For Massachusetts & Rhode Island

A guide to National Grid incentives, assistance, and training support for energy-efficient high-performance commercial, industrial, and institutional buildings.
Learn how your next project can benefit from National Grid’s New Construction Services Program:

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Program Introduction

Benefit from Better Energy Solutions on Your Next Project.

This guide introduces National Grid's New Construction Services to market participants and stakeholders who are planning the design, construction, or major renovation of a commercial, institutional, or industrial building located in Massachusetts or Rhode Island. If you’re a National Grid customer—or an architectural, engineering, or real estate development professional planning a commercial construction project in either state—our New Construction Program can help you with energy saving solutions.

National Grid’s New Construction Program supports high-performance design for the construction of commercial structures over 10,000 square feet. It is designed to benefit building owners, designers, and construction professionals engaged in four main areas of activity:

1. Ground-up new construction
2. Major code-triggering renovations or tenant fit-outs
3. End of useful life equipment replacement
4. Training to meet the latest Building Energy Code Massachusetts and/or Rhode Island requirements.

Program Overview and Policies

Better Building Performance Means a Better Bottom Line

National Grid’s New Construction Services promote and support high-performance building design, equipment selection, and building operation. Adoption of better energy solutions typically leads to lower life-cycle operating and maintenance costs; increased comfort, health, and productivity for building occupants; and increased sustainability.

Projects participating in the program receive:

1. Technical and Design Assistance
   Support can range from simple plan review and efficiency upgrade recommendations to complete technical assistance studies performed by leading energy engineering firms.

2. Owner Financial Incentives
   Incentives help offset increased design interaction and potential costs of construction, and are available for projects that exceed program thresholds for energy savings performance beyond current energy code baselines.

3. Design Team Financial Incentives
   New incentives support design teams that create projects delivering higher-performing energy savings.

4. Building Energy Code Training
   Courses help qualified professionals remain current with the changes to Massachusetts and/or Rhode Island energy code.
The Basic Process

Two Program Approaches

Two approaches for better projects:
Whole Building Approach and Systems Approach

National Grid’s New Construction Program encourages customers to think broadly because systems are frequently interrelated and may be more economical to install when walls and ceilings are open or down, or when large equipment is being installed.

The Whole Building Approach is designed for customers who construct a new building or facility from the ground up, or who do a major renovation project that triggers significant code compliance in many areas. The Whole Building Approach encompasses all energy saving opportunities, including shell, fenestration, equipment, and system interactions. This approach requires collaboration between National Grid, the building owner, and the design team from the conceptual schematic design stage through project completion. It is critical to begin collaboration by the conceptual design stage in order to maximize project energy savings as well as National Grid’s benefits.

The Systems Approach is for new construction projects with limited scope involving individual measures generally focused on one or two energy systems to increase efficiency, and/or those projects applying later in the design process. The Systems Approach supports the replacement of equipment near the end of its useful life or when focused on one or two aspects of a building’s energy use due to a remodel or change in space use type.

Customers selecting the Systems Approach may participate in the New Construction prescriptive incentives for each measure for which a prescriptive benefit exists. Customers may also consult with National Grid to determine a custom approach for non-prescriptive energy efficiency measures, as long as the solution will result in energy savings beyond the current code.

Customers and design teams participating in the Systems Approach will qualify for much lower incentives than those available from using the Whole Building Approach.
Two Program Approaches continued

Program

New Construction, Major Renovation, or Tenant Fit-out Program

Approach

Whole Building Approach

Systems Approach

Path

Integrated Design
(>15% better than code)

Advanced Buildings
(10k-100k sq ft selected bldg types)

Prescriptive (single simple measure)

Custom (single or multiple measures)

Eligibility Requirements for National Grid’s New Construction Services

- Project must be located in Massachusetts or Rhode Island
- Project must be at a point where design changes are feasible, preferably in the conceptual or schematic design phase
- The participant must be, or must become, a commercial and/or industrial customer of National Grid in Massachusetts or Rhode Island and subject to payment of the Massachusetts System Benefits Charge (SBC) or Rhode Island Local Distribution Adjustment Factor (LDAF) for electric and/or gas service, respectively
- Project must be within National Grid’s definition of New Construction.

