



SYNERGY
REWARDS


Lend Lease

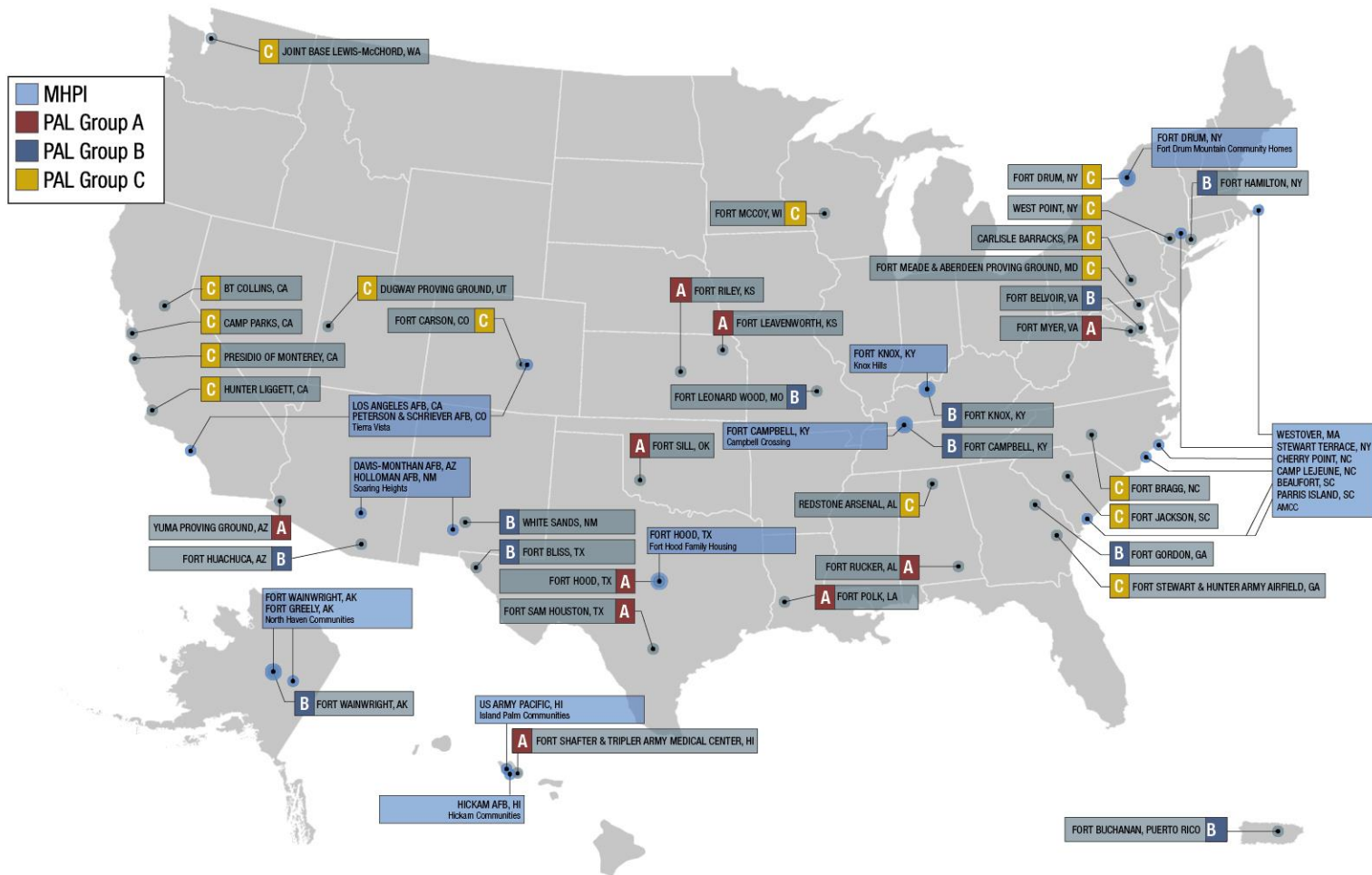
Residential Utility Billing Program

U.S. Army & Lend Lease Experiences in Saving Energy Through Behavior


PREMIER LIVING
for today's military families

THE NATIONS LEADER IN PUBLIC-PRIVATE COMMUNITY DEVELOPMENT

Partnering with the DoD, we've created more than 40,000 homes and 14,000 hotel rooms nationwide.





