



Energy Futures Group

Vermont-based clean energy consulting firm established in 2010

Areas of Expertise

- Energy efficiency & renewable energy
- Program design
- Integrated resource planning
- Policy development
- Expert witness testimony
- Building codes
- Evaluation
- Cost-effectiveness

Range of Clients

- Government Agencies
- Advocates
- Regulators
- Utilities



Clients in 45 states and provinces plus regional, national and international organizations.



Cumulative Persisting Annual Savings (CPAS) Goals

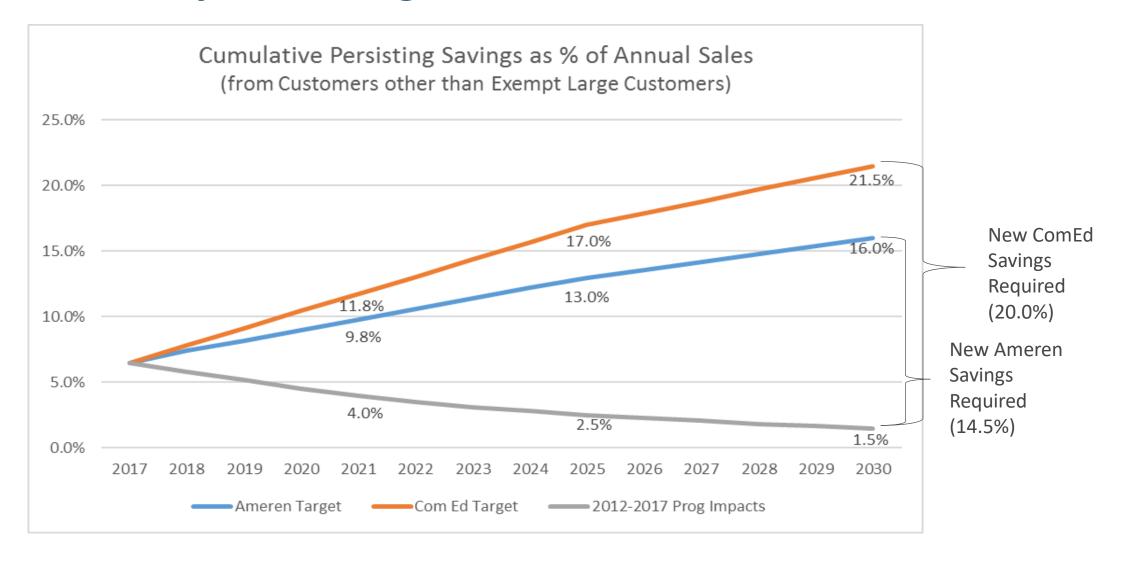
(Cumulative Persisting Savings from Measures Installed since 2012)



(Average Annual Sales from 2014 through 2016 from Non-Exempt Customers)



Statutory CPAS Targets





Applicable Annual Incremental Goal (AAIG)

- The metric upon which performance incentives based
- AAIG = Annual Growth in CPAS (per statute)
- Can only count progress towards AAIG after offsetting expiring savings
- Four "flavors" of expiring savings
 - From "legacy" 2012-2017 programs (trajectory defined in statute)
 - From post-2017 programs (function of utility measure mix)
 - Measures that reached end of life
 - Measures with baseline shift (e.g. early retirement measures)
 - Measures with savings degradation (e.g. Residential Behavior)



Post-2017 Savings Expiration Example

		Persisting Savings from 2018 Installations													
	1st Year														
	Savings	Life	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Measures w/Fixed Lives															
Frig Recycling	500	8	500	500	500	500	500	500	500	500					
New Central A/C	500	15	500	500	500	500	500	500	500	500	500	500	500	500	500
New Light Fixture	150	10	150	150	150	150	150	150	150	150	150	150			
Measures w/Baseline Shift															
T-12 early replacement	100	12	100	100	100	100	70	70	70	70	70	70	70	70	
LED Lamp	40	10	40	40	10	10	10	10	10	10	10	10			
Measures w/Savings Degradation															
Residential Behavior	100		100	80	60	40	20								
Total Persisting Savings			1,390	1,370	1,320	1,300	1,250	1,230	1,230	1,230	730	730	570	570	500
Expiring Savings			0	20	50	20	50	20	0	0	500	0	160	0	70

Note: measure lives in this example are not from TRM; they are for illustrative purposes only.



Hypothetical Example of CPAS Savings Calcs

		2017	2018	2019	2020	2021			
CPAS Goal (statutory)		6.6%	7.8%	9.1%	10.4%	11.8%			
2012-2017 Legacy Savings		6.6%	5.8%	5.2%	4.5%	4.0%			
Post	Post-2017 Hypothetical Savings								
	2018		2.0%	1.9%	1.8%	1.7%			
	2019			2.1%	2.0%	1.9%			
	2020				2.1%	2.0%			
	2021					2.0%			
Tota	Total CPAS Hypothetically Achieved			9.2%	10.4%	11.6%			



Hypothetical Example of AAIG Calcs

		2018	2019	2020	2021
Expi	ring Savings				
	2012-2017	0.8%	0.6%	0.7%	0.5%
	2018		0.1%	0.1%	0.1%
	2019			0.1%	0.1%
	2020				0.1%
	2021				0%
	Total	0.8%	0.7%	0.9%	0.8%
New Savings Achieved		2.0%	2.1%	2.1%	2.0%
Progress Towards AAIG		1.2%	1.4%	1.2%	1.2%
AAIG		1.2%	1.3%	1.3%	1.4%
% of AAIG Achieved		100%	108%	92%	86%



Chris Neme

PRINCIPAL



(802) 482-2625