Because this guide covers both MA & RI, please note that each state adopts energy codes on its own schedule.
For the 2012 IECC, RI adopted the new code starting January 1, 2014; in MA, the new code has been enforceable since July 1, 2014.
Whole Building Approach

Two ways to participate in the Whole Building Approach: the Integrated Design Path and the Advanced Buildings® Path

1. Integrated Design Path
   The Integrated Design Path generally results in higher levels of energy savings, including the capture of interactive savings, and provides higher levels of incentives for increased energy savings.

   Financial incentives are available to both building owners and design teams—for buildings in National Grid’s electric and natural gas territories that perform 15% better than current Massachusetts or Rhode Island building energy baselines.

   The Integrated Design Path
   • Is best for buildings of 100,000 square feet or more
   • Is also applicable to buildings smaller than 100,000 square feet that are not a good fit for the Advanced Buildings Path (see below) for reasons of complexity or specific use, including net zero energy-ready buildings, laboratories, data centers, etc.
   • Targets the primary decision makers in new construction and major renovation projects: building owners, developers, architects, engineers, designers, construction managers, and energy consultants.

   By working collaboratively with the design team and building owner during the conceptual design phase, this approach generates detailed analyses and recommendations that allow owners and design teams to make informed decisions regarding energy efficiency features. This path requires the involvement and collaboration of all parties, from concept through project completion.

2. Advanced Buildings Path
   The Advanced Buildings Path is a nationally recognized program that applies energy-efficient technology and building science to help achieve savings of 15% or more beyond conventional non-residential buildings.

   Advanced Buildings is a comprehensive set of prescriptive criteria for commercial new construction built around delivering proven and available energy-efficient technology and building science to the design of commercial and institutional buildings, eliminating the need for (and cost of) extensive modeling.

   The Advanced Buildings Path
   • Is designed for a range of building types typically under 100,000 square feet
   • Includes offices, schools, retail outlets, and public assembly buildings in the range of 10,000 to 100,000 square feet.

   Your project will receive technical design assistance from National Grid consultants and recognition as an Advanced Building upon completion.

   Please consult with a National Grid New Construction Services representative for assistance in determining the proper path for your building project.
Advanced Buildings participants can choose from two performance tiers:

**Tier 2: Advanced Buildings**  
**New Construction Guideline (Version 2.0)**

The Advanced Buildings Tier 2 represents the new guide (new version 2.0). The Tier 2 guideline requires that the base measures (Section 2.1–2.17) and the design strategies (Section 0) are implemented, at minimum, to reach approximately 15% above ASHRAE 90.1–2010/2012 IECC (equivalent of 30–35% of 2009 IECC). Additional enhanced requirements (Section 2.18–2.23) may provide for additional savings. Tier 2 represents the next level of efficiency for whole-building energy performance beyond the current building energy code requirements.

**Tier 3: Advanced Buildings Pathways**  
*(Advanced Systems)*

Tier 3 represents the New Construction Guide (new version 2.0) enhanced with advanced systems’ focused pathways. The Tier 3 guideline requires that all Tier 2 measures (2.1–2.23), design strategies, and performance pathways are implemented, at minimum, to reach approximately 20–25% above ASHRAE 90.1–2010/2012 IECC (equivalent of 35–40% above 2009 IECC).

The performance pathways represent broader design strategies that require an integrated and informed design approach to efficiency strategies that are more advanced than those represented by individual savings measures. These pathways require deeper analysis or expertise from the design team and may not be applicable to all project types or conditions. These design strategies provide an opportunity for significant additional savings beyond the basic requirements of the Advanced Buildings Path.

