



# Green Building Advisory Committee

## GSA Leasing Requirements - Net Zero Emissions

May 2023 -Part II

(updated from Nov. 2022 Mtg.)



# GBAC Agenda (5/10/2023)

## E.O. 14057: Net Zero Leasing Requirements

- **E.O. 14057: Sustainable Leasing Requirements - Net Zero**
- **Challenge Statement/ Draft-GBAC Task Group Objective**
- **Acquisition/Legal-Regulatory Environment + Government Leasing Process**
- **Net Zero Supply + Demand Conditions**
- **Net Zero Leases- Strategies**
  - Regional Opportunities
  - 3rd-party Net Zero Ratings
  - Green Leasing Guidelines
- **Federally-Owned Facilities: NZ Path**

# EO 14057: Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability and Implementing Instructions - Key Goals



Implementing Instructions for  
Executive Order 14057  
Catalyzing Clean Energy Industries and Jobs  
Through Federal Sustainability

The White House Council on Environmental Quality

August 2022

***E.O. 14057 - Issued on 12/8/21:  
[Executive Order 14057](#)***

***[OMB Memorandum to  
Departments and Aq](#)***

***Imp. Instructions - Issued  
8/31/22:[EO 14057 Imp Instruc](#)***

## ***E.O. 14057 Key Goals:***

- 1. 100% carbon pollution-free electricity (CFE) on a net annual basis by 2030, including 50 percent 24/7 CFE***
- 2. 100% zero-emission vehicle acquisitions by 2035***
- 3. Net-zero emissions building portfolio by 2045, including a 50% emissions reduction by 2032***
- 4. 65% reduction in scope 1 and 2 greenhouse gas emissions from Federal operations by 2030 from 2008 levels***
- 5. Divert from landfills at least 50% of non-hazardous solid waste, including food and compostable material, and construction and demolition waste and debris by FY 2025; and 75% by FY 2030***
- 6. Net-zero emissions from Federal procurement, including a Buy Clean policy to promote use of construction materials with lower embodied emissions***
- 7. Climate resilient infrastructure and operations***
- 8. A climate- and sustainability-focused Federal workforce***

# E.O. 14057: Sustainable Leasing Requirements

## Green Leases

- *“All new lease solicitations issued after 9/30/2023 for at least 25,000 RSF where the Federal Govt occupies at least 75% of a building are to be green leases.”*
- *Green Lease definition aligns with the Guiding Principles*

**9 / 30 / 2023 +**

## Lessors Disclosures

- *“Such Green Leases must require the Lessor to report annual data on facility GHG emissions, energy + water consumption, and waste generation.”*
- *Applies to new leases  $\geq$  25,000 RSF and where the Fed. Govt. leases  $\geq$  75% of building*

**9 / 30 / 2023 +**

## Net Zero Emissions

- *“New lease solicitations issued after 9/30/2030 that are greater than 25,000 RSF and where the Federal Govt. leases at least 75% of the total building square footage, must be in NZE buildings (consistent with the green lease requirement)”*

**9 / 30 / 2030 +**

# E.O. 14057: Timeline - Sustainable Leasing

## Timeline of Leasing Requirements/Deliverables



# Challenge Statement + (Draft) Objective GBAC Task Group

## Challenge Statement - Net Zero Emissions Leases:

*The Government is tasked with pursuing NZE inventory for leased locations by October 2030. There is limited inventory to meet this need while obtaining cost-reasonable rents.*

## (Draft) Objective for GBAC-Green Leasing Task Group:

*The Green Leasing Task Group will explore and recommend approaches to help GSA meet federal requirements for net zero greenhouse gas emissions in its leasing of space in privately-owned commercial buildings for federal use.*

