



Citizens Utility Board

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Comments of the Citizens Utility Board on the 2014 Illinois Power Agency Draft Procurement Plan

September 16, 2013

The Citizens Utility Board (“CUB”) appreciates the opportunity to provide comments on the 2014 Illinois Power Agency (“IPA”) Draft Procurement Plan (“Draft Plan”). CUB commends the IPA on a well developed Draft Plan, and agrees with many of the policy recommendations and procurement choices. CUB provides these comments in response to areas where the IPA has requested stakeholder feedback, and to provide additional support for several of the IPA’s proposed strategies for mitigating the impacts of portfolio requirements and market volatility on the supply rates paid by Commonwealth Edison Company (“ComEd”) and Ameren Illinois (“Ameren”) eligible retail customers.

The IPA has a difficult mission to fulfill. Each year the IPA must structure a procurement plan that will ensure “adequate, reliable, affordable, efficient, and environmentally sustainable electric service at the lowest total cost over time.” 220 ILCS 5/16-111.5(d)(4). 2014 presents new opportunities for the IPA to explore ways to manage the impacts of changing supply prices and uncertain portfolio size on its ability to achieve its goals. In particular, this year presents an excellent opportunity to examine the ways that the procurement of energy efficiency and demand response can mitigate some of the supply risks identified and explained by the IPA in its Draft Plan. CUB looks forward to working with the IPA, the Illinois Commerce Commission (“ICC” or “the Commission”), both utilities and other stakeholders to explore how best to take advantage of Illinois’ potential for robust energy efficiency and demand response programs, and to improve the electricity infrastructure via the IPA procurement.

Section 6: Managing Supply Risks

6.7 The Risks of Spot Markets and Full Requirements Supply

The IPA accurately captures the many risk factors that will affect how much or how little difference there is in final energy supply costs from initial energy cost estimates. Prominent among these are risks are capacity prices, energy prices and customer switching. As the IPA explains, its historic procurement strategy of buying power in laddered fashion means that trends in customer migration to and away from utilities can be magnified if there is a lag in reflecting the utility's energy costs in customer rates. Volume changes resulting from these pricing differences may result in additional price risks for utility customers.

The current supply portfolios of Ameren and ComEd, by chosen strategy/portfolio design, do not perfectly hedge this risk, primarily due to load uncertainty, the mismatch of demand and hedge profiles, and the correlation between price and load. One option the IPA discusses for managing this risk is the use of full requirements contracts, which provide a form of insurance by outsourcing supply risk to a third party.

CUB is opposed to using full requirements products as a hedge. As the IPA explains, the choice to buy full requirements should not depend on the absolute magnitude of that price premium but rather on whether that price premium is comparable to the value that consumers would obtain by eliminating the uncertainty around the price. For a full requirements supply hedge, the IPA's own analysis shows that the risk premium is too expensive compared to other management tools, such as energy efficiency and demand response, identified by the IPA. As the IPA notes, in New Jersey, full requirements pricing can change abruptly with suppliers' perceptions of risk. Here in Illinois, the IPA exists in part precisely because of problems associated with full requirements contracts, and managing the risk associated with supply prices and load size is the reason a third-party agency like the IPA was created. For these reasons, CUB supports the conclusion of the IPA that alternatives to full requirements contracts should be adopted to manage supply and price risk.

Section 7: Resource Choices for the 2013 Procurement Plan

7.1.3 Incremental Energy Efficiency – Additional Policy Considerations

This is the second year the IPA is procuring incremental energy efficiency pursuant to Section 16-111.5B of the Act. The IPA reports that the Ameren programs from the 2013 Plan are forecasted to: (1) provide incremental net energy savings of 70, 834 MWh, (2) reduce the energy required for the IPA procured portfolio by 25,409 MWh, and (3) lower peak demand by 4 MW. IPA Draft Plan at 79. The ComEd programs are forecasted to provide an annualized savings goal of 173,753 MWh, and the annual savings estimates for ComEd customers served by the IPA range from 22,574 MWh for the 2013 delivery year to 39,688 MWh for the 2014 delivery year. ComEd estimates the programs will reduce peak demand by up to 6 MW. *Id.*

The IPA incremental energy efficiency programs, along with the statutory Energy Efficiency and Demand Response Portfolio Standard (“EEPS”) programs that ComEd and Ameren administer pursuant to Section 8-103 of the Act, provide immense benefits to ratepayers. These programs lower demand for electricity, which lowers the overall cost of electricity supply and the amount of supply needed to meet demand. The programs provide a means for Illinois consumers to invest in energy efficiency in their homes and businesses, lowering their bills and enabling them to take control over how much they spend on electricity. When consumers spend less money on electricity prices, they are able to spend more money in the local economy. Energy efficiency programs also ease congestion on the grid, reduce the need to build expensive new power plants, and reduce utilities’ need to rely on the most expensive and polluting power plants when demand is high.

The incremental energy efficiency procured by the IPA is a consequential component of Illinois’ energy efficiency potential. The 8-103 EEPS programs, which are funded by Rider EDA for both Ameren and ComEd, must not raise customer bills by more than 2.015% of the amount paid per kilowatthour (“kWh”) by those customers. 220 ILCS 5/8-103(d). Under this rate cap, ComEd and Ameren have been achieving savings of about 1% each year. The statute calls for the utilities to achieve savings of 1.8% by the year beginning June 1, 2014, the same year as this Draft Plan. 220 ILCS 5/8-103(b). The incremental energy efficiency procured pursuant to Section 16-111.5B of the Act provides an opportunity for the IPA to procure

additional cost-effective energy efficiency programs from utilities and third party vendors. Additionally, these programs have the potential to reduce the amount of electricity procured by the IPA, thereby providing further benefits to retail customers of the IPA. If the rules around the procurement of these programs are properly designed, Illinois has the potential to become a national leader on energy efficiency, and a model for other states on how to integrate energy efficiency into procurement planning.

