Congress OKs Sweeping 11th Hour Tax Legislation
GEO Wins Tax Extenders and Gains a Clear Path Forward for Extension of Tax Credits

Dec. 18 – The U.S. House of Representatives and U.S. Senate passed a $1.1 trillion Omnibus bill to fund the government and a companion bill to provide $650 billion in tax relief over 10 years. According to Geothermal Exchange Organization President Doug Dougherty, “We scored a big win with the tax bill, which includes four ‘tax extenders’ which are particularly beneficial to the geothermal heat pump (GHP) industry.” They are:

- Expensing under Section 179, modified and made permanent making small business eligible for a 100% deduction for investments up to $500,000 in geothermal system equipment during the first year after installation,
- Bonus Depreciation, modified and extended for 5 years,
- Tax credit for energy efficient new homes, extended to Dec. 31, 2016, and
- Deduction for energy efficient commercial buildings, extended to Dec. 31, 2016.

“Having worked hard for these extenders over the past couple of years, GEO is very happy about their passage,” said Dougherty. “But we were extremely disappointed that despite our best efforts, GHPs were passed over for extensions of installation tax credits that were given to wind and solar technologies in the Omnibus bill.”

GHPs Passed Over in Error

The Omnibus bill extends the Wind Production Tax Credit (PTC), the 30% solar Investment Tax Credit for commercial installations (ITC - including 5-year depreciation), and the 30% solar income tax credit for residential applications. The wind and the solar extensions include phase-outs through 2022. The GHP industry was assured that it would be included in the bill, but at the last minute, GHPs and other renewable energy technologies with tax credits expiring at the end of 2016 were left out.

“During 11th hour, closed-door negotiations over lifting the U.S. ban on crude oil exports—which were impossible to anticipate or influence—the wind PTC and solar tax credits were hurriedly inserted..."
into the final Omnibus bill,” said Dougherty. “In their haste to release the bill, staffers inadvertently left out language to extend tax credit provisions for other eligible renewable technologies. That error excluded the PTC for geothermal power, and the ITC and income tax credits for GHPs, fuel cells, small wind, microturbines, and combined heat and power.”

Just like those industries, GHP advocates were blindsided by the 11th-hour deal. “Despite hundreds of last-minute calls from our industry supporters, we failed by only one vote to gain a last-ditch amendment that would have included tax credits for GHPs and the other technologies in the legislation,” said Dougherty.

It’s important to remember that GHPs’ commercial and residential tax credits remain in force until Dec. 31, 2016. And with the industry’s new allies in the geothermal power, fuel cell, small wind, microturbine, and combined heat and power industries, GEO can make a powerful argument for both fairness and equity.

“The immediate backlash whipped up by the GHP and other industries left out of the tax credit extensions made key congressional staff well aware of the problem,” said Dougherty. “And we have assurances from them that the inequity will be addressed during the first few months of 2016.”

House Ways and Means Chairman Kevin Brady (R-Texas) publicly acknowledged concern that the ITC and income tax credit extensions for solar did not include other eligible technologies, saying, "We'd be glad to revisit that." And House Democratic Leader Nancy Pelosi (D-CA) said she has been promised action in early 2016: “We still have some unfinished business there, because the bill, through a drafting error, did not include fuel cells, geothermal, and some other renewables that are part of that tax credit. And we have a commitment that that will happen in an early revue bill after the first of the year,” she told reporters at a press conference.

The Way Forward for GHPs

“At first blush, GHP exclusion from tax credit extensions in the Omnibus bill looked bad for the industry,” Dougherty said. “But on further review, we now believe that the situation has created an easier path for us to get commercial and residential tax credits for GHPs extended to 2022. During the first quarter of the year, our goal is to include GHPs in an amendment that will give us parity with solar industry tax credit extensions. That is the opportunity that we are now focused on going forward.”

GEO will urge Congress to extend PTC, ITC and income tax credits for ALL eligible technologies. The message? “Congress should not be in the business of picking winners and losers among renewable energy options. It must remain technology neutral and market sensitive. This is especially important as the nation reaches for lofty environmental and economic goals,” Dougherty said.