# Acquisition Environment

Category	Commercial	Federal
<b>Contractual Instrument</b>	Lessor	Lessee
<b>Bearing of Risk</b>	Lessee	Lessor
<b>Legal Governance</b>	State Law	Federal Law
<b>Right to Occupancy</b>	None - Eviction	Holdover – Eminent Domain
<b>Procurement</b>	Individual Preferences - Corporate Image Projection	Award Factors – Lowest Price, Technically Acceptable, Best Value Trade-off or Source Selection
<b>Requirements</b>	Corporate Branding - Individual Preferences	Federal Standards – Agency Mission
<b>Funding</b>	Private Funds	Public Funds
<b>Codes and Standards</b>	Local Codes (e.g. fire and life safety, local ordinances, etc.)	Federal Codes (e.g., fire and life safety, tenant substitution, casualty, security, etc.)
<b>Stakeholders</b>	Board of Directors, Corporate Officers	Congress, OMB, Client Agencies
<b>Financing</b>	Corporate Funds – Lenders (underwriting)	Appropriations - Scoring

# Legal and Regulatory Environment

## Federal Leasing is Governed by:

- **42 Statutes**
- **14 Executive Orders**
- **4 Codes of Federal Regulations**
  - General Services Administration Acquisition Regulation (48 CFR Part 570)
  - Federal Management Regulation (41 CFR Subchapter C, Real Property, Parts 102-71 through 102-85)
  - Comprehensive Procurement Guideline for Products Containing Recovered Materials (40 CFR Chapter I Part 247)
  - Federal Acquisition Regulation (48 CFR)
- **17 sets of Orders, Policies, and Standard Operating Procedures**
  - SOP's: LDG, LMDG, Pricing, Floodplain & NEPA Desk Guides
  - Orders: A-11 & HSPD-12
  - Policy: RSL's, LA's, LAC's, Site Acq. Policy, gPM Playbook, RWA, Legal Review, IT Security, Lease Reform, Managing Cust. Req.s Policy