As this Draft Plan will only be the second time the IPA has procured energy efficiency, many questions remained as to how the process should operate to serve the interest of ratepayers. The Commission ordered the IPA and the Staff of the Illinois Commerce Commission (“Staff”) to initiate a workshop process following the Final Order in ICC Docket No. 12-0544, regarding the 2013 IPA Plan. Stakeholders, utilities, Staff, and the IPA reached consensus on many issues through that process, including that the IPA programs are separate from the 8-103 portfolios, and as such that the utilities will exercise minimal administrative control over non-utility administered programs. CUB participated and submitted comments in the workshops, and supports the direction of the discussions. As the IPA correctly points out, questions remain about this process in the second year of energy efficiency procurement. CUB believes that two of the most important questions to discuss are how to ensure that all cost-effective energy efficiency is being procured, and what authority the utilities, the IPA, and the Commission have in reviewing and approving or rejecting program bids. Below, CUB will respond to the questions the IPA raised under the corresponding sections of the Draft Plan.

7.1.3.1 Feedback Mechanisms

The IPA states that the first issue of concern to the agency is the lack of an “adequate feedback loop” that would ensure the “statutory goal of ‘fully capturing’ the potential for all achievable cost-effective savings, to the extent ‘practicable,’” is being met. IPA Draft Plan at 80. The IPA believes the combination of new third party programs and expanded utility programs “may not fully meet the outer boundaries of the potential study in any given year.” *Id.* CUB agrees with the IPA that the current process does not necessarily capture all cost-effective energy efficiency. The IPA requested stakeholders recommend “changes to the third-party bidding process to allow for more flexibility,” and “help identify more programs that are technically and

economically ‘feasible,’ ‘cost effective,’ and ‘practicable,’ as required by the statute.” *Id.* at 81. The IPA emphasizes that the potential studies required by Section 16-111.5B of the PUA provide a benchmark for determining whether all possible energy efficiency is being procured. Section 16-111.5B of the Act requires ComEd and Ameren to produce a comprehensive energy efficiency potential study for each utilities’ service territory that was completed within the last three years. 220 ILCS 5-16-111.5B(a). “Potential studies” include comprehensive market research on residential, commercial, and industrial customer sectors. They include estimates for benchmarking potential energy efficiency achievement under four tiers typically used in utility resource planning, including naturally occurring conservation, and technical, economic, and achievable potential. There are currently two issues with the potential studies. The first is timing; both ComEd and Ameren released the most recent potential studies in the summer of 2013, the same time they are submitting assessments of potential cost-effective energy efficiency programs to the IPA. It would be ideal for potential studies to be released in the fall of the year prior to the utilities filing the three year portfolios. Then they will be available to utilities in the year prior to the filing when they are planning the portfolio, and prior to third party vendors submitting responses to RFPs in the spring of that same year. This allows utilities and vendors an opportunity to review and consider the most recent data available on potential before designing and submitting program bids. Additionally, stakeholders have taken issue with the substance and inputs of the potential studies via the Stakeholder Advisory Group (“SAG”) process. For example, this year, it was not clear that drafts of Ameren’s potential study reflected the new landscape for energy efficiency in Illinois, including the incremental 16-111.5B programs, in addition to the utility portfolio programs. In order for the potential studies to truly aid in setting a benchmark on how much energy efficiency is possible, and be informative to efficiency providers as well as the Commission and stakeholders, the Final Plan should include a Commission requirement that utilities to work with stakeholders on establishing basic parameters and requirements for how the potential studies should be structured in the SAG process.

Regarding the IPA’s request for feedback on how to make the Requests for Proposal (“RFP”) process more inviting to third party bidders, as discussed during the IPA and Staff workshops, third party vendors who bid programs for the 2013 and 2014 Plans should be invited to participate in a workshop process to discuss existing roadblocks and potential improvements

to the bidding process. Going forward, as part of the bid solicitation process, ComEd and Ameren should highlight findings from the most recent potential studies, specifying what programmatic opportunities exist, as well as provide detail about existing programs in the RFPs for energy efficiency programs. RFP design is critical to ensuring that energy efficiency potential is being fully captured; utility RFPs should be user-friendly to state agencies, municipalities, nonprofits, and other possible types of third party vendors.

There are several issues with the RFPs issued by the utilities this year, which were written and released prior to the IPA/Staff workshops. That workshop process provided clarity and consensus on many issues, which utilities will likely reflect when issuing future RFPs. Namely, the third party programs will not be administered as though they are part of a utility 8-103 portfolio, which is subject to savings goals and penalties. CUB believes it is necessary to memorialize what language utilities should not include in RFPs, as some of the language this year may have prevented efficiency providers from submitting program bids.

ComEd and Ameren's RFP's each included language that likely discouraged potential third-party vendors. ComEd's RFP stated that third party vendor programs may be taken over by ComEd if ComEd believes it would "enhance" the program. ComEd RFP at 7, attached as Appendix A. Such a move would strip vendors of administrative and financial autonomy they may require to run a program, and likely prevented potential vendors from submitting bids. Ameren's RFP stated that the utility will administer the programs on behalf of vendors. Ameren RFP at 6, attached as Appendix B. This language suggests that Ameren would effectively administer all third party vendor programs as though they were part of the 8-103 Act on Energy portfolio. Ameren's RFP also states that the Company has a right to modify the scale of a program. *Id.* The utility's ability to significantly modify the size of a program likely hampered the number of third-party vendors interested in submitting bids. If vendors believe the utility may intervene to run the program, it creates great uncertainty which will likely prevent efficiency providers from submitting bids.

