

NO BUILDING LEFT BEHIND

**GAINING ENERGY EFFICIENCY IN
NEW YORK CITY'S
STATE & NATIONAL REGISTER
PROPERTIES**

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AGENDA

- Background
- Problem
- Discussion in the Field
- Stakeholders
- Alternatives
- Evaluation
- Preferred Alternative



Climate Change is unequivocal.



Coney Island Landmark Shore Hotel after Hurricane Sandy (2012)

PlaNYC

2010 Citywide CO₂e Emissions by Sector

Total = 54.3 million metric tons

Buildings = 75%

■ Residential

■ Commercial

■ Industrial

■ Institutional

Transportation = 21%

■ On-road transportation

■ Transit

Wastewater, fugitive = 2%

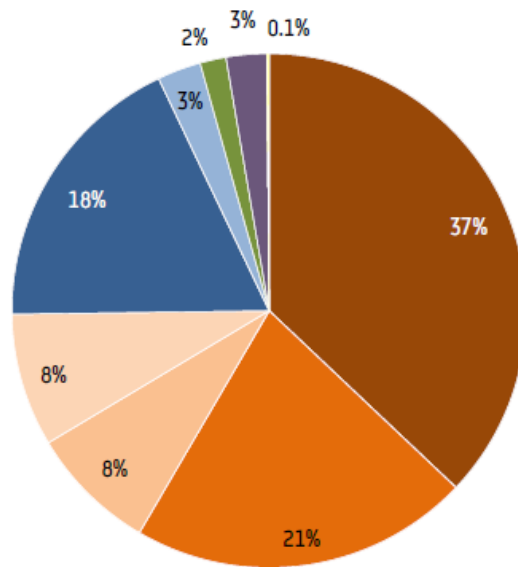
■ Wastewater, fugitive

Solid waste = 3%

■ Solid waste

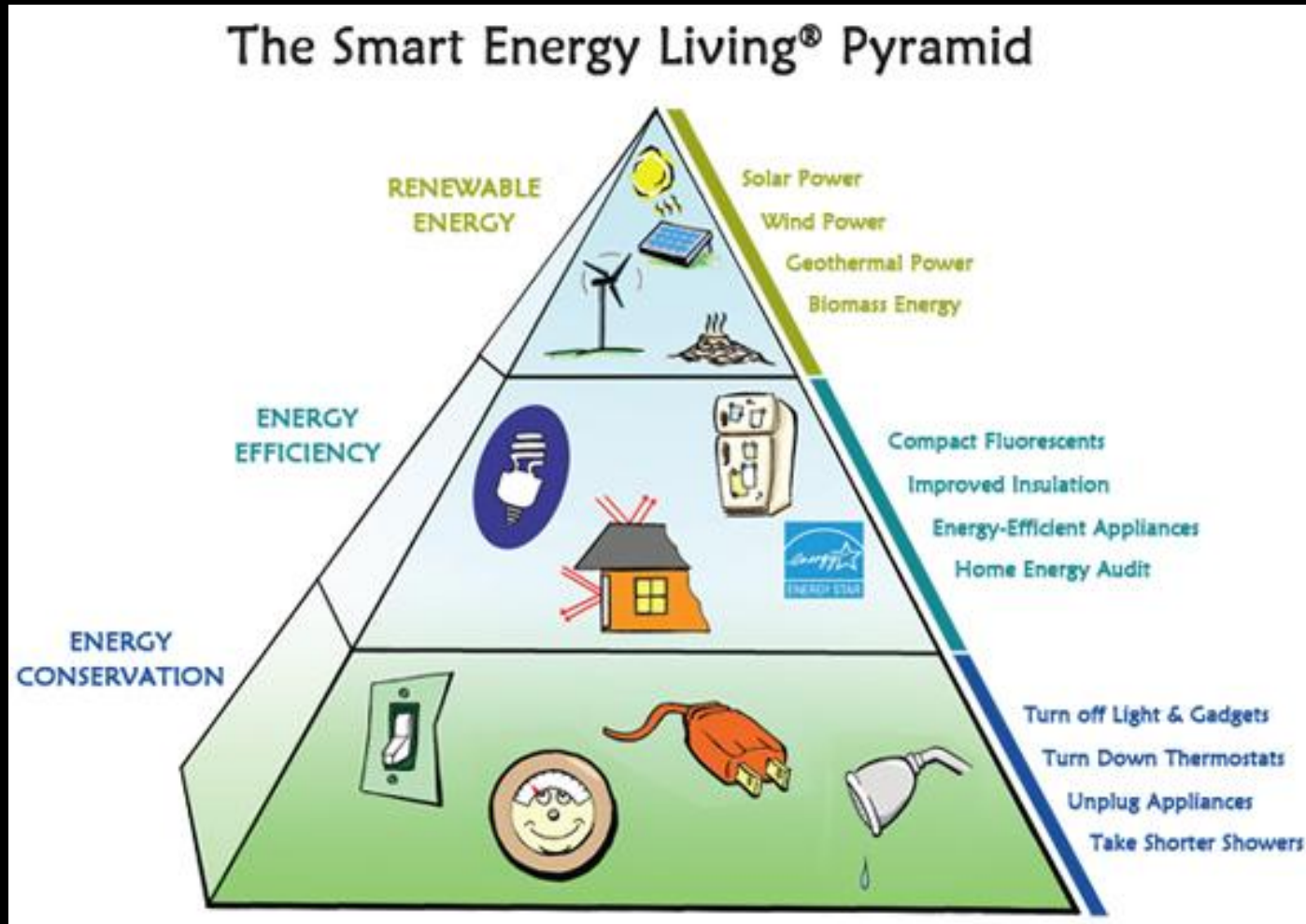
Streetlights and traffic signals = 0.1%

■ Streetlights and traffic signals



- NYC buildings = 74% of CO₂ emissions
- PlaNYC Greener, Greater Buildings Plan goal: 30% CO₂ reductions by 2030

Energy Conservation Codes



Research Problem

- Exemption of State & National Register Properties from Energy Conservation Code
 - Listed, Eligible or Contributing within a Historic District
- Interest: Mitigating Climate Change by lifting the exemption of Register Properties from NYC ECC.

**State &
National
Register
Properties**

**32,936
Listed**

**7,590
Eligible**

=

**40,526
Buildings**



**5% of NYC Building
will be Left Behind**

Embodied Energy



Conflict with Character Features



Historic Buildings Are Greening



The Greenest Building

Stakeholders

