



**Testimony of Carrie La Seur, President and Founder of Plains Justice, to
the Energy Plans and Programs Study Committee
November 13, 2008**

Good afternoon. My name is Carrie La Seur and I'm the founding president of Plains Justice, a public-interest environmental law center that serves communities and nonprofits in the northern plains states from offices in Cedar Rapids, IA and Vermillion, SD.

I'd like to thank each legislator who's devoting precious time to finding the best energy efficiency solutions for Iowa. This is tremendously important work you're doing. As you well know, your efforts will strengthen our communities and help keep our economy competitive in tough economic times. You're showing genuine vision and leadership in the work of this committee, so thank you.

First, let me tell you a little about the many Iowans I'm representing here today. When I was asked to talk to this committee, I asked people from around the state what they want to tell the legislature about energy efficiency, and here are just a few of the comments:

From Warren McKenna, manager of Farmers Electric Coop in Kalona: "We are passionate about efficiency & conservation and the fact that it must be our first choice. However, I liken it to a balloon where you squeeze it in one area and it pops up somewhere else. An example is portable electric heaters and the successful marketing of these monsters. These things will eat up every bit of energy efficiency and conservation savings we can achieve at the residential level. Because of the rise in LP gas prices a lot of rural customers are buying these. Customers will spend \$ 350 plus for one of these but won't spend \$ 100 for an energy audit. If we want to avoid more coal plants there needs to be a ban on the sales of resistance heat and resistance hot water heaters (unless they are solar thermal assisted)."

From Glenn Cannon, retired manager of Waverly Light & Power: "After 30 years in the electric utility business, I know first hand that energy efficiency programs if run aggressively can be a less expensive source of supply than can new power plants. In addition, electric utilities as monopolies have a moral obligation to run aggressive EE programs. There is no excuse, including size (joint action can do it) that should exempt any utility from carrying out these programs. If they are unwilling or claim they are unable, then the State of Iowa should step in, have the program run and then bill the utility for the costs."

From Prof. Jim Martin-Schramm of Luther College: "Luther is a great case study. We invested \$1.5 million in a PowerEdge contract with Alliant in 2004. These investments in energy efficiency are on track to pay back in less than seven years and have reduced our electricity consumption by 23%, our heating fuel consumption by 17%, and our overall carbon footprint by 15.5%. Those are huge gains with off the shelf technology that have good paybacks. Investments in energy efficiency are the cheapest way to reduce demand and increase supply of energy in the U.S."

From Myrna Frantz of Haverhill: "The last 15 years I have lived in a beautiful small town seven miles from Marshalltown. I enjoy the beautiful prairie and farmland that surrounds our town, the quiet streets, and the beauty that surrounds us. Unfortunately, having lived here, I developed chronic asthma. Our son, who was born here, has also been diagnosed with chronic asthma."

When I look at retiring in Central Iowa, I really have to consider if my health can afford it, due to the planned expansion of the coal plant. We are both on chronic medication to control our asthma, and have spent thousands of dollars on medical tests and ongoing medication to just feel and function normally."

From Jeri Thornsberry of Waterloo: "Iowans will support their leaders should they choose to stand and to lead on energy efficiency. I implore legislators to make it happen."

Many stressed the need for energy education from the earliest years. Others just told me, "I'm not eloquent, but please tell the legislature how much I want their leadership on energy efficiency."

You have the power to do big things. Just last week, Public Power Daily reported that the Tennessee Valley Authority, the nation's largest public power company, plans to build "a 1,400-MW, zero-carbon power plant between now and the year 2012." This generating station will have no carbon emissions, or any other kind of emissions, because it will be built out of saved energy amounting to about 4% of TVA's current load. This is the kind of potential energy efficiency has.

Here's what TVA did. They asked the munis and co-ops that buy their wholesale power from TVA, and actual consumers, what was important to them about energy efficiency. One thing they learned is that often, customers don't make their homes or businesses more energy-efficient simply because they can't get reliable advice.

The customer says, "There's lots of information on the Internet, but who can I trust? If I bring somebody into my home to do something to my air conditioning system, how do I know it was done right?" According to TVA's general manager, "People want to be green and want to do the right thing, but they need help."

This leads to the first of my three recommendations: require the highest level of energy efficiency programming coordination among all Iowa utilities and their efficiency partners. Make it easy for every consumer to pick up the phone, call a toll-free number, and get the quality energy efficiency services and products they want. You don't have to tell the utilities how to make this happen, you just have to tell them to do it.