Resident Responsibility Program History

- **DOD Mandated Program (1996) to:**
 - Hold Residents Responsible for their Energy Usage
 - Achieve a 20% Reduction in Energy Consumption
- **Across the Army, most privatized communities either:**
 - Send Mock or No Charge Statements
 - Provide Credits to Residents Below Average and Charge Residents for their Consumption Above Average
- **All homes are metered for gas & electric**
- **SYNERGY (Saving Your Nation's Energy, Conserving Our Resources) Rewards**
 - a web-based program that rewards families with conservation credits for conserving energy



Resident Responsibility Program History

1998

OSD established mandatory privatization utility policy

Apr 2003

Initial Army Utility Policy Implementation Workshop

Jan 2004

Implementation Session with sites / partners – FHFH part of 5 project pilot

Sep 2006

Official rollout of Army Resident Responsibility for Utilities Program

Mar 2007

Program policy update

Aug 2008

Program policy update

Apr 2010

Rebranded to RCI Energy Conservation Program (RECP), aka, "Live Army Green"



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- Saving Your Nation's Energy, Conserving Our Resources
- Web-based program that rewards families with conservation credits for conserving energy
- The SYNERGY Rewards program is designed to educate residents and encourage a whole-family approach to achieving conservation.



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SYNERGY: Saving Your Nation's Energy

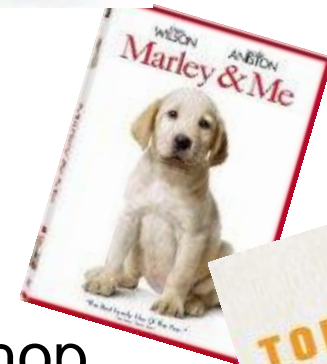
Residents Earn **Conservation Credits** for

- Below Average Consumption
- Reducing their Consumption

Redeem Credits for Popular Merchandise

Earn Additional Credits by:

- Conducting Home Energy Audit
- Attending Energy Conservation Workshop
- Kids Energy Conservation Education Activities
- Super Savers





SYNERGY: Two Ways to Earn Credits

- **Earn Credits Compared to Peers:**
 - With energy consumption below average compared to peers' household energy
- **Earn Credits with Electricity and Natural Gas Reductions**
 - Residents who use above average energy can earn credits by lowering their consumption level
 - Residents who already conserve energy get benefits and have incentive to conserve further
- **As energy prices fluctuate, credits retain their value**
 - With credits based on saving energy, not on saving money
 - Positive approach to encourage conservation



Questions Regarding This Statement?
 Phone: 877-530-7373
 Hours: 8:00 AM TO 5:00 PM M-F (CST)

Service Address: 1 Edsel Street
 Fort Drum, NY 13603

Account No.: 00004042-02

Resident: Fort Drum NY 13603-3045

Statement Date: 1/13/2015
 Statement No.: 4042021214

Conservation Credits Earned this Period:

Credit Balance as of 1/12/2015: 0

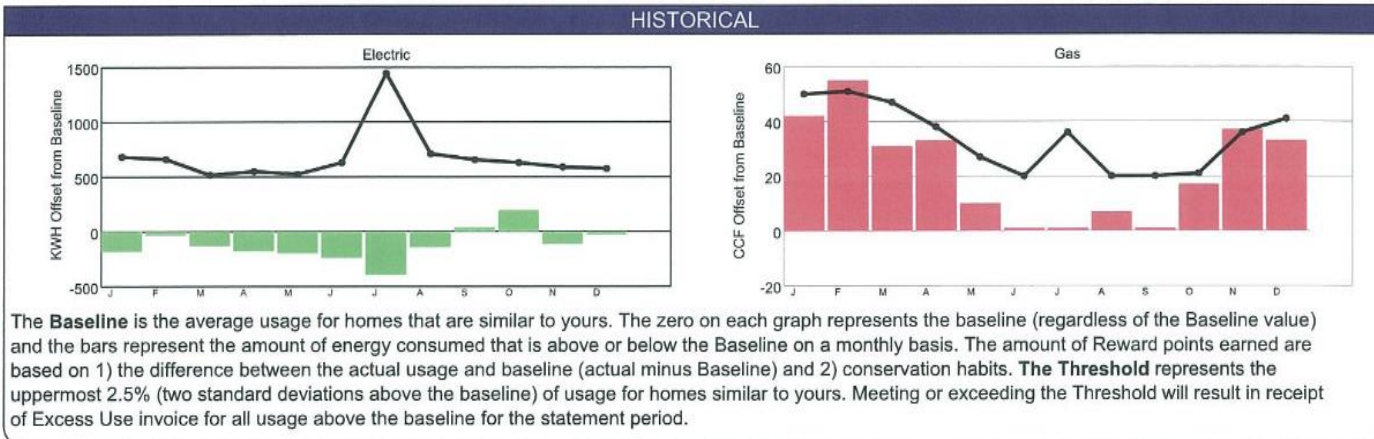
Had you activated your SYNERGY Rewards account, you would have earned Conservation Credits this month. Activate by the 25th of the month to receive your credits, PLUS 150 bonus credits by visiting <http://synergyrewards.fortdrummch.com>