The strategies and specified equipment in Tier 3 represent the minimum criteria an owner and design team should consider if a net zero energy-ready building is desired. Tier 3 describes the clearest path to an optimized building design, which reduces building energy consumption to the point the building is positioned to be net zero energy-ready. When combined with an advanced energy management plan, Tier 3 also supports more cost-effective renewables.

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**Tier 2**  
Based on National Grid’s *New Construction Guide*  
Requires: Base Measures + Design Strategies

**Tier 3**  
Based on National Grid’s *New Construction Guide*  
Requires: Tier 2 + Pathway Strategies

15–20% above 2012 IECC

20–25% above 2012 IECC
Systems Approach

National Grid’s New Construction Services are designed to encourage customers to think broadly because systems are frequently interrelated and may be more economical to install when walls and ceilings are open or down, or large equipment is being moved into a space.

The Systems Approach is for new construction projects that:

- Involve a simple building design where only basic systems are being considered
- Focus on one or two aspects of a building’s energy use due to a remodel or change in space use type
- Are already beyond the schematic design stage.

Customers selecting the Systems Approach will utilize the necessary New Construction Services prescriptive application for each measure for which a prescriptive application exists, and/or complete a National Grid custom application for non-prescriptive energy efficiency measures that will result in energy savings.

Two ways to participate in the Systems Approach: the Custom Path and the Prescriptive Path

1. Custom Path
   The Custom Path is designed to facilitate creative and deeper energy savings in systems within a new construction or major renovation project. Custom Path projects rely on engineering calculations to estimate energy savings. Incentives are directly related to a number of variables, total project costs, and associated savings. Eligibility requirements are clearly delineated on the actual custom application.

Sustainable Office Design
National Grid’s Sustainable Office Design (SOD) lighting program offers commercial lighting incentives designed for quick turnaround tenant fit-outs. The SOD program promotes well-thought-out, controls-rich, high-performance office lighting solutions for office building owners or tenants (depending on the building lease profile). The SOD program targets higher energy performance levels, but does not dictate specific products or technologies. The program is designed for a quick one-month turnaround timeline for application review and provides a means of delivering integrated technical solutions to the leased commercial office market that emphasize efficiency and comfort.

Performance Lighting
National Grid’s Performance Lighting incentives are designed for commercial and industrial customers who have existing buildings or who are building new facilities that will perform better than the current code. These incentives challenge the design team to achieve energy savings while using their creativity to address the lighting needs of the client. The Performance Lighting path offers a tiered code-based custom approach to energy savings, promoting lighting design of new and existing spaces. This path facilitates the specification and installation of high-performance lighting equipment that uses less energy than the code-mandated Lighting Power Density (LPD) watts per square foot. The 2012 IECC states that replacing or modifying more than 50% of the lighting equipment in an existing space requires that the entire space meet code-mandated LPD and controls.

2. Prescriptive Path
   The Prescriptive Path is a standard approach for energy efficiency incentives. There are specific requirements for equipment available under National Grid’s prescriptive offerings. Each specific prescriptive application clearly identifies the qualification requirements and the incentive dollars associated with each specific measure.
New Construction Program Components

Design and Technical Assistance

The technical assistance (TA) component of the program provides technical support matched to the specific requirements of each project and the needs of each design team. Services may include detailed energy modeling of the performance of the proposed building, targeted studies and recommendations for specific building components or systems, or specialized technical studies, such as industrial process improvements. TA studies are generally cost-shared with the customer and terms are presented in the Engineering Service Request.

Study proposals will be assigned to and performed by TA consultants who have been selected as preferred vendors through a competitive procurement process by National Grid. TAs may be assigned or recommended by National Grid based on an assessment of their expertise; customers can also elect to use their own TA provider as long as the co-funding program administrator (PA) approves the firm’s qualifications and cost estimates. Non-preferred TA vendors must comply with the same level of detail and quality as preferred vendors. In instances where two different utility PAs are involved with a project, the PA with the most potential energy savings (generally the electric PA) will take the lead on the project.

Financial Incentives

The program offers financial assistance to help offset what may be perceived as the increased costs associated with energy-efficient buildings. Owner and design team incentives are based upon the project’s estimated annual energy savings.

