

Build It and They Will Come: Hitting an Energy-Efficiency Homerun in the Multifamily Market

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November 1, 2017



Welcome to Arizona!



The World Series of Multifamily Energy Efficiency

- Energy efficiency has been around since the 1970s
- Historically the new construction market has been underutilized



Why?

Multifamily New Construction Benefits

- Realized long-term energy savings
- Improved standards for multifamily structures
- Less maintenance costs



The Wind-Up

- The Multifamily Energy Efficiency Program began in 2011
 - Direct Install & New Construction
- Marketed through:
 - In-person outreach
 - Networking
 - Presentations
- Supported through:
 - Brochures, application, sell sheet
 - New construction banners
 - Builder/developer education



The Pitch

Provide guidance so energy-efficient principles can be designed and incorporated into the building process

- Target markets:
 - Builders and Developers
 - Architects
 - Building Owners
 - Lenders and Realtors



MEEP Program Measures



Prescriptive Path

- Nine mandatory requirements
- Four optional requirements
- The energy savings and incentive are determined by the number of completed optional requirements

Prescriptive – Mandatory Measures

Minimum HVAC
Requirement

Programmable
Thermostat

ENERGY STAR®
Appliances

Water Heater
Energy Factor

Minimum Window
Requirements

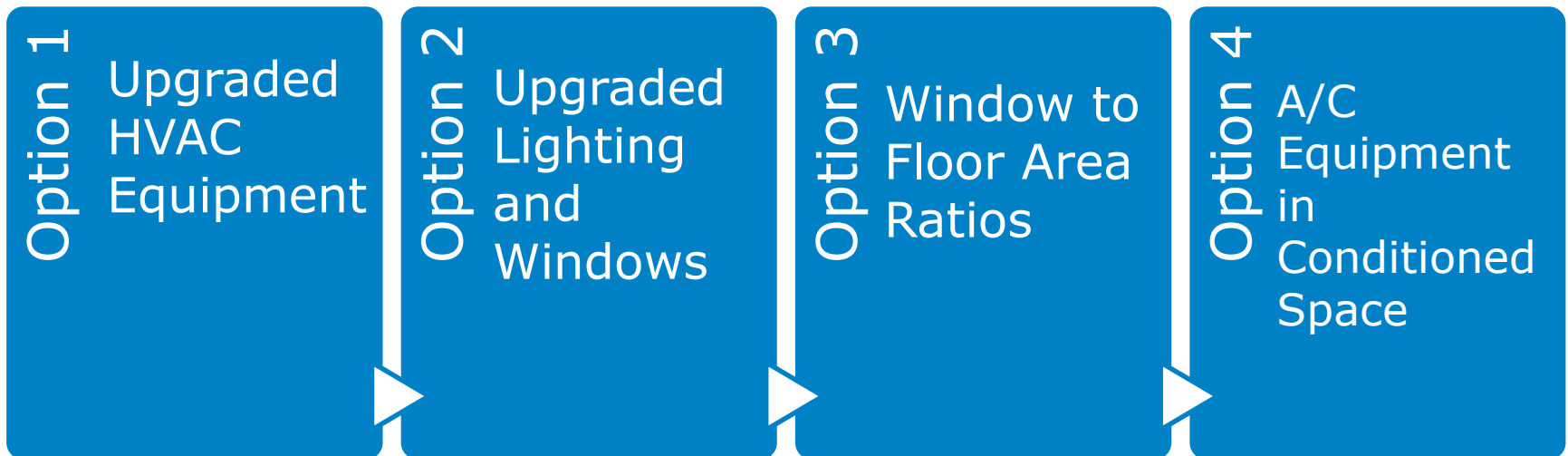
Minimum
Lighting
Requirement

Minimum
Insulation Values

Envelope Infiltration
Diagnostics

Ductwork
Leakage
Diagnostics

Prescriptive – Optional Measures



Building Option Packages

BOP 1 =
1 optional measure
\$200/unit

BOP 2 =
2 optional measures
\$300/unit

BOP 3 =
3 optional measures
\$400/unit

Performance Path

- Projects that do not meet prescriptive requirements
- Any combination of measures that meet the minimum Home Energy Rating System (HERS) scores
- Certified HERS rater is responsibility of the program participant