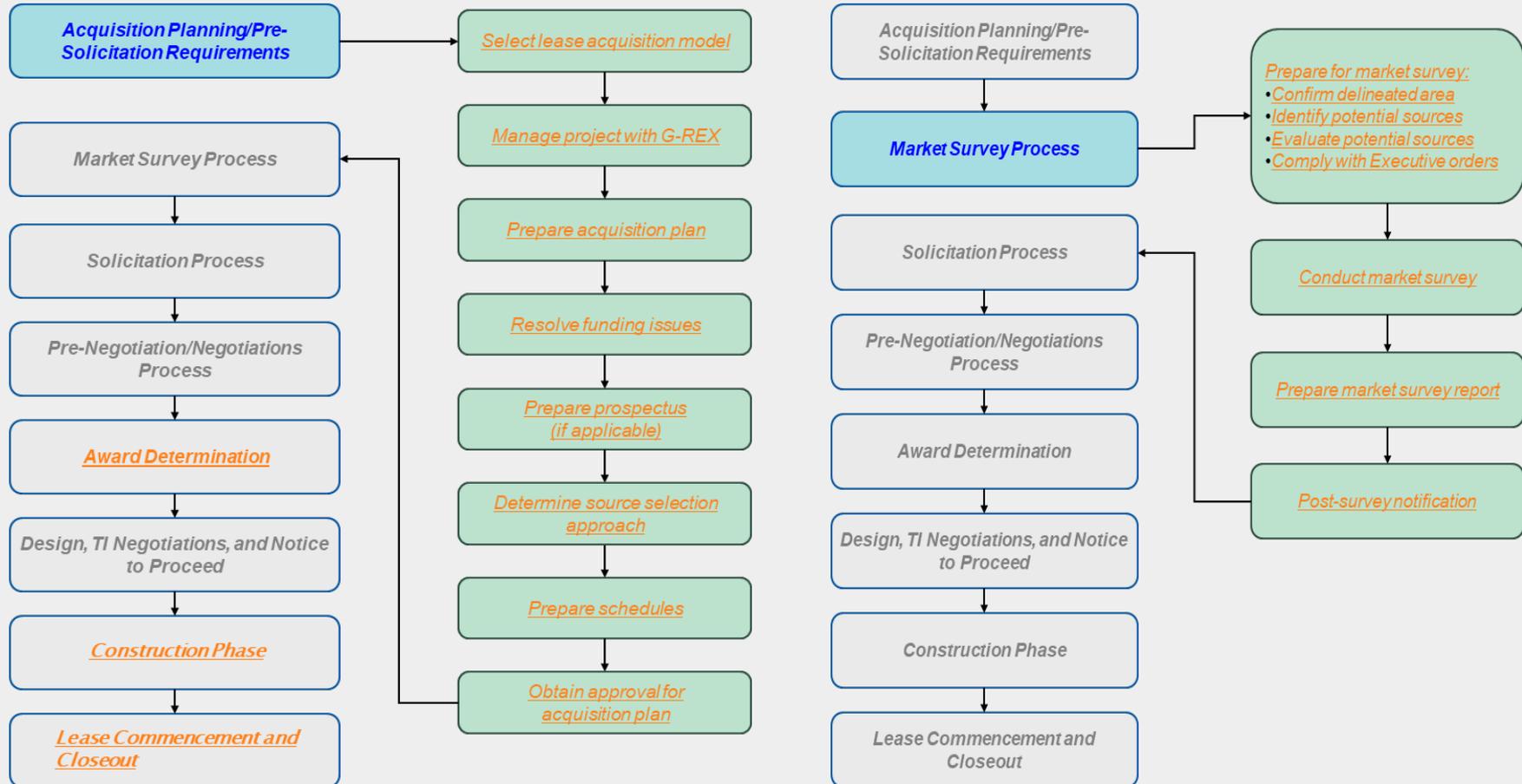
# Federal Lease Process

1. Client Project Agreement between Customer and PBS
2. RWA Funds in Place for Prospectus Projects
3. Acquisition Plan Finalized
4. Initial Financial Assessment with Signed Customer Draft OA
5. Requirements Finalized
6. Issuance/Award of Task Order
7. Task Order Notice to Proceed
8. Advertisement
9. Market Survey Report Approval
10. Transmittal of Solicitation Package
11. Receipt of Initial Offers
12. Final Proposal Revisions Received
13. Price Negotiation Memorandum Approved
14. Signed OA Document for Award
15. Lease Award
16. Design Intent Drawings Complete
17. Design Intent Drawings Workshop Complete
18. Issue DIDs to Lessor
19. TI Costs Received/TI Negotiations Commence
20. Construction Drawings Received
21. Customer review and acceptance of Construction Drawings
22. TI Costs Approved and NTP Provided
23. Construction Kick-off/Progress Meetings
24. Substantial Completion
25. Acceptance of Space
26. Punch List Complete
27. Lease Term Commencement

