

**Unitil Energy Systems, Inc.**  
**Large General Service (G1) Customers Completing Energy Efficiency Projects During 2017**

Ratchet Demand minus Metered Demand																		
Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Participating EE Customers
Jan		133			58	249	76		59	18	151	152				185		1,081
Feb		152			63	5	77		60	11	150	157				168		844
Mar		93			26	37	67		59		138	115				135		670
Apr		58		51		164	34		34		97	159	6			65		668
May						87		11			84	41	36			61		321
Jun						164					44	50	56					315
Jul				60		168					12	22						263
Aug						187					28							215
Sep						218												218
Oct						229			19									248
Nov						197		12	55		99	30				127	45	565
Dec		62				171	88		56		146	101	1	64		186	13	888
Total Variance	-	498	-	111	147	1,877	343	23	343	29	948	828	99	64	-	928	57	6,295

**(Ratchet - Metered Demand) / Metered Demand**

**5%**

Data shows the effect of the ratchet on kVA billed to G1 customers who participated in energy efficiency in 2017. As shown, ratcheted kVa for these customers is 5% higher than the metered kVa. However, this does not necessarily mean that installed energy efficiency demand savings were 5% lower due to the ratchet.

For instance, a customer could be billed on a ratchet in the early part of the year and then complete an EE project in the middle of the year. The impact of the ratchet is still included in the (5%) percentage calculation although the ratchet and EE project have no relation to each other. In a second example, suppose a customer completes an EE project early in the year, but then later in the year, is billed on a ratchet due to a high summer peak caused by weather. The summer peak was still lower by the amount of the installed EE project thus the Company still lost revenue even though the ratchet was implicated. Even in instances where a ratchet may be billed for an entire year, an energy efficiency project would have had an impact on what that ratcheted demand was -- if not during the current year, then in the following year, since the ratchet only looks back 11 months.

As previously agreed, it is not feasible to identify the impacts with precision and not feasible to track demand charge impacts on a customer by customer basis. Overall, the ratchet only comes into play for 4 months on average, and is very small in percentage terms.

**Notes:**

All Data: Large General Service (G1) customer billing data from 2017

Number of G1 customers as of Dec. 2017 = 161

G1 customers completing energy efficiency projects during 2017 = 17

G1 "EE" customers' average months on ratchet = 4 Months in 2017