Incentive payments are issued after construction completion is confirmed and when all other required documentation has been received (with the exception of a portion of the design team incentive for Integrated Design, which will be portioned out during the design and construction process). Final incentive payments may vary from agreed-upon (committed) estimates as a result of changes in the design or installation of energy efficiency measures. All projects must pass National Grid’s cost-benefit analysis screening to receive financial incentives.

Building Energy Codes & Standards Training and Resources

Mass Save® and National Grid Rhode Island’s Energy Code Technical Support Initiative provide Massachusetts and Rhode Island code officials, builders, subcontractors, and design professionals with building energy code compliance training, as well as technical and documentation support. The trainings are available as both in-person courses and live webinars on codes, and are designed with three core modules: the envelope and building science–specific module; the HVAC and mechanical provisions–specific module; and the lighting, lighting controls, and electrical provisions–specific module. This structure allows participants to choose categories of interest.

For information, or to register for training courses:
MA training schedule, MassSave.com/EnergyCode, call toll free: 855-757-9717
RI training schedule, ngrid.com/rienergycode, call toll free: 855-343-0105
Whole Building Approach Incentives

Owner incentives encourage owners to invest in energy efficiency as a major goal in their new buildings. Financial incentives are available to owners when the efficiency of the building exceeds the minimum building energy code threshold.

Design team incentives are available to design teams making the extra effort when integrating energy efficiency with exceptional design. The design team may qualify for incentives under the Whole Building Approach option.

Incentives and measures apply to all of National Grid’s electric and natural gas territories even when applicants are collaborating with other PAs or municipalities. If a project is located in National Grid’s gas service area, National Grid will provide incentives only for the gas measures. However, technical support will be offered for the whole project, as National Grid will team up with the electric PA to provide support.

Integrated Design Path Incentives

Integrated Design Path incentives are available to both the building owner and the design team. They are eligible for buildings designed and built that will perform 15% better than code (2012 IECC). Generally, Integrated Design Path projects involve buildings of more than 100,000 square feet, but they may be applicable to smaller unique buildings that do not lend themselves to the Advanced Buildings Path.

1. Building Owner Incentives*

Building owner incentives are based on estimated energy savings performance using this guide:

<table>
<thead>
<tr>
<th>Electric</th>
<th>Gas</th>
</tr>
</thead>
<tbody>
<tr>
<td>$0.35/kWh</td>
<td>$1.70/therm</td>
</tr>
</tbody>
</table>

*Building owner incentives capped at 100% of estimated incremental costs.

2. NEW: Design Team Incentives

Design team incentives are a combination of an energy performance incentive and an energy efficiency charrette incentive. Fifty percent of the design team incentive is paid at the construction document stage, and 50% is paid after project energy efficiency measures are completed.

2a. Design Team Energy Performance Incentives

Design team energy performance incentives are based on estimated energy savings using this guide:

<table>
<thead>
<tr>
<th>Electric</th>
<th>Gas</th>
</tr>
</thead>
<tbody>
<tr>
<td>$0.07/kWh</td>
<td>$0.34/therm</td>
</tr>
</tbody>
</table>

2b. Design Team Energy Efficiency Charrette Incentives

This incentive is a fixed $3,000 for participating in an energy efficiency charrette, during the schematic design phase or earlier. At the conclusion of the charrette and acceptance of the path to energy savings, payment will be made to the design team lead, who will be responsible for disbursement to design team members. Payment for the energy efficiency charrette will be made regardless of the final outcome of the project. Refer to the appendix for documentation requirements.

Energy Efficiency Charrette Incentives

The charrette incentive is a fixed $3,000 for participating in a charrette during the schematic design phase or earlier.
Whole Building Approach Incentives

Advanced Buildings Path Incentives

Advanced Buildings Owner Financial Incentives*:
- Financial incentives (see table)
- Free technical assistance from National Grid consultants to assist customer design teams in incorporating all the Advanced Buildings features in their buildings
- Independent third-party verification of Advanced Buildings compliance at no cost to customer
- Recognition via certification of the building as an Advanced Building as well as ancillary publicity as jointly agreed to by National Grid and the client.

