

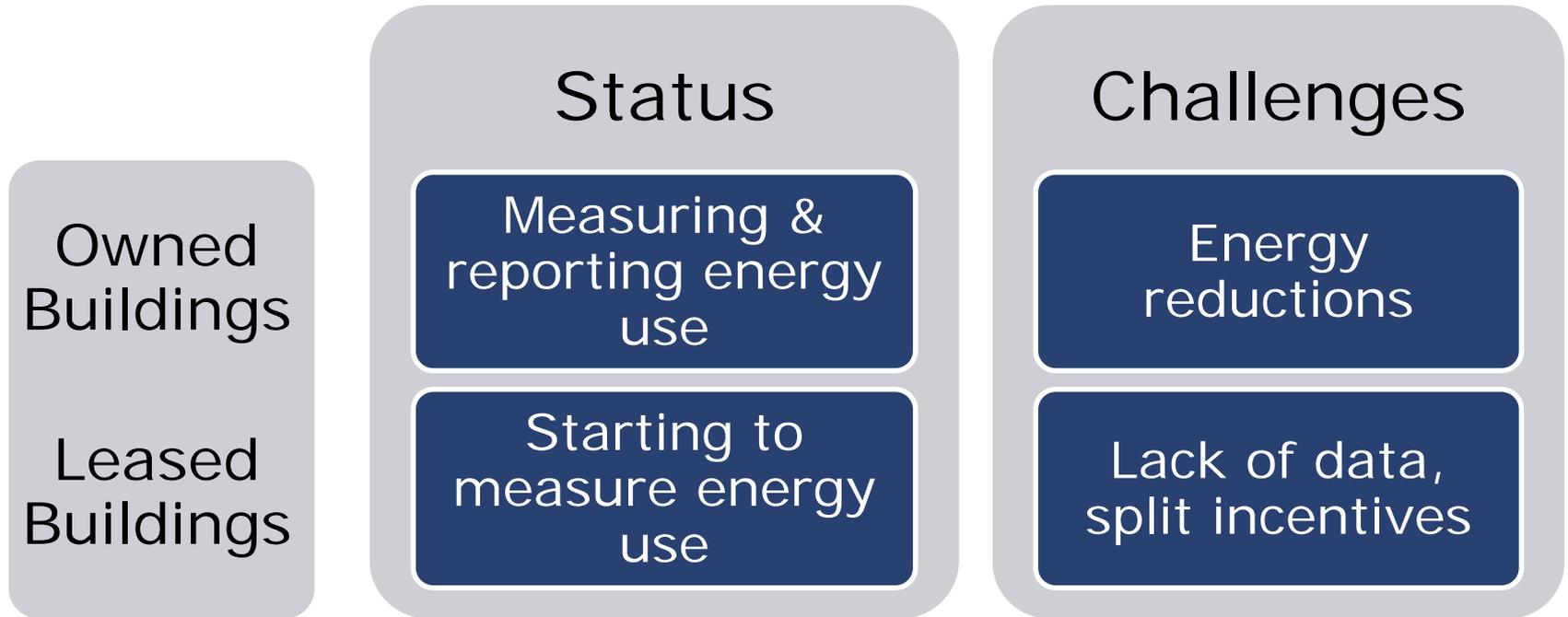


# General Services Administration

*Meeting Federal Energy  
Management Requirements*

Proposal from  
**Team 2030**

# GSA Today



*How can the GSA meet Federal measurement, reporting, and reduction requirements while engaging stakeholders?*