Another aspect of this year's RFPs which may have inhibited the number of bids received is the contract length specified. While ComEd accepted bids for programs lasting from 1-3 years, while Ameren only accepted bids for programs lasting 1 year. While three years is a significant improvement, both are too short a timeframe for many efficiency vendors to find

attractive, considering vendors do not have a guarantee that the contract will be extended. In future years, ComEd and Ameren should accept bids from vendors for an open-ended number of years. While longer programs may introduce concerns because utilities could be tied to poorly performing programs for a longer number of years, these can be handled on a case by case basis, as well as through contract design that minimizes risk to ratepayers. Not limiting the number of program years will allow many more types of programs to become eligible for being part of the IPA procurement. While both utilities will likely amend the language in future RFPs to reflect recent consensus on the authority issues raised above, the Final Plan should request that the Commission issue an order making it clear that third party vendors will retain autonomy in administering programs under the IPA process, and prohibit the utilities from capping the number of years they will accept efficiency program bids for. Section 16-444.5B does not grant utilities the authority to determine how many years of energy efficiency can be procured through this process.

Both utilities' RFPs specified that potential programs cannot compete with existing utility programs. ComEd RFP at 2 and Ameren RFP at 4. As the IPA states in Section 7.1.3.4 of the Draft Plan, there is no Commission-approved standard for terms such as "competing" or "duplicative." IPA Draft Plan at 82. The Act does not define these terms, nor does it state that the IPA incremental programs should not be competing with or duplicative of 8-103 utility programs. As such, the Act does not grant utilities the authority to reject bids for programs similar to existing ones, or exclude such bids from even being considered. The issue of competing and duplicative programs is a complicated one that has not been discussed yet in Illinois. Other states have taken a variety of approaches, and there are various benefits and issues associated with "competing" programs that CUB believes should be discussed. The IPA's plan should request that the Commission order a workshop process to discuss this issue, perhaps in conjunction with the proposed workshop for third party vendors to discuss their experience being bidders in this process. CUB believes it would be premature for the Commission to make determinations on this issue when interveners have not yet had a chance to discuss it, and perhaps agree on an approach going forward. As such, absent authority from the Act, utilities should not prescribe what types of programs are ineligible to participate in the procurement process in the RFPs.

A final issue that relates to the IPA's request for recommendations to allow for more flexibility in the third-party bidding procedure is the lack coordination between utilities and vendors once proposals are received. If there are problems with a vendor's bid, such as a program not being found cost-effective, bidders are currently not given an opportunity to revise the proposal and resubmit it for consideration. CUB understands that giving vendors multiple opportunities to submit bids may enable vendors to drive up program costs for profit, provided the program still passes the Total Resource Cost ("TRC") test, at ratepayers' expense. However, there is currently no opportunity for vendors to amend or improve programs after ComEd has found them to be not cost-effective. CUB believes there should be an opportunity for vendors to work with utilities on submitting cost-effective bids. The goal of the IPA energy efficiency procurement process is to maximize energy efficiency for the benefit of ratepayers and IPA customers. The current process is unnecessarily inflexible and limits the number of bids which are actually successful. CUB recommends that the IPA request that the Commission order the utilities to work with stakeholders, Staff, and vendors to put in place a process that will maximize the number of viable program bids without exposing ratepayers to risk from vendors seeking to overestimate costs.

7.1.3.2 Transition Year Program Expansion

The IPA states that in years when ComEd and Ameren file their three year portfolio plans for the 8-103 programs, the timing of the filings and dockets presents a challenge to ensuring that maximum energy efficiency is procured. IPA Draft Plan at 81. In years such as this one, utilities must include in the assessments of cost-effective energy efficiency programs required by Section 16-111.5B what 8-103 programs the utilities plan to expand and include in the IPA procurement, before the utility has filed or received approval from the Commission on 8-103 programs for the plan years under consideration by the IPA. The IPA presented comprehensive suggestions for the issue of years when the IPA procurement falls in the three year planning cycle for the utilities, such as approving "competing" third party programs pending the approval of utility programs. CUB appreciates the IPA's strategic and pragmatic approach regarding this issue. CUB notes that utilities have stated they are transitioning toward an approach where IPA and 8-103 programs are treated separately, so that 8-103 programs would no longer be expanded as part

of the IPA procurement, but rather either retained as part of the portfolio or moved to be part of the IPA procurement. This approach could help remedy the situation the IPA describes, where there are not yet Commission approved 8-103 programs to expand.

7.1.3.3 DCEO Participation

The IPA notes that the Department of Commerce and Economic Opportunity (“DCEO”) may “have administrative limitations regarding contracting that could preclude that option in future years,” and hope that DCEO will provide details on these limitations in comments and objections. IPA Draft Plan at 81. CUB supports the participation of DCEO in the IPA incremental energy efficiency procurement, and the IPA’s request for DCEO to provide detail on what roadblocks the agency has faced in participating in the process. Through the 8-103 programs, DCEO serves the low income sector, and CUB believes it is imperative that this sector is reached through the IPA programs as well as through the EEPS. CUB looks forward to discussing any roadblocks DCEO has experienced in participating in this process, and hopefully resolving this issue for future years. To the extent possible, CUB supports the IPA’s support for including any cost-effective programs DCEO submitted to the IPA this year to be included in the 2014 Plan. IPA Draft Plan at 82.

7.1.3.4 Consideration of All Third-Party Bids

The IPA raises many important questions related to “competition between incumbent utility programs and third party RFP programs.” Among them, are:

- 1) What it means for a third-party bidder’s proposed program to be “competing” with or “duplicative” of a utility program. The IPA states they are not aware of a Commission-approved standard for these terms, and requests the Commission define these terms. IPA Draft Plan at 82.