The primary reason why we must maximize coordination among all utilities is that energy efficiency has the potential to be one of the next great drivers of Iowa's economy, especially in an economic recession. Maximized efficiency programming creates well-paid, permanent jobs in every community that can't be outsourced. And any successful businessperson will tell you that you can't maximize productivity and profitability until you minimize overhead and leverage all possible economies of scale. That's why, if Iowa utilities are going to continue to run their own efficiency programs, full coordination among all Iowa utilities is a must.

The pay-off for Iowa will be enormous. According to the American Council for an Energy Efficient Economy's 2008 US Energy Efficiency Market Report: "In total, 1.63 million (U.S.) jobs are supported by efficiency-related investments." The first handout accompanying my

testimony is the jobs summary from that report, showing that hundreds of thousands of jobs can be created in every sector by aggressive efficiency investment. In a few years, the states that have figured out how to create those jobs will be exporting trained technicians and technological expertise to states, and countries, that are struggling to catch up. It's a recession-proof economic engine.

Part of getting out ahead on the efficiency job trend is putting our state's entire energy system behind it. **That's why my second recommendation is about the utility resource planning process. Iowa must require investor owned utilities to perform integrated resource planning.** As many of you know, integrated resource planning, or IRP, is a utility planning method that integrates supply and demand-side options. IRP fully considers the potential to reduce or shape electricity demand, to determine the least-cost solution. IRP also allows us to evaluate the cost-effectiveness of distributed resources, like small-scale renewables and energy efficiency programming, as well as capacity expansion projects.

With traditional utility planning, planners take into consideration the demand to be met, the reliability to be achieved, and applicable law. The planner selects the types of fuels, power plants, distribution systems and patterns, and power purchases that will meet these objectives with the minimum revenue requirement. Options are selected only from the supply side as opposed to the demand side of the electricity system. In other words, in evaluating the need for new generation using traditional planning, utilities do not incorporate a comprehensive analysis of how much projected new demand could be avoided cost-effectively. They're not being perverse, they're just doing what the law requires. We must require more.

IRP takes us further. It strives to:

1. Evaluate all options, from both the supply and demand sides, fairly and consistently.
2. Minimize costs to all stakeholders, not just costs to the utility.
3. Create a flexible plan that allows for uncertainty and permits adjustment in response to changed circumstances.

IRP makes it easier to strike a balance among the traditional regulatory goals of reliable service, economic efficiency, environmental protection, and equity, by considering all supply and demand options as potential contributors and integrating them into a common framework. The result is an opportunity to achieve lower overall costs than might result from considering only supply-side options. Including demand-side options presents enhanced possibilities for saving fuel, reducing negative environmental impacts, and most importantly, lowering customer bills.

You don't have to take it from me. The CEO of Duke Energy, one of the largest electric power companies in the U.S., says: "By creating a policy that places energy efficiency on economic parity with other forms of power supply, utilities will be able to meet customers' needs through saving watts, as well as making watts, without negative financial consequences."

We're facing new terrain in the energy sector. Analysts generally agree that rising energy costs are not a temporary aberration. Cheap energy is a thing of the past. We can no longer throw up expensive new generation facilities and expect that the economy – and by economy I mean every

day consumers, your constituents – can take the hit. We need smarter solutions.

Which brings me to my final and by far most important recommendation: efficiency must be the first fuel. Here's how you do it. Pass a law that states simply that electric and natural gas resource needs shall first be met through all available energy efficiency and demand reduction resources that are cost effective or less expensive than supply. It really is that simple. Other states have done it, as you'll find in the handout.

As a final note I'll point out that the pressure is stronger than ever before for the new administration to take bold action on climate issues, and energy efficiency will be a top priority. Any proactive measures that Iowa can take in the next six to 12 months will pay handsome dividends as the whole nation moves aggressively to reduce its energy consumption and greenhouse gases. Our window to show leadership and get out ahead of the pack is closing. Don't let Iowa be left behind, when we have a tremendous opportunity within our grasp.