METER INFORMATION									
ID	Service Period	Days	Meter No.	Mult.	Units	Present	Previous	Usage	Billing Threshold
EL	11/25/2014-12/25/2014	30	2668206.1	1	kWh	12976	12049	927	1531
GS	11/25/2014-12/25/2014	30	2665495.1	1	therms	1393	1272	121	129

CURRENT UTILITY REWARDS EARNED					
ID	Description	Usage	Average Usage of Similar Homes/Baseline	Relative Difference	Energy Credits Earned
EL	ELECTRIC	kWh	956	-29	21
GS	GAS	therms	88	33	0

CONSERVATION CORNER

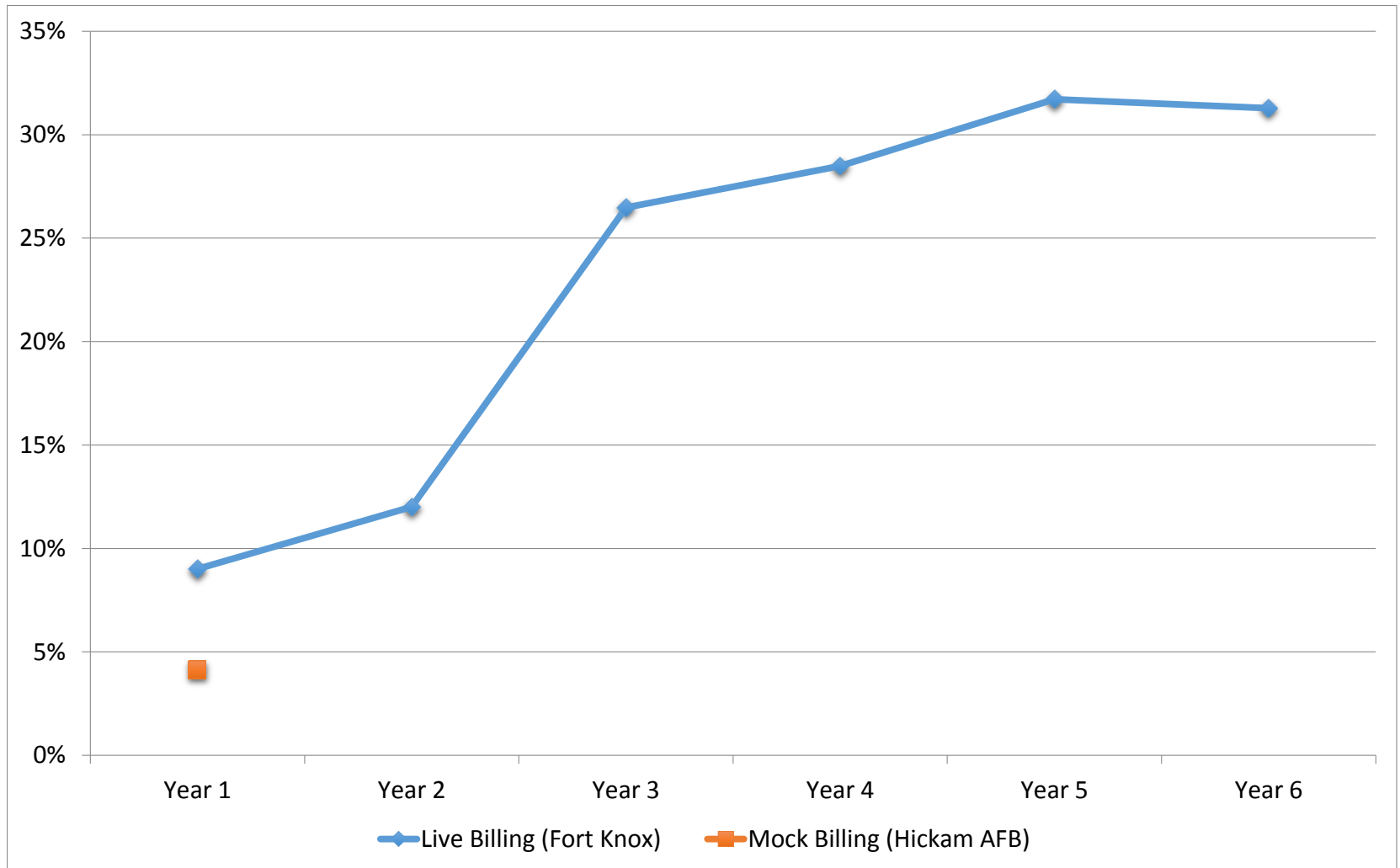
You can save around 5% to 15% a year on your heating bills by setting your thermostat back between 10 to 15 degrees for at least 8 hours during the winter months. This is made possible with programmable thermostats! The best times to lower the temperature in your home during the winter months are while you are sleeping, or when no one is at home. The closer you can comfortably get your inside temperature to the outside temperature, the lower your energy usage will be. This is also true for the summer months when using the air conditioning.



