

DEEMED SAVINGS TECHNICAL ASSUMPTIONS

Product: Charging Perks

Description:

The Company manages a residential customer's EV charging by communicating with a customer's automobile manufacturer. In exchange for allowing Xcel Energy to manage their EV charging, a customer receives upfront and on-going incentives.

Program References:

Equations:

Electric Vehicle Load Shifting Level 1 Charging Station	
Gross kW Saved at Customer/Unit	=EV_qty * Eq.Customer_kW
Peak kW Saved at Customer/Unit	=EV_qty * Eq.Customer_kW * Coincidence_Factor
Electric Vehicle Load Shifting Level 2 Charging Station	
Gross kW Saved at Customer/Unit	=EV_qty * Eq.Customer_kW
Peak kW Saved at Customer/Unit	=EV_qty * Eq.Customer_kW * Coincidence_Factor
Electric Vehicle Load Shifting Level 1 Charging Station and on a TOU Rate	
Gross kW Saved at Customer/Unit	=EV_qty * Eq.Customer_kW
Peak kW Saved at Customer/Unit	=EV_qty * Eq.Customer_kW * Coincidence_Factor
Electric Vehicle Load Shifting Level 2 Charging Station and on a TOU Rate	
Gross kW Saved at Customer/Unit	=EV_qty * Eq.Customer_kW
Peak kW Saved at Customer/Unit	=EV_qty * Eq.Customer_kW * Coincidence_Factor

Variable ID	Value	Description
General		
EV_qty	Customer Input	# of participating EV the customer has at their home
EV_Life	1	Lifetime of EV load shifting
Electric Vehicle Load Shifting for customers that charge their vehicle with a Level 1 charging station		
Eq.Customer_kW	0.578	The load reduction the customer experiences, reflecting the maximum charging rate from an average customer less the charging rate in that same hour after the load shift.
Coincidence Factor	92.0%	Percentage of Customer kW savings that will coincide with peak summer kW savings.
NTG	100%	Net-to-Gross factor for Electric Vehicle Load Shifting will be assumed to be 100% as there is no information to suggest a lower number going into the pilot.
Electric Vehicle Load Shifting for customers that charge their vehicle with a Level 2 charging station		
Eq.Customer_kW	1.333	The load reduction the customer experiences, reflecting the maximum charging rate from an average customer less the charging rate in that same hour after the load shift.
Coincidence Factor	63.1%	Percentage of Customer kW savings that will coincide with peak summer kW savings.
NTG	100%	Net-to-Gross factor for Electric Vehicle Load Shifting will be assumed to be 100% as there is no information to suggest a lower number going into the pilot.
Electric Vehicle Load Shifting for customers that charge their vehicle with a Level 1 charging station and are on a TOU rate		
Eq.Customer_kW	0.574	The load reduction the customer experiences, reflecting the maximum charging rate from an average customer less the charging rate in that same hour after the load shift.
Coincidence Factor	19.4%	Percentage of Customer kW savings that will coincide with peak summer kW savings.
NTG	100%	Net-to-Gross factor for Electric Vehicle Load Shifting will be assumed to be 100% as there is no information to suggest a lower number going into the pilot.
Electric Vehicle Load Shifting for customers that charge their vehicle with a Level 2 charging station and are on a TOU rate		
Eq.Customer_kW	1.324	The load reduction the customer experiences, reflecting the maximum charging rate from an average customer less the charging rate in that same hour after the load shift.
Coincidence Factor	9.9%	Percentage of Customer kW savings that will coincide with peak summer kW savings.
NTG	100%	Net-to-Gross factor for Electric Vehicle Load Shifting will be assumed to be 100% as there is no information to suggest a lower number going into the pilot.

References:

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