A few of the many Iowans who support strong energy efficiency legislation in 2009:

Leigh Adcock (Executive Director, Women Food & Agriculture Network)
Daryl Anderson, Cedar Falls (Cedar Falls Utilities)
Bob Bergstrom, Waterloo
Glenn Cannon, Waverly (former manager, Waverly Light & Power)
Roxanne Conlin, Esq., Des Moines
Paul Deaton, MD, Solon (chair, Johnson County Board of Health)
Kamyar Enshayan, Cedar Falls (Director, UNI Center for Energy & Env'tl Education)
Ron Erne, Waterloo
Eric Foresman, PE, Iowa City (Iowa Renewable Energy Association)
Myrna Frantz, Haverhill
Bev (former Iowa legislator) and Dave Hannon, Anamosa
Pat Higby, Cedar Falls (CEEE, Iowa Power Fund Board)
Mary Iber, Mount Vernon (Cornell College Librarian)
Jim Martin-Schramm, Ph.D., Decorah (Professor of Religion)
Maureen McCue, MD, Iowa City
Warren McKenna, Kalona (Farmers Electric Coop)
Gail Mueller, Black Hawk County
Janice Rowe, Marshalltown
Betty Sadler, RN, Waterloo
Don and Linda Shatzer, Black Hawk County
Jeri Thornsberry, Waterloo
Rev. Benjamin and Sarah Webb, Cedar Falls

Excerpted from
**The Size of the U.S. Energy Efficiency Market:
 Generating a More Complete Picture**

American Council for an Energy-Efficient Economy

May 2008

<http://www.aceee.org/pubs/e083.htm>

**Section IV. D.
 "Estimated Employment Impacts"**

Current and future investments in energy efficiency technologies hold significant, positive implications for job growth and job security in the United States. As shown in Table 7, total U.S. employment reached 139.3 million in 2004 with approximately one-fifth of the labor force employed in education and health services and 0.8% of the labor force employed in the utility sector. Comparatively, our estimates indicate that efficiency-related employment totaled 1.63 million jobs in 2004 or approximately 1.2% of total employment.

Table 7. 2004 Employment by Industry

	Employment by Industry (in thousands)	Employment as a Percent
Total	139,252	100.00%
Education and Healthcare	28,719	20.60%
Trade (retail and wholesale)	20,869	15.00%
Manufacturing	16,484	11.80%
Other Services	6,903	5.00%
Government Workers	6,365	4.60%
Transportation	5,844	4.20%
Efficiency	1,630	1.20%
Utilities	1,168	0.80%

Source: Non-efficiency employment related statistics from the Bureau of Labor Statistics (2007)

When compared with employment in the energy supply sector, the data (summarized in Table 8 below) indicate that efficiency-related jobs employed more than twice as many people per dollar of output. Overall, efficiency-related investments generated an estimated 5.4 jobs per million dollars of sales compared to roughly 1.9 jobs per million dollars of sales in the energy supply sector. Moreover, efficiency-related jobs tend to be associated with high-tech manufacturing and high-skilled service professions that are expected to endure and expand as we continue to move toward an information-based economy and as we reduce our reliance on the fossil fuel industry. In other words, investments in energy efficiency technologies have and are expected to continue to create job growth precisely in those fields that hold the key for moving our society forward both technologically and economically. As a result the United States will be more globally competitive and less reliant on foreign and unsustainable sources of energy.

While total investments in energy efficiency technologies employed an estimated 1.6 million people, jobs associated with efficiency premium investments were estimated at roughly 234 thousand.

Table 8. Estimated Employment Impacts of Efficiency-Related Investments

	Residential	Commercial	Appliances and Electronics	Industrial	Transportation	Utilities	Total
Total Efficiency Investment Related Employment	316,000	301,500	372,200	351,300	151,000	138,600	1,630,600
Efficiency Premium Related Employment	47,400	45,200	44,700	52,700	22,700	20,800	233,500
Jobs per Million Dollars of Output	8.1	5.9	4.2	4.6	4.7	8.8	5.4

Source: Authors' estimates based on employment data from IMPLAN

Efficiency-related employment: residential, commercial, industrial, appliances and electronics. In 2004, roughly 80% of all efficiency-related jobs were somewhat evenly divided across four investment areas: residential buildings, commercial buildings, industrial production, and appliances and electronics. Roughly one-fifth of all jobs (or approximately 316,000 jobs associated with total efficiency investments) were associated with residential building construction, renovation, and repair. These types of jobs include the manufacture of windows, doors, lighting, and insulation, as well as the work of architects in energy-efficient design and home renovation contractors. Nearly 50,000 of efficiency-related residential sector jobs were generated from efficiency premium investments in the residential sector.

