

**Testimony to the
United States Senate Committee on Finance
Subcommittee on Energy, Natural Resources, and Infrastructure**

**Hearing on
“Tax Reform and Federal Energy Policy:
Incentives to Promote Energy Efficiency”**

**Dirksen Senate Office Building
Room 215
Washington, DC**

Wednesday, December 12, 2012, 10:00 AM

**Statement of
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Thank you, Mr. Chairman and distinguished members of this subcommittee, for this opportunity to offer my perspective on the role of tax incentives to promote energy efficiency. Residential energy efficiency incentives remain smart tax policy that will stimulate private investment and job creation, while driving savings directly to American households.

I come to this subcommittee both as an advocate working to bring investors and capital to the energy efficiency market, and as a licensed contractor and board member of Efficiency First. Efficiency First is a national nonprofit trade association of over 1000 members, with membership in all 50 states, that unites the Home Performance workforce, building product manufacturers and related businesses and organizations to forward policies that will support a sustainable and scalable home retrofit market.

Advancing energy efficiency is critical to the American economy. If we tried to run today's economy without the energy-efficiency improvements of the last 40 years, we would need nearly 50 percent more energy than we use now. This is more than the energy we get from oil, natural gas, coal, or nuclear powerⁱ.

The average American family spends over \$1,800 per year on energy, which equates to over \$200 billion. This represents 22 percent of all US energy consumptionⁱⁱ, 35 percent more energy than is used for passenger cars and trucks combinedⁱⁱⁱ.

Retrofitting inefficient homes will put energy savings back into the wallets of American families and communities. It will also create hundreds of thousands of US jobs in some of the hardest hit industries, including construction and manufacturing. These new jobs are primarily created by small businesses - jobs that cannot be outsourced, and the materials used in improving homes are on average 90% made in the USA^{iv}.

Energy efficiency is unique in that it creates its own cash flow - less money spent on energy means more money to purchase groceries and save for college. Simply put, saving energy pays for itself.

However, there are significant market barriers that prevent this vital resource from being harvested more effectively. Homeowners are being asked to make these investments not only because we want them to save money on their utility bills, but because this reduces costs across the energy system as a whole; helps to achieve broader goals such as energy independence; reduces pollution; and enables job creation. However, we are not properly valuing these very real public and resource benefits energy efficiency provides. Instead, we are asking homeowners to pay for the full burden and cost of these improvements, often upfront and out of pocket.

One of the key shifts to begin accounting for the multiple benefits of energy efficiency, is to move towards accounting for energy efficiency as a resource -- the demand reduction equivalent of supply-side energy production. Reducing demand on the grid through energy efficiency is akin to building power plants, only cheaper -- and it's 100 percent domestic, and completely clean.

We know how to finance power plants. Due to the legislative, regulatory and market structures, protections, and oversight in place, power plants supply a stable and predictable amount of energy to

an established and reliable market. Utilities can raise capital to make investments in projects to increasing the nation's energy supply; however, we lack the same mature capital sources and markets for energy efficiency, even though it is widely understood to be the most cost effective resource for meeting our energy needs.

We need to begin to treat residential energy savings as a distributed demand-side power plants that will ultimately, at least in part, be paid for based on their ability to deliver an energy saving resource to the grid. To accomplish this, we must more rigorously measure and account for the performance of energy efficiency improvements.

Historically, energy efficiency incentives have largely been targeted at specific technologies and individual improvements. Enhancing existing incentives is needed to include a performance-based paradigm that links incentives to actual savings allows for technology and business model neutrality. Rather than attempting to maintain an exhaustive, up-to-date, and politicized list of equipment specifications, or picking winning technologies or special interests, offering incentives based on savings at the meter can free up the tax code from keeping pace with an ever-changing industry. Most importantly, it creates a system that is flexible and rewards innovation.

