

**CNT Energy Comments
on the
Illinois Commerce Commission's
Plan to Foster Coordination of Natural Gas and
Electric Energy Efficiency Programs**

March 30, 2012

I. Introduction

CNT Energy appreciates the opportunity to comment on the ICC's plan to foster statewide coordination of natural gas and electric energy efficiency programs. Our comments follow the outline of the ICC's Solicitation and Plan and focus on (1) coordination between utility and non-utility energy efficiency programs, (2) coordination around data analysis, (3) coordination between energy efficiency programs and on-bill financing, (4) coordinated contractor networks, and (5) the Commission's proposed statutory modifications.

As an energy efficiency implementer, CNT Energy appreciates this effort to understand and encourage coordination of energy efficiency programs. The Solicitation acknowledges that coordination is more difficult and costly in the context of comprehensive energy efficiency retrofit programs.¹ Yet, the single most important factor in the success of Energy Savers, CNT Energy's comprehensive energy efficiency retrofit program for rental apartment buildings, has been close coordination among all parties involved. Comprehensive retrofit projects require input from the apartment building owner, an energy assessor, one or more construction managers, multiple contractors, one or more financial institutions, and utility incentive providers. Our experience has shown that apartment building owners will not undergo these retrofits unless the process is streamlined and simple from their perspective. Without seamless coordination between all of the participating parties, the projects simply do not get off the ground.

In addition, our experience as an implementer of comprehensive retrofit programs targeting homeowners and small businesses has convinced us that current market practices can confuse these customers into an energy efficiency paralysis. This confusion dramatically reduces program uptake, increases costs to acquire customers, and decreases program savings. Contractors too, find energy efficiency programs to be unnecessarily complicated and costly to join. Improved coordination between utilities and between utilities and nonutility programs can alleviate this confusion and create a more attractive customer and contractor experience, increasing savings and reducing program costs.

We are eager to establish the coordination practices that allow comprehensive building envelope and HVAC retrofit programs to flourish. These retrofits provide cost-effective savings to consumers for 20 or more years after completion. And, they are sorely needed in Illinois, where Chicago area homes use nearly twice as much energy as the national average.² We are encouraged by this ICC effort and by the significant progress that utilities, stakeholders, and the energy efficiency industry have made to date, and hope that this effort improves coordination further.

¹ Solicitation at Pg. 10.

² Scheu, Rachel and Jessica Spanier. Half a Million Homes & Five Data Sets: A Delicious Retrofit Recipe. Presented at Affordable Comfort, San Francisco, CA., March 31, 2011. Online at <http://2011.acinational.org/sites/default/files/session/81123/aci11eval7scheurachel.pdf>

II. Coordination and Consistency of Energy Efficiency Programs

CNT Energy generally agrees with the ICC's characterization of the existing state of coordination, but would add two areas where coordination is needed, but currently lacking.

A. Coordination Between Utility and Non-Utility Programs

CNT Energy recommends that the Commission encourage utilities to coordinate with non-utility energy efficiency programs. Non-utility programs offer opportunities for utilities to leverage outside investment and resources to increase utility program effectiveness. In an effort to understand the market context in which utility programs operate, the Stakeholder Advisory Group (SAG) has solicited update presentations from several of the larger non-utility programs. Consequently, utilities and SAG participants are aware of these non-utility efforts and the opportunities that they provide.

To encourage coordination with non-utility programs, the Commission's plan should, at a minimum, address utilities' existing coordination efforts with the largest non-utility energy efficiency programs in Illinois, including:

- Energy Impact Illinois,
- the City of Chicago's Energy Efficiency Target Zones program,
- Illinois Home Performance with Energy Star, and
- the Energy Savers multifamily housing retrofit program.

With the exception of Home Performance, these particular programs do not operate in Ameren territory. Nonetheless, we recommend that Ameren also be encouraged to coordinate with any large non-utility programs in their territory.

1. Energy Impact Illinois

Non-utility energy efficiency programs add significant resources to the energy efficiency marketplace in Illinois. Energy Impact Illinois is an alliance of the Chicago Metropolitan Agency for Planning (CMAP), utilities, government agencies, and citizen advocacy groups working together to create a regional marketplace for building energy efficiency improvements in the seven-county CMAP region, including Rockford. The effort is made possible through a \$25 million grant from the U.S. Department of Energy (DOE). CNT Energy serves as the implementation agency for the program. Over the initial three-year effort, Energy Impact Illinois looks to:

- Leverage the federal investment with over \$125 million in private investments.
- Create more than 2,000 jobs (e.g., construction contractors, installers, energy auditors).
- Retrofit more than 6,000 units and 10 million square feet of commercial space, with at least 15-percent energy savings per retrofit.