Total efficiency-related jobs in the commercial sector were slightly lower than those found in the residential sector. Approximately 300,000 jobs (18.5% of all efficiency-related jobs) were generated by total efficiency-related investments in the construction, renovation, repair and operation of commercial buildings. Approximately 45,000 of those jobs were generated from efficiency premium investments in the commercial sector.

Total investments in energy efficiency technologies in the industrial sector were responsible for approximately 350,000 jobs. Industrial energy efficiency supports a variety of jobs including those associated with the manufacture, installation and retrofit of steam production systems, compressed air systems, direct and indirect process heating, cooling and refrigeration, direct machine drives, facility HVAC, facility lighting, and industrial process design. Efficiency premium investments in the industrial sector supported roughly 53,000 jobs.

Finally, energy-efficient appliances, electronics and office equipment were responsible for nearly 23% of jobs associated with the efficiency sector in 2004. Overall, more than 370,000 jobs were associated with the design, manufacture, sales and installation of ENERGY STAR appliances and electronics, including refrigerators, cooktops and stoves, clothes washers, dishwashers, televisions, VCRs, audio equipment, computers, monitors, copiers and fax machines. Approximately 44,500 jobs were estimated to be supported by efficiency premium investments in appliances, electronics and office equipment.

Efficiency-related employment: transportation and utilities. The remaining 290,000 efficiency-related jobs are divided between two investment areas: transportation and utilities. In the transportation sector, cars, planes, trains, buses, and ships are becoming increasingly energy efficient as a result of investments in efficient designs and equipment. In the automobile market, for example, a variety of innovative engine and transmission technologies have resulted in significant efficiency gains as described in the section on transportation investments (above). Similarly, the airline industry has set specific efficiency targets, and has succeeded in improving their fuel efficiency by nearly 5% in the past 2 years and by 20% in the past 10 years (EPA n.d.). As a result of these initiatives, total efficiency-related employment in the transportation sector reached an estimated 151,000 jobs in 2004. Jobs associated with the transportation efficiency premium were estimated at roughly 23,000 during the same year.

Apart from the investment areas outlined above, utilities offer unique opportunities for investing in energy efficiency. Investments in energy efficiency in the power industry involve maximizing the amount of energy that can be generated, transmitted and used from the fuels that supply the power plants. According to our estimates for 2004, total efficiency-related investments in the utility industry supported approximately 140,000 jobs while efficiency premium investments supported nearly 21,000 jobs.

Excerpted from *An Act Relative to Green Communities*
(State of Massachusetts, Chapter 169 of the Acts of 2008)

<http://www.mass.gov/legis/laws/seslaw08/s1080169.htm> [html](#)

Section 11, Sub-Section 21. (a) To mitigate capacity and energy costs for all customers, the department shall ensure that, subject to subsection (c) of section 19, electric and natural gas resource needs shall first be met through all available energy efficiency and demand reduction resources that are cost effective or less expensive than supply. The cost of supply shall be determined by the department with consideration of the average cost of generation to all customer classes over the previous 24 months.

(b)(1) Every 3 years, on or before April 30, the electric distribution companies and municipal aggregators with certified efficiency plans shall jointly prepare an electric efficiency investment plan and the natural gas distribution companies shall jointly prepare a natural gas efficiency investment plan. Each plan shall provide for the acquisition of all available energy efficiency and demand reduction resources that are cost effective or less expensive than supply and shall be prepared in coordination with the energy efficiency advisory council established by section 22. Each plan shall provide for the acquisition, with the lowest reasonable customer contribution, of all of the cost effective energy efficiency and demand reduction resources that are available from municipalities and other governmental bodies.