“With the solar ITC and income tax credits already extended by the Omnibus bill, we know exactly the terms we must fight for, with the solar tax credit extensions as a prime example. And we now have a timeline and defined way forward, with new and renewed support in Congress.”
“GEO is confident that with the help of our industry supporters, we can succeed. We thank everyone who heeded our call to action this week, and ask that you be ready to act again in the next few months,” Dougherty concluded. “Your voice will be crucial to our arguments to give our tax credits a chance to expand GHP market share in an improving economy. All hands on deck!” (GEO)

New York City Now Requires Consideration of Geothermal
Dec. 8 – The New York City Council voted unanimously to pass a bill to encourage geothermal energy. The legislation will promote the use of geothermal systems, an energy-efficient form of cooling and heating buildings, throughout the city. The long-term impact of carbon emissions will be considered as part of a cost-efficiency analysis for installing geothermal in city-owned buildings.

“This bill represents the first time in city history that the social cost of carbon will be considered as part of implementing an environmental policy,” the bill’s sponsor, Councilman Costa Constantinides (D-Astoria), said. “Using geothermal technology in city-owned buildings will save us money, will reduce our carbon footprint and offer a road map for environmental leadership for the private sector to follow. The online screening tool will also provide an opportunity for informed private geothermal installations, making them more simple and safe for people to install in their homes or commercial buildings.” Read the complete article here. See details about the bill here. (Times Ledger)

$9.5 Million Small and Medium Commercial Buildings Funding Opportunity
The Building Technologies Office (BTO) Commercial Buildings Integration Program has announced the availability of up to $9.5 million for Funding Opportunity Announcement (FOA) DE-FOA-0001385, “Solutions to Improve the Energy Efficiency of U.S. Small and Medium Commercial Buildings.” DOE seeks to fund eight awards for the scale-up of promising solutions to the market barriers that hinder the growth of energy efficiency in the small and medium commercial building sector, which are less than 100,000 square feet in gross floor area and account for more than 50% of the energy used in the commercial sector. The objective of this funding is to build a path for market-ready solutions to be used at scale across the U.S. to improve building energy efficiency.

Apply to the funding opportunity DE-FOA-0001385
- Submission Deadline for Concept Papers: December 4, 2015
- Submission Deadline for Full Applications: February 1, 2016
- Informational Webinar: November 9, 2015, 3:00 PM – 4:30 PM ET – Register now
- Questions about FOA: email DOESmallBuildingsFOA@hq.doe.gov
- Learn more: about our Commercial Buildings Program
NY-GEO Wants Geo Bills in Budget

Nov. 20 – Gov. Andrew Cuomo vetoed two geothermal heat pump (GHP) bills passed unanimously by the New York state legislature during 2015. Both bills would amend state tax law to jump-start the use of renewable energy produced by geothermal heat pumps for heating and cooling buildings. S2905 would reduce personal income tax liability by an amount equal to 25% of qualified geothermal energy system expenditures up to $5,000. S4279 would provide a new sales tax exemption on the sale and installation of geothermal heat pump equipment.

In his veto message, Cuomo said the bills would have “...significant revenue impact and should be discussed in the context of the upcoming State Budget. Thus, while I am constrained to veto these bills, I look forward to working with the sponsors on how to best encourage the growth and use of geothermal energy throughout the State.”

The New York Geothermal Energy Organization (NY-GEO) was instrumental in passage of the bills. “This is very disappointing,” said NY-GEO Executive Director Bill Nowak. “But we are prepared to move forward with our legislative sponsors, who will include these measures in the upcoming New York 2016-17 budget, which is scheduled for passage by April 1.”

NY-GEO is encouraged that the Cuomo Administration is supportive of renewable heating and cooling as a way to achieve its carbon emission reduction goals. Cuomo's veto message stated that "...geothermal energy use as a reliable and effective way to reduce the need for carbon-based energy sources." Nowak said, "We hope that these measures will be included in the 2106-17 state budget. New York needs these incentives now to reduce both greenhouse gas emissions and electric customer energy bills.” (NY-GEO / GEO)

$50K Geo Alliance Grant Given to SIU Carbondale

Dec. 1 - Southern Illinois University (SIU) Carbondale recently received a $50,000 Geo Alliance grant to help fund the installation of a highly energy efficient and environmentally friendly geothermal heat pump heating and cooling system for a portion of its Transportation Education Center.