# Leasing Process



# Leasing Process - Acquisition Planning & Market Survey



# Net Zero Supply-Demand Conditions

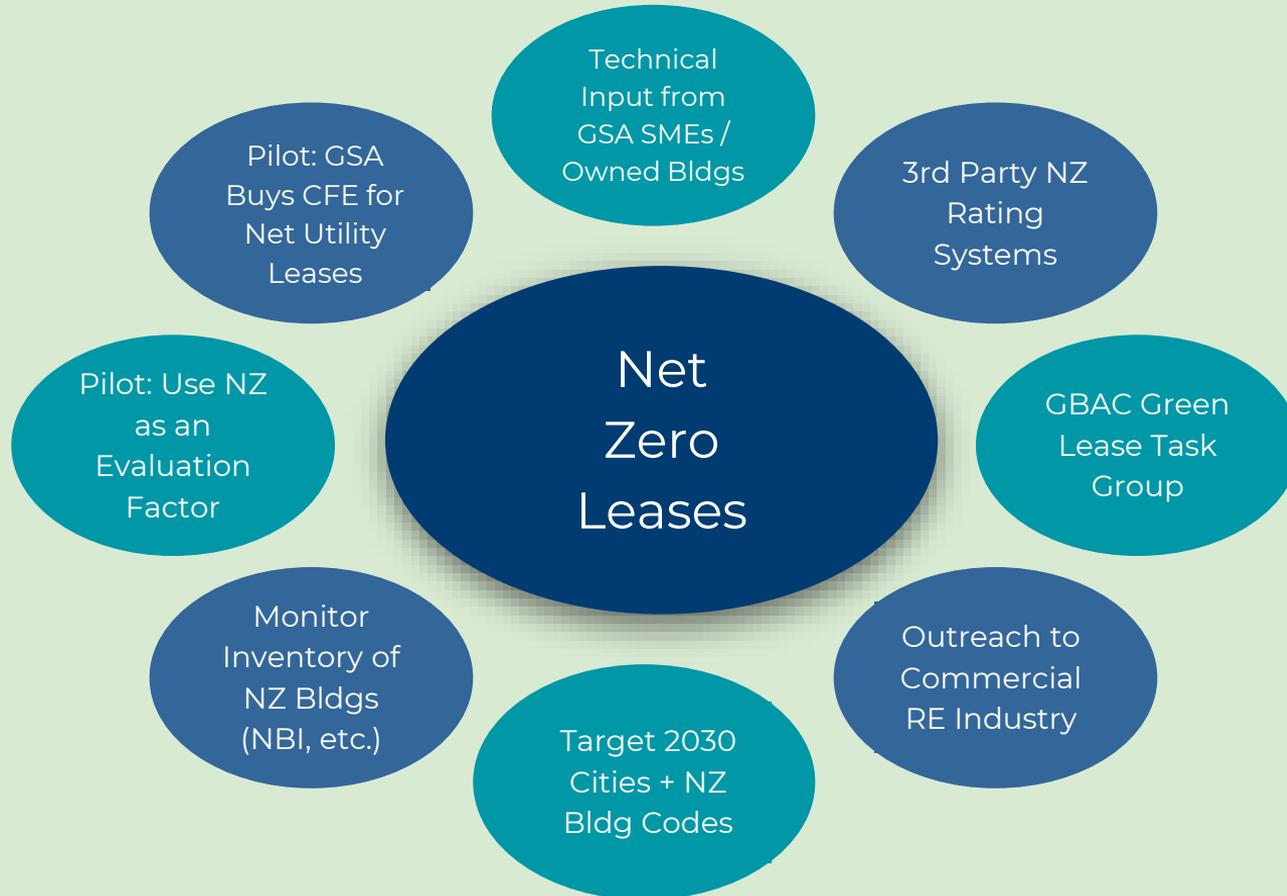
## DEMAND - Net Zero

- GSA is the **demand side** of the economic equation
- GSA does **not own or control** the bldgs in which we lease space
- GSA **leases space**, not buildings
- GSA's **space requirements** Include:
  - Space needs in many small, remote markets
  - Short lease terms (10-12 years average)
  - Limits on rent costs
  - Lowest Price Technically Acceptable has been primary procurement method
- GSA standard lease includes **65 sustainability requirements**:
  - Currently lessors have **minimal incentives** to acquire clean power, engage in deep energy retrofits or increase the generation of electricity on site

## SUPPLY - Net Zero

- **Supply** of existing NZ commercial buildings is **limited**:
  - New Bldgs Institute's inventory of existing NZ buildings show 55 nationally; 107 "pending"
  - State-owned NZ buildings in California dominate
- **Cost of NZ**- Rents + Op.Exp.needs to align with GSA's allowed rents
- GSA will have to **catalyze NZ supply** in the commercial real estate market

# Net Zero Emissions Leases - Possible Strategies



# Net Zero Leases: Possible Pilots/Strategies

*Regional Opportunities- Some GSA Regions are reaching out about incorporating high-performance standards in upcoming prospectus-level and/or new lease construction projects*

## **Net Zero/High-Performance Strategies:**

- Higher-level, green building rating (LEED-Platinum, Living Bldg. Challenge, etc.)
- Pursue 3rd-party Net Zero Rating (LEED-Zero Energy, LEED-Zero Carbon)
- Incorporate Low Embodied Carbon Materials and Additional EPDs
- Electrification of Building Systems
- Structure Lease as Net of Electric w/GSA Purchasing CFE
- Include On-site Renewable Energy Generation
- Strategically Target Cities w/ NZ Building/energy codes + Favorable Grid Conditions

# Net Zero Green Building Ratings

## NET ZERO - Green Building Ratings/Recognition



- [LEED Zero Carbon/Energy](#)
- [Green Globes](#)
- [BOMA Best Net Zero Challenge](#)
- [BREEAM Decarbonization Maps](#)
- [Living Building Challenge](#)

*GSA's 5-year review of Green Building Rating Systems (required by EISA) is focused on alignment with the Guiding Principles and Not new E.O.s.*