Account No.	Statement No.	Statement Date
00004042-02	4042021214	1/13/2015



Mock and Live Billing





Building Energy Management System (BEMS)

- Provides the platform to have 100% of residents active in Synergy. Our current enrollment is 65%.
- Utilizes existing synergy statements data and provide real time feedback to resident thus maximizing the credits obtained.
- Provides opportunity for daily communication on Synergy redemption opportunities thus increasing the rewards for our residents.
- Provides 100% of thermostats programmed.
- Allow residents with shared boiler systems to understand their gas consumption and provide opportunity to gain Synergy credits.
- Gives residents real time feedback on baselines, profiles and billing thresholds. Greater understanding = Motivation for behavior change.



Building Energy Management System (BEMS)

In Home Dashboard

- Residents can track usage &
- make adjustments to daily activities to increase energy savings

BETTER BUILDING CHALLENGE SHOWCASE HOME

IslandPalm

My SYNERGY

My SYNERGY Score	96 %		
My SYNERGY Mode	TRUE	<input type="text"/>	Force value
Control All Lights	FALSE	<input type="text"/>	Force value
My Home Energy Cost (\$)	135.082		
Main Electrical Supply Amps L1	12.695 A		
Main Electrical Supply Amps L2	8.864 A		
Main Electrical Supply Demand	0.413 KW		
Main Electrical Consumption	442.893 KWH		
Lights Off Time Delay	2	<input type="text"/>	Force value

Force all values

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Building Energy Management System (BEMS)

Usage Scorecard

- The SYNERGY Score helps to create competition and drive community level conservation.

156 Safi Rd - SYNERGY Score





Current Results

- Over 70K RCI homes (87%) now in live or mock billing (41 of 44 RCI Projects)
- Army RCI Cumulative savings over \$60M to date – funds reinvested into projects to add/maintain homes and to improve quality of life
- Lend Lease homes have achieved 15-23% average reduction in energy usage over the program life
- Typical Statement Distribution:





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Extra Slides



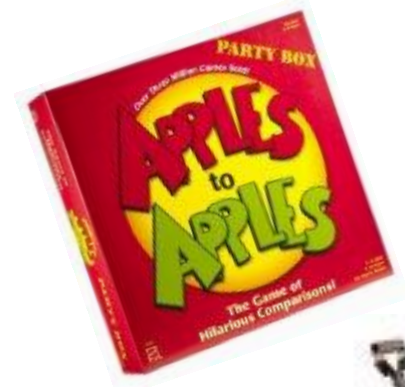
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Peer Profile Details

Peers determined by Profiles

Homes of same:

- Size
- Age
- Floor plan
- Position within building,
- Heating/air conditioning systems



***The highest users (approx. top 3%) will be held financially responsible for their energy consumption**



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Resident Engagement

Programs in place to Engage Residents

- RSC's at sign in and then follow-up a week after move-in.
- Quarterly Utility Workshops
 - Personalized invites to high energy users and new residents.
- Home Energy Audits (Resident Request)
- Synergy presence at all major resident functions
 - Earth Day – Drawing for Washer / Dryer among 12 super saver winners.
- Extreme XS User emailing's
- Social Media (newsletter, facebook, synergy website)





SYNERGY REWARDS Lessons Learned

- High Resident Turnover
 - Logistics of handling move overs and maintaining resident credits.
 - Ensuring new residents get adequate program training upfront and follow-up from community center staff.
- Difficult to quantify gas savings in Legacy product due to shared boiler systems and aging HVAC systems.
- Enduring low occupancy period difficult to maintain target active residents.