According to Renewable Energy World, this is the third grant the university received from the Geo Alliance program, funded through the Illinois Clean Energy Community Foundation (ICECF), and administered by the Association of Illinois Electric Cooperatives (AIEC). During the 12-year, $1.5 million program, SIU Carbondale has now received $150,000 for its geothermal projects, which also included funding for work at the McLafferty Annex Building in 2005 and the Stone Center in 2012.

“The geothermal system was installed in the 187,000-square-foot Transportation Education Center to serve the facility’s office and classroom space, roughly 49,000 square feet. The building’s service lab area, which houses teaching laboratories and support areas for the aviation and automotive technology programs, operates with a central chilled water/heating hot water system. The projected annual cost savings for that portion of the building is $9,700. Estimated annual savings for the former McLafferty Annex, which is undergoing transformation into the McLafferty Research Building, has been just over $24,500; retrofitting Stone Center with a geothermal heat pump heating and cooling system saves roughly $14,400 annually.” Read the complete article here. (Renewable Energy World)
GEO Signs MOU with IGSHPA

The Geothermal Exchange Organization (GEO) and the International Ground Source Heat Pump Association (IGSHPA) have signed a memorandum of understanding to strengthen and expand the complementary relationship that currently exists between the two associations.

GEO President and CEO Doug Dougherty and IGSHPA Executive Director Bob Ingersoll signed the MOU, recognizing the two organizations share a common interest in advancing the geothermal/ground-source heat pump industry.

“GEO is pleased to partner with IGSHPA to promote the geothermal/ground-source heat pump industry,” said Dougherty. “Through joint communication, cooperation and initiatives, our goal is to grow geothermal market share, promote training and certification for installers, and create business opportunities for every segment of the industry.”

IGSHPA and GEO will establish a joint task force to coordinate the efforts of the organizations as related to advocacy, research and promotion of the industry; organizational committees will exchange information on technical and scientific public policy matters; and staff of both organizations will be in frequent communication about items of mutual interest.

“All affiliated geothermal-related businesses representing architects, engineers, designers, installers and suppliers must work effectively together to move the paradigm from a niche market to mainstream,” said Ingersoll. “GEO concentrates on advocacy for federal and state policies that will be beneficial to the industry, while IGSHPA concentrates on research, standards and training. We all must do our work well and in a unified manner to be successful. IGSHPA looks forward to a strong partnership with GEO to advance the geothermal/ground-source heat pump industry.”

Established in 1987, IGSHPA is an association of companies, professionals and users dedicated to promoting the science, utility and use of geothermal (ground-source) heating and cooling technology. IGSHPA is an outreach unit of the College of Engineering, Architecture and Technology at Oklahoma State University. For more information about IGSHPA, call (405)744-5175, or visit www.igshpa.org.

GEO is a non-profit trade association representing the interests of the geothermal/ground-source heat pump industry across the United States. GEO advocates the technology to government, industry, and the public, educating leaders about the economic, national security, and environmental benefits of geothermal heat pumps for residential, institutional and commercial applications. For more information about GEO, call (888) 255-4436, or visit www.geoexchange.org. (IGSHPA /GEO)

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IGSHPA Welcomes Dean Ed Kirtley
Dec. 9 - The International Ground Source Heat Pump Association (IGSHPA) Board of Directors and membership welcome Assistant Dean Ed Kirtley of Oklahoma State University’s (OSU) College of Engineering, Architecture and Technology. He serves as a special outreach and general consultant to help expand the new IGSHPA 2.0 reorganization efforts.

As Assistant Dean of OSU Outreach and Extension, Kirtley facilitates collaboration and awareness among college and university units; leads the development of program initiatives for ten outreach units in CEAT; and serves as a liaison with local, state and federal leaders, organizations and agencies in support of the university’s land grant mission. A key component of the mission is outreach to the public who can benefit from the research and other offerings of the university.

In addition to his expertise from his current position, Kirtley brings a wealth of knowledge to the association from his extensive work in the fire service industry where he has provided strategic vision for the state’s fire training and professional development programs, and collaborated with state and national fire service leaders and with state legislators on fire and emergency services public policy issues.

With this new partnership, Dean Kirtley and the Board of Directors will be more aggressive in expanding membership, training programs and professional alliances while improving the publications you have come to know and depend on over the years. Plans are in the works for the expansion of membership benefits as well as outreach and support of state renewable and high-efficiency geothermal and energy organizations.