(2) A plan shall include: (i) an assessment of the estimated lifetime cost, reliability and magnitude of all available energy efficiency and demand reduction resources that are cost effective or less expensive than supply; (ii) the amount of demand resources, including efficiency, conservation, demand response and load management, that are proposed to be acquired under the plan and the basis for this determination; (iii) the estimated energy cost savings that the acquisition of such resources will provide to electricity and natural gas consumers, including, but not limited to, reductions in capacity and energy costs and increases in rate stability and affordability for low-income customers; (iv) a description of programs, which may include, but which shall not be limited to: (A) efficiency and load management programs; (B) demand response programs; (C) programs for research, development and commercialization of products or processes which are more energy-efficient than those generally available; (D) programs for development of markets for such products and processes, including recommendations for new appliance and product efficiency standards; (E) programs providing support for energy use assessment, real time monitoring systems, engineering studies and services related to new construction or major building renovation, including integration of such assessments, systems, studies and services with building energy codes programs and processes, or those regarding the development of high performance or sustainable buildings that exceed code; (F) programs for the design, manufacture, commercialization and purchase of energy-efficient appliances and heating, air conditioning and lighting devices; (G) programs for planning and evaluation; (H) programs providing commercial, industrial and institutional customers with greater flexibility and control over demand side investments funded by the programs at their facilities; and (I) programs for public education regarding energy efficiency and demand management; provided, however, that not more than 1 per cent of the fund shall be expended for items (C) and (D) collectively, without authorization from the advisory council; (v) a proposed mechanism which provides performance incentives to the companies based on their success in meeting or exceeding the goals in the plan; (vi) the budget that is needed to support the programs; (vii) a fully reconciling funding mechanism which may include, but which shall not be limited to, the charge authorized by section 19; (viii) the estimated amount of reduction in peak load that will be reduced from each option and any estimated economic benefits for such projects, including job retention, job growth or economic development; and (ix) data showing the percentage of all monies collected that will be used for direct consumer benefit, such as incentives and technical assistance to

carry the plan. With the approval of the council, the plan may also include a mechanism to prioritize projects that have substantial benefits in reducing peak load, reducing the energy consumption or costs of municipalities or other governmental bodies, or that have economic development, job creation or job retention benefits.

(3) A program included in the plan shall be screened through cost-effectiveness testing which compares the value of program benefits to the program costs to ensure that the program is designed to obtain energy savings and system benefits with value greater than the costs of the program. Program cost effectiveness shall be reviewed periodically by the department and by the energy efficiency advisory council. If a program fails the cost-effectiveness test as part of the review process, it shall either be modified to meet the test or shall be terminated.

(c) Each plan prepared under subsection (b) shall be submitted for approval and comment by the energy efficiency advisory council every 3 years on or before April 30. The electric and natural gas distribution companies and municipal aggregators shall provide any additional information requested by the council that is relevant to the consideration of the plan. The council shall review the plan and any additional information and shall submit its approval or comments to the electric and natural gas distribution companies and municipal aggregators not later than 3 months after submission of the plan. The electric and natural gas distribution companies and municipal aggregators may make any changes or revisions to reflect the input of the council.

(d)(1) The electric and natural gas distribution companies and municipal aggregators shall submit their respective plans, together with the council's approval or comments and a statement of any unresolved issues, to the department every 3 years on or before October 31. The department shall consider the plans and shall provide an opportunity for interested parties to be heard in a public hearing.

(2) Not later than 90 days after submission of a plan, the department shall issue a decision on the plan which ensures that the electric and natural gas distribution companies have identified and shall capture all energy efficiency and demand reduction resources that are cost effective or less expensive than supply and shall approve, modify and approve, or reject and require the resubmission of the plan accordingly. The department shall approve a fully reconciling funding mechanism for the approved plan and, in the case of municipal aggregators, a fully reconciling funding mechanism that requires coordination between the distribution company and municipal aggregator to ensure that program costs are collected, allocated and distributed in a cost effective, fair and equitable manner. The department shall determine the effectiveness of the plan on an annual basis.

(3) Each electric and natural gas plan shall be in effect for 3 years.

(e) If an electric or natural gas distribution company or municipal aggregator has not reasonably complied with the plan, the department may open an investigation. In any such investigation, the utility company or aggregator shall have the burden of proof to show whether it had good cause for failing to reasonably comply with the plan. If the utility company or aggregator does not meet its burden, the department may levy a fine of not more than the product of \$0.05 per kilowatt-hour or \$1 per therm times the shortfall of kilowatt-hours saved or therms saved, as applicable, depending upon the facts and circumstances and degree of fault, which shall be paid to the Massachusetts Technology Park Corporation within 60 days after the end of the year in which the department levies the fine. The fine shall not impact ratepayers. The department of energy resources shall oversee the use of the funds held by the Massachusetts Technology Park Corporation under this subsection so as to maximize the amount of energy efficiency achieved.