Senate Bill 1914, The Cut Energy Bills at Home Act, also known as 25E, is a great example of tax policy that can help move the market towards valuing energy savings as a resource. I would like to thank Chairman Bingaman and Senators Snowe and Feinstein for their leadership in introducing this groundbreaking legislation. Using models that are calibrated to actual bills, the tax incentive rewards results. This legislation provides a financial incentive for homeowners to maximize the energy performance of their home -- the greater the energy savings, the higher the incentive.

In addition to accelerating investment and innovation, we believe that adding 25E -- to an improved 25C tax credit -- will help build the dataset necessary for markets to treat energy efficiency as a reliable resource, which will ultimately open the doors to private investment. We are in a chicken and egg game, where markets need data in order to manage risk and determine establish value, however, the only way to get the data is by measuring actual transactions. In essence, public policy can step in as a buyer of savings enabling market forces to gain comfort and ratchet up investment. As this transition occurs, the need for tax credits can give way to private sources of capital.

This subcommittee is in a unique position to help fill this gap through performance-based tax incentives acting as a proxy for markets that are just now standing up. The major market players we need to make this industry economically sustainable over the long haul are already here, only not yet to scale.

A growing segment of the contracting industry is actively moving toward performance-based approaches. Dedicated home performance companies have grown in markets across the country, and we are seeing leading contractors in more traditional markets finding success moving to home performance. Major manufactures and contractor organizations are investing in initiatives to provide home performance training and resources to HVAC, Insulation, and other trade contractors. The concepts of home performance are beginning to take root beyond early adopters.

To support this transition, we have seen public investment in energy efficiency increasing dramatically in the States. This includes infrastructure for workforce training, quality assurance, and other necessary infrastructure to ensure quality service delivery. These systems, built in part through utility and Recovery Act investments, are in place across the country and provide a strong foundation for future growth.

Similarly, we see investments in energy efficiency in the utility sector ramping up beyond even some of the most optimistic projections. From 2005 to 2011 utility energy efficiency programs have increased by an average growth rate of 19.3 percent per year to \$4.74 billion^v. According to research being conducted by Lawrence Berkeley National Laboratory, utility sector investment is expected to continue to rise faster than inflation.

In addition, private capital markets are on the verge of engaging the residential energy efficiency market through the first ever aggregation and securitization of energy efficiency loans. This exciting step forward promises access to senior capital markets and eventually much lower cost capital. With the support and leadership of the Department of Energy, National Association of State Energy Officials, and in particular the State of Pennsylvania, homeowners will soon be able to access loans designed specifically for residential energy efficiency, based on an asset class that initial datasets show to be lower risk than traditional unsecured lending. Simply put, when energy efficiency loans are made, homeowners are more likely to pay them back and therefore deliver reduced interest rates and more inclusive underwriting.

Tax incentives, combined with private investment and growing State policies, can play a critical role in helping to scale this early stage market, and ensure that the momentum gained to date is leveraged. There are a number of reasons why the tax code makes particular sense as a place for this type of market-engaging policy.

First, tax credits directly benefit homeowners without adding layers of bureaucracy. This direct investment ensures that the benefits are accrued where they matter most, in the pockets of American families.

Additionally, while we see investment in energy efficiency ramping up, there is tremendous variation across the country in terms of program design and levels of investment. Tax policy will enable a more uniform national market that will encourage investment, enable national players to engage, make it much easier to communicate the benefit to consumers, and ensure that no States are left behind.

We believe that, while not a perfect analogy, the residential solar industry is a very encouraging example of how smart and coordinated public policy is leading to a growing and increasing sustainable market. The combination of the 25D tax credit and the California Solar Initiative has many parallels to the 25E home performance tax credit. Similar to the structure of The Cut Energy Bills at Home Act, the solar incentives in California are calculated based on a predictive model that accounts for factors such as shade and orientation to predict performance, which drives the amount of incentive.

This performance-based system developed that initial data that drove the development of solar leases and power purchase agreements, which are now leveraging private capital to drive over 75 percent of



the market. The 25D Solar Investment Tax Credit has stood up an industry that is helping predominantly middle class homeowner, and is employing a workforce of nearly 120,000 US workers at over 5,600 businesses nationwide, creating over 14,000 new American jobs in 2012 alone^{vi}, and is a demonstration of how smart tax policies can drive markets.