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Fort Drum Resident Billing

- Billing program commenced in January 2013.
- Excess use calculated as consumption $>$ than 2 sigma $>$ than baseline.
- Billing amount calculated as consumption minus baseline multiplied by utility rate set by the DPW.



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Fort Drum Data

Compare kBtu / Sq. Ft Wx Corrected Data

	2011	2012	2013*	2014	Actual Reduction
○ Legacy Electric:	16.558	16.510	14.995	13.702	17.25%
○ Legacy Gas:	55.997	60.759	62.373	61.944	10.6 % increase *
○ New Electric:	19.351	18.964	18.208	17.583	9.1 %
○ New Gas:	41.531	42.800	40.059	40.882	1.5%

Notes:

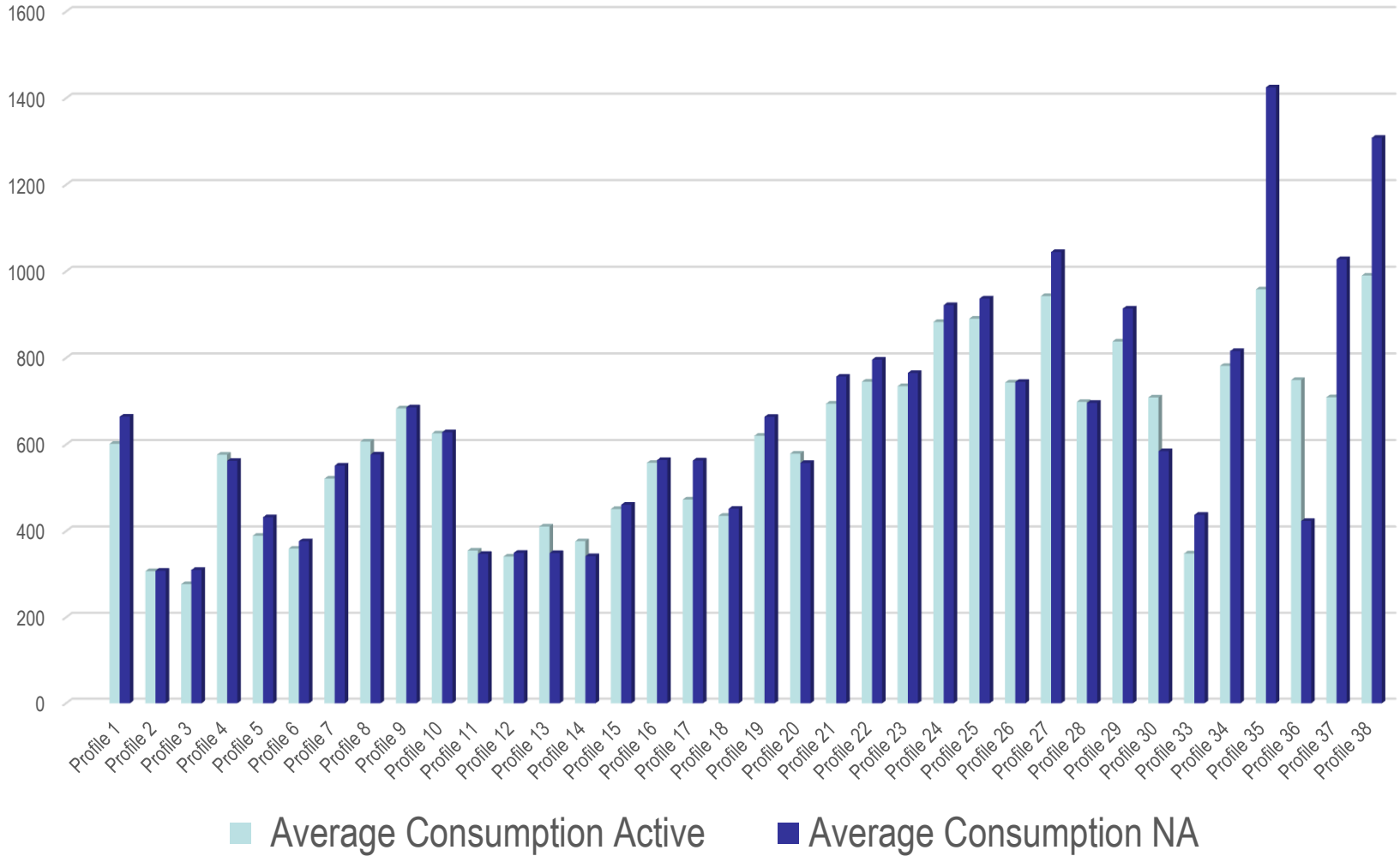
1. 2013 was the start of live resident billing.
2. Legacy Gas trends can be contributed to shared boiler systems, leaky homes and aged HVAC equipment. These numbers support the impact of the Green Retro project.
3. New Gas uptick in CY 2014 may be attributed to aging equipment, and a poor regression correlation due to polar vortex.