# Our Solution: Data and Incentives

## Comprehensive Data Management

House energy and lease data in one system

Collect energy data

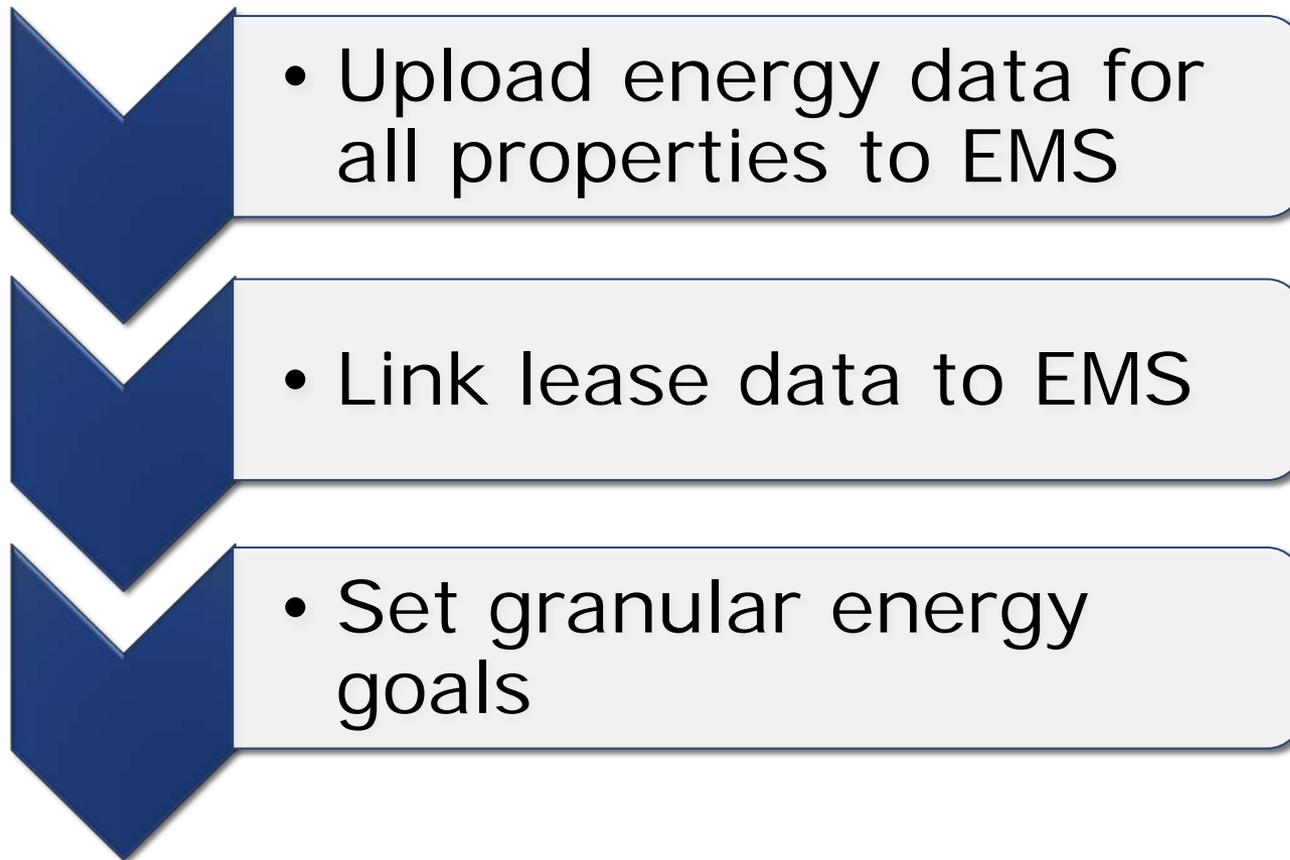
Share data with stakeholders

## Incorporate Incentives into Leases

Change leasing structure

Increase green leases

# Utilize Energy Management System (EMS)



# Target Cities with Benchmarking Laws

- Acquire energy data and ENERGY STAR scores for properties in 7 cities with benchmarking laws

Year	# of GSA Properties	GSF	% of Leases
2013	169	7,471,452	1.9%
2014	279	20,871,509	3.1%
2015	20	328,207	0.2%
<b>Total</b>	<b>468</b>	<b>28,671,168</b>	<b>5.3%</b>