We believe that a combination of smart national tax policy driving the market toward performance, coordinated with local infrastructure, will enable a similar transformation in the residential energy efficiency market. This subcommittee can help set this process in motion by supporting the inclusion of The Cut Energy Bills at Home Act (25E), which will lead to a sustainable energy efficiency industry driven by consumer demand, private capital, and the value of energy savings as a resource.

I want to take to thank this subcommittee on behalf of the thousands of contractors who are working every day to help homeowners invest in and improve their homes -- all while growing their small business in these uncertain economic times. These small businesses were hit hard during the last recession, with unemployment levels that have hovered above 20 percent during the recession. Supporting jobs in this uniquely American industry drives investment directly into communities spread across all corners of the country, while supporting America small businesses.

The energy efficiency industry puts people to work doing something that is both positive for their communities and the environment, and perhaps most importantly provides a service that is helping families who are often struggling to make ends meet. While incentive may be focused on the energy savings, retrofitting provides families the opportunity to live in comfortable, healthier, and longer lasting homes.

The Cut Energy Bills at Home Act is truly a unique opportunity to give homeowners another option for making deep energy efficiency improvements to their home, build wealth in American households, support small contracting businesses and its US-centric manufacturing and supply chain, all while helping the country meet its climate and energy goals.

We appreciate the ongoing efforts of this subcommittee and look forward to continuing to support your important work advancing energy efficiency through sound tax incentive policy.

SUPPLEMENTAL TESTIMONY

The following is additional comment of Efficiency First and is offered to give Subcommittee members some context of the environment in which many small business-contracting companies find themselves. While the below may be outside of the reach and scope of this subcommittee's focus, it should none-the-less be informative with respect to the role a performance tax credit could play in helping these small businesses grow and thrive.

WHAT CONTRACTORS WANT

While the focus of this subcommittee hearing is on tax credits for energy efficiency, it's critically important to understand the context in which a performance tax credit would be used and the marketplace in which contractors that deliver goods and services to homeowners often operate. With an understanding of the marketplace dynamics, this subcommittee will have a better understanding of how a federal tax credit such as 25E would genuinely help the industry.

Though all well intended and very much appreciated, there is a great deal that is lacking in current local, State and federal energy efficiency retrofit programs for homes. Again, while Congress cannot affect many of these issues, it's important to have awareness of the current state of the marketplace. Here is what contractors want in energy efficiency home retrofit programs:

1. A Seat at the Table as Programs are Being Conceived, Developed, Deployed and Refined
2. Program Consistency & Stability
3. Lean and Waste Free Program Attributes and Requirements
4. Programs that are Free of Price Setting and other Anti-Free Market Barriers
5. Programs that Serve the Consumer's Interest and Not Driven by Fuel Types, Flawed Cost-Effectiveness Math, or Artificial Barriers or Drivers
6. Programs that Reward Performance and Actual Savings
7. A Level Playing Field Related to Contractor Qualifications
8. Programs that Allow Multiple Business Models to Compete
9. Programs with Meaningful Quality Assurance to Protect the Consumer and Investor/Tax Payer

A Seat at the Table

Programs fail when contractors are not embedded in the process from design to implementation and refinement. As a party that is "directly and materially affected" by programs, designers and sponsors needs to embrace a policy that ensures contractors have a seat at the table at all phases of program design, roll-out, and refinement.

One imperative that program champions and sponsors need to be anchored in, and acknowledge and understand, is that all federal, state, local and utility energy efficiency programs impacting existing homes generally flow down and end up in the lap of Efficiency First's core members – the contractors

and energy auditors. These are the individuals and companies that are charged with selling these programs in the living rooms or across the kitchen table of homeowners. These are the companies that deal with the myriad of program requirements related to energy modeling, eligible measures, completion of related forms and paperwork, and report generation back to the program sponsor or administrator. And in some cases, it's the home performance contractor that acts as a bank waiting for consumer or other rebates or other incentives to be processed and approved. Additionally, these are the companies that invest their precious resources in their own capacity with respect to training, certification, and required continuing education of their personnel so as to be eligible to participate in such programs. In short, these are the companies that experience the pain that may exist in programs and processes that are not lean, efficient, and contractor and market friendly.