As discussed above in Section 7.1.3.1, CUB believes it would be premature to define these terms. Rather, all cost-effective programs should be included in the assessments the utilities submit to the IPA. Similar programs may have significant differences, such as

targeting different geographic areas or using alternate marketing channels. They may also have strengths which may or may not be clear based on the results of the TRC test. And, even if programs are very similar, the utility program may not be meeting the potential of the program, as defined in the utilities' potential studies, and a third party vendor program may be one way of ensuring that that potential is reached. Program bids which are similar to existing programs should be evaluated on a case-by-case basis to determine whether they would enhance offerings in a particular market, or increase administrative costs to consumers if the programs are duplicative. CUB supports the IPA's request for input from the Commission on these issues, although CUB believes it would be premature to define these terms before stakeholder discussions on the issue of "competing" or "duplicative" programs has taken place. The IPA should request that the Commission order vendors, utilities, stakeholders, and the IPA to discuss this issue through a workshop process, and in the interim in this Plan filing, the Commission should approve or disapprove of "competing" or "duplicative" programs on an individual basis.

- 2) Whether the Commission has the authority to reject a third-party program that is "competing" or "duplicative" of a utility program. The IPA states they are not aware of a statutory precedence for this authority, but believe the terms "new," "expanded," and "incremental" could suggest a requirement that incremental programs be "additive," which suggests being non-competing and non-duplicative. IPA Draft Plan at 82.

CUB appreciates the IPA's close reading of the Act, but does not believe the statutory language that the IPA cites that calls for programs to be "additive" necessary means the programs must not be duplicative or competing. The IPA also mentions multiple reasons for why such programs may be useful.

- The Ameren program that is duplicative of the Company's Small Business Direct Install program has a higher TRC and may use an alternate delivery mechanism that could make the third-party vendor program superior. IPA Draft Plan at 83.
- Third party vendor programs could be approved while expanded utility programs may not be. *Id.* at 86.

- Two of the ComEd third party Small Business Energy Services programs may have more effective “targeted marketing strategies.” *Id.*

The IPA also notes that the benefits of conducting test runs of these programs “must be weighed against the costs of overlapping overhead and administrative charges.” *Id.* CUB agrees. While CUB does not believe the Act suggests that competing or duplicative programs should not be included, the Commission has the authority to determine whether programs are technically and economically feasible, cost effective, and practicable, per the Act. 220 ILCS 5/16-111.5B. It is within the Commission’s authority to find that a program which may be considered “competing” or “duplicative” is or is not practicable and reject or accept that program depending on whether or not it will provide benefits to ratepayers.

- 3) Whether utilities or the IPA should screen out programs that may be “competing” or “duplicative” of utility programs. Draft Plan at 82.

The IPA reports that this year, six programs, one from Ameren, and five from ComEd, were found by the utilities and/or the IPA to be to some extent competing with or duplicative of existing utility programs. As CUB previously mentioned, both utilities’ RFPs included language stating that bids should not be duplicative of utility efforts, so more program bids may have been received were it not for this language in the RFPs. CUB does not believe that Section 16-111.5B of the Act suggest that there should be a preference for utility programs over third party vendor offerings. As such, CUB does not believe that the utilities or the IPA has the authority to screen programs for this purpose. However, CUB believes input from both the utilities and the IPA on the merits of individual programs would be valuable and informative for the Commission in determining whether or not to approve programs.

7.1.4 Ameren Incremental Energy Efficiency

Ameren submitted five programs for IPA review, including three expanded utility programs, and two third party vendor programs. IPA Draft Plan at 83. These programs are forecasted to provide 65,680 MWh of net savings, a peak load reduction of 2 MW, and savings

of 17, 950 MWh to eligible retail customers of the IPA. *Id.* Because Ameren has not received Commission approval of its 8-103 EEPS plan for programs beginning in June of 2014, Ameren's submission "represents one year of savings and costs." Appendix B, Energy Efficiency Submittal at 4. Ameren does state that the Company "reserves the right to submit multiple years of programs and savings in future submissions," to hopefully make up the shortfall for the reduced submission this year. *Id.* As a result of Ameren's decision to not bid in all future 8-103 programs which would be candidates for expansion, the MWh goal of Ameren's submission is smaller than last year's "because of the lack of expansion of programs authorized pursuant to Section 8-103." IPA Draft Plan at 82. This year's forecasted savings are 5,154 MWh lower than last year's, the reduction in peak demand achievement is 2 MW lower, and the reduction in savings to eligible retail customers is 7,459 MWh lower. Ameren included five programs in its assessment to the IPA this year. IPA Draft Plan at 83. Last year Ameren proposed eight programs in its assessment. Ameren Load Forecast, Appendix 1, in ICC Docket 12-0544 at 48-52. CUB is disappointed that Ameren's assessment constitutes fewer programs and a smaller MWh reduction this year. Presumably, in years when utilities file the 8-103 EEPS plans, utilities would have more flexibility to forecast greater achievement of savings for programs which are being expanded under the IPA procurement. Ameren's conservative approach towards this year's procurement is a missed opportunity for energy efficiency. Like the IPA, CUB hopes that through the litigation of this year's procurement plan stakeholders and utilities will put forward a solution for the Commission's review, so that this issue will not reoccur in future 8-103 plan filing years. As discussed below, ComEd's approach of housing programs either entirely under the IPA or the EEPS portfolio may provide a solution, particularly in 8-103 Plan filing years.

- **7.1.4.1 Duplicative Programs:** Ameren received a bid for a Small Business Direct Install program proposal from a third party vendor that the Company considers to be duplicative of an existing Company program. IPA Draft Plan at 83. The vendor program would target class B and C commercial customers, and has a TRC of 2.69, whereas Ameren's existing program targets a wider range of customer classes, and has a TRC of 1.14. *Id.* CUB agrees with the IPA that because of these differences, it is not possible to determine whether the vendor program delivers savings more cost-effectively. However, CUB notes that the

program is cost-effective, and as such should be included in the Company's assessment to the IPA, regardless of whether it is considered duplicative of a utility program. Importantly, the IPA suggests that there may be value in testing alternative delivery mechanisms for this program. CUB agrees, and recommends the IPA include this program in its Final Plan. CUB looks forward to reviewing any additional information about this program from the vendor and Ameren in litigation that may follow the IPA's release of the Final Plan.