IGSHPA and some of its core partners are in the early planning stages of forming work groups in each state who can be called upon for assistance in codification or other areas of need in a certain state or regional area. Training is undergoing a reconstruction with the expansion of classes, reformation of course offerings and potential new course locations as well. IGSHPA is excited about:

- Working with our partners in other geothermal organizations to help grow the industry,
- Taking the long-term view, and
- Making IGSHPA even better through greater focus on our core mission areas.

With Kirtley’s involvement in the work of the organization and the new partnerships with other industry organizations, IGSHPA looks towards a bright future for the ground-source heat pump industry (IGSHPA)
Corn Belt Energy is excited to announce our new GeoCents program, which assists its members to install geothermal heat pump (GHP) systems at their homes. The program pays for the installation of geothermal ground loop heat exchangers (the plastic piping that flows water to and from the GHP inside the house) at a members home. In turn, the member pays a monthly fee for use of the loops.

Corn Belt Energy has initial face-to-face meetings with its members to explain program details and review the homeowner’s current heating and cooling system. All participants must utilize a certified HVAC contractor and geothermal loop installer. New construction and retrofits qualify for the program. Depending on a member’s situation, Corn Belt Energy will provide the following under the program:

- $1,100/vertical ton ground loop installation, with the member paying $7/ton/month on their electric bill.
- $900/horizontal ton ground loop installation, with the member paying $6/ton/month on their electric bill.
- Corn Belt also offers a $1,500 rebate for installation of a GHP to hook up to the ground loops if it utilizes electric heat as the backup.

For more information about the program, contact Justin Stuva, Corn Belt Marketing & Member Services Coordinator at (309) 664-9235.

In the Loop

... with the Corn Belt GeoCents Program

Corn Belt Energy member, Cory Matheny is trying something new to lower energy bills and save money on heating and cooling in his home. Matheny, a Bloomington firefighter for over 15 years, and his wife purchased their home in June of 2015, becoming Corn Belt Energy members for the first time. The Mathenys immediately began making home improvements. Striving to increase energy efficiency in their home and save money, the Matheny family chose geothermal and became the first participants in the Corn Belt Energy GeoCents program.

Selecting Geothermal “We had not initially intended to put in a geothermal system. Our existing furnace and air conditioner were about 20 years old, so we started researching putting in updated systems,” said Matheny. “I heard about the GeoCents program from Bratcher, the HVAC company we worked with. Bratcher originally was going to quote a conventional forced air system but then we started discussing the possibility of geothermal and utilizing the GeoCents program through Corn Belt Energy. With the tax...
incentives, rebates and other incentives with the GeoCents program, it made it cheaper than putting in the top-end furnace and air conditioner,“ he continued. “Working with Corn Belt Energy was a piece of cake. Justin Stuva is very good to work with, and he personally came out and went through the entire program.” Matheny added that once they signed up for the Geo-Cents program, the installation process was easy. "I worked with Bratcher, and they gave me a couple of options for where to put it in the yard. What was easiest for them wasn’t the best for me because it would spread the mess out over a longer area. They were able to work with me and contain it to the side yard and kind of keep it out of sight that way."

**Improving Energy Efficiency AND Saving $**

With residential energy usage on the rise, now more than ever it is important to make strides toward energy efficiency. Matheny said choosing geothermal was something he was interested in, but until hearing about the GeoCents program it was not something he thought they could afford. “Because of the savings with the GeoCents program, we were able to choose geothermal because of the price," added Matheny. "With the 300-400% efficiency that you are supposed to get with geothermal as compared to a top-of-the-line conventional system that is only 96-98% efficient, the long term cost savings is huge. We like to have our air conditioner on during the summer, and we hope that the geothermal will help bring our bill down a little more manageable.” According to the U.S. Department of Energy, these systems can be two to three times as efficient as air-source heat pumps. Matheny will also see additional cost savings in water heating. “Tying the water heater into the geo did not cost any more. With the air conditioner running, it has to have somewhere to get rid of that heat, so it dumps the heat into the water heater and is an extra way for us to save on reducing our gas bill,” said Matheny.