*Building owner incentives capped at 100% of estimated incremental costs.

Advanced Buildings Tiers

<table>
<thead>
<tr>
<th>Advanced Buildings Tiers</th>
<th>Building Owner Incentives</th>
</tr>
</thead>
<tbody>
<tr>
<td>AB v1.0 – Tier 1</td>
<td>Expired</td>
</tr>
<tr>
<td>AB v2.0 – Base Criteria (Tier 2)</td>
<td>$2.00/sq ft</td>
</tr>
<tr>
<td>AB v2.0 – Enhanced Criteria (2.18–2.23)</td>
<td>$0.25/sq ft additional per criterion (up to 3 criteria) with max $2.75/sq ft</td>
</tr>
</tbody>
</table>

Design Team Energy Efficiency Charrette Incentives

Design teams are eligible for the energy efficiency charrette incentive, a fixed $3,000 for participating in a charrette during the schematic design phase or earlier.

FOR ELIGIBLE PROJECTS within National Grid’s Massachusetts and Rhode Island electric and/or gas service territories. National Grid does not guarantee savings. Savings and energy efficiency experiences may vary. Terms and Conditions apply.

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Systems Approach Incentives

Project applications for either Custom Path incentives or Prescriptive Path incentives must be submitted early in the design process. This requirement ensures that the incentive dollars and program participation are aligned with the decision-making process for selection of high-efficiency equipment/systems.

Custom Path Incentives

The Custom Path approach can be used for any energy saving measure for which no prescriptive application exists. If a prescriptive application exists for that measure, it must be submitted under the prescriptive incentive process. The Custom Path is designed to facilitate creative and deeper energy savings in systems of a new construction or major renovation project. Custom Path projects rely on engineering calculations to estimate energy savings. Incentives are directly related to a number of variables, total project costs, and associated savings. Eligibility requirements are clearly delineated on the actual custom application.

All Custom Path projects must pass National Grid’s cost-benefit analysis screening. Custom Path incentives are typically negotiated and are applied relative to savings performance. All specific requirements are stipulated on the Custom Path application. Certain Custom Path applications that involve complex systems or analysis to determine savings may require a TA study.

Sustainable Office Design Incentives

The Sustainable Office Design (SOD) lighting program is an easy-to-use, performance-based commercial office lighting design approach that benefits owners or tenants with energy cost savings in leased spaces located in Massachusetts or Rhode Island. SOD can benefit tenants with energy cost savings in leased spaces (depending on the lease terms), as well as with healthier work environments and higher employee productivity.

SOD participants must meet specified design criteria, including:

- Spaces must be greater than 7,500 square feet
- Spaces must have 40% or greater open office area
- Cubicle partition heights must be equal to or lower than 48 inches for greater daylight availability
- All LED fixtures must be DLC listed.

SOD lighting program incentives include the following benefits:

- Quick one-month turnaround timeline for application review
- Higher energy savings achieved by moving beyond simple lamp and ballast approaches to a system-based/integrated design solution
- An incentive of $1.00 per square foot of leased space (net of common areas) for qualifying light fixtures and controls projects.

Incentive Available for This Initiative

$1.00/sq ft
Performance Lighting Incentives

Performance Lighting is a tiered lighting energy saving program that can be applied to either new construction or major renovation. These generous incentives challenge the design team to achieve energy savings while using their creativity to address the lighting needs of the client. Incentives are based on savings beyond state or local energy code that are verified by COMcheck.

**Tier 1 incentives must exceed the code-required project lighting power density (LPD) by 15%.**

$0.75 per watt saved

**Tier 2 incentives must exceed project LPD by 25%.**

$1.25 per watt saved

Prescriptive Path Incentives

The Prescriptive Path is a standard approach for energy efficiency incentives. Specific Prescriptive Path new construction applications are in place for a variety of energy-saving measures, such as lighting and lighting controls, variable-speed drives, heating equipment, gas-fired water heating equipment, chillers, and air compressors.