- **7.1.4.2 Student Energy Kits:** Ameren included in its assessment a description of a cost-effective third party vendor program that would deliver energy education kits to students; however, Ameren did not recommend the IPA include that program because it is a dual fuel program, and it targets an area served by Nicor Gas Company ("Nicor Gas"). Draft Plan at 83. CUB supports the IPA's suggestion to approve this program pending an agreement that Nicor Gas would participate, possibly as part of its EEPS portfolio. *Id.*
- **7.1.4.3 Expansion of Small Business Direct Install Program:** Ameren submitted for the second year in a row its Small Business Direct Install program. IPA Draft Plan at 84. Ameren stated that it could expand the program to achieve savings of around 73,435 MWh, but recommended that the program be approved on a smaller scale, to achieve only 30,719 MWh, because it is a relatively new program. *Id.* The IPA states that there is little risk to Ameren with expanding the program, and CUB agrees. In general, the goal of the IPA procurement of incremental energy efficiency is to expand existing programs, and utilities should seek to maximize achievement of savings under programs under the IPA procurement.
- **7.1.4.4 Ameren Requested Determinations:** Ameren requested that the Commission make several determinations related to the Company's filing. The Company's first two requests are similar. The Company seeks approval for "an indeterminate fluctuation in savings that may occur by program year end," and "confirmation that AIC is permitted to recover costs that incidentally (3-5%)

exceed the estimated program costs as consistent with the Commission finding in the ComEd energy efficiency ‘Plan 2’ plan docket #10-0570.” Ameren Appendix B, Energy Efficiency Submittal at 12. CUB believes that these requests are innocuous, but do not reflect the paradigm of procurement under Section 16-111.5B, and instead seem to reflect the paradigm of the EEPS programs under Section 8-103 of the Act. The IPA programs do not operate under the rate cap of the 8-103 programs, nor are they subject to the penalty for failing to achieve savings that the Company is subject to for the EEPS programs. As such, CUB believes these requests for Commission guidance or unnecessary, but does not oppose Ameren seeking them.

Ameren also requests that savings estimates determined using current Technical Reference Manual (“TRM”) and Net to Gross (“NTG”) values for IPA energy efficiency programs be fixed for implementation and evaluation for the determination of achieved savings. *Id.* at 11. CUB supports this request, which was agreed upon by most, if not all participants in the workshop process, and believes fixing TRM and NTG values for the IPA programs is necessary for utilities and vendors to have reasonable certainty of program outcomes from the time they bid programs for inclusion until the time those programs are evaluated.

7.1.5 ComEd Incremental Energy Efficiency

ComEd submitted seven programs for inclusion in the IPA procurement plan. The IPA reports that the net savings are 431,563 MWh for the first program year, 548,458 MWh for the second program year and 609,929 MWh for the third program year. The programs will deliver 16 MW of peak reduction, and provide savings of 88,669 MWh in the first program year, 136,766 MWh in second program year, and 183,117 MWh in the third program year to eligible retail customers. IPA Draft Plan at 85. ComEd is forecasted to increase savings from last year’s procurement by 257,810 MWh, lower peak demand by an additional 10 MW, and provide additional savings of 66,095 MWh to eligible retail customers. CUB commends ComEd for vastly increasing forecasted savings for the IPA programs. To the extent this approach has

enabled this achievement of savings, CUB comments ComEd for both expanding two existing 8-103 programs, Home Energy Reports and Small Business Energy Services, and moving these programs entirely under the IPA umbrella. With this approach, ComEd avoided requiring Commission approval of proposed 8-103 programs before bidding expansions into the IPA procurement.

- **7.1.5.1 Duplicative Programs (Current Portfolio):** The IPA reports that two bidder programs compete with existing ComEd 8-103 programs that have not yet been approved by the Commission for the 2014 Plan Year. **IPA Draft Plan at 85.** The IPA recommends that the Commission conditionally approve the two vendor programs contingent on the ComEd programs not being approved in the 8-103 plan filing docket. *Id.* at 86. Under this scenario, if the ComEd 8-103 programs are approved, the vendor programs would not be approved. CUB appreciates the IPA’s detailed consideration of this issue, and proposal for maximizing the procurement of energy efficiency programs under the current regulatory schedule. However, as mentioned earlier, CUB sees no basis in Section 16-111.5B of the Act for vendor programs to not be procured by the IPA because they are similar to existing utility programs. CUB recommends that all cost-effective programs should be submitted for the Commission’s consideration. The Commission should consider whether the utility program proposal would achieve all potential savings as identified in the potential study, or whether the vendor program would help reach the market potential, and whether vendor proposals offer advantages that the utility program may lack. The Commission should authorize “competing” or “duplicative” programs on a case-by-case basis until the utilities, IPA, stakeholders, and vendors have participated in workshops and further discussed the merits and complications of similar programs coexisting in a market.
- **7.1.5.2 (Duplicative Programs (Small Business Energy Services):** The IPA reports that ComEd excluded three vendor programs which the Company found to be duplicative of its Small Business Energy Services program that was included in the IPA filing. **IPA Draft Plan at 86.** Two of the vendor programs have a lower

TRC than the ComEd program, and one has a higher TRC. The IPA reiterates that the TRC fails to provide an “apples to apples comparison” when programs have a different scope or serve a different market. *Id.* The IPA believes there may be merit in including two of the programs, which target specific business sectors, to test targeted marketing strategies. However, the IPA notes again that the benefits of including multiple similar programs must be weighed against the costs of overlapping overhead and administrative charges. *Id.* Again, CUB appreciates the IPA’s comprehensive examination of this issue, and concurs with the IPA that having multiple similar programs in a market may provide benefits, but may also increase costs. As CUB has stated, the Act does not grant utilities the authority to reject programs for being competing or duplicative, and instead instructs the utilities to include *all* cost-effective programs in the assessment they submit to the IPA. 220 ILCS 5/16-111.5B(b). The Commission should authorize “competing” or “duplicative” programs on a case-by-case basis until the utilities, IPA, stakeholders, and vendors have participated in workshops and further discussed the merits and complications of similar programs coexisting in a market.

