

Residential Energy Efficiency Services



GDS provides energy efficiency services to owners of both new and existing homes and to homebuilders. Our residential energy efficiency services provide homeowners and builders with expert information tailored specifically to their needs and targets a home's energy efficiency, comfort, safety, and durability.

Furthermore, we provide homeowners and builders with an assessment of the most effective ways to enhance existing and new home construction activities to maximize property value and minimize operation and maintenance costs.

ENERGY EFFICIENCY

Whether it is a new home in the planning or construction stages or an existing home, a comprehensive home energy audit can provide clear guidance toward the most practical, cost-effective ways to maximize the home's energy efficiency from a whole house perspective. Our audits and home energy ratings take into account all energy being used in the home from heating and cooling to appliances and lighting.

COMFORT

During our site visits, GDS consultants can verify that framing and insulation components are performing to their maximum potential ensuring a warmer home during the winter, and a cooler home during the hot summer months.



SAFETY

We can help you decide what equipment is necessary to maintain healthy air quality in your home. In addition, we can verify that your ventilation system is performing properly and that all combustion appliances installed are properly vented to ensure your safety. Also, we strongly suggest that all homes with combustion appliances be equipped with carbon monoxide detectors on each floor.

DURABILITY

Investing in the construction of a new home is an important financial decision. As a homeowner, the assurance that your investment will last a long time provides peace of mind. As a builder, it is important to ensure that subcontractors have performed their trades using the very best techniques possible and that the homes you build carry with them a seal of quality.

Through GDS's residential energy efficiency services, homeowners and builders can receive a series of home inspections as well as a computer-generated report detailing cost-effective home improvements that can dramatically increase the energy efficiency of the home.



ENERGY STAR® HOMES - NEW CONSTRUCTION

As part of our Residential Energy Efficiency Services, GDS will consult with builders involved in new home construction and will help builders to become participants in the U.S. Department of Energy/Environmental Protection Agency's ENERGY STAR Homes Program. GDS's ENERGY STAR Homes services include; a review and analysis of building plans and specs, on-site inspections during the construction process, and performance testing (using state-of-the-art blower door technology) after the completion of the home.

Site visits during the construction process allow us to make recommendations that are cost effective and will enhance performance of the home. These recommendations will address framing, insulation, air-sealing, and ventilation strategies, as well as decisions on purchasing energy saving, ENERGY STAR-labeled appliances and lighting fixtures.

By building certified ENERGY STAR Homes, you are sending the message to your customers that you use the latest building practices to construct quality homes (with focus on issues such as energy efficiency, comfort, combustion safety, durability, and proper ventilation). GDS will show you how to ensure that each home you build is a certified, high performance home with documentation to back it up.

Throughout the process, GDS will work closely with homeowners and/or builders, to answer questions, provide information, training, and recommendations to solve potential building problems. We will conduct air tightness and ventilation system tests on every ENERGY STAR Home, provide a computerized simulation of each home's projected annual energy use, and can offer valuable information and advice for sales and construction staff.



BLOWER DOOR - PRESSURE DIAGNOSTIC TESTING

The most practical way of estimating air infiltration or air leakage within a building's shell is through the use of pressure diagnostic testing. Commonly referred to as a "blower door" test, the diagnostic equipment consists of:

- An adjustable frame and flexible panel (set up in a doorway)
- An adjustable speed fan
- Several pressure hoses
- Sophisticated pressure gauges

In addition to estimating the rate of air-infiltration within a structure, the blower door test is an effective way of locating the largest and most costly leaks in a home, determining whether there is an adequate supply of fresh air in homes without mechanical ventilation (and whether mechanical ventilation is required), and targeting the most cost-effective areas for air-sealing.



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GDS is a Registered EPA ENERGY STAR® Homes Partner

GDS is a member of The National Residential Energy Service Network (RESNET)

GDS is a member of The Northeast Home Energy Ratings System Alliance (NEHERS-Alliance)

GDS is a member of the NH - Residential Energy Performance Association (REPA)

GDS is a member of the Association of Energy Service Professionals (AESP)