[Green Building Certification Review](#)

[Net Zero Building Certifications Fact Sheet](#)



[ENERGY STAR NextGen](#) (In development)

# Net Zero Green Building Rating: LEED NZ Energy/NZ Carbon

## Net Zero- Green Building Ratings: LEED



- LEED's net zero focus is on **Existing Buildings and Operations**
- Challenges to incorporate **Embodied Carbon**
- A(ny) LEED rating is a **prerequisite** to LEED-NZ
- Multiple Net Zero ratings:
  - LEED Net Zero Carbon
  - LEED Net Zero Energy
  - LEED Net Zero Waste
- Net Zero Resources; Net Zero Slide Deck; Project Directory

# Net Zero Green Building Recognition/ Definitions

	Performance or Design	Metric	Boundary	Combustion Allowed?	Efficiency Required?	Off-site RE Allowed?	Other Reqs.
					NC: 70% EBB* EB: 50% EBB (both w/ PV)	Yes. Using the off-site RE exception.	Must include on-site storage; 20% embodied carbon reduction.
					Highest efficiency	Yes, must be local. 75% of roof for solar.	
					NC: 25% < 90.1-2010 EB: 30% < CBECS	Yes. Must be <i>additional</i> .	10% Embodied Carbon Reduction + Carbon offsets for the remainder
					No, but LEED Certified	Yes. See tiered structure for on- and off-site RE	Must be LEED-NC or EBOM certified. Performance in Arc. TOU option for LZC.
							
					Must meet ASHRAE 90.1-2019	Yes. After on-site. Tiered structure applies discount factor to various	Off-site renewables are discounted
					Highly energy efficient building	Yes	Embodied carbon may be included later
				 Not allowed in 2030	70% better than CBECS 2003	Yes, but not counted	Seeking to incorporate refined carbon specific metrics

 = Transportation

 = Embodied Carbon

 = Site Energy Use

 = CO2e

 = Source Energy Use

Credit: WSP with NBI additions

# EO 14057: Green Leasing Guidelines

## **EO 14057 Implementing Instructions - 4.4.13:**

*“GSA must issue green lease standards and guidelines to be applied to Federal leases, including provisions that promote a standard framework for **lessor reporting of emissions, energy, water, and waste** associated with the leased space.*

*Agencies with **independent leasing authority** must incorporate the guidelines and language into agency-specific leasing policies and practices”*

- **GSA reqmts + GLG both incorporate Progressive steps toward Net Zero**
- **GLGs don't stand alone- they Reference the GSA RLP + Lease that are updated annually**
- **GSA requirements Inform GLGs / GLGs inform GSA requirements**

# Green Leasing Requirements - Based on Federal Mandates and Industry Standards

FY 2022 Global RLP - Highlighted  
FY 2022 Global Lease - Highlighted

<b>Request for Lease Proposal (RLP)</b>	<b>Construction Standards + Shell Components</b>		<b>Tenant Improvement Components</b>	<b>Utilities and Obligations During the Lease</b>	
<b>Nbhd., Parking, Loc.Amenities, Public Transportation</b>					
<b>Floodplains + NEPA</b>	<b>Existing Fit Out, Salvaged Materials</b>	<b>Systems Commissioning</b>	<b>Lighting - Interior</b>		
<b>EISA- Energy Star</b>	<b>Vestibules</b>	<b>Painting-Shell</b>	<b>Heating &amp; A/C</b>		
<b>Historic Preference</b>	<b>EISA- Energy Star</b>	<b>Plumbing Fixtures- Water Conservation</b>	<b>Doors- Entry, Interior, Hardware</b>		
<b>Nat.Hist.Preservation Act</b>	<b>HVAC-Shell</b>	<b>IAQ During Construction</b>	<b>Partitions - Subdividing</b>		
<b>Seismic Safety</b>	<b>Insulation</b>	<b>Ventilation</b>	<b>Wall Finishes</b>		
<b>Environmental Considerations</b>			<b>Painting- T.I.</b>		<b>Landscaping</b>
<b>Asbestos</b>			<b>Window Coverings</b>		
<b>Util.Separate/ Bldg. Optg. Plan</b>					
<b>Additional Submittals</b>					

