

§ 11.13 Energy gains calculations.

(a) *Energy gains at a downstream project.* (1) Energy gains at a downstream project are determined by simulating operation of the downstream project with and without the effects of the headwater project. Except for determinations which are not complex or in which headwater benefits are expected to be small, calculations will be made by application of the Headwater Benefits Energy Gains Model, as presented in *The Headwater Benefits Energy Gains (HWBEG) Model Description and Users Manual*, which is available for the National Technical Information Service, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, VA 22161.

(2) If more than one headwater project provide energy gains to a downstream project, the energy gains at the downstream project are attributed to the headwater projects according to the time sequence of commencement of operation in which each headwater project provided energy gains at the downstream project, by:

(i) Crediting the headwater project that is first in time with the amount of energy gains that it provided to the downstream project prior to operation of the headwater project that is next in time; and

(ii) Crediting any subsequent headwater project with the additional increment of energy gains provided by it to the downstream project.

(3) Annual energy losses at a downstream project, or group of projects owned by the same entity, that are attributable to the headwater project will be subtracted from energy gains for the same annual period at the downstream project or group of projects. A net loss in one calendar year will be subtracted from net gains in subsequent years until no net loss remains.

(b) *Energy generated at the headwater project.* (1) Except as provided in paragraphs (b)(2) and (b)(3) of this section, the portion of the total annual energy generation at the headwater project that is to be attributed to the joint-use power cost is derived by multiplying the total annual generation at the headwater project and the ratio of the project investment cost assigned to the joint-use power cost to the sum of the

investment cost assigned to both the specific power cost and the joint-use power cost of the headwater project, as follows:

$$E_j = E \times \frac{C_j}{C_s + C_j}$$

In which:

E_j =annual energy generated at the headwater project to be attributed to the joint-use power cost,

E =total annual generation at the headwater project,

C_j =project investment costs assigned to the joint-use power cost, and

C_s =project investment costs assigned to specific power costs.

(2) If the headwater project contains a pumped storage facility, calculation of the portion of the total annual energy generation at the headwater project that is attributable to the joint-use power cost will be determined on a case-by-case basis.

(3) If no power is generated at the headwater project, the amount of energy attributable to the joint-use power cost under this section is the total of all downstream energy gains included in the headwater benefits formula.

§ 11.14 Procedures for establishing charges without an energy gains investigation.

(a) *Settlements.* (1) Owners of downstream and headwater projects subject to this subpart may negotiate a settlement for headwater benefits charges. Settlements must be filed with the Commission for its approval, according to the provisions of § 385.602.

(2) If the headwater project is a Federal project, any settlement under this section must result in headwater benefits payments that approximate those that would result under the energy gains method.

(b) *Continuation of previous headwater benefits determinations.* (1) For any downstream project being assessed headwater benefit charges on or before September 16, 1986, the Commission will continue to assess charges to that project on the same basis until changes occur in the river basin, including hydrology or project development, that affect headwater benefits.