ComEd, DCEO, Nicor, Peoples Gas and North Shore Gas have collaborated with Energy Impact Illinois on the program's design. Energy Impact Illinois' website steers prospective customers toward both utility and non-utility energy efficiency offerings. To the greatest extent possible, Energy Impact Illinois' programs are designed to be utilized with the utilities rebate programs.

2. The City of Chicago's Energy Efficiency Target Zones Program

The City of Chicago has announced an Energy Efficiency Target Zones program to significantly reduce energy use. While details of this program are still being developed, it promises to be of significant size and impact.³

3. Illinois Home Performance with Energy Star

Illinois Home Performance with Energy Star (IHPwES) offers homeowners the opportunity to earn an ENERGY STAR certificate for upgrading the energy efficiency of their homes. This certificate can be listed on the Chicago-area Multiple Listing Service (MLS) at the time a home is offered for sale, allowing potential home buyers to factor the energy efficiency of the home, and resulting costs, into the buying decision.

Illinois' utilities are working to coordinate their programs with IHPwES, but have not yet been entirely successful. Nicor's whole home program is currently designed to mimic IHPwES, without providing consumers with the crucial certificate. Nicor has indicated an interest in providing a certificate in later program years but, in the meantime, its absence is a lost opportunity for customers. At present, People's Gas is not running a whole-home program, but has indicated an interest in IHPwES when it begins such a program.

4. Energy Savers

Energy Savers is a partnership between CNT Energy and the Community Investment Corporation, an affordable housing lender. So far, Energy Savers has assisted owners of over 7,900 affordable and moderate income apartments in northern Illinois with comprehensive energy efficiency retrofits. The program provides apartment building owners with technical assistance, low-interest financing, construction oversight, and post-retrofit performance monitoring. The typical comprehensive Energy Savers retrofit on a three-story, 24-unit, masonry apartment building costs its owner \$ 47,000, but will return natural gas savings of 30%, or \$ 10,000, per year for 20 or more years.⁴

Energy Savers works with ComEd, DCEO, Nicor, People's Gas and North Shore Gas to cross-promote programs wherever possible. In addition, Energy Savers actively helps the customer navigate utility programs and align any relevant rebate requirements with the scope of construction. For example, Nicor's custom and prescriptive rebate programs are being used as part of the retrofit package for a large 1,000 unit project that is currently undergoing retrofit.

Non-utility energy efficiency programs offer utilities an opportunity to leverage outside investments, customer intake streams, and marketing to increase the effectiveness of their

³See press release at:

http://www.cityofchicago.org/city/en/depts/mayor/press_room/press_releases/2011/july_2011/mayor_emanuel_announcethatbloombergphilanthropieswillfundinnova.html

⁴ A 2007 GDS Associates report titled "Measure Life Report: Residential and Commercial / Industrial Lighting and HVAC Measures" prepared for the New England State Program Working Group found that weatherization, defined as air sealing, duct sealing and insulation lasted 20 years and insulation alone lasted 25 years. See Table 1, Pg 1-3.

programs, while also increasing the effectiveness of the non-utility program. Partnership should be encouraged anywhere that the value of a partnership is expected to be more than the sum of the individual programs.

B. Coordinated Guidelines for Data Analysis and Protection

Careful analysis of customer energy use data can provide important insights into the energy efficiency marketplace that can drive energy efficiency savings. The ICC, utilities and stakeholders are rightly concerned about the protection of energy use data, which is of the utmost importance to consumers. Consequently, CNT Energy recommends that the Commission's Plan include a strategy to create guidelines for the protection of consumer energy use data that allow for analysis critical to improving energy efficiency savings.

1. Data Analysis Is Critical to Improving Energy Efficiency Program Design and Implementation

Customer energy use data, when available for this purpose, can be used to understand the energy efficiency marketplace and to design both behavioral energy efficiency programs and more conventional building envelope and HVAC retrofit programs. Using this type of analysis can dramatically improve the effectiveness of these programs by (1) assuring that program designs account for local building characteristics and occupant behavior, (2) accurately representing local energy use where regional and national datasets and modeled results do not accurately represent local conditions (as is common in Illinois⁵), and (3) enabling program implementers to target their efforts where most needed. In addition, local governments can use this type of analysis to create sustainability and energy plans and to develop local economic development strategies around energy efficiency.

