



Intelligent Energy Solutions

Intelligent Energy Solutions, LLC

# IES-SOLUTIONS LETTER

## Tax credits extended for homeowners and builders

For builders and homeowners who missed out on last year's energy-efficient tax credit for upgrades or new construction, 2011 is the year to act.

The federal government recently extended tax credits for energy-efficient homes for both builders and homeowners.

Builders who build energy-efficient homes that are 50% more efficient than the 2004 IECC can receive a \$2,000 federal tax credit through Dec. 31, 2011. The tax credit has also been made retroactive for any energy-efficient homes built during 2010.

The tax credit extensions apply to various homeowners, as well.

Consumers who purchase qualified energy-saving products in 2011, such as windows and furnaces and other heating systems, can still receive some tax credits. The criteria for the 2011 tax credit is 10% of the material cost, up to \$500 for insulation, but limits windows to \$200. Oil and gas furnaces are also limited to \$150 and \$200 and water heater system incentives to \$300.

If you are weighing the best option for upgrading an existing home or construct-

ing a new, energy-efficient home, now is the time to contact IES.

Schedule an appointment with one of our experienced staff members to help determine what options work best for your situation, and to ensure that you receive your tax credits in 2011.

### Federal Tax Credit

- Visit [http://www.energystar.gov/index.cfm?c=tax\\_credits.tx\\_index](http://www.energystar.gov/index.cfm?c=tax_credits.tx_index)

### Local/State Tax Credits

- Visit <http://dsireusa.org/incentives/index.cfm?re=1&ee=1&spv=0&st=0&srp=1&state=IL>



### Tax Credit - Highlights

- 10% of material cost, up to \$500 for insulation, roofs, and doors
- 10% of material cost, up to \$200 for ENERGY STAR qualified windows
- Furnace and boilers are capped at \$150 and must meet 95 AFUE, plus \$50 for advanced main air circulation fan
- \$300 for air conditioners, water heaters, and biomass stoves



### Inside this issue:

Ground breaking projects	2
Not just insulation and windows - basements	2
IES completes 2nd major project for DuPage	2
Builders section - 2009 IECC - Energy Star V 3	3
IES expands with 2nd truck	3
New associate	4
Up coming events	4

## IES participates in groundbreaking projects

As more homeowners are expressing interest in energy-efficient homes, one question may plague them as they consider their options:

How can they tell which homes are truly "green?"

IES is playing an important role in answering that question.

IES is participating in three LEED for Home Projects in the area -- in Elgin, Naperville, and Glen Ellyn. Only a handful of these types of homes have been built in Illinois.

Under The LEED (Leadership in Energy and Environmental Design) for Home Project, the [U.S. Green Building Council](#) must certify that a home built under this program is actually energy efficient. Officials test the project homes for efficiency, determining Home Energy Rating System (HERS) scores by using energy modeling software. Homes that

don't meet energy-efficiency criteria do not become certified.

IES believes that this certification process will bring peace of mind to homeowners truly looking for energy-efficient homes.

We are working as consultants on three area LEED for Home Projects. As part of the projects, we also will model the home with energy-efficiency software and complete part of the insulation.

We at IES use cellulose insulation, which is a green product because it is comprised primarily of post-consumer recycled newspapers.

As part of these three projects, IES will focus on our specialty: helping clients determine the most cost-effective ways to achieve energy efficiency in homes.

LEED for Home projects are also ratted on many other green aspects which can be found at <http://www.usgbc.org/>



The above home has the following green highlights:

- A [HERS](#) score of 40 will result in significantly lower energy bills.
- Optimum value engineered framing resulted in substantially less wood being used.
- 95% efficient furnace, 16 SEER A/C with electric heat pump.
- [NAHB Certified Green](#) - Emerald

## Not just insulation and windows - IES can finish basements, too

IES improved the comfort and energy efficiency of nearly 225 homes in the Chicagoland area in 2010. The projects included everything from quality insulation work to detailed air sealing to, of course, many window upgrades.

Our abilities are not limited to just energy efficiency work; we also have the skills and resources to finish basements and additions. We completed our first basement last year and have several others in the works. Here are a few reasons why IES is a good choice for basement finishing:

- Pre-inspection—We can check for exces-

sive moisture, radon venting, proper venting, and combustion air for mechanical equipment. Egress windows.

- Quality material and quality work—Our finished basements come with a full **1 year warranty**, and all mechanical work is completed by professional contractors with 24 hour emergency service.

- Details—We can install upgraded padding under carpeted floors to keep your feet warm, along with sound deadening material at drywall ceilings. Low VOC paints.

- Options galore—We can add custom enter-

tainment centers, wet bars, radiant floor heat, steam showers, wine cellars, workout rooms: the possibilities are endless.

- Other considerations—We also offer HVAC and hot water heater upgrades, as well as backup sump-pump systems and Active Dampness Control Systems.

## IES completes second major project for DuPage County

Intelligent Energy Solutions completed our second major project for DuPage County over the summer, which helped ensure that residents of Naperville's Martin Avenue Apartments will stay comfortable year-round.