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Fort Drum Data

Active vs. Inactive Electric

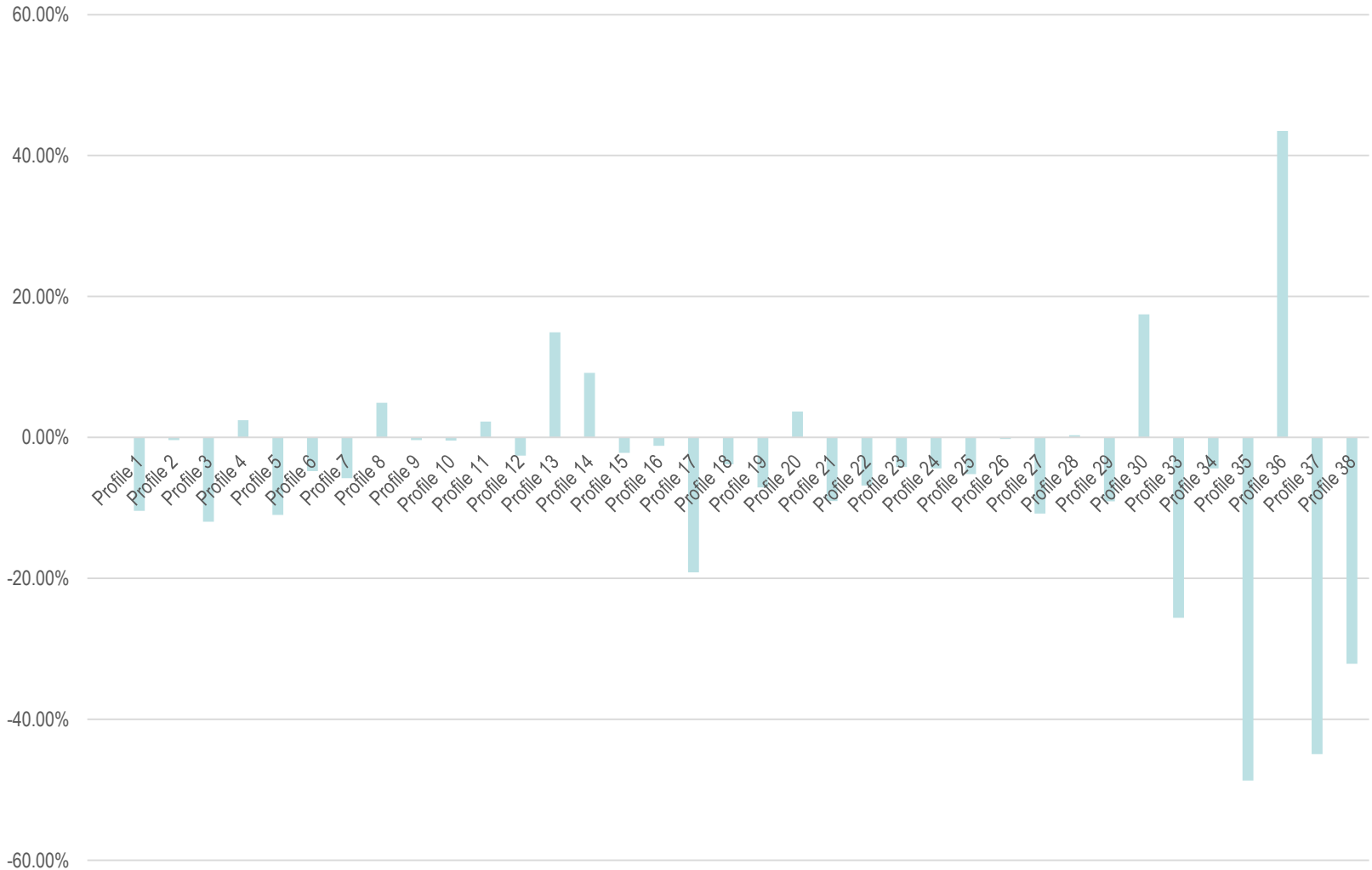




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Fort Drum Data

Active vs Inactive Electric

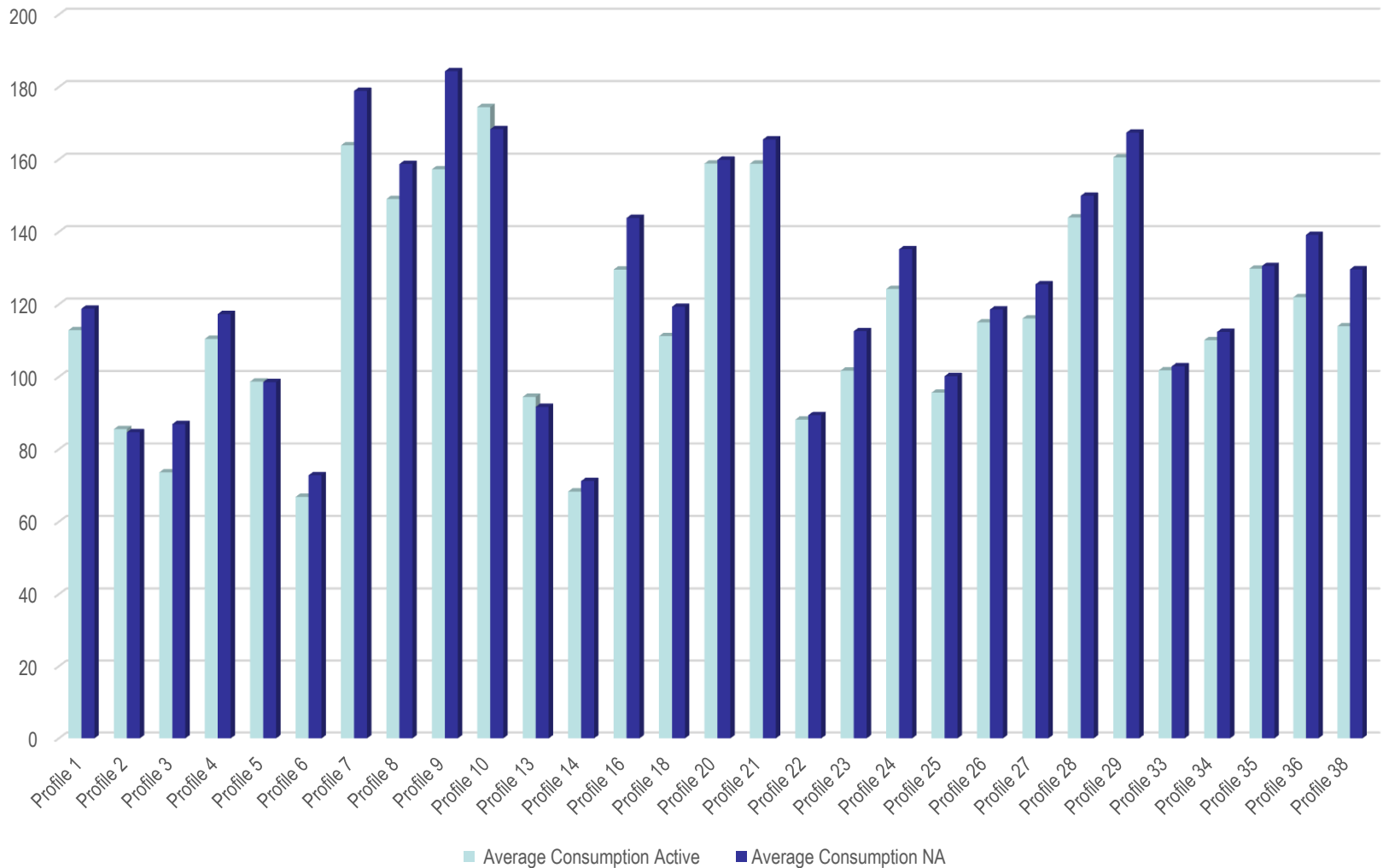




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Fort Drum Data

Active vs. Inactive Gas

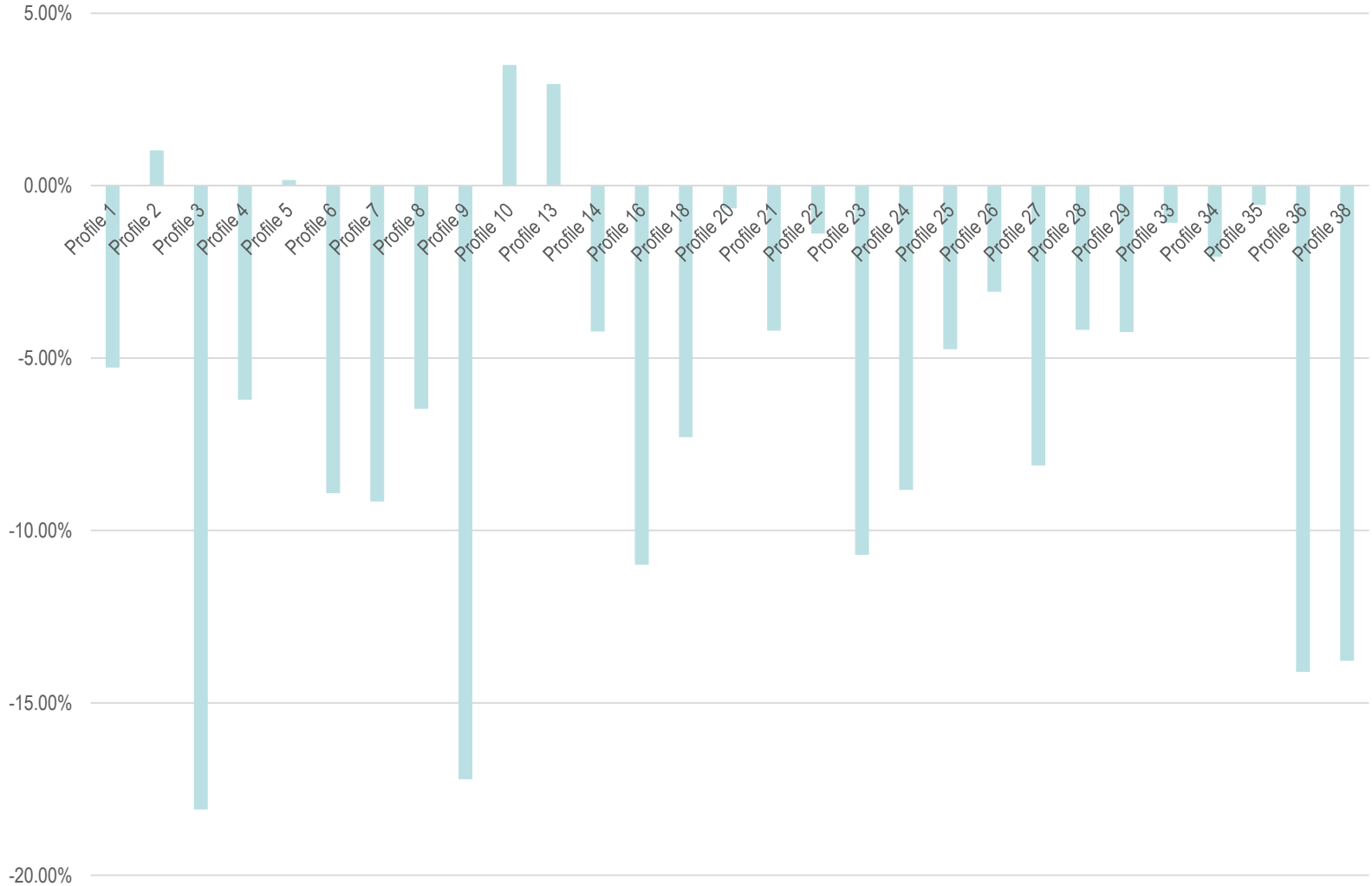




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Fort Drum Data

Active vs In Active Gas





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Fort Drum Utility Infrastructure Facts

- Electric meters call in every 2 hours and Gas meters every 12 hours.
- Consumption data transferred to Web via cellular service with Verizon.
- Resident utility statements run from the 25th of each month.
- Resident bills and statements mailed separately arrive at residence second week of following month.
- 100% resident homes equipped with programmable thermostats.

Issues

- Takes 30 – 45 days for a resident to understand they have a consumption issue.
- A large majority of residents do not program their thermostat
- Residents do not understand the profiles, baselines and billing thresholds and thus are blind to making changes to start earning credits.
- Residents with shared boiler systems don't know their gas consumption



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Questions?