Three examples illustrate the use of energy consumption data to improve energy efficiency program design and implementation: (1) community energy and sustainability plans, (2) geographic mapping of energy use and intensity, and (3) the design of standard retrofit measure packages for application in specific building types.

First, communities can use aggregated energy use data to understand their current energy use patterns and project various energy use scenarios for the future. This type of planning allows communities to choose policy options that will result in the greatest economic development impact and relies on detailed consumer energy use data that is aggregated to the community level. Several communities in the Chicago area have recently completed energy plans or have included energy chapters in their broader sustainability plans. On June 14, 2011, the Kane County Board approved its 2040 Energy Plan.⁶ In addition, the City of Elgin's 2011 Sustainability Action Plan includes analysis and recommendations on energy conservation by businesses and

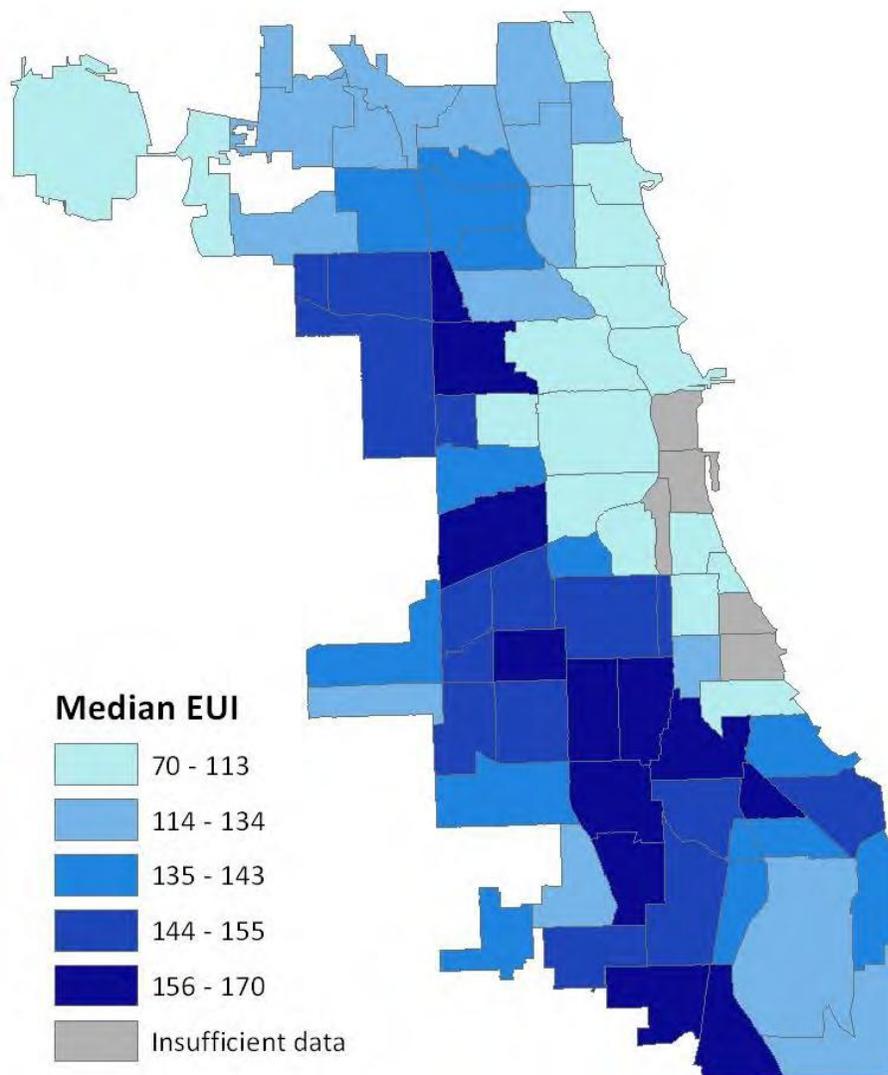
⁵ A CNT Energy comparison of US DOE's Residential Energy Consumption Survey (RECS) with energy use data from the Chicago Metro area shows that Chicago area homes use 129 kBtu/sf/year on average, while the national RECs average is 57 kBtu/sf/year and the East North Central regional average is 59 kBtu/sf/year.

