the sum of total energy gains received by all downstream projects (except those projects specified in §11.10(b) of this chapter) plus the energy generated at the headwater project that is assigned to the joint-use power cost, as follows:

$$P = C_p \times \frac{E_n}{E_j + E_d}$$

In which:

P=annual payment to be made for headwater benefits received by a downstream project,
C_p=annual section 10(f) cost of the headwater project,
E_n=annual energy gains received at a downstream project, or group of projects if owned by one entity,
E_d=annual energy gains received at all downstream projects (except those specified in §11.10(b) of this chapter), and
E_j=portion of the annual energy generated at the headwater project assigned to the joint-use power cost.

(3) If power generation is not a function of the headwater project, section 10(f) costs will be apportioned only among the downstream projects.

(4) If the headwater project is constructed after the downstream project, liability for headwater benefits charges will accrue beginning on the day on which any energy losses at the downstream project due to filling the headwater reservoir have been offset by subsequent energy gains. If the headwater project is constructed prior to the downstream project, liability for headwater benefits charges will accrue beginning on the day on which benefits are first realized by the downstream project.

(5) No final charge assessed by the Commission under this subpart may exceed 85 percent of the value of the energy gains. If a party demonstrates, within the time specified in §11.17(b)(3) for response to a preliminary assessment, that any final charge assessed under this subpart, not including the cost of the investigation assessed under §11.17(c), exceeds 85 percent of the value of the energy gains provided to the downstream project for the period for which the charge is assessed, the Commission will reduce the charge to not more than 85 percent of the value. For purposes of this paragraph, the *value of the energy gains* is the cost of obtaining an equivalent amount of electricity from the most likely alternative source during the period for which the charge is assessed.

§11.12 Determination of section 10(f) costs.

(a) *for non-Federal headwater projects.* If the headwater project was constructed by a licensee or pre-1920 permittee and a party requests the Commission to determine charges, the Commission will determine on a case-by-case basis what portion of the annual interest, maintenance, and depreciation costs of the headwater project constitutes the section 10(f) costs, for purposes of this subpart.

(b) *For Federal headwater projects.* (1) If the headwater project was constructed or is operated by the United States, and the Commission has not approved a settlement between the downstream project owner and the headwater project owner, the section 10(f) cost will be determined by deriving, from information provided by the headwater project owner pursuant to §11.16 of this subpart, the joint-use power cost and the portion of the annual joint-use power cost that represents the interest, maintenance, and depreciation costs of the project.

(2) If power is not an authorized function of the headwater project, the section 10(f) cost is the annual interest, maintenance, and depreciation portion of the headwater project costs designated as the joint-use power cost, derived by deeming a power function at the project. The value of the benefits assigned to the deemed power function, for purposes of determining the value of remaining benefits of the joint-use power cost, is the total value of downstream energy gains included in the headwater benefits formula.

(3) For purposes of this paragraph, *total value of downstream energy gains* means the lesser of:

(i) The cost of generating an equivalent amount of electricity at the most likely alternative facility at the time the headwater project became operational; or

(ii) The incremental cost of installing electrical generation at the headwater project at the time the project became operational.