**Benefit of Being a Corn Belt Member**  Matheny says he would definitely recommend geothermal to others. “I’ve recommended it to many people already, and they have been interested in geothermal but it is that initial expense that deters them,” said Matheny. “The programs and rebates offered by Corn Belt Energy makes geothermal more affordable. I’ve told people that they should check into the GeoCents program if they are Corn Belt Energy members.” For additional information about the program and a complete list of certified HVAC contractors, call (800) 879-0339.  (Hillary Cherry - Director of Communications, Corn Belt Energy)
U.S. Marines Adopt Nation’s First Borehole Thermal Energy Storage System

By Nathan L. Hanks Jr., Marine Corps Logistics Base

Oct. 20 - The implementation of America’s first Borehole Thermal Energy Storage system — a state-of-the-art ground source heat pump system — is the latest milestone reached by Marine Corps Logistics Base Albany officials in a quest to become net zero by 2017.

Leaders from MCLB Albany’s Installation and Environment Division; Andrews, Hammock and Powell Inc., Macon, Georgia; Engineers Naval Facility Engineering and Artesian Contracting Company, Inc., officially marked the start of BTES system with a ribbon-cutting ceremony at Marine Corps Logistics Command’s headquarters in Building 3700, here, Oct. 19. According to base and BTES designer officials, it’s the first of its kind in the United States.

Col. James C. Carroll III, commanding officer, MCLB Albany, said the installation is committed to being a great steward of the environment and the BTES project helps demonstrate the commitment. “MCLB Albany is the benchmark and is setting the bar high, not only across the Department of Defense but for the rest of the industry,” Carroll said. “We are hoping people will come in and take a look at this great technology and be able to export it out and really create a buzz throughout the nation as to what we are doing here.”

During a recent visit to the installation, Lt. Gen. Michael G. Dana, deputy commandant, Marine Corps Installations and Logistics, said he was going to challenge all the installation commanders to think about where they want their installations to be in 20-25 years, Carroll noted. “No doubt this particular project positions Marine Corps Logistics Base Albany well into the future, 20-25 years from now,” he said.

Chuck W. Hammock Jr., principal engineer, Andrews, Hammock & Powell, Inc. (Macon, GA), said he was proud the BTES system was being implemented at the base. “We are able to demonstrate a
technology at a scale we hope will get the Department of Defense’s attention,” Hammock said. “This project is really about energy security. We want to get America’s energy right here on our shores.”

Mike Henderson, chief engineer, Public Works, Installation and Environment Division, said the BTES system will help the base achieve its net zero goal. Net zero is when the installation generates the same amount of energy it uses, he said. “MCLB Albany continues to seek new opportunities to reduce its energy consumption through alternative sources and is on the leading edge of energy efficiency,” Henderson added. “We are leading the way in the Department of Defense’s Energy Conservation Program.

“The Department of Defense’s goal, overall, is to become net zero by 2020,” he continued. “MCLB Albany’s aggressive goal is to be at net zero by 2017 and the BTES system will help us meet that objective.” Henderson said the BTES project was a joint venture by the Department of Energy and Department of Defense.

“The project costs $5 million and is the first of its kind in the U.S.,” Henderson pointed out. “The BTES design was funded by the Department of Defense Energy Conservation Investment Program while the design cost was funded by Department of Energy.”

BTES will provide a less expensive heating, ventilation and air conditioning bill and it is more reliable than the previous boilers and chillers used to heat and cool Building 3700, he added. The installation is already seeing results in energy and monetary savings from BTES, according to Henderson. “In July, the BTES was tested at its full capacity,” he said. “For the month of August, we were able to save nearly $50,000.”

Construction for the BTES began in 2013 with the clearing of a two-acre area behind Building 3700. Henderson said the BTES system is composed of 306 boreholes or wells drilled down 210 ft. into the ground. The system uses a high-density polyethylene tube to circulate water for energy transfer. The boreholes are laid out in circles and zones to store the needed hot or cold water. The boreholes transfer hot or cold water into the ground to store for out-of-season use in heating or cooling the building, according to Henderson.

During the summer, warm water is stored on the outskirt of the system’s concentric circle and cold water is pulled through the air conditioning from the center of its circle to cool the building. In the winter, cold water is stored and warmer water is pulled through the heater to heat the building. For more information about the U.S. Marines’ BTES system, call Mike Henderson at (229) 639-8406.