Our crews replaced 350 outdated aluminum frame windows with new energy-efficient vinyl windows with low E glass. We also installed 900 CFL light bulbs, 74 new Energy Star-qualified air conditioning units, and 70 new Energy Star-qualified

refrigerators.

The result? Residents will stay cool in warm months and feel fewer drafts in winter, due to the new windows, while building owners will save money on utility bills.

County officials, Martin Avenue Apartment management staff, and residents of the apartment complex near downtown Naperville expressed gratitude for the efficient, well-performed job.

This project also was a featured stop for the State of Illinois' Weatherization Program Tour of the Chicagoland area.

In addition to various minor projects for DuPage County, this is the second major project IES completed in DuPage. The first included retrofitting 149 units at Mayslake Manor, a retirement community in Oak Brook, which made each unit more energy efficient.

# Builder section

## 2009 IECC

Many builders now have experience with the 2009 IECC. For better or worse, it is here to stay -- at least until 2012, when the next code update rolls out with a predicted 15% increase in energy efficiency over the current code. The only way we can effectively face this challenge is to face it like any other problem: find intelligent solutions.

To meet this challenge, we must understand the 2009 IECC. After a complete reading of Chapter 4 of the code, we see there are two methods of meeting compliance: either prescriptive or performance. The prescriptive method is a step-by-step, no-veering-from-the-beaten-path, follow-the-checklist method, which is what many of us have come to expect from building codes. The performance method is an all-encompassing approach that involves energy simulation software such as REM/RATE or other approved software, followed up with testing in the field.

For the record, ResCheck is not energy simulation software; it only calculates UA value (U value of the Area of the exterior envelope), and has assumptions hard-wired into it regarding air infiltration and other inputs.

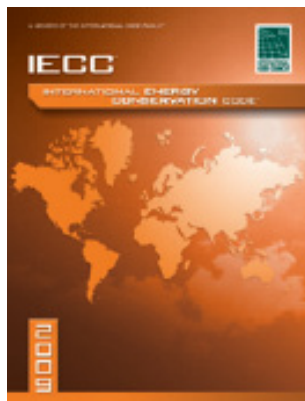
The detailed input requirements of the energy simulation software for performance method take into account a broad range of measures that include:

- Insulation quantity, quality, and placement
- Framing factor for either 16"oc or 24"oc, right sized headers
- Air leakage and the point at which an

air exchanger is needed

- HVAC efficiencies and equipment sizing
- Duct placement and leakage
- Credit for use of Energy Star appliances and CFL's
- Orientation of the house and ways in which the sun affects heat gain
- Detailed window inputs, which allow us to know up front the impact of more efficient windows and whether they are worth the money
- Foundation insulation, which has a greater impact than you might think

Through the use of time-tested energy simulation software, testing of the house, and many years of experience, IES can assemble a plan for building a more comfortable, energy-efficient home that meets code requirements under the performance approach and costs less to implement than the prescriptive approach.



## ENERGY STAR Version 2.5 & Version 3

The EPA has begun rolling out its enhanced standards for meeting ENERGY STAR certification for new homes.

Beginning in April, all homes seeking Energy Star certification will be subject to version 2.5 requirements. Version 3 enforcement begins Jan. 1, 2012.

The enhanced standards will include:

- Variable vs Fixed HERS Score. A custom threshold called the ENERGY STAR HERS Index Target is calculated for each home following the Performance Path.
- Size Adjustment Factor. Homes larger than the benchmark home must apply a Size Adjustment Factor. This will result in reduced ENERGY STAR HERS Index Targets and increased requirements for larger homes.
- New Inspection Checklists. Thermal Enclosure Checklist (TEC). New HVAC Quality Installation and Water Management Checklists have been added, as well.

IES welcomes the opportunity to work with you in building the most cost-effective Energy Star certified home possible.



## IES expands capacity with second truck

IES recently purchased its second truck for blowing cellulose insulation. The second truck is outfitted to handle demanding needs of new construction, as well as smaller jobs.

With the addition of the second truck, we have added not only capacity but also efficiency for completing large new construction projects. Some of the truck's efficiency comes from its self-sufficient

capabilities, which include onboard power generation, 500 gallon water capacity, and PTO driven blowing equipment.

There is no job too large or too small.





### Intelligent Energy Solutions, LLC

1387 Wind Energy Pass  
Batavia, IL 60510

www.iesgreen.com

Phone: 1-866-496-1730

Fax: 630-389-1023

E-mail: info@iesgreen.com



IES - Your Complete Comfort and Energy Efficiency Experts



---

## IES adds new associate

David Fitzgerald recently joined our team of qualified professionals, filling the position of business development. David brings with him many years of marketing, networking, and business development experience in both the private and public sector. David will focus full-time on increasing IES's presence in the emerging green marketplace.

---

## Upcoming events

Come visit us at the following upcoming events:

March 26 & 27: The Home Show in St. Charles at the Kane County Fairgrounds

April 16: Earth Day 2011 from 11 a.m. to 3 p.m. at RiverPark of Geneva

May 7: [Elgin's Green Expo](#) from 9 a.m. to 4 p.m. at The Centre, 100 Symphony Way, Elgin

---