There are specific requirements for equipment available under National Grid’s prescriptive offerings, and each prescriptive application clearly identifies the qualification requirements and the incentive dollars associated with each measure.
1. Owners/developers, architects, designers, engineers, energy consultants, owner’s representatives, or other project representatives initiate contact with National Grid, or National Grid contacts the owner/owner’s representative or architect.

2. Once contact has been made, the National Grid representative speaks with the owner or owner’s representative to determine project scope, where in the design process the project is currently, and level of interest in participating in National Grid’s New Construction Program. If it’s early in the design process and the customer is interested in pursuing one of the two Whole Building Approach paths, a preliminary meeting should be scheduled to determine eligibility and the path most suited to the customer and his or her specific project.

3. If the customer decides to move forward with either path of the Whole Building Approach, a design team meeting should be convened. If a determination is made that it would be more appropriate for this particular project to be submitted through the Systems Approach, National Grid’s representative will provide guidance to the customer as to whether the customer should submit through the Custom Path or Prescriptive Path application process, or a combination.

4. If it is a Whole Building Approach project, a National Grid representative will work closely with the owner and the design team to confirm that design changes are feasible and to help establish initial energy efficiency targets for the project. Projects with a substantially complete design may be required to implement additional energy efficiency enhancements to receive an incentive, unless documentation exists that National Grid has previously collaborated with the owner or design team to incorporate energy efficiency measures or targets in Request for Proposal language and/or specifications.

5. A National Grid representative will work with the design team/owner’s representative to determine which program (Whole Building Approach or Systems Approach) and path applies and how to optimize the energy efficiency of the project. Specific design assistance services will depend on the program path selected. If a determination is made to participate in the Integrated Design Path, all parties will sign a new construction agreement, and an Engineering Service Request Form will also be generated, initiating a technical assistance study. The customer will need to approve co-payment for the study.

6. The owner or design team should, at the earliest opportunity, submit plans, code compliance calculations, and other design documents to the National Grid representative. National Grid staff, or their representative, will analyze construction documents and recommend energy efficiency enhancements.

7. After the selection and design of the recommended energy efficiency enhancements is finalized, National Grid will issue an incentive agreement to the owner/design team delineating the proposed project details, estimated incentive amounts, and terms and conditions.

8. Prior to ordering, purchasing, and/or installing the selected energy efficiency options, the owner signs, dates, and returns the required application. By signing the application, the owner acknowledges that he or she has read and agrees to all program eligibility requirements. National Grid’s counter-signature and date indicate that funds have been reserved for the project for a period of up to 24 months. Program funding is provided on a “first-come, first-served” basis.
Ongoing communication is essential throughout the design and construction process, especially for those projects taking advantage of National Grid’s Whole Building Approach. National Grid needs to be involved in any meetings where changes that may impact equipment selection or previously identified energy saving design features are discussed and possibly changed/value engineered out, as those decisions can impact program eligibility and/or incentive levels.

Once construction is substantially complete, the owner or owner’s representative must contact National Grid to request a post inspection.

The owner must facilitate access to the completed facility for post inspection and, if selected, participate in measurement and evaluation studies. National Grid may request Integrated Design analysis reports, manufacturer’s specifications, equipment cut sheets, and incremental cost verification to verify that the completed project matches the design proposed in the agreement.

If the project is built as agreed and the project meets all program requirements, the incentive will be paid in full, unless the incentive is greater than $100,000, in which case National Grid reserves the right to retain up to 20% of the incentive until such time as it can complete an operational verification of energy efficiency equipment/systems for which the owner was to receive an incentive. This operational verification is to ensure that the equipment specified not only was installed and operational, but is operating according to design.

If the completed design differs from that outlined in the new construction agreement, the incentive may be adjusted to reflect the revised, estimated building performance.