- Preservation-minded Civic Organizations
- Preservationists
- Preservation Administrators: LPC & SHPO
- Restoration Architects
- Register Property Owners
- NYC Administrations: City Council, DOB, DCP
- Energy Advocates

Evaluative Criteria

The optimal solution will...

- protect the historic fabric of Register Properties.
- maximize PlaNYC reductions by 2030.
- be politically feasible.
- be cost effective and a good investment.
- provide an easy process for application.
- not expand the scope of work.

Alternative Solutions

Non-Exemption

- Non-exemption from NYC ECC As-Is
- Non-exemption from NYC ECC w/ Modified Performance Path
- Non-exemption w/ Outcome Based Path

Exemption

- Standard Measures Requirement
- Data Collection & Advocacy Campaign
- No Action

Evaluation of Alternatives: Non-Exempt

Non-exempt Modified- Performance

- Based on Australia:
- Expand energy performance path to include other measures
- PlaNYC Goals Advanced in multiple categories
- Challenge of cost, scope of work, politics & regulation

Non-exempt Outcome- Based

- Based on Seattle:
- Use historic building utility data as a baseline for percent increase compliance
- Utilizes passive efficiencies of some historic buildings
- Challenge of performance data, long scope of work, implementation of new code

Evaluation of Alternatives: Non-Exempt

Mandatory Standard Measures

- Based on Pratt Center:
- Standard measures packages created for Register properties
- SHPO oversees if renovations use Tax Credit
- Possible CO₂ reductions
- Cost effective, mild scope of work increase

