

Guidance on Utility Rate Estimations and Weather Normalization in an ESPC

Subject: The use of estimated energy rates¹ and normalized weather² data in determining contractor (ESCO) payments under an energy savings performance contract (ESPC).

Summary: As explained below, the use of estimated energy rates and normalized weather data is permitted when determining ESCO payments under an ESPC.

Authority: The authority for ESPCs is established in the National Energy Conservation Policy Act (NECPA), as amended. (42 U.S.C. 8287 et seq.) Implementing regulations for ESPCs are at 10 CFR Part 436 subpart B.

Guidance:

Section 801(a)(2)(B) of NECPA requires that “[a]ggregate annual payments by an agency ... may not exceed the amount ... the agency would have paid (as estimated through the procedures developed pursuant to this section) without an [ESPC] during the contract years.” Further that section requires an ESPC to provide for a guarantee of savings and requires the establishment of payment schedules reflecting such guarantees. ESPCs must require annual energy audits and specify the terms and conditions of any Government payment.

Neither the statute nor the implementing regulations specify which energy rates must be used in calculating payments to an ESCO. To the extent that energy rates are known when a Federal agency enters into an ESPC (or task order), the known rates should be used to calculate payments as opposed to estimated rates. For example, if a site has entered into a power purchase agreement (PPA) for a period of years, the PPA rates should be used to calculate savings during the period covered by the PPA.

To the extent that payments will rely on projected energy rates, FEMP recommends that agencies rely on the Energy Escalation Rate Calculator (EERC) in establishing future energy rates for the purposes of determining the value of energy savings (and thus payments to ESCOs). EERC, a cost calculator for estimating escalation rates in ESPCs, has been developed under a FEMP contract with the National Institute of Standards and Technology (NIST) to develop life-cycle costing tools for the purposes of federal energy management. EERC incorporates the projections for changes in future energy costs in various regions of the country. It also incorporates a long-term inflation rate that is annually calculated by NIST. To the extent that EERC allows for adjustment due to potential carbon pricing, calculation of contractor payments in ESPC projects may include such adjustments only to the extent that the applicable energy rates are impacted by an existing carbon pricing regime. ***Carbon pricing that is speculative must not be***

¹ For the purpose of this guidance, “energy rates” includes energy rates, rates for energy related costs, water rates, rates for water related costs, and rates for wastewater treatment.

² “Weather normalization” is a method to enable a like-for-like comparison of energy consumption from different periods. Generally, weather normalization factors out variations in outside air temperature to allow for a comparison of energy efficiency.

included in the contractor payment calculation. FEMP has determined that EERC provides a credible estimation of changes in future utility rates in that these projections are based on economic forecasting by the Energy Information Administration (EIA) and NIST.

On the separate but similar issue of weather forecasting over the terms of task orders, use of normalized weather data is permissible when determining savings (and thus payments) under an ESPC. Under the ESPC regulations (10 CFR 436.37(b)(6)), when determining energy savings, the base cost can be adjusted to account for weather. There are several tools available for executing this normalization, such as NREL's "Typical Meteorological Year" data.

If an ESPC (or task order) relies on projected energy costs or normalized weather data in determining contractor payments, the projected energy costs and normalized weather data must be included in the terms of the ESPC (or task order).