Performance Path

BOP 1 Min. HERS
Score: 70

\$200/unit

Savings: 1,934
kWh/Unit

BOP 2 Min. HERS
Score: 65

\$300/unit

Savings: 2,061
kWh/Unit

BOP 3 Min. HERS
Score: 60

\$400/unit

Savings 2,179
kWh/unit

Spring Training – Program Team

Experience in:

- Construction industry
- Architecture
- Building Science



Coaching – Construction Phase

- Review construction documents
- Participate in job-site meetings
- Stay in contact with project team:
 - Project manager
 - Superintendent
 - Developer
 - Sub-contractors (with permission)



Coaching – Supervision

Weekly construction site visits:

- Keep up with construction progress
- Verify program requirements
- Assurance of successful diagnostic testing
- Assist with building science issues

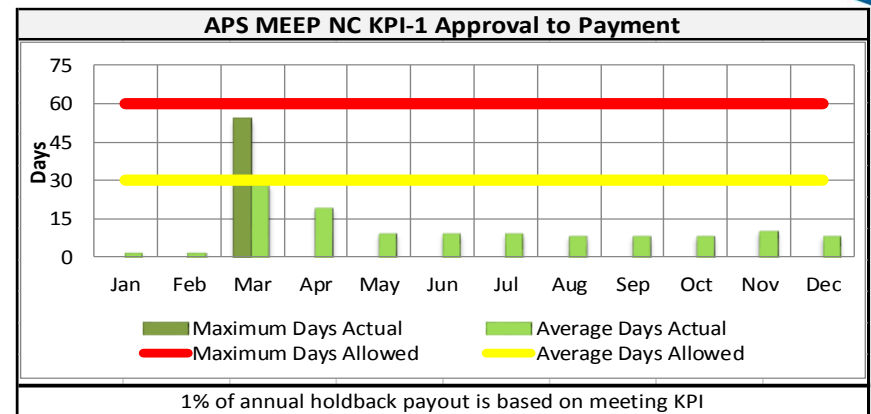
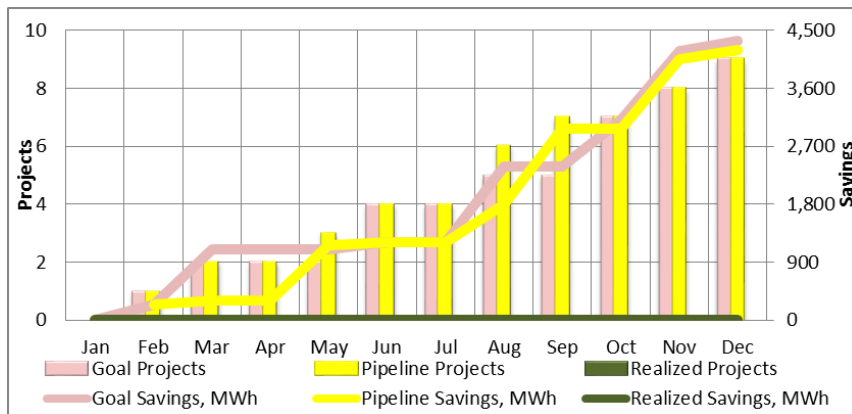


SAFETY! SAFETY! SAFETY!

