Army on the recommendation of the Chief of Engineers and the Federal Power Commission."

4. General Requirements. Hydroelectric power potential must be investigated, where feasible, in conjunction with all Corps of Engineers water resources feasibility reports and/or design memoranda. Such investigations will continue to be conducted in compliance with the existing policy directives, engineer regulations, and manuals applicable to hydropower development at Corps civil works projects. In view of the increased value of energy, a number of Corps projects which are in planning and engineering or construction stages may support minimum provisions for future hydropower facilities. To obtain approval of the Secretary of the Army for incorporating minimum power provisions in these projects, a letter report or supplement to an applicable design memorandum should be forwarded to DAEN-CWE for (1) Office, Chief of Engineers (OCE/HQ) review and recommendation and (2) the Secretary of the Army approval. Minimum facilities should be those necessary to avoid major reconstruction and/or interruption to other project purposes. The format and content of letter reports are discussed in subsequent paragraphs.

5. Agency Coordination. Hydroelectric power study coordination with regional engineers of the Federal Energy Regulatory Commission (FERC) for either addition of, or minimum facilities for hydroelectric power installation at Corps of Engineers projects, will be initiated by the district commanders as early as possible in studies for feasibility reports, design memoranda, or supplemental letter reports. The latter is applicable for projects in planning and engineering or construction

stages. District commanders will obtain the recommendation of FERC as required by the River and Harbors Acts cited in paragraph 3. Feasibility reports, design memoranda, or supplemental letter reports addressing hydroelectric power installation should document the results of such coordination and include a copy of the FERC recommendation. Coordination with FERC (relative to minimum facility requirements of the Rivers and Harbors Acts) is in addition to other coordination necessary for development of power values, projection of power demand, etc.

6. Level and Type of Hydropower Data Required.

a. Feasibility Reports or Design Memoranda - The required level of data and presentations in a feasibility report or design memorandum addressing present or future hydroelectric power facilities at Corps projects will be in conformance with the applicable Corps of Engineers manuals and regulations addressing planning, design, and construction of hydropower installations. Washington level processing will be by the normal process for reports going to Congress for authorization.

b. Supplemental Letter Reports - A Letter Report addressing minimum provisions for future hydropower installation will be prepared by the district commanders for those projects in planning and engineering and construction stages with feasible hydroelectric power potential. The recommendation of the FERC regional engineer shall be included in the report. After review and recommendation by the division commander, eight copies of the report, supplementing an appropriate design memorandum, shall be forwarded to CDR USACE (DAEN-CWE) WASH DC 20314. (Exempt under para 7-2b, AR 335-15). The letter reports provide the basis for recommendations by the Commander, USACE, to the Secretary of Army for construction of minimum facilities for future hydroelectric power installation. The content of the district commander's report shall follow this format:

- (1) The purpose of the letter report.
- (2) Authority for future hydroelectric power installation.
- (3) Project description.
- (4) Project potential for hydropower. Discuss the flow-duration, pool-duration, and available head for future hydropower installation.
- (5) Minimum facilities necessary to preserve the project's hydroelectric power potential.
- (6) Technical feasibility of the proposed minimum facility to accommodate current project purposes and future hydroelectric power installation. Discuss the type of future hydroelectric power installation, its location, and its operating hydraulic and structural provisions.

(7) Economic feasibility, including time sensitivity analysis of the impact of compound interest on the cost of provisions.

(8) Changes to the current project costs and benefits resulting from the minimum facilities. Show first and annual costs.

(9) Environmental and social impacts.

(10) Coordination with FERC and documentation of the Commission's recommendation.

(11) Division commander's recommendation (indorsement).

7. Letter Report Approval by the Secretary of the Army. After OCE/HQ review and recommendation by the division commander's letter report, DAEN-CWE will conduct any additional coordination needed with FERC's Washington office. Finally, DAEN-CWE will prepare a decision memorandum to accompany the recommendation of the Commander, USACE, to the Secretary of the Army. Appropriate field commanders will be notified of this action by DAEN-CWE.

FOR THE COMMANDER:



JAMES W. RAY

Colonel, Corps of Engineers
Chief of Staff