Program Stability & Consistency and Free From Complexity & Waste

Currently, there is a patchwork of energy efficiency programs across the country – each with different program requirements, funding cycles and levels, applicability to fuel types used in homes (gas, electric, fuel oil, propane, etc.). In part this is due to statutory and regulatory preconditions that establish the baseline for what a program looks like. Regardless of the root cause, at the State and local levels, contractors feel like they are trapped in a game of “musical chairs” as program ground rules change, often annually. Additionally, the reporting requirements in many programs creates a ripple affect where contractors are forced to collect and report layers of data that they feel never gets looked at or used. Finally, available energy modeling software is so varied and divergent with respect to how each treats individual and combination of energy efficiency improvements that the contractors lose faith in their outputs. Currently, there is no nationally applicable program for contractor to embrace – there is just fragmentation.

This fragmentation, instability and lack of consistency, and complexity in programs results in a colossal economic waste in the market as contractors have to build and constantly refine internal processes to comply with these various programs. Equally important, the current situation is a motivation destroyer and forces some contractors to capitulate and leave these local programs. One of the benefits of a federal performance based tax credit would be the uniformity and consistency that it would offer contractors. Additionally, Efficiency First feels that new or existing local programs would embrace the architecture of a federal performance tax credit, thus helping to mainstreaming a single set of requirements across multiple programs or offerings. Standardization breeds efficiencies and the ability to scale efforts, thus a federal performance tax credit could positively affect the design of new and existing programs at the State and local levels.

A Level Playing Field Related to Contractor Qualifications

Nothing can do more damage to an industry than where there is a free for all with respect to who can enter and operate in a given space. If there is not a level playing field with respect to the qualifications and caliber of work done in homes by contractors, consumers and others could be harmed.

A regrettable but profoundly important lesson for contractors and program champions in the US relates to what happened in the failed Australian program in 2009-2010 under a stimulus-driven [energy efficiency home retrofit program](#). In summary the program was halted prematurely in large

part due to the fact that there was little to no risk management practices applied to the work being done – which resulted in deaths of workers and claims of widespread fraud in the program. After the program was halted, the insulation industry had to be bailed out by the government as it had ramped up to meet the expected long-term demand for energy efficiency home improvements. The negative implications impacted the entire manufacturing and supply chain, not to mention insulation contractors large and small. As a result of a lack of focus on contractor qualifications and a minimum standard of care for the work done, and the unchecked rush to create “stimulus” jobs, the energy efficiency home retrofit industry in Australia may be set back a generation. Congress needs to bake into any performance based tax credit, credible contractor qualifications – to protect consumers, workers, contractors, and tax payers.

Generally, in the program in Australia, a minimum standard of care, built on a foundation of quality, was not prevalent and consistent at all levels. Our industry cannot afford to have a program go bad and set us back. As such, Efficiency First is supportive of programs that “do no harm” to occupants and workers and have consistency with respect to:

1. Qualified Auditors & Contractors (the right people)
2. Quality Standards & Specifications (doing the right work)
3. Qualified Software and other Tools (using the right tools), and
4. Oversight by a Credible and Robust Quality Assurance Infrastructure (verification)

Allow Multiple Business Models to Compete

Consumers vary in their preference with respect to using either contractors that are vertically integrated and can offer turn-key home performance services, or a group of professionals (auditor/HERS rater, insulation contractor, and HVAC contractor) that work collaboratively as a team to offer a similar solution. Other hybrid models exist in markets where a home performance contractor acts as a general contractor and works with trade allies to do a variety of work (air sealing, insulation, HVAC, windows). Additionally, each marketplace varies with respect to the level of contractor experience and know-how related to applied building science and health and safety issues that are inherent in home and building performance work. Efficiency First supports program architectures that do not choose winners with respect to business models, but instead rely on establishing a level playing field linked to credible standards. This will allow the consumer, and by default the marketplace, to choose which model or models are the best fit for them and their needs but get the same level of quality work done in the home. Additionally, this will allow individuals and companies following the BPI, RESNET, or other models to compete openly.