If ordering, purchasing, and/or installation of the agreed-upon energy-efficient equipment is initiated prior to National Grid’s issuance of the required preapproval letter, National Grid may disqualify the project; thus, the risk is entirely the owner’s.

Construction must be substantially complete and program participants must submit all required documentation to National Grid within 24 months from the date of National Grid’s preapproval letter, unless the date of completion is formally changed by mutual agreement of National Grid and the owner/developer.

If the project’s completion is delayed beyond the final date without mutual agreement, the preapproval letter and associated agreements are no longer valid.

Funding is limited and is available on a first-come, first-served basis. National Grid reserves the right to modify or discontinue this program without prior notice at its discretion, or by order of the Massachusetts Department of Public Utilities (DPU), or Rhode Island Public Utilities Commission (PUC).
Glossary of Terms

Conceptual Design
Scalable drawings that define the basic parameters of the project. They are usually void of detail, dimensions, and technical notes so that the design can be easily reviewed and modified.

Construction Document
Drawings and specifications created by an architect that set forth in detail requirements for the construction of the project.

Cost-Effectiveness Test
In its simplest form, energy efficiency cost-effectiveness is measured by comparing the benefits of an investment with the costs. The basic structure of each cost-effectiveness test involves a calculation of the total benefits and the total costs in dollar terms from a certain vantage point to determine whether or not the overall benefits exceed the costs. A test is positive if the benefit/cost ratio is greater than one, and negative if it is less than one. Results are reported either in net present value (NPV) dollars (method by difference) or as a ratio (i.e., benefits/costs).

All projects must screen (benefit/cost ratio greater than one) using each state’s methodology.

Design Assistance
Consultative services that assist customers in integrating energy efficiency recommendations into the design of their facility. Design assistance includes: integrated design facilitation, energy calculation analysis, life-cycle costing analysis, projected energy and dollar savings, and other services.

Design Development
The preparation of more detailed drawings and final design plans, showing correct sizes and shapes for rooms. Also included is an outline of the construction specifications, listing the major equipment and materials to be used.

Design Team
The group responsible for the design and implementation of the systems in the building that use energy or affect the building's overall energy consumption. The design team will generally include the building owner/developer, project architect, mechanical and electrical engineers, lighting designer, energy consultant, contractor, and possibly others.

Design Team Application
A form submitted by the design team lead to National Grid indicating interest in participating in the design team incentives component of the Design Smart program.

Design Team Lead
The person who, for purposes of this program, takes the lead in examining and implementing energy efficiency options; specifically, the person who signs the incentive agreement and represents the design team to National Grid. Generally, this will be the project architect, mechanical engineer, or energy consultant.

Engineering Service Request
An Engineering Service Request Form is an early-stage agreement to move forward with a technical assistance study and cost-share.

Incremental Cost
Additional cost of hardware, labor, change orders, and engineering resulting from the incorporation of energy efficiency measures.

Integrated Design
Design practices that consider energy use and financial impacts throughout the design process, involving all design team members in making appropriate decisions.
Glossary of Terms continued

Integrated Design Analysis
A comprehensive analysis that includes energy simulation and financial analysis to quantify the benefits/savings associated with multiple energy-efficient options and strategies.

Integrated Design—New Construction Agreement
An agreement, signed by National Grid, owners, architects, and electrical and mechanical contractors, indicating their willingness and ability to participate in National Grid’s Integrated Design Path of the Whole Building Approach New Construction Program.

Local Distribution Adjustment Factor (LDAF)
The technical name for the gas systems benefit charge in Massachusetts only.

Mass Save
An initiative sponsored by Massachusetts’ gas and electric utilities and energy efficiency service providers, including the Berkshire Gas Company, Cape Light Compact, Columbia Gas of Massachusetts, Eversource, Liberty Utilities, National Grid, and Unitil. The Sponsors of Mass Save work closely with the Massachusetts Department of Energy Resources to provide a wide range of services, incentives, trainings, and information promoting energy efficiency that help residents and businesses manage energy use and related costs.