- **7.1.5.3 ComEd Requested Determination:** ComEd requested approval from the IPA and the Commission for procurement of programs for three years. ComEd Appendix C at 26. The IPA supports this request. IPA Draft Plan at 86. CUB supports ComEd’s request to run programs for up to three years, but believes three years should not be the maximum allowed program length. The Act does not call for a maximum number of program years, and if the number of years were expanded, many more programs would likely be eligible for inclusion. CUB recommends that the IPA request that the Commission provide a determination on whether the utilities should request program proposals for longer than three years.

7.1.6 Energy Efficiency as a Supply Resource

CUB agrees with the IPA that one reason the procurement of incremental energy efficiency pursuant to Section 16-111.5B of the Act was directed by the General Assembly was

to reduce procurements during peak hours, when demand and prices for electricity are highest. IPA Draft Plan at 86. Moreover, CUB supports the conclusion of the IPA that the incentives and procedures for the Section 16-111.5B incremental energy efficiency programs do not sufficiently capture energy efficiency programs that will lower demand during peak hours. *Id.* Because the Section 16-111.5B programs are aimed at lowering consumption on an annualized basis, they will not lead to sufficient peak demand reduction at times where absolute price, price volatility, and the potential benefit to eligible retail customers are greatest. Energy efficiency programs that deliver kWh reductions during peak hours will lead to lower prices during peak times. To the extent the IPA procures such programs, there is opportunity for all customers, IPA or not, to benefit from lowered electricity prices.

CUB commends the IPA for investigating the feasibility of a future procurement of “negawatts,” defined here as peak load reductions backed by energy efficiency that must be bid and deliver every on-peak hour. IPA Draft Plan at 86. In response to the IPA’s request for stakeholder comment, CUB offers the following proposal, developed in conjunction with Synapse Energy Economics, Inc.

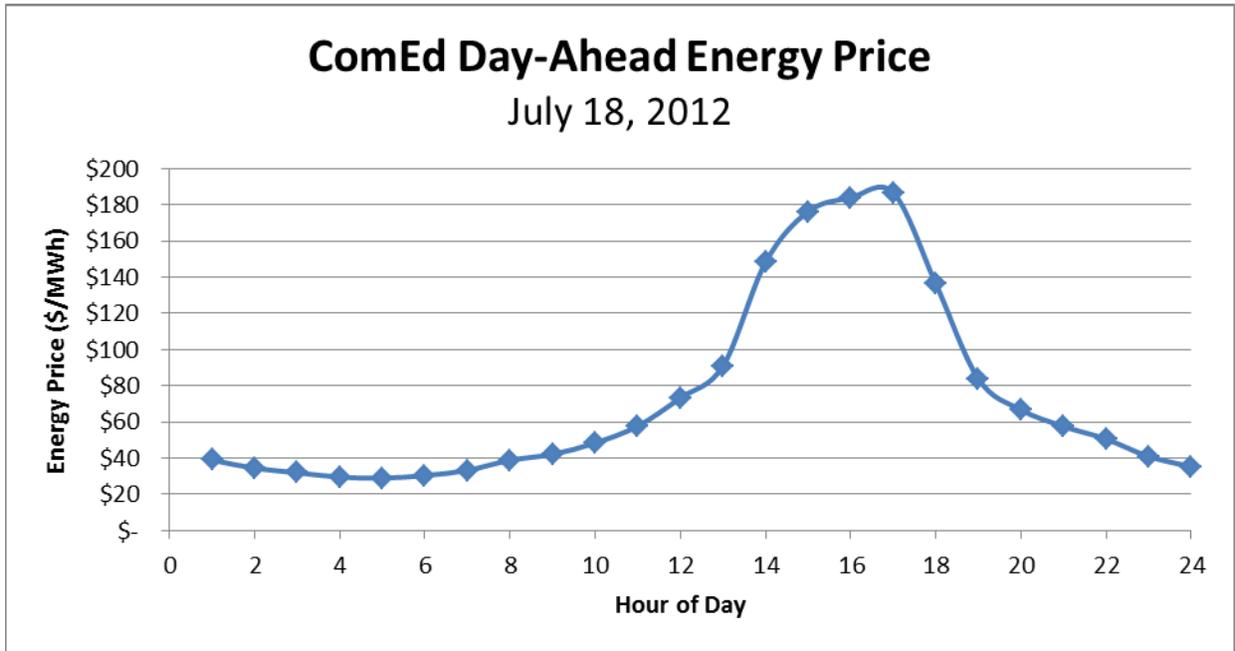
A “negawatt” procurement program is feasible and desirable. Creation of a “negawatt” market in Illinois will help drive investment in energy efficiency and demand response programs, and procurement of these resources will have direct monetary benefits to eligible retail customers since these resources are almost always cheaper than the cost of procuring the equivalent supply. According to PJM’s Demand Side Resources Activity Report dated August 13, 2013¹, over 600 locations in the ComEd territory are participating in the economic program, creating 420 MW of demand response. More than 1,000 MW are participating in at least one program. Some customers may experience barriers to participating in these programs, including the lack of a long-term contract and additional compensation for up-front investments in control equipment. These barriers prevent more customers from participating in the energy market, especially at high prices, when participation is most lucrative. The upcoming installation of smart meters that measure and report customer usage at hourly intervals across ComEd and Ameren’s service

¹2013 DSR Activity Report 8-13-2013, Slide 2.