# Increase Submetering

## Determine cost-effectiveness

Total meter cost, size of building, expected energy savings, payback period



## Target large energy-intensive buildings

357 fully serviced leases > 50,000 SF

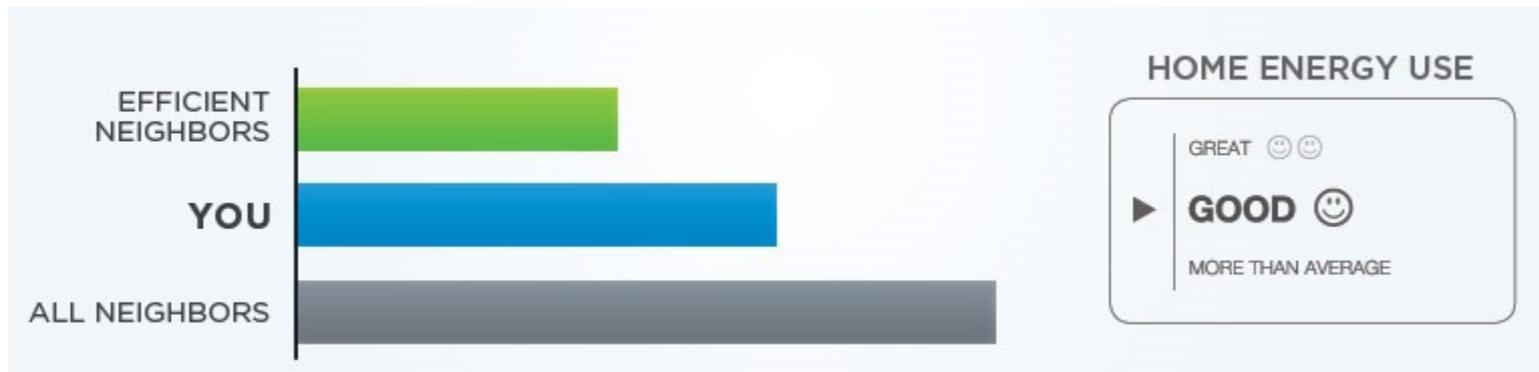


## Engage building owners

Develop savings calculator & encourage EPCs

# Share Data & Engage Stakeholders

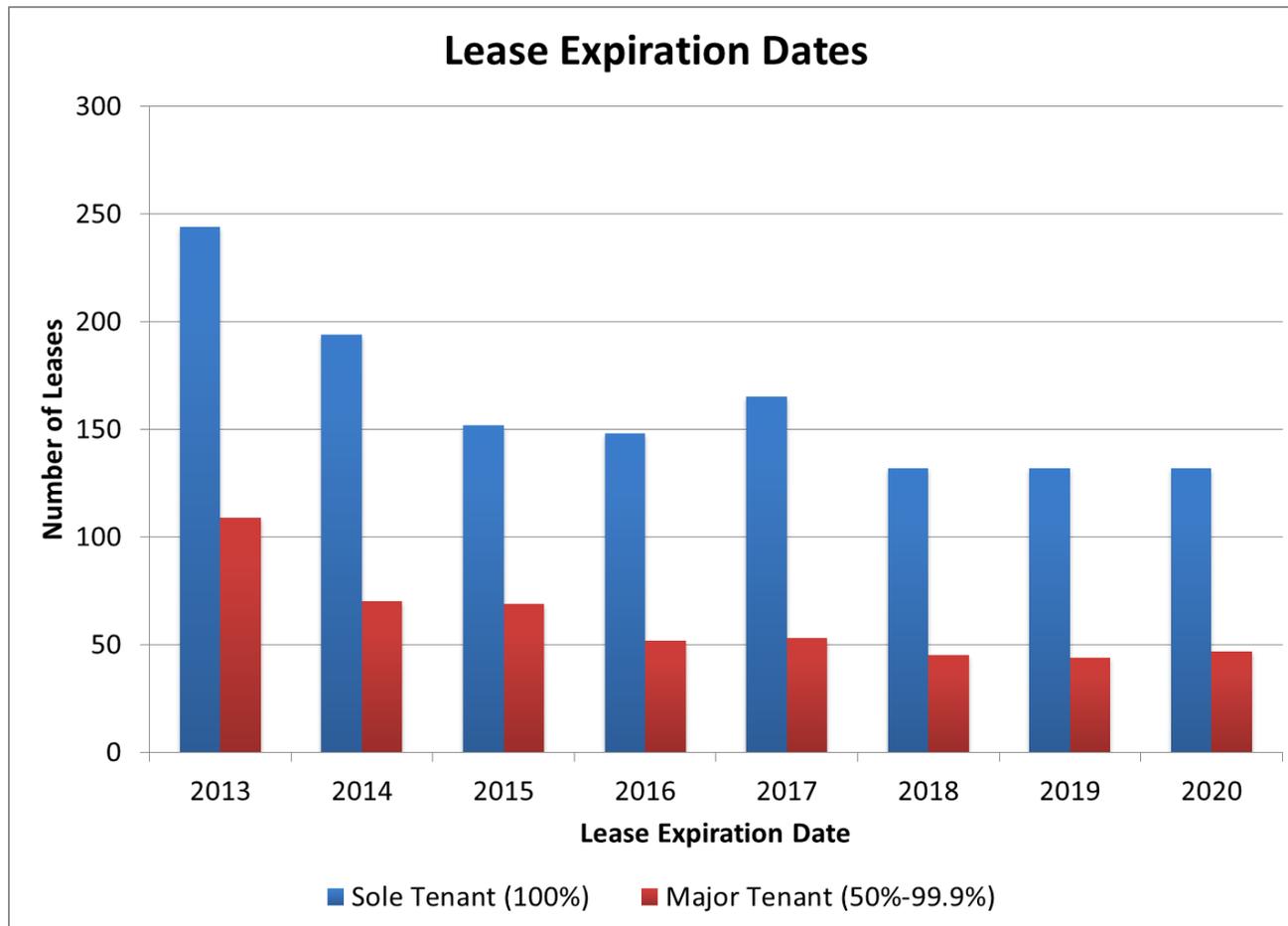
- “Nudge” your way to energy efficiency



© Opower

- Create Energy Efficiency Challenges

# Window of Opportunity for Lease Changes



# Create Long-Term Incentives

- Shift expiring full-service leases to "expense stop leases"
- Strengthen Green Lease language

