

# RUTGERS

Edward J. Bloustein School  
of Planning and Public Policy

Energy Efficient Buildings Hub  
NJ Green Building Manual

Rutgers Center for Green Building

# Introduction

- Rutgers Center for Green Building
- Energy Efficient Buildings Hub
- NJ Green Building Manual



# Rutgers Center for Green Building

The screenshot shows the website's layout. At the top left is the Rutgers logo and the name of the school. Navigation links for 'RUTGERS HOME' and 'SEARCH RUTGERS' are at the top right. A main navigation bar includes 'About the Center', 'Projects', 'FAQ', 'Calendar of Events', 'Additional Resources', and 'Contact Us'. The main content area features a large image of a modern building and a text box describing the center's mission. Below this are three columns: 'NEWS & EVENTS' with a 'NJ GREEN HOME REMODELING GUIDELINES' download link, 'RESEARCH' with an image of a construction site, 'EDUCATION' with an image of people on a solar panel installation, and 'ADVOCACY' with a group photo.

- Research
- Education
- Training

# Practice Areas

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- **Green Building Guidelines/Best Practice Research**
- **Post Occupancy Evaluation**
- **Life Cycle Methods**
- **Cost-Benefit Analysis**
- **Valuation/Finance**
- **Formal Modeling**

## OUR MISSION

*The Center promotes green building through research, education and training, and partnerships with industry, government and not-for-profit organizations.*

# Energy Efficient Buildings Hub

**EEBHUB** Energy Efficient Buildings Hub  
Re-energizing buildings for the future.™

News Room > Events > RFPs >

ABOUT EEB HUB RESEARCH TEAMS DEMONSTRATION PROJECTS GET CONNECTED

OWNERS/OPERATORS/OCCUPANTS ARCHITECTS/ENGINEERS/SUPPLIERS POLICY AND FINANCE EDUCATION AND WORKFORCE

**Call us the EEB Hub**  
That's now our official name—short for the Energy Efficient Buildings Hub. If you knew us by our old name, the Greater Philadelphia Innovation Cluster (GPIC), please update your records!  
[Read more](#)

Like 20 Tweet 17 Share 5

**DEMONSTRATION PROJECTS**

BUILD. 661  
BUILD. 101

**NAVY YARD BUILDING 661**  
**ADVANCED ENERGY RETROFIT LIVING LABORATORY**  
Both the delivery process and the resulting 661 edifice will serve as examples for future advanced energy retrofit projects in the region.

**FEATURES**

**What is the Electricity Price Ticker?**  
The price listed to the left is the cost this minute for electricity at the wholesale level. A megawatt-hour is the unit of electricity being used and is equivalent to a million watt-hours. Learn more about how the wholesale power market works.  
[Read More](#)

**EEB HUBlog**  
The new and improved EEB HUBlog will be launching soon.

**EVENTS**

**NEWS**

May 08, 2012  
Philly Inc. At the Navy Yard's Network Operations Center

May 08, 2012  
Balfour Beatty Awarded U.S. Department of Energy Innovation Hub Project at Philadelphia Navy Yard

May 09, 2012  
Efficiency group shortens its name- Philadelphia Inquirer  
[Read More](#)

**20% REDUCTION IN REGIONAL BUILDING ENERGY USAGE BY 2020 = OUR GOAL**

EEB Hub, a U.S. DOE initiative, has the unique dual mission of improving energy efficiency in buildings—literally re-energizing them for the future—and promoting regional economic growth and job creation.

# Energy Efficient Buildings Hub

- The EEB Hub includes academic institutions, DOE laboratories, high-profile global industry partners and regional economic development agencies.
- The EEB Hub energy efficiency goal is to reduce energy use in the U.S. commercial buildings sector by 20 percent by 2020.
- The EEB Hub focuses on the Greater Philadelphia Region, including Burlington, Camden, Gloucester, Mercer, and Salem counties in NJ. RCGB's work on informing policies helps disseminate information and gather input throughout NJ.



# Energy Efficient Buildings Hub

RCGB is working with stakeholders across the state to

- Implement the policy recommendations of the NJGBM regarding energy efficiency retrofits in existing commercial (and multifamily) buildings, including performance requirements linked to code
- Improve the energy performance of the NJ building stock
- Pilot best practices, incentives and other policies to overcome market barriers that deter wider adoption of energy efficient green building construction and evaluate their technical performance and cost-effectiveness



# Energy Efficient Buildings Hub

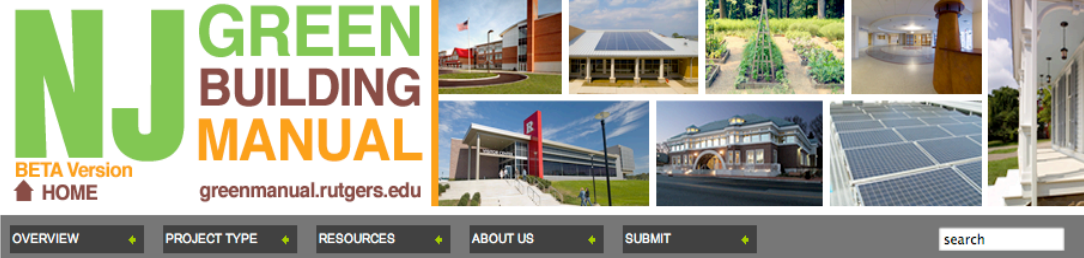
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- Research and Resources
- Events and Workshops
- Opportunities for networking and collaboration
- Workforce Development, Training, Education
- Technical and financial data, case studies, pilot programs