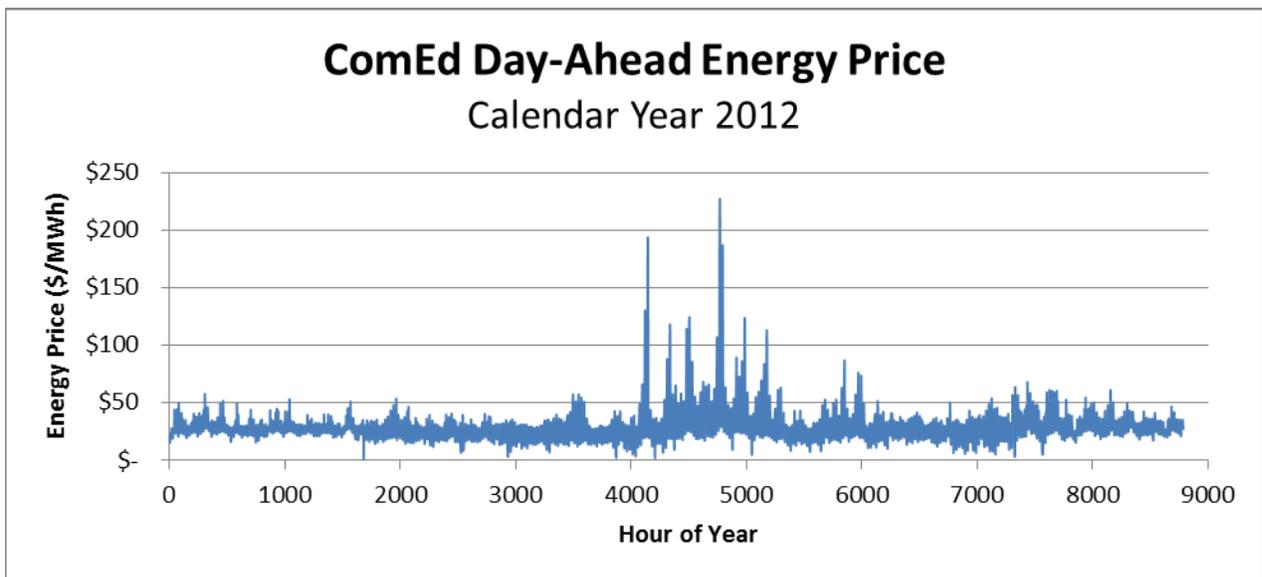
territories will offer opportunities for increased participation in markets that value demand reductions. An IPA negawatt market will provide the venue for that opportunity to be realized.

Definition of Need

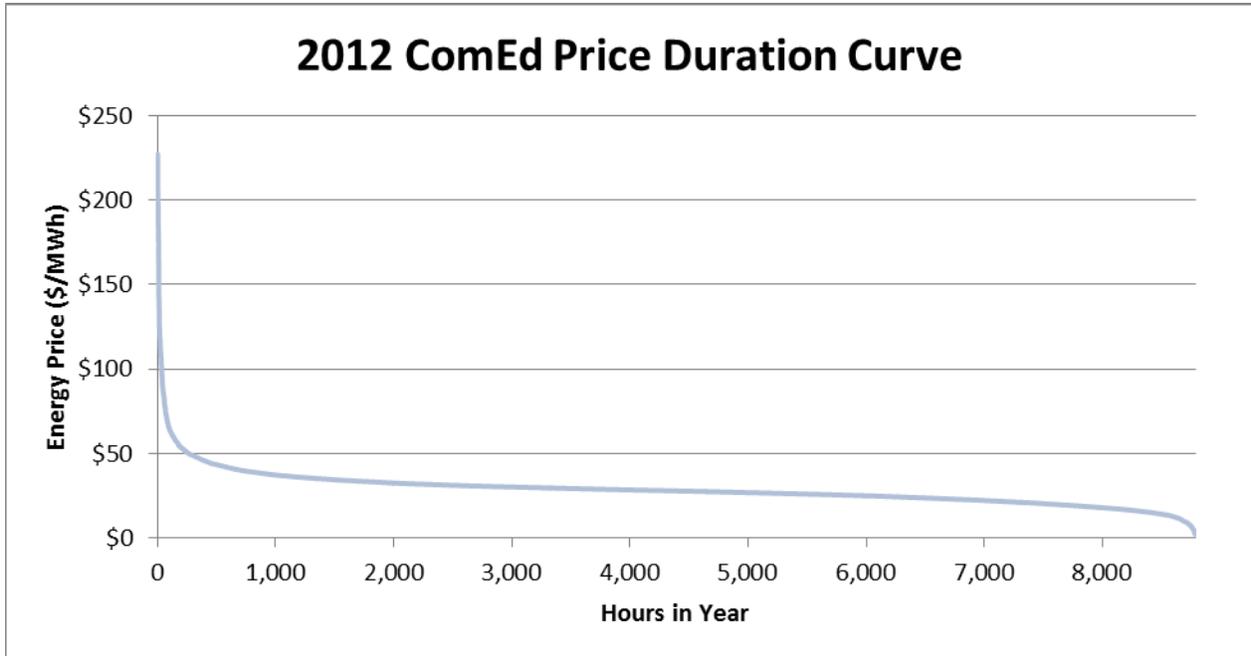
The IPA requested stakeholder comment on the specifics of a feasible and desirable negawatt procurement program. IPA draft plan at 87. First, there are several ways to reduce the overall cost of the procurement. One method is to reduce suppliers' risk by separating out hours of likely high prices from those hours in which wholesale prices are most likely to be lower. This is the basic premise behind the common practice that is currently in place of procuring energy in on-peak and off-peak blocks. CUB recommends taking that model one step further by separating out the small number of hours during which wholesale prices are most likely to spike, and accepting bids for demand reductions during those specific hours. Competition between demand reduction providers would reduce the offered prices for supply during the most expensive on-peak hours. Loads during on-peak hours are higher, and require more expensive generation to meet demand. The converse holds for the off-peak hours, which generally have lower prices because only the set of less expensive generation units are needed to meet demand. Indeed, in many areas of the country, overnight prices can reach to \$0/MWh, or in some regions, including Illinois, even into negative prices. On-peak hours are typically defined by the term "5x16", meaning 16 hours per day during the five weekdays in each week. Off-peak hours are the remaining eight hours during the weekday and all hours on weekends. If we were to chart the wholesale energy prices during a typical summer afternoon, it would resemble the curve below, which shows actual wholesale day-ahead energy prices for the ComEd zone within PJM for July 18, 2012.