National Grid Representative
National Grid’s representative is responsible for establishing, facilitating, and maintaining the relationship between National Grid, the owner/developer, and the design team for the purpose of achieving the benefits of the program.

New Construction
For this program, new construction includes any of the following:
- New building projects wherein no structure or site footprint presently exists
- Addition or expansion of an existing building or site footprint
- Addition of new load, as would occur if an existing site added a new process
- Construction that involves complete removal, redesign, and replacement of the energy-consuming systems of a building or process
- Projects that require design and selection of new systems based upon the needs of new or modified space function(s)
- Change in space use type
- Replacement of equipment at the end of its useful life.

Operational Verification
Required for those projects in which the incentive is greater than $100,000. National Grid, or its representative, reserves the right to not only verify that the equipment for which an incentive is being paid is installed, but also verify that the equipment is operating in accordance with design, resulting in realization of the projected savings. Twenty percent of any incentive of $100,000 or greater is withheld until such time as the requirements of the operational verification can be satisfied.

Owner
The building owner and/or developer of a project participating in National Grid’s New Construction Program.
Glossary of Terms continued

**Program Administrator (PA)**
The technical term given to Massachusetts electric and gas utilities and Cape Light Compact when they are operating their energy efficiency programs. Collectively they are known as “Mass Save.” National Grid is also routinely referred to as a program administrator when administering energy efficiency programs in Rhode Island.

**Project**
The scope of work contained in one set of construction documents as submitted for permits.

**Reference Baseline**
The New Construction Program uses the applicable (based on year of permit) International Energy Conservation Code (IECC) as a reference baseline, a benchmark from which energy savings are determined. Additionally, National Grid maintains a baseline document to document baselines for measures and/or technologies and practices not found in the code.

**Schematic Design**
The preparation of studies to ascertain the requirements of the project, consisting of drawings and other documents illustrating the scale and relationships of the project components for approval by the owner. The architect also submits to the owner a preliminary estimate of construction costs based on current area, volume, or other unit costs.

**System Benefit Charge (SBC)**
A universal charge applied to each electric utility customer’s bill to support market rate and low-income energy efficiency programs and research projects in accordance with Massachusetts and Rhode Island state laws.

**Technical Assistance (TA)**
The technical assistance (TA) component of the program provides technical support matched to the specific requirements of each project and the needs of each design team. Services may include detailed energy modeling of the performance of the proposed building, targeted studies and recommendations for specific building components or systems, or specialized technical studies, such as industrial process improvements. TA studies are generally cost-shared with the customer, and terms are presented in the Engineering Service Request.

Study proposals will be assigned to and performed by TA consultants who have been pre-qualified by the PAs as vendors through demonstrated competence. TAs may be assigned or recommended by a PA based on an assessment of their expertise. Customers can also elect to use their own TA provider as long as the co-funding PA approves the firm’s qualifications and cost estimates. Non-preferred TA vendors must comply with the same level of detail and quality as preferred vendors.
Energy Efficiency Program Funding

National Grid’s New Construction Program, as well as the Retrofit Commercial and Industrial and Residential Energy Efficiency Programs, are funded by a system benefit surcharge applied to all gas and electric customers in accordance with Massachusetts and Rhode Island laws. The charge is based on the number of kWh or therms used.

In Rhode Island, National Grid is the only energy efficiency program administrator (PA) for all electric and gas customers, other than those served by municipalities. In Massachusetts there are eight PAs offering energy efficiency programs to their customers, collectively referred to as Mass Save. Mass Save is an initiative sponsored by Massachusetts’ gas and electric utilities and energy efficiency service providers, including Columbia Gas of Massachusetts, the Berkshire Gas Company, Cape Light Compact, National Grid, Liberty Utilities, Eversource, Unitil, and Western Massachusetts Electric Company. In Massachusetts, PAs work collaboratively with both electric and gas providers to maximize their energy savings and incentive dollars.
Learn how your next project can benefit from National Grid’s New Construction Services Program:

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