Industry Standardization Needed

“By not standardizing, we pick losers – it’s the contractor’s that lose”
– Mike Rogers, ABM Energy (GreenHomes America)

Generally speaking, Efficiency First is supportive of standardization through all the layers of our industry because we know this reduces waste and blows away barriers to growth and profitability. Just as the Board for the Coordination of the Model Codes in the 90’s facilitated the alignment of the

building codes promulgated by the four model code organizations (CABO, ICBO, SBCCI, and BOCA), resulting in a single set of model codes – which eventually lead to the formation of a single model code organization (International Code Council), our members seek the mainstreaming and standardization of key elements impacting our industry. While code adoption and enforcement still remains a State and local matter, moving to one model code allowed the elimination of much of the waste created by competing and often redundant code requirements. This then allowed home builders, various trades, product manufacturers, suppliers and distributors, design professionals and governments to shift to a generally mainstreamed set of requirements, which over time became more uniformly and consistently applied and enforced. We need the same evolution to happen in our industry and we need competing standards to be mainstreamed and harmonized into a single suite of standards that all can draw from.

Efficiency First supports the development, adoption, and consistent application of credible standards for:

1. Workers and Companies,
2. Specifications for the Physical Improvements Done in Homes and Buildings,
3. Energy Modeling, Data Collection and Reporting (HP XML), and Related Protocols, and
4. Quality Assurance Infrastructure

When credible standards are in place and utilized, the by-product is the following:

1. Avoided program costs (administrative, training, etc.), resulting from the need to re-create the wheel each time a new program needs to be designed and launched, can flow to consumer incentives or education and awareness, and possibly make programs more “cost-effective” per certain utility cost tests.
2. Contractors are better able to expand into new markets without having to learn a new language, a new set of written or unwritten rules, yet another energy modeling tool, and take on new paperwork and back-office pain.
3. Individual workers may move freely between markets.
4. Contractors have a pool of workers to choose from that generally have the same qualifications and skill sets, thus avoiding substantial hard and soft costs of re-training.
5. Contractors can pick and choose which energy modeling software’s to use, based on their needs and the interoperability of these tools with other operational tools, and have confidence that the required data transfer to the program will be pain-free and possibly instantaneous.
6. Consumers are hopefully exposed to the same general messages and value proposition regardless of market or program sponsor.

The good news is that the standardization effort has been underway in the industry and inside different groups at DOE, EPA, HUD and at the State level. Better coordination and alignment of those efforts would be productive and eliminate waste.

TAX POLICY AS A CATALYST FOR CONSUMER ACTION ON ENERGY EFFICIENCY RETROFITS

The members of Efficiency First believe that performance-based tax incentives do not need to be perpetual. Rather, they can run for a number of years to jump-start our industry and introduce a leveling element into the market. Over time, as our industry grows and other market actors begin to fill in critical gaps, these tax credits can eventually be allowed to sunset. Basically, as the market matures and consumers see and understand the value of making energy efficiency improvements to their homes, the need for a catalyst begins to diminish. In the meantime, the homeowners that our members work with everyday would see the 25E tax credit as a little tax relief for their much larger out-of-pocket investment in their most precious asset – their home.

ⁱ Alliance to Save Energy: [Energy Efficiency: America's Greatest Energy Resource](#)

ⁱⁱ US Energy Information Administration: [Annual Energy Review 2011](#)

ⁱⁱⁱ US Energy Information Administration: [Annual Energy Outlook 2010](#)

^{iv} Home Performance Resource Center: [Manufacturing Shares of Common Energy Remodeling Products](#)

^v Consortium for Energy Efficiency: [State of the Efficiency Program Industry: Budgets, Expenditures and Impacts, 2006, 2011](#)

^{vi} The Solar Foundation: [National Solar Jobs Census 2012](#)