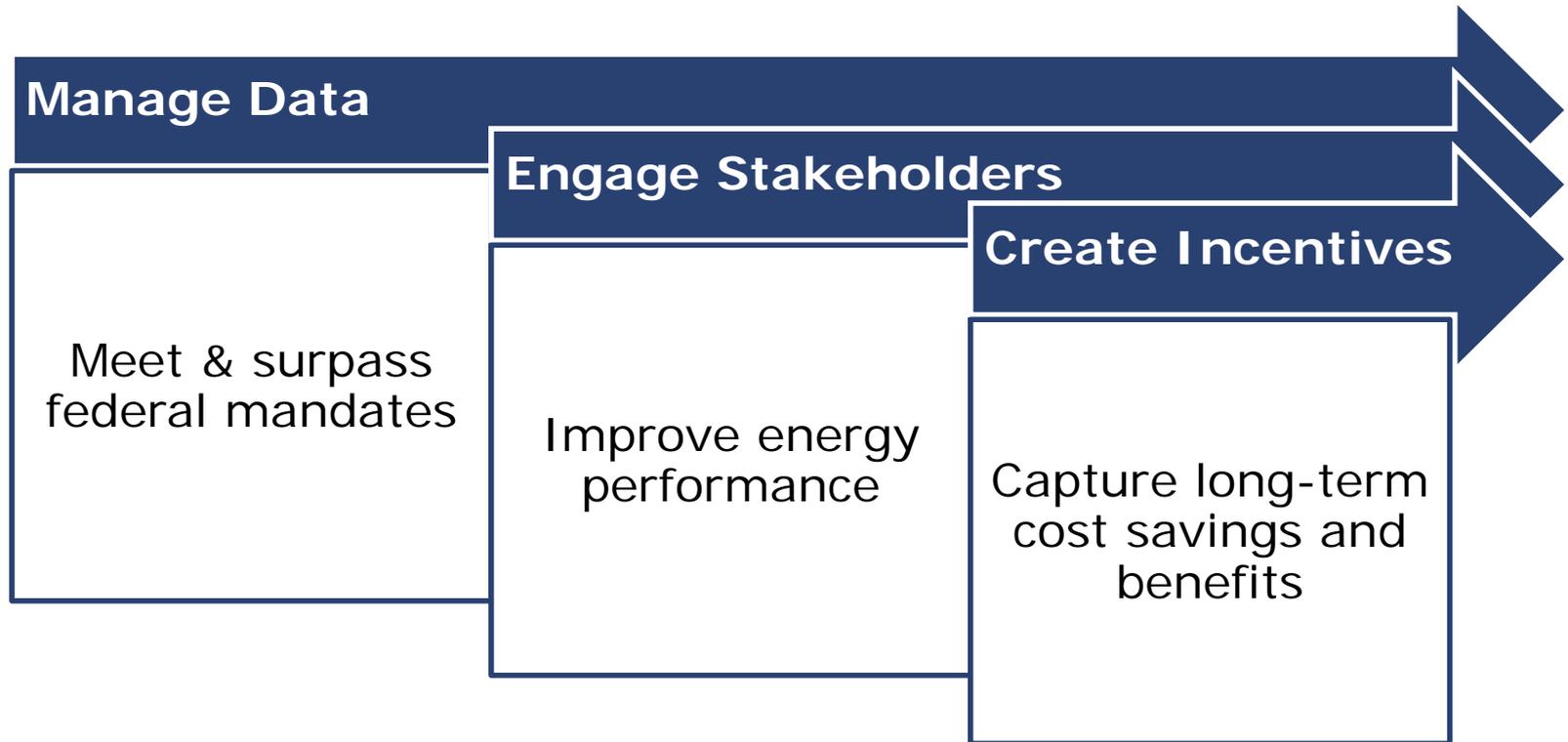


# Potential for Energy & Cost Savings

	Buildings Benchmarked	Projected Energy Savings (kBtu)	Net Present Value
<b>Manage Data</b> <ul style="list-style-type: none"><li>• Benchmarking laws</li><li>• Submetering</li></ul>	825	200 million	\$14.5 million
<b>Engage Stakeholders</b> <ul style="list-style-type: none"><li>• “Nudging” efficiency</li><li>• Energy challenges</li></ul>	100	361 million	\$17 million
<b>Create Incentives</b> <ul style="list-style-type: none"><li>• Green leases</li><li>• Lease renewals</li></ul>	534	833 million	\$7.5 million
<b>TOTAL</b>	<b>1,459</b>	<b>1.4 billion</b>	<b>\$39 million</b>



# Equip GSA to Lead the Way!

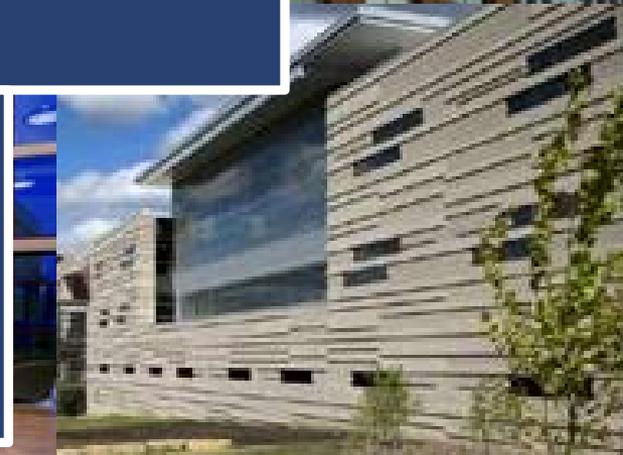




Thank you!



Team 2030



# Appendix A: Cost-Benefit Analysis

		Expected Results by 2015				
		Additional Buildings Benchmarked	Projected Energy Savings (kBtu)	Initial Investment		NPV
Manage Data	Acquire benchmarking results	468	169,234,965	\$ 636,000	\$	4,576,781
	Develop and implement a submetering plan	357	30,703,645	\$ -	\$	-
Engage Stakeholders	"Nudging" energy efficiency	0	136,088,477	\$ 1,196,558	\$	9,919,699
	Energy efficiency challenge for owned buildings		211,543,706	\$ 165,000	\$	17,114,744
	Energy efficiency challenge for leased buildings	100	12,900,676	\$ -	\$	-
Create Incentives	Strengthen green lease requirements	534	832,553,910	\$ 68,872,156	\$	7,457,895