⁶ Kane County's 2040 Energy Plan is available online at www.countyofkane.org/Pages/ARRA/kc2040ep.aspx

residents, energy efficient building policy, energy efficient building design, and financing efficiency projects.⁷

Second, more granular customer-level energy use data can be combined with available housing data to determine energy use intensity, a measure of a building's annual energy use per square foot. This information can then be aggregated to the neighborhood level and mapped to identify geographic areas where energy efficiency savings are most needed, as in Figure 1 below. Concentrating the marketing or delivery of certain efficiency programs in a smaller geographic area can reduce travel time and increase free word of mouth advertising, reducing retrofit program costs significantly.

Figure 1. Chicago Energy Use Intensity⁸



⁷ City of Elgin Sustainability Action Plan, version 2.1, August 2011 is available online at www.cityofelgin.org/index.aspx?NID=856.

⁸ Copyright CNT Energy 2011.

And third, careful analysis of large datasets of customer energy use and housing type data can be used to calibrate energy efficiency audit software to local conditions and to determine standard sets of measures that address the most common energy efficiency problems in the most common local building types. These standard sets of measures, once identified, could be applied to homes without performing a costly residential energy efficiency assessment. These assessments typically cost the homeowner between \$100 and \$400 and provide a significant barrier to residential retrofits, particularly for single-family homes. However, the appropriate standard set of measures for a region will vary considerably based on actual energy use, building age and type. What works in Chicago will not work in Metro East. Energy use data is needed to analyze the performance of the local building stock and create standard measure packages accordingly.⁹

2. Data Analysis Requires Clear and Coordinated Data Use and Protection Guidelines

There is no question that consumer energy use data must be carefully protected from misuse. Most states, including Illinois, rely on general customer protection laws to assure privacy of this type of customer data. However, these laws do not address the specific nature of energy use data or give guidelines for its protection or appropriate use. The potential benefits of using this data to better understand the energy efficiency marketplace are great, and call for the consideration of more comprehensive data protection regulations that contemplate these uses.

Illinois's regulations do not provide specific guidance regarding the sharing of customer energy use data for energy efficiency analysis purposes. Currently, it can be difficult for a utility's own vendors to obtain data for this type of analysis on the utility's programs, because of regulatory uncertainty and justified concerns for the data's protection. There is little clarity around the types of measures that must be put into place to properly protect this data. Consequently, while each utility has security requirements for vendors who use customer data in their program implementation and design processes, utilities are still reluctant to share data for these purposes. Less worrisome, but still a concern, are the program costs associated with data sharing delays and the uncertainty around appropriate security requirements for vendors who use data to create and implement coordinated energy efficiency programs.

CNT Energy recommends that the Commission's Plan include a clear statement that customer energy use data information can and should be used to design and implement effective energy efficiency programs. We also recommend that the Plan include a strategy for creating guidelines for data use that will allow Illinois communities and energy users to gain the benefits of rigorous energy efficiency-related data analysis, while maintaining responsible data security.

⁹ Jessica Spanier and Peter Ludwig. A New "Chicago Manual of Style" – Matching Architecture and Energy Use. Presented at Affordable Comfort Institute National Home Performance Conference, Baltimore, MD., March 30, 2012. Forthcoming online and available from CNT Energy.

C. Coordination Between Utility Energy Efficiency Programs and On-Bill Financing

Illinois' on-bill financing programs are not universally well-coordinated with energy efficiency programs. This lack of coordination is confusing to customers, who view on-bill financing for energy efficiency upgrades as a natural adjunct to energy efficiency programs.

CNT Energy is uncertain of the reasons that on-bill financing and energy efficiency programs are not well coordinated. We speculate that this failure may stem from operational decisions, such as housing program management functions in different utility departments. Or, coordination of these programs may raise some of the same evaluation concerns as coordination between utility and non-utility programs, discussed above in section II.A. Either way, we recommend that the Commission inquire about the barriers to coordination between these programs and encourage a solution.

D. Coordination of Contractor Networks

Utility and nonutility energy efficiency programs use contractor networks to sign customers up for programs, and perform equipment installations, air sealing, and insulation work. Creating and maintaining a contractor network requires significant administrative resources. Contractors must be convinced to join the network, and relevant information must be collected. In addition, to ensure quality workmanship, contractors should be screened for their qualifications and third-party certifications, and periodically re-qualified.

Each Illinois utility, and DCEO, have created and maintain their own contractor networks. While there is a geographic element to a network – contractors who work in Rockford are unlikely to also work in Quincy – there is a great deal of overlap in the administrative processes needed to maintain these networks.

