



TETRA TECH

KEMA 

Subject Focus on Energy Evaluation

2010 Renewables Annual Savings

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Public Service Commission of Wisconsin
cc Monica Curtis,
WECC

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This memo presents the evaluation team's approach to determining 2010 annual savings for Renewable projects. The CY10 Renewables impact evaluation sampled projects installed between October 1, 2009, and June 30, 2010. From these sampled projects, KEMA estimated realization rates (adjustment factors) for each technology to account for verified gross production and net production based on self reports of attribution. Our original intent was to apply the results from the 2010 evaluation period to the 2010 population of projects.

During the evaluation period, however, the program completed only one biogas and two biomass projects. Because there were so few projects in the evaluation period, we cannot be confident that they are representative of the population of 2010 completed projects. This necessitates an alternative approach for estimating 2010 net impacts for these two technologies. Our approach to determining 2010 net impacts will be:

- For PV, SHW, and wind projects, we will apply the 2010 impact report's adjustment factors to all 2010 projects.
- For biogas and biomass projects, we will use two factors.
 - For 2010 projects directly evaluated in the 2010 evaluation, we will apply the factors calculated for those projects.
 - For 2010 projects completed after the evaluation period (the second half of 2010), we will apply a blended ratio based on the realization rates for these technology types in the CY09 and CY10 evaluations.

Blended Ratios

To create the blended ratios we combined the results of the CY09 and CY10 evaluations into a single dataset and used ratio analysis methods consistent with each of these evaluations. The CY09 Renewables evaluation included seven biogas projects and six biomass projects, while



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the CY10 evaluation had one and two respectively. We will apply the blended ratios shown in Table 1 to biogas and biomass projects completed between July 1, 2010, and December 31, 2010, to determine 2010 annual savings.

Table 1. Blended CY09/CY10 Ratios

Technology	Gross Savings Adjustment			Realization Rate		
	kWh	kW	Therms	kWh	kW	Therms
Biogas (n=7)	87%	101%	100%	30%	33%	*%
Biomass (n=8)	119%	60%	94%	20%	16%	25%

*The CY09 and CY10 evaluations together included only one project with therm savings. We do not report the realization rate here to preserve respondent confidentiality.