	Change lease structure					
<b>Total – Recommended Solutions</b>		<b>1,459</b>	<b>1,393,025,380</b>	<b>\$ 70,869,714</b>	<b>\$</b>	<b>39,069,119</b>

# Appendix B: CBA Assumptions

## General Calculations

- Investment horizon: 3 years
  - Except submetering and lease structure changes: 10 years
- Discount rate: 10%
- Cost of electricity: \$0.10/kWh

## Lease Changes

- 73% of total leases re-negotiable
- Expense stop lease + green lease languages: all sole tenant buildings (22%)
- Combined energy savings: 21%
- Rental savings: 5%

# Appendix C: Maximized Energy Savings Scenario CBA

		Expected Results by 2015			
		Additional Buildings Benchmarked	Projected Energy Savings (kBtu)	Initial Investment	NPV
Manage Data	Acquire benchmarking results	468	169,234,965	\$ 636,000	\$ 4,576,781
	Develop and implement a submetering plan	357	30,703,645	\$ -	\$ -
Engage Stakeholders	"Nudging" energy efficiency	0	136,088,477	\$ 1,196,558	\$ 9,919,699
	Energy efficiency challenge for owned buildings		211,543,706	\$ 165,000	\$ 17,114,744
	Energy efficiency challenge for leased buildings	100	12,900,676	\$ -	\$ -
Create Incentives	Strengthen green lease requirements	728	1,295,083,861	\$ 138,385,350	\$ (15,733,253)
	Change lease structure				
<b>Total – Energy Saving Maximizing Solutions</b>		<b>1653</b>	<b>1,855,555,331</b>	<b>\$ 140,382,908</b>	<b>\$ 15,877,971</b>