- Hard hat
- Safety goggles
- Reflective vest
- Hard sole footwear



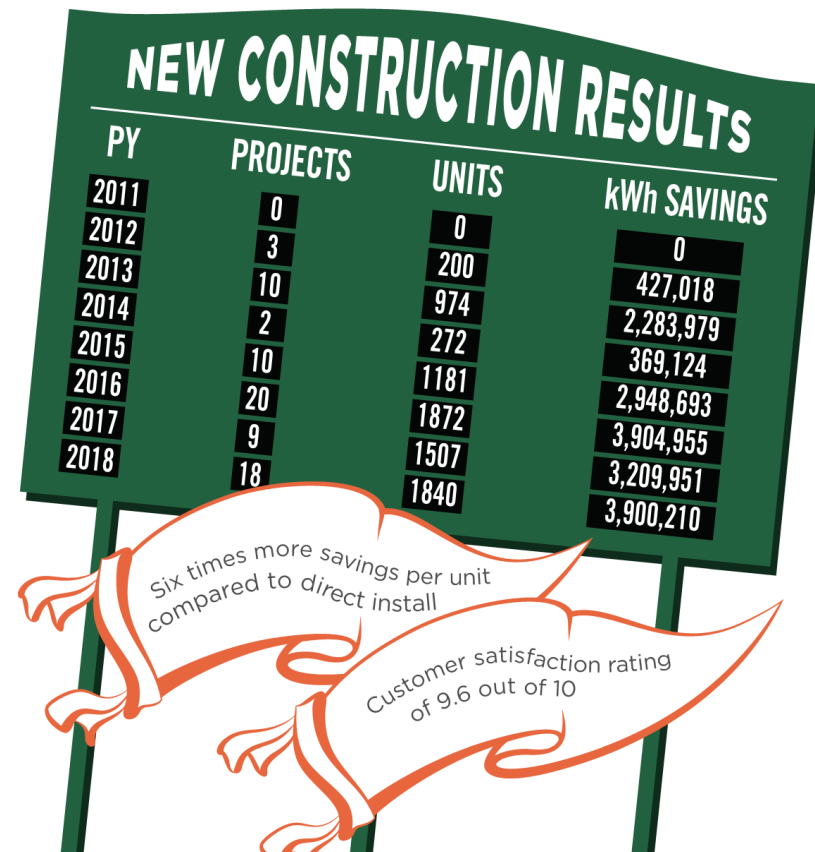
Tracking Batting Averages - Tools



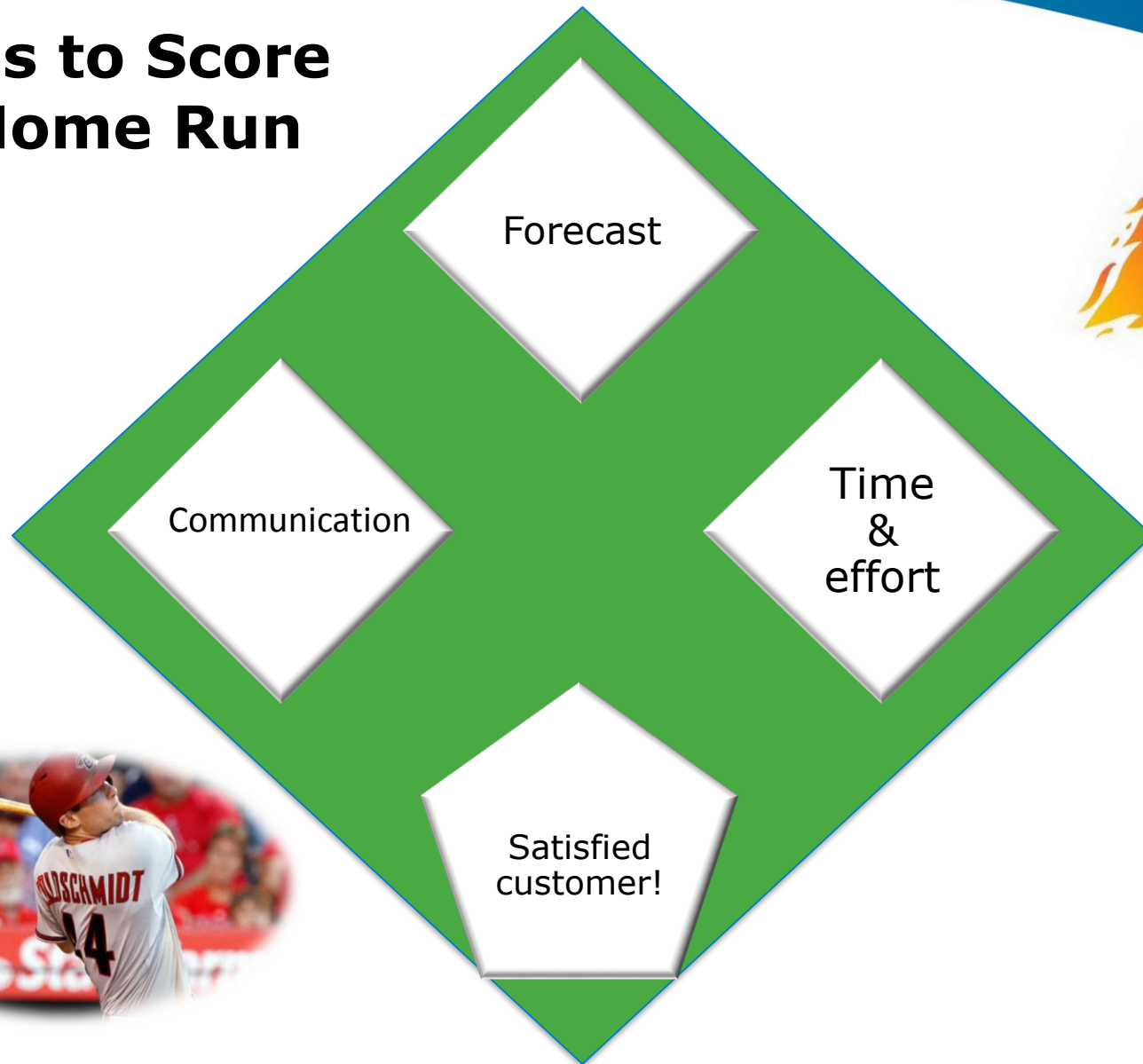
IN-PROCESS (w/application)													
Project	Units	BOP	Savings	Incent	kWh	MWh	Incentive	Realization	Constr	MWh	Invoiced	Date	App Sign
1 Union at Roosevelt	80	3	3,072.94	\$400	245,835	246	\$32,000	February	90%	246	\$32,000	Nov-16	03/30/16
2 Center 8 Phase 1	17	3	3,072.94	\$400	52,240	52	\$6,800	March	95%	52	\$6,800	Jan-17	01/13/16
3 Broadstone Art Dist.	280	3	3,072.94	\$400	860,423	860	\$112,000	May	60%	860	\$112,000	Dec-16	06/17/15
4 McKinley Row	18	3	3,072.94	\$400	55,313	55	\$7,200	June	10%	55		Mar-17	03/30/16
5 SoHo Scottsdale	28	3	3,072.94	\$400	86,042	227	\$11,200	August	35%	86		May-17	05/27/16
6 Coffelt Lamoreaux	301	1	1,643.14	\$200	494,585	495	\$60,200	August	45%	495		May-17	05/04/16
7 Rise on Apache	384	3	3,072.94	\$400	1,180,009	1,180	\$153,600	September	45%	1,180		Jun-17	05/02/16
8 Crescent Highland	349	3	3,072.94	\$400	1,072,456	1,073	\$139,600	November	45%	1,072		Aug-17	06/07/16
9 Valor on 8th	50	3	3,072.94	\$400	153,647	154	\$20,000	December	5%	154		Sep-17	05/23/16
					0	0	\$0			0			
					0	0	\$0			0			
Bold=Prescriptive					0	0	\$0			0			
Total In-Process Units	1,507		Total In-Process kWh		4,200,551	4,342	\$542,600	In-Process Forecast		4,201	\$150,800		

The Results

- PY 2017: 9 projects, 1,500 units, 3,200 MWh savings, \$542K incentives
- PY 2018: 8 projects, 1,900 units, 3,900 MWh savings, \$643K incentives
- Developers continue to participate with new projects



Tips to Score a Home Run



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Questions?

