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## GROSS-TO-NET FACTORS

2014

APRIL 1, 2015

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## Gross-to-Net Factors

## NARRATIVE

Adjustments to all savings were made to account for free riders, spillover, and line losses. This section lists the adjustments that were used for this report.

Adjustments on the following page represent free rider and spillover rates used throughout 2014 by mutual agreement among Efficiency Vermont and the Vermont Public Service Department. Free rider and spillover adjustments are applied based on the specific measure and project track. No adjustments are made for free riders or spillover in the Customer Credit Program.

Adjustments for free riders and spillover are presented as a single combined factor rather than percentage adjustments. That is, “no adjustment” is indicated by a factor of 1. Factors less than 1 represent a net reduction in savings due to free riders. Factors greater than 1 represent a net increase in savings due to spillover. Free rider and spillover adjustments are combined by addition. For example, a free rider adjustment of 0.8 combined with a spillover adjustment of 1.1 results in a total adjustment of 0.9. The adjusted savings would be 90% of gross savings.

Savings adjusted for free riders and spillover are further adjusted to account for line losses, multiplying by 1 plus the appropriate line loss factor. See the Efficiency Vermont Technical Reference Manual for further detail on the application of line loss, free riders, and spillover adjustments. The line loss factors do not vary by measure, but by costing period, and are listed in **Table 1**.

**Table 1. Line Loss Factors**

Energy (MWh)			Peak (kW)		
Winter Peak Period	Winter Off-Peak Period	Summer Peak Period	Summer Off-Peak Period	Winter Peak	Summer Peak
13.5%	12.2%	13.7%	10.7%	10.1%	10.5%

The column headings in the following table indicate project track and project track description as follows:

<u>Project Track</u>	<u>Project Track Description</u>
6012BPUF	Commercial Building Performance Retrofit
6012CNIR	Commercial & Industrial Retrofit
6013CUST	Commercial & Industrial Custom Equipment Replacement
6013PRES	Commercial & Industrial Prescriptive Equipment Replacement
6013UPST	Commercial & Industrial Upstream
6014CUST	Commercial & Industrial Custom New Construction

6014PRES	Commercial & Industrial Prescriptive Equipment New Construction
6017BPUF	Multifamily Low-Income Building Performance Retrofit
6017CUST	Multifamily Low-Income Custom Retrofit
6017PRES	Multifamily Low-Income Prescriptive Retrofit
6018LINC	Multifamily Low-Income New Construction
6019MFNC	Multifamily Market-Rate New Construction
6020CUST	Multifamily Market-Rate Custom Retrofit
6020PRES	Multifamily Market-Rate Prescriptive Equipment Replacement
6032EPEP	Efficient Products
6032UPST	Residential Upstream
6034LISF	Single Family Retrofit, Low-Income
6036HPES	Single Family Home Performance Retrofit
6036RETR	Single Family Retrofit
6038VESH	Residential New Construction