Data & Advocacy

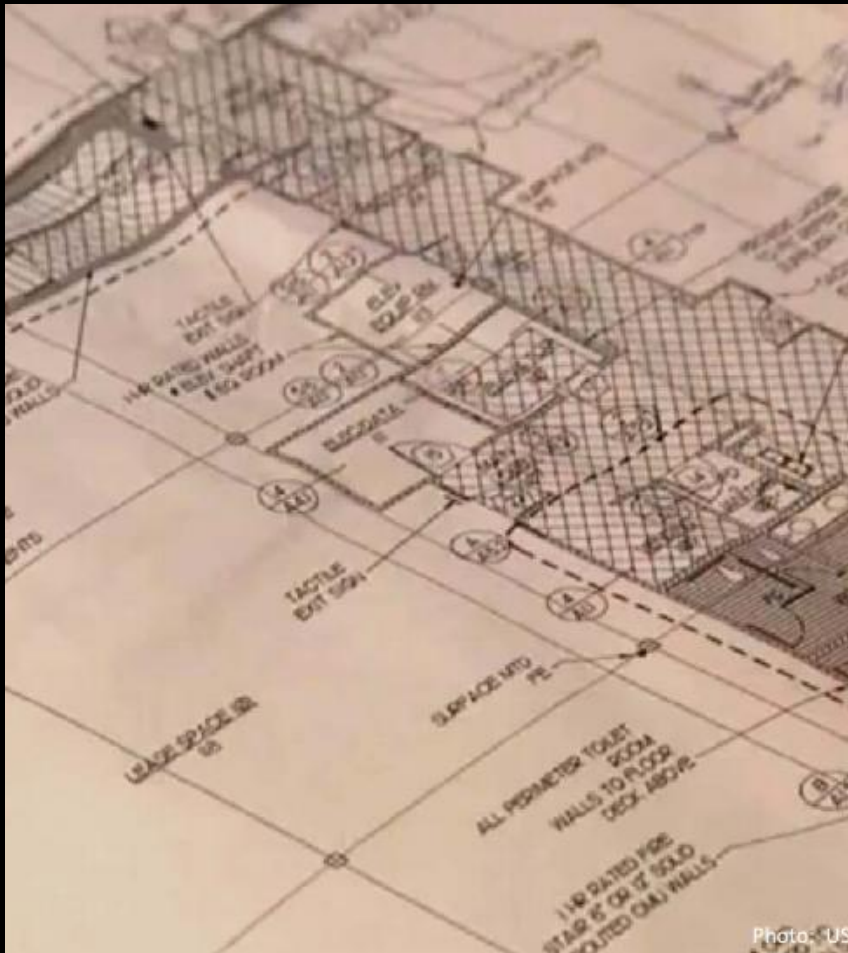
- Based on SHPO Info:
- Amalgamate data to promote existing greening accomplishments
- Business as usual for most
- MAS can lead with collaboration from SHPO

Stakeholders:	Preservation-Minded Preservatio- Only Preservation- Admin Restoration- Architects Property- Owners	Preservation- Minded Preservatoin- Admin NYC Admin Energy- Advocates	Preservation-Minded Preservation- Admin NYC Admin	Preservation- Admin Restoration- Architects Property- Owners	Preservation- Admin Restoration- Architects Property- Owners
Solution:	Protects Historic Fabric	Maximizes PlaNYC Reductions	Is Politically Feasible	Provides an Easy Process	Does Not Expand Scope of Work
Non-Exempt As-Is		Y		Y	
Non-Exempt Modified Perform	Y	Y	?		
Non-Exempt Outcome Path	Y	Y	?		
Mandatory Standard Measures	Y	Y	?	Y	
Data & Advocacy	Y		Y		Y
No Action	Y				Y



Preferred Alternative

Conclusion



- More research is needed
- Existing data is not living up to its potential

Thank You!