

WAC 194-37-130 Documentation of incremental hydropower. (1) **Projects owned by qualifying utilities.** Each utility using electricity produced as a result of a hydropower efficiency improvement, as defined in RCW 19.285.030 (12)(b), to meet a renewable energy target must provide documentation that:

(a) The hydroelectric generation project is owned by a qualifying utility and is located in the Pacific Northwest;

(b) The hydropower efficiency improvement was completed after March 31, 1999; and

(c) The additional generation does not result in new water diversions or impoundments.

(2) **Federal projects.** Each utility using electricity produced as a result of a hydropower efficiency improvement, as defined in RCW 19.285.030 (12)(g), to meet a renewable energy target must provide documentation that:

(a) The output of the hydroelectric generation project is marketed by the Bonneville Power Administration;

(b) The utility received the electricity through a transaction with the Bonneville Power Administration that conveyed both the electricity and the nonpower attributes of that electricity;

(c) The hydropower efficiency improvement was completed after March 31, 1999; and

(d) The additional generation does not result in new water diversions or impoundments.

(3) If the amount of electricity generated as a result of the hydropower efficiency improvement is directly measurable, the utility must use the measured output of the hydropower efficiency improvement as documentation of the amount of additional generation.

(4)(a) If the amount of electricity generated as a result of the hydropower efficiency improvements is not directly measurable, the utility must document the amount of electricity generated as a result of the hydropower efficiency improvement using an engineering analysis comparing the output in megawatt-hours of the hydroelectric generation project with the efficiency improvement to the output in megawatt-hours of the hydroelectric generation project without the efficiency improvement. Multiple efficiency improvements to a single hydroelectric generation project may be combined for purposes of the engineering analysis.

(b) The engineering analysis required by (a) of this subsection must be performed using an engineering model of the hydroelectric generation project that quantifies the relationship of stream flows, reservoir elevation, and other relevant factors to the electric output of the generating facility. The engineering model must accurately reflect the physical characteristics and operating requirements of the hydroelectric generation project during the target year and must accurately estimate the electric generation of the hydroelectric generation project without and with the hydropower efficiency improvement.

(c) A utility using the engineering analysis method to determine incremental generation must adopt and consistently apply in each target year one of the following methods:

(i) **Method one - Actual incremental generation.** A utility using this method must prepare an analysis using actual stream flows and the engineering model described in (b) of this subsection during each target year to determine incremental generation in the target year. A utility using this method must perform an updated calculation each year to determine the incremental generation amount for that target year.

(ii) **Method two - Percentage generation.**

(A) A utility using method two must prepare an analysis establishing the expected amount of incremental generation based on stream flows available to the hydroelectric generation project, adjusted for any known and measurable changes to stream flows due to environmental regulations or other factors, during a historical study period.

(B) The historical study period used in method two must be reasonably representative of the stream flows that would have been available to the hydroelectric project over the period of time for which stream flow records are readily available. A historical study period meets the requirements of this subsection if it includes the most recent readily available stream flow records and consists of a consecutive record of stream flow records at least five years in length.

(C) The amount of incremental generation using method two is calculated by multiplying the actual generation in megawatt-hours in the target year by a percentage amount equal to the difference between the calculated average generation over the historical study period with the hydropower efficiency improvement and the calculated average generation over the historical study period without the hydropower efficiency improvement, divided by the calculated average generation over the historical study period without the hydropower efficiency improvement.

(iii) **Method three - Fixed amount of generation.**

(A) A utility using method three must prepare an analysis establishing the expected amount of incremental generation based on stream flows available to the hydroelectric generation project, adjusted for any known and measurable changes to stream flows due to environmental regulations or other factors during a historical study period.

(B) The historical study period used in method three must be reasonably representative of the stream flows that would have been available to the hydroelectric project over the period of time for which stream flow records are readily available. A historical study period meets the requirements of this subsection if it includes the most recent readily available stream flow records and consists of a consecutive record of stream flow records at least ten years in length.

(C) The amount of incremental generation using method three is calculated as an amount in megawatt-hours equal to the difference between the calculated average generation over the historical study period with the hydropower efficiency improvement and the calculated average generation over the historical study period without the hydropower efficiency improvement. The amount must be adjusted in each target year for any reduction in availability of the hydroelectric generation project's generating capacity during the target year that is not accounted for in the analysis used to calculate the incremental generation amount.

(5) The requirements of this section are in addition to the documentation requirements specified in WAC 194-37-120(1).

[Statutory Authority: RCW 19.405.100 and 19.285.080. WSR 20-02-089, § 194-37-130, filed 12/30/19, effective 1/30/20. Statutory Authority: RCW 19.285.080. WSR 15-07-002, § 194-37-130, filed 3/6/15, effective 4/6/15. Statutory Authority: RCW 19.285.080(2). WSR 08-07-079, § 194-37-130, filed 3/18/08, effective 4/18/08.]