CNT Energy recommends that the Commission encourage utilities to share a common contractor network, and that the network be screened for qualifications and third-party certifications to ensure quality. There is no need to create an entirely new network – a centrally administered network could be created from the existing networks at a lower cost than continued duplicative maintenance. This centrally administered network should also coordinate with non-utility networks, such as those run by Energy Impact Illinois.

III. Challenges to Coordination

A. Lack of Clarity Around Evaluation Treatment is a Challenge for Collaborations Between Utility and Non-utility Efficiency Programs

In addition to the challenges to coordination discussed in the Solicitation, CNT Energy recommends that the Commission include coordination challenges between utility and non-utility energy efficiency programs. These challenges can affect the ability of utility programs to fully leverage the resources in non-utility programs, and vice versa, to create the most cost-effective programs possible.

From CNT Energy's perspective, the greatest challenge to coordinating between utility and non-utility programs is the lack of clarity around the evaluation treatment of energy efficiency savings that result from these collaborations. Without clear guidelines that ensure the utility receives some savings credit, utilities are reluctant to embark on these collaborations and may also view non-utility energy efficiency programs as competing for future savings credits.

An example may illustrate the problem. Suppose that a homeowner upgrades the HVAC system in her home. To do so, she takes advantage of a jointly marketed, collaborative program that bundles a utility funded rebate and a non-utility-funded financing incentive, such as reduced interest rate financing. Later, as part of a utility program evaluation, an evaluator asks the homeowner if the utility's rebate was the deciding factor in making the upgrade. If the homeowner believes that she needed both the rebate and the financing incentive to make the upgrade, she may reasonably answer 'no.' In this case, absent clear evaluation guidelines that encourage collaborative programs, the evaluator may conclude that the utility rebate did not cause the upgrade, and so the utility should not receive credit for the energy savings that result.

Now, in Illinois, it is not clear that the utility would receive any credit for savings from such a jointly marketed, collaborative program. Given the utilities' need to meet their savings targets within limited budgets, the mere risk of a disallowance is enough to discourage this type of program, even where it is more cost-effective than another program. Consequently, CNT Energy recommends that the Commission eliminate this risk through clear evaluation guidelines would allow utilities to supplement ratepayer-funded programs with privately funded incentives. This would make smaller rebates go farther and, if seamlessly coordinated, could result in convenient, easy programs for the consumer.

B. Challenges to Coordinated Data Security and Analysis

As discussed above, the greatest challenges to rigorous and coordinated data analysis are the lack of clarity in current regulations regarding the protection of customer energy use data and the absence of a clear statement that this information can and should be used to design and implement effective energy efficiency programs, as a matter of public policy. As discussed above, CNT Energy recommends that the Commission's Plan include (1) a clear statement that customer energy use data information can and should be used to design and implement effective energy efficiency programs and (2) a strategy for creating data use guidelines that will accrue the benefits of rigorous energy efficiency-related data analysis, while maintaining responsible data security.

IV. Commission Plan

A. Continue to Encourage Coordination

As discussed above in section II.A., CNT Energy recommends that, in addition to encouraging coordination through SAG and CANDI, the Commission's Plan encourage utilities to coordinate with non-utility energy efficiency programs in a way that leverages those investments to gain greater efficiency than either program could garner alone.

B. Monitor Development of a Statewide TRM and Review the Final Product

CNT Energy agrees that the TRM is a useful tool for providing methodological consistency across utilities, and support its use and regular updates.

C. Work to Generate Consensus on Legislative Proposals

1. Increase Planning Periods from 3 to 5 Years

CNT Energy recommends that the planning period remain at three years. A three year planning period is sufficiently long to reduce keep costs reasonable. It is also sufficiently short to enhance flexibility, by creating a natural opportunity for utilities and intervening parties to examine the performance of the portfolio as a whole, and adjust accordingly. In addition, a three year planning period ensures that DCEO and utility programs remain well-coordinated over time, as discussed further in section IV.C.3. below.

2. Reduce or Eliminate the Emphasis on First-Year Savings

CNT Energy strongly agrees that reducing or eliminating the emphasis on first-year savings will improve the coordination and effectiveness of utility energy efficiency programs in Illinois. CNT Energy also agrees with the Plan's reasoning for pursuing this policy.