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**NOTICE**

Federal Tax Credit for GHP Systems Installations

The Geothermal Exchange Organization, in alliance with several other stakeholders, is working hard to extend the residential and commercial tax credits for geothermal heat pump (GHP) systems beyond their expiration dates at the end of next year. For now, everyone involved with commercial GHPs should remember that to take advantage of the credits, the residential and commercial geothermal systems that you install under current law must be “place in service” before Dec. 31, 2016.
Sustainability is the Quickest Draw at John Wayne Museum

Nov. 16 – Grand-opening festivities were held on May 25 at the new John Wayne Birthplace Museum, adjacent to Wayne’s childhood home in Winterset, IA. It provides a central location where John Wayne fans can see memorabilia and celebrate Wayne’s accomplishments. The Southwestern-styled 6,100-square-foot building is rugged, unembellished, and built to last. Stone, stucco, and a standing-seam metal roof wrap the insulated concrete form (ICF) structure, which is punctuated by glazed, argon-filled windows. Inside, geothermal heat pumps (GHPs) coupled with energy recovery ventilator and air-filtration systems ensure an optimal environment for the artifacts and visitors.

As the project broke ground in April 2014, two separate, vertical geothermal exchange fields were drilled. Each field consists of four holes bored to a depth of 300 ft. The boreholes were then filled with enhanced bentonite grout mix for maximum performance.

Inside the building, the pair of 5 ½-ton water-to-air heat pumps draw from the exchange fields. A downdraft unit serves the upstairs and gallery area only, where all the valuable John Wayne artifacts are on display or stored. The other unit, an updraft configuration, conditions the first floor’s entry, gift shop, theater, and office.

For more information about the GHP system at the John Wayne Museum, see a complete article here. (ACHR The News)

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Topics covered:

Support the Industry JOIN GEO

To continue its unwavering advocacy for the industry, GEO needs your participation. With your help, we can stand as a united industry. CLICK HERE for more information.
Save $$ at Home with Geo Renewable Energy

Nov. 1 – Underground and solar renewable energy projects for homes qualify for a generous federal tax credit if they’re placed in service by year-end 2016. An article in Tulsa World offers the following information about installing a geothermal heat pump system for heating and cooling.

**Cost:** A geothermal heat pump costs $3,500 to $7,500, but installation can increase the total cost to $10,000 to $25,000 or more. A 30-percent renewable-energy tax credit will help offset the cost.

**Savings:** $760 to $1,230 in the first year, based on an increase in your heating system’s efficiency by 50% to 70%, and your air-conditioning system’s efficiency by 20% to 40%.

**Details:** High-density, polyethylene pipes are buried in your yard and filled with fluid. The heat pump circulates the solution and transfers heat to the house in winter and carries heat away from the house to the ground in summer.

**Who to hire:** Look for contractors who are trained and accredited by the International Ground Source Heat Pump Association.

**Tip:** You can upgrade the system to channel heat to your hot-water heater and pay about half the usual cost of gas- or electric-fueled water heating in winter and nothing in summer. See the complete article here. *(Tulsa World)*

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   - Shared borefield and loop among multiple buildings
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   - Elimination of fossil-fired boilers

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NAHB Says Strong Outlook Predicted for Green Homes

Dec. 3 - Over half of home builders expect to be doing 60% or more of their new homes green by 2020, according to a new study conducted by Dodge Data & Analytics. The study was done in partnership with the National Association of Home Builders (NAHB) and with the support of Ply Gem Industries. The study, “Green and Healthier Homes: Engaging Consumers of All Ages in Sustainable Living,” surveyed 232 builders and remodelers from across the United States.

Despite headwinds of growing concerns about the cost of building green, a high percentage of home builders and remodelers are already doing so, and expect to do more in the future. While consumers of all ages are interested in green, the study finds that consumers of all ages are interested in green. Those aged 55+ are the most important group driving the current green market. The findings predict higher potential for growth in the future, and increased use of renewable technologies by 2018:

- Over half (54%) of home builders are currently constructing at least 16 percent of their new homes green, and 39% of remodelers report that at least 16 percent of their remodeling projects are green.
- By 2020, more than four-fifths (81%) of home builders will be constructing that level of green, with over half (51%) building at least 60% of their new homes green.
- By 2020, remodelers report a similar level of growth, with nearly three quarters (74%) making at least 16% of their projects green, and over one third (36 percent) completing over 60% of their projects green.