Measure Code	ProductDescription	6012 BPCD	6012 BPUF	6012 CNIR	6012 EGRN	6013 CUST	6013 EGRN	6013 PRES	6013 UPST	6014 CUST	6014 PRES	6015 CC	6017 BPCD	6017 BPUF	6017 CUST	6017 PRES	6018 LINC	6019 MFNC	6020 BPCD	6020 BPUF	6020 CUST	6020 PRES	6032 EPEP	6032 UPST	6034 LISF	6036 HPCD	6036 HPES	6036 HPGP	6036 RETR	6038 VECP	6038 VESH	6041 LINC
VNTCLFAN	Ceiling fan	0.89	0.89	0.89	0.89	0.94	0.94	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.05	0.90	0.90	0.90	0.90	1.00	1.00	1.00	0.90	0.90	0.90	0.90	1.05	1.05	1.05
VNTCOMMI	Ventilation Commissioning	0.99	0.99	0.99	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
VNTDEMAN	Demand controlled ventilation	0.89	0.89	0.89	0.89	0.94	0.94	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.05	0.90	0.90	0.90	0.90	1.00	0.95	1.00	0.90	0.90	0.90	0.90	1.05	1.05	1.05
VNTHELEC	HRV ventilator, makeup heat electric	0.89	0.89	0.89	0.89	0.94	0.94	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.05	0.90	0.90	0.90	0.90	1.00	1.00	1.00	0.90	0.90	0.90	0.90	1.05	1.05	1.05
VNTHFOIL	HRV ventilator, makeup heat oil	0.89	0.89	0.89	0.89	0.94	0.94	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.05	0.90	0.90	0.90	0.90	1.00	1.00	1.00	0.90	0.90	0.90	0.90	1.05	1.05	1.05
VNTHNGAS	HRV ventilator, makeup heat natural gas	0.89	0.89	0.89	0.89	0.94	0.94	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.05	0.90	0.90	0.90	0.90	1.00	1.00	1.00	0.90	0.90	0.90	0.90	1.05	1.05	1.05
VNTHNONE	HRV ventilator, makeup heat none	0.89	0.89	0.89	0.89	0.94	0.94	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.05	0.90	0.90	0.90	0.90	1.00	1.00	1.00	0.90	0.90	0.90	0.90	1.05	1.05	1.05
VNTHPROP	HRV ventilator, makeup heat propane	0.89	0.89	0.89	0.89	0.94	0.94	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.05	0.90	0.90	0.90	0.90	1.00	1.00	1.00	0.90	0.90	0.90	0.90	1.05	1.05	1.05
VNTMECHV	Mechanical ventilation, unspecified	0.89	0.89	0.89	0.89	0.94	0.94	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.05	0.90	0.90	0.90	0.90	1.00	1.00	1.00	0.90	0.90	0.90	0.90	1.05	1.05	1.05
VNTXCEIL	Exhaust fan, ceiling	0.89	0.89	0.89	0.89	0.94	0.94	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.05	0.90	0.90	0.90	0.90	1.00	1.00	1.00	0.90	0.90	0.90	0.90	1.05	1.05	1.05
VNTXLINE	Exhaust fan, inline	0.89	0.89	0.89	0.89	0.94	0.94	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.05	0.90	0.90	0.90	0.90	1.00	1.00	1.00	0.90	0.90	0.90	0.90	1.05	1.05	1.05
VNTXFAN	Exhaust fan, variable speed	0.89	0.89	0.89	0.89	0.94	0.94	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.05	0.90	0.90	0.90	0.90	1.00	1.00	1.00	0.90	0.90	0.90	0.90	1.05	1.05	1.05
VNTXWALL	Exhaust fan, wall	0.89	0.89	0.89	0.89	0.94	0.94	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.05	0.90	0.90	0.90	0.90	1.00	1.00	1.00	0.90	0.90	0.90	0.90	1.05	1.05	1.05
VNTZZZZZ	Custom ventilation	0.89	0.89	0.89	0.89	0.94	0.94	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.05	0.90	0.90	0.90	0.90	1.00	1.00	1.00	0.90	0.90	0.90	0.90	1.05	1.05	1.05
WATDVTLT	Toilet diverter	0.89	0.89	0.89	0.89	0.94	0.94	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	0.90	0.90	0.90	1.00	1.00	1.00	0.90	0.90	0.90	0.90	1.00	1.00	1.00
WATLEAKS	Water leak reduction	0.89	0.89	0.89	0.89	0.94	0.94	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	0.90	0.90	0.90	1.00	1.00	1.00	0.90	0.90	0.90	0.90	1.00	1.00	1.00
WATLFTLT	Low flow toilet	0.89	0.89	0.89	0.89	0.94	0.94	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	0.90	0.90	0.90	1.00	1.00	1.00	0.90	0.90	0.90	0.90	1.00	1.00	1.00
WATZZZZZ	Custom water conservation	0.89	0.89	0.89	0.89	0.94	0.94	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	0.90	0.90	0.90	1.00	1.00	1.00	0.90	0.90	0.90	0.90	1.00	1.00	1.00
ZZZBHTIM	Block Heater Timer	0.89	0.89	0.89	0.89	0.94	0.94	1.05	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	0.90	0.90	0.90	1.00	0.95	1.00	0.90	0.90	0.90	0.90	1.00	1.00	1.00
ZZZMASTR	Master meter conversion	0.89	0.89	0.89	0.89	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	0.90	0.90	0.90	1.00	1.00	1.00	0.90	0.90	0.90	0.90	1.00	1.00	1.00
ZZZTEMPX	Temporary measure code, to be reassigned	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ZZZTRANS	Transformer, efficient	0.89	0.89	0.89	0.89	0.98	0.98	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.90	0.90	0.90	0.90	1.00	0.99	1.00	0.90	0.90	0.90	0.90	1.00	1.00	1.00
ZZZZZZZ	Other uncategorized efficiency	0.99	0.99	0.99	0.99	0.99	0.99	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00



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