Starting and stopping programs adds program costs. In addition, starting and stopping programs is costly and confusing to customers. Customers expect seamless service, and rarely understand why a utility would retract an offer without stating an expiration date in advance. Programs that stop unexpectedly invariably impose costs on customers who are in the midst of the application or implementation phase, but have not completed their participation in the program. Participation in a program is never free, as even the easiest program involves valuable customer time. Programs that stop unexpectedly leave the customer with a strong negative impression, and have generated many angry calls to program providers in the past. That anger is not only targeted at the utility that stopped the program, but also to the vendors and contractors involved and to energy efficiency programs as a whole. Efforts to create continuity for customers in times of program transition are crucial to attracting future customers and improving the cost-effectiveness of energy efficiency programs as a whole.

CNT Energy also strongly agrees that longer term savings goals are more consistent with the stated objectives of Section 8-103(a) to reduce or delay the need for infrastructure investment. Reducing or eliminating the emphasis on first-year savings will encourage comprehensive building envelope and HVAC retrofit programs, such as Energy Savers described above in section II.A.4., which can create energy efficiency savings for 20 years or more. These programs involve relatively high first year costs, that are not matched by correspondingly high first year savings, even though they return relatively high levels of benefits to customers over many, many years. The current emphasis on first-year savings makes it difficult for utilities to emphasize these programs as a large part of their portfolio even though, on a lifetime basis, they are quite cost-effective.

3. Removing Commission Review and Approval of DCEO Programs

CNT Energy strongly recommends that the Commission retain oversight over DCEO energy efficiency programs that are funded by our electric and natural gas utilities. DCEO's energy efficiency programs must be well-coordinated with the utility programs to avoid duplication, overlap, and wasted resources. Filing a plan for Commission review provides a critical opportunity to assure that this coordination occurs. While there is, as noted in the Solicitation, a cost to develop and file a plan, that cost is outweighed by the benefits of the coordination it facilitates. The cost is also necessary to provide ratepayers the transparency and accountability that they expect from the use of their funds. In addition, while there is a cost to coordination between the utilities and DCEO to determine the savings for which each party is responsible, that cost is minimal. The determination of savings responsibility is a simple arithmetic calculation, and should not add significantly to program costs.

The Commission is the appropriate oversight agency. The Commission has the unique subject matter expertise needed to review and approve DCEO's programs and assure compliance with the statute's savings requirements. While DCEO does have decades of experience managing energy programs, those programs have not been subject to the cost-benefit and other constraints placed on Illinois' energy efficiency portfolio standard programs. Consequently, while their past experience is helpful in their administration of the programs, it does not preclude the need to review those programs in a contested proceeding.

4. The Commission Should Also Work to Generate Consensus on a Legislative Proposal Regarding the Analysis and Protection of Customer Energy Use Data for Energy Efficiency Program-Related Purposes

As discussed above, Illinois does not have customer protection regulations specific to the use of consumer energy use data. In addition, our current laws and regulations do not provide clarity around the analysis of customer energy use data to improve the design and implementation of energy efficiency programs. While our general customer protection laws have been adequate to assure privacy to date, the need to analyze this data to drive energy efficiency savings necessitates a more comprehensive data security scheme. With careful regulation, these two ends, responsible data protection and responsible data analysis, should be compatible.

Access to and use of customer data is a justifiably controversial issue, and there are many questions that must be answered to find a workable solution to this problem. But, if a solution is found that accommodates both of these interests, it will improve the effectiveness of our energy efficiency programs, reduce security risks, and lower costs for ratepayers.

V. Conclusion

CNT Energy appreciates the Commission's commitment to encouraging coordination in Illinois' energy efficiency programs, and the opportunity to comment. Our experience as an energy efficiency program administrator confirms the Commission's sense that coordination is critical to the success of utility energy efficiency programs. To summarize our recommendations, we hope that the Commission will:

- Encourage utilities to coordinate with non-utility energy efficiency programs;
- Provide clear evaluation guidelines where utilities coordinate with non-utility efficiency programs;
- Provide a clear statement that analysis of customer energy use data can and should be used to design and implement effective energy efficiency programs;
- Work with parties to create guidelines that will allow Illinois to enjoy the benefits of rigorous data analysis, while maintaining responsible data security;
- Encourage coordination between energy efficiency and on-bill financing programs;
- Encourage utilities to share a common network of contractors that have been screened for qualifications and third-party certifications;
- Work toward consensus legislation that reduces or eliminates the emphasis on first-year savings; and
- Retain oversight over DCEO energy efficiency programs that are funded by electric and natural gas utilities.

Respectfully Submitted,



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