These expectations of higher green involvement emerge despite growing concerns about the cost of building green. Seventy-seven percent of home builders and remodelers report that building green has an incremental cost over traditional construction of 5 percent or more, notably higher than the 60% in 2014 and 58% in 2011 who noted that level of increased cost. While higher cost is also the top obstacle to green reported, it does not appear to have dampened the drive toward green in the market.

“Builders and remodelers have long recognized that green is the future of home building,” said Tom Woods, NAHB chairman. “Since we first began partnering on this study with Dodge Data & Analytics in 2006, we’ve seen that commitment grow. The study’s recent findings reinforce this continued growth, with new homeowner feedback showing a desire and expectation that new homes be high-performing, particularly when it comes to energy conservation. Most builders recognize that they need to be at least conversant in green to stay competitive.”

One key factor driving the growth of green is the association of green homes with healthier living. Home builders and remodelers recognize the potential: most (83 percent) believe that consumers will pay more for homes that are healthier.

“We have seen the commercial sector of the construction industry focus on the impact of buildings on the health of their occupants in the last few years, but these findings suggest that attention to healthier homes may offer an even higher gain for green in the residential market,” said Steve Jones, senior director of industry insights at Dodge Data & Analytics, “especially as consumers become better informed about the features that make homes more sustainable and healthier, and demand them.”
Another factor leading to growth in the residential market is the increasing use of renewable energy. The study indicates that the use of renewable technologies is expected to grow across the board, revealing an interest in energy performance that goes beyond green. By 2018, nearly half of home builders and remodelers expect to be using solar photovoltaic (48%) and ground source heat pump (52%) technologies. Net zero homes are also emerging as an important trend, with nearly one quarter (21%) of home builders having built a net zero home in the last two years.

One interesting finding of the new study is that the greatest impetus for green homes comes, not from millennials as many people might expect, but from consumers age 55 and older. Data from the study suggest that greater familiarity with home features leads to an emphasis on home performance. Therefore, as the environmentally-minded millennials gain more experience with homeownership, it is quite possible that there could be even greater demand for green in the future.

The SmartMarket full report, “Green and Healthier Homes: Engaging Consumers of All Ages in Sustainable Living,” is available here. (Dodge Data & Analytics)

Reduction Peak Demand Saves Customers’ Money

Oct. 15 – A new report, “Peak Demand Reduction Strategy,” shows that states that implement peak demand policies or programs can significantly reduce costs for customers, strengthen reliability of electric service, and ease compliance with the U.S. Environmental Protection Agency’s recent Clean Power Plan.

Demand for electricity can spike during just a few hours a year, and typically 10% of the nation's electric system capacity is built to meet demand in just 1 percent of hours during the year. The report evaluates the benefits and costs of reducing peak demand in two states, Illinois and Massachusetts, and the feasibility of utilities to procure the resources to meet demand reduction goals over 10 years.

In each of three scenarios, the cost-benefit ratio is highly positive. It found that Illinois and Massachusetts could save $2.62 and $3.26, respectively, for every dollar spent reducing peak demand. Read the story here. (Advanced Energy Economy)

According to Geothermal Exchange Organization (GEO) President & CEO Doug Dougherty, “There is no better way for electric utilities to reduce peak power demand than through geothermal heat pump rebate programs and geoxchange loop ownership/lease programs for their ratepayers.”

ASHRAE 2016 Winter Conference

New technical program tracks, more than 200 Professional Development Hour opportunities and the world’s largest HVAC&R marketplace are just a few highlights of the ASHRAE 2016 Winter Conference and AHR Expo, on Jan. 23-27 at the Orlando (Florida) Hilton and the Orange County Convention Center. To register for the ASHRAE Conference—including free access to the Expo—click here. Information about the Expo can be found here.
On-Bill Financing Makes Efficiency Easier
Nov. 2 - “On-bill financing” enables utility customers to pay for costly efficiency upgrades like geo-thermal heat pumps with low-interest loans, which are repaid through monthly loan payments equal to, or less than, the money saved on utility bills. Payback is long enough that the reduction in utility bills offsets the monthly loan payment, which is bundled with monthly utility bills. A couple of municipal utilities in Michigan and Iowa are now devising such systems. Several rural electric coops in Minnesota and Michigan are exploring the possibilities, and the concept is among the recommendations in a state energy plan made public in Missouri a few weeks ago. Read the article. (Midwest Energy News)