# NJ Green Building Manual



**NJ GREEN BUILDING MANUAL**  
BETA Version  
HOME greenmanual.rutgers.edu

OVERVIEW PROJECT TYPE RESOURCES ABOUT US SUBMIT search

## New Jersey Green Building Manual

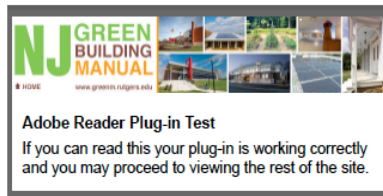
The development of the New Jersey Green Building Manual (NJGBM) Version 1.0 was funded by the New Jersey Department of Environmental Protection (NJ DEP) and overseen by the managing partners, a master advisory group of State Agencies including NJDEP, the Department of Community Affairs (DCA), the Housing and Mortgage Finance Agency (HMFA), the Board of Public Utilities (BPU), the Economic Development Authority (EDA) and the Governor's Policy Office.



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HOME www.green.rutgers.edu

**Adobe Reader Plug-in Test**  
If you can read this your plug-in is working correctly and you may proceed to viewing the rest of the site.

This website uses PDF files for content. If you cannot see anything in the box on the left, please install [Adobe Reader](#) or [PDF viewer add-on](#) if you are using Mozilla Firefox.



# NJ Green Building Manual

Authorized in 2007 by the State Legislature (C.52:27D-130.6) with intent to:

- encourage builders and developers, non-profits, and for-profit organizations, state and local government, and residents to adopt green building practices
- provide guidance and consistent performance criteria
- provide resources for local governments and private sector
- address new and existing residential and commercial buildings
- address sustainable site planning; safeguarding water and water efficiency; energy efficiency and renewable energy; conservation of materials and resources; and indoor environmental quality



# NJ Green Building Manual

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The NJGBM is a consensus-driven product. Throughout its development, the **Residential and the Commercial Technical Advisory Groups** provided substantive expertise and judgment across all aspects of the Manual. Additional contributors include the **Municipal Advisors** and the **Local Code Officials** and the group of state agencies who oversaw the development of the Manual, who were formally known as the **Managing Partners**.

# NJ Green Building Manual

## NJ GREEN BUILDING MANUAL

HOME

greenmanual.rutgers.edu



OVERVIEW

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## NEW RESIDENTIAL

New single-family and multi-family (up to 3 stories).

## REQUIREMENTS

## STRATEGIES

## CASE STUDIES

[Expand All](#) | [Collapse All](#)

- > Eligibility
- > Compliance Paths
- > Application Process

[Expand All](#) | [Collapse All](#)

- > Design
- > Build
- > Operate
- > Evaluate

- Synergy Design - Fishkill, NY
- Stafford Park - Manahawkin, NJ
- [ENERGY STAR Home - Monmouth County, NJ](#)
- [LEED-H Silver Equivalent Home - Monmouth County, NJ](#)

# New Residential: Strategies

## NJ GREEN BUILDING MANUAL

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## NEW RESIDENTIAL

STRATEGIES

### DESIGN

### BUILD

### OPERATE

### EVALUATE

Expand All | Collapse All

#### Planning

- [Integrated Design Process](#)
- [Life Cycle Assessment \(LCA\)](#)
- [Building Information Modeling \(BIM\)](#)
- [Energy Modeling](#)
- [Life Cycle Cost \(LCC\) Analysis](#)
- [Alternative Fuel Vehicle](#)
- [Alternative Transportation](#)
- [Flexible Spaces](#)
- [Wire Management Systems](#)

#### Site

- [Brownfield and Infill Sites](#)
- [Transit Oriented Design \(TOD\)](#)
- [Soil Test](#)
- [Radon Mitigation Systems](#)

Expand All | Collapse All

#### Planning

- [Site Protection Plan](#)
- [Low Emitting Construction Equipment](#)
- [Tree Preservation](#)
- [Indoor Air Quality Management Plan](#)

#### Site

- [Native and Adapted Plants](#)
- [Reduce Heat Island Effect](#)
- [Turf Grass Reduction](#)

#### Energy

- [Air Infiltration Reduction](#)
- [ENERGY STAR Equipment](#)
- [Insulate Hot Water Pipes](#)

Expand All | Collapse All

#### Education and Training

- [Operator and Occupant Training](#)
- [Alternative Transportation](#)

#### Operations and Maintenance

- [Preventative Maintenance](#)
- [Equipment Maintenance](#)
- [Green Cleaning](#)
- [Flexible Work Spaces](#)
- [Integrated Pest Management](#)
- [Plug Load Management](#)
- [Day Cleaning](#)
- [Telecommuting](#)
- [Green Power Purchase](#)
- [Peak Demand Response](#)
- [Source Reduction and Recycling](#)

Expand All | Collapse All

#### Building Performance and Occupant Satisfaction

- [Post Occupancy Evaluation \(POE\) Survey](#)
- [Building Performance Evaluation](#)
- [Track Building Performance](#)
- [Smart Metering](#)
- [Retrocommissioning](#)

# Resources Summary

- Rutgers Center for Green Building [www.rcgb.rutgers.edu](http://www.rcgb.rutgers.edu)
- NJ GBM [www.greenmanual.rutgers.edu](http://www.greenmanual.rutgers.edu)
- EEB Hub [www.eebhub.org](http://www.eebhub.org)



# For More Information

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