# EO 14057: Lessor Disclosure Requirements

Feature	2016	2023
<b>Key Driver</b>	EO 13693	EO 14057
<b>Required Disclosures</b>	Energy + Water	Energy, GHGs, Water, Waste
<b>Size/Occupancy Threshold</b>	Lease size $\geq$ 10,000 RSF	Lease $\geq$ 25K and Govt Occup. $\geq$ 75%
<b>Reporting Platform</b>	EPA Portfolio Manager	EPA Portfolio Manager
<b>Verification/ Follow-up</b>	Lease Admin.Mgr. (LAM) Annual Inspection	LAM Ann. Insp. + Port.Mgr. Data Quality Checker
<b>Portfolio Manager Enhancement</b>	N / A	New GSA Lease # Data Field

# Leases: GSA-Controlled, Delegated, and Independent

Category	# of Total Leases [ # >=25K ]	Leased Spc RSF [ RSF >=25K ]
GSA-Controlled, Direct	7,708 [ 1,472 ]	179.7 mil. [ 130.5 mil. ]
Delegated Leases	7,114 [ 268 ]	51.5 mil. [ 20.0 mil. ]
<b>Independent Authority</b> <i>(data only avail for leases &gt;=25K)</i>	[ 137 ]	[ 11.26 mil. ]
<b>TOTAL</b>	14,959 [ 1,877 ]	242.5 [ 161.8 ]

# Federally Owned Path: Net Zero Emissions/ Net Zero Energy

	Terms	Project Requirements	Utilities	
<b>Emissions</b>	All Electric Building (Fed. Building Performance Std)			
	Net Zero Operational Emissions Building			
<b>Energy</b>	Net Zero Energy Ready Building		=  +	
	Net Zero Energy Building		=  +	

No Fossil Fuel Equipment	Fossil Fuel Equipment Allowed	Grid Electricity	Carbon Pollution-Free Grid Electricity	Onsite Renewable Electricity
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# Net Zero Emissions/ Net Zero Energy

	Official Definition	Definition Source	Practical Meaning
<b>All Electric Building</b>	A building that achieves zero scope 1 emissions (from on-site fossil fuel use) through building electrification during standard operations. Standard operation does not include fossil fuel combustion. Meets Federal Building Performance Standard.	<a href="#">Federal Building Performance Standard</a>	No scope 1 emissions – e.g. all-electric building  EO 14057 § 205(c)(ii) requires "new construction and modernization projects greater than 25,000 to be net-zero emissions by 2030".
<b>Net Zero Operational Emissions Building</b>	A highly-efficient building without fossil fuel-consuming equipment. Its annual energy needs are served wholly through onsite renewable energy and/or offsite carbon pollution-free electricity. Additional information on net zero energy, water, and waste concepts are articulated in the DOE Federal New Buildings Handbook for Net Zero.	<a href="#">Operational Emissions (Scope 1 and 2) in alignment with CEQ GHG Guidance EISA Sec 433 Fossil Fuel Free</a>  <a href="#">(Supplemental Notice of Proposed Rulemaking on Clean Energy for Federal Buildings was posted 12/7/2022; may be finalized and take effect around mid-2023.)</a>	No scope 1 or 2 emissions
<b>[Net] Zero Energy Building</b>	Zero Energy Building (ZEB): "An energy-efficient building where, on a source energy basis, the actual annual delivered energy is less than or equal to the on-site renewable exported energy."	<a href="#">DOE EERE "A Common Definition for Zero Energy Buildings", 2015</a>	Each year, energy from the grid must be replaced with an equal or larger amount of power generated with on-site renewables.
<b>Net Zero Energy Ready Building</b>	A project designed to be highly efficient that has designated the size and location of on-site renewable energy systems that would be needed to make the building a net zero energy building.	<a href="#">P100 section 1.9.1 "Sustainable Performance Table" (paraphrased)</a>	Designed so that enough renewables can be added to power the building, on a net annual source energy basis.
<i>Note: these definitions address only OPERATIONAL carbon emissions from energy use - not EMBODIED carbon emissions from purchased construction materials.</i>			



# Discussion / Q&A