This chart shows that on a typical day, prices act as we expect-- higher during the on-peak hours and lower during the off-peak hours. On a particularly hot and humid day like July 18, 2012 the effect is more dramatic, with peak prices reaching nearly \$200/MWh. If we expand our timeline to include all hours of the year, we can see that the hours of highest prices occur almost exclusively on summer afternoons, when loads are the highest. These high loads are driven by demand for residential and commercial air conditioning.



A price duration curve charts all 8,760 hours in the year with the energy price experienced in each hour. The hours are not chronological from January 1 at 1 a.m. to December 31 at midnight. Instead they are shown from the hour with the highest price on the left, to the hour with the lowest price on the right. This format allows us to focus on the number of peak price hours, rather than the time of their occurrence.



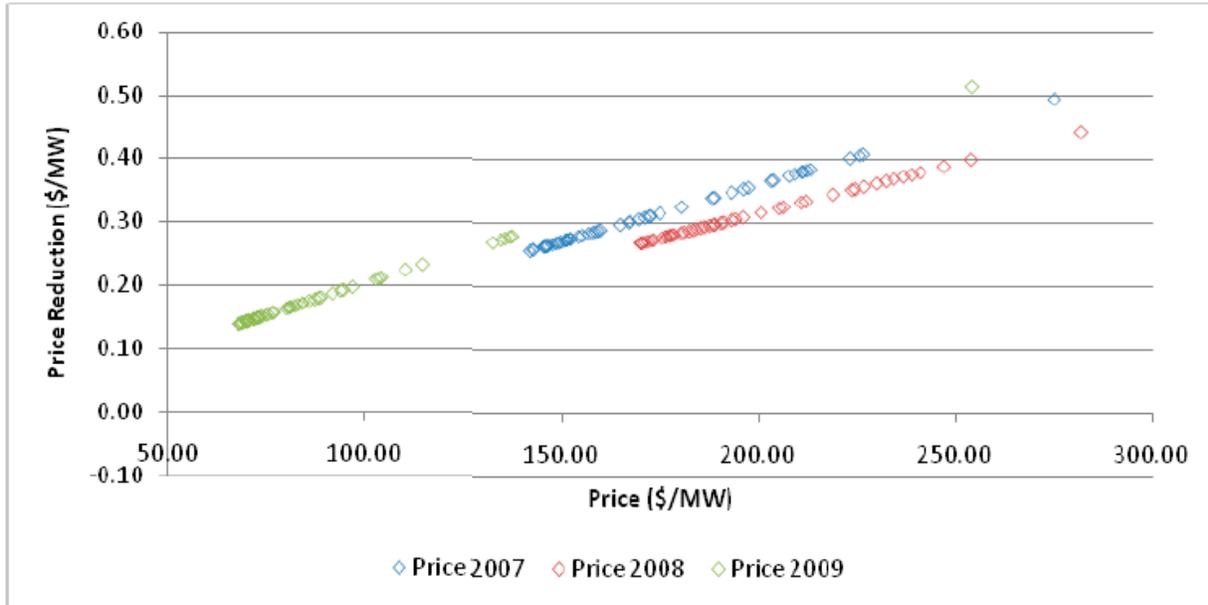
A key feature of a typical price duration curve, like the one above, is the steep peak on the left side. Prices are very high for only a small number of hours in any year. From the sample price duration curve above, we can say that there were more than 3,000 hours in this year when the energy price was higher than \$30, but only approximately 35 hours when the price exceeded \$100 per year. CUB proposes to separate out these high priced hours into a separate product and allow demand reduction to compete on price to provide this product.

IPA Opportunity

In 2007, the Brattle Group simulated the impact of curtailing three percent of each Mid-Atlantic zone's peak load during the zone's 100 highest load hours in the year². A variety of market conditions were simulated, including high and low peak load cases, a range of fuel price cases, weather-normalized conditions, and actual peaks experienced in 2005. The results of the study showed that a less than 2 percent load reduction during peak hours would reduce energy market prices between \$8 and \$25 per megawatt hour, or 5 to 8 percent on average (depending on market conditions). The estimated benefits to those mid-Mid-Atlantic states ranged from \$56 to \$182 million dollars for the year, while additional benefits of \$7 to \$20 million would be experienced in the other PJM states. Navigant Consulting analyzed a similar effect in their 2009 Annual Report of the Ameren Power Smart Pricing Program. One figure from that report, shown below, depicts the impact on real-time wholesale energy prices from just a single MW of reduction in 2007, 2008, and 2009. In these three summers, reducing the amount of demand during the top 50 peak price hours by just one megawatt would have decreased the wholesale energy market price by an amount between about \$0.15/MWh and \$0.50/MWh. The wholesale energy market pays a single clearing price to all resources in that market, and as such even a small reduction in the clearing price paid to all resources can have a dramatic impact on energy market costs.

² Brattle Group. *Quantifying Demand Response Benefits in PJM*. PJM and MADRI, 2007. Attached as Appendix C.

Figure 16. The Real-time (Hourly) Energy Price Reduction from a One MW Reduction in Demand



Source: Power Smart Pricing 2009 Annual Report. Navigant Consulting. April 27, 2010. Figure 16. (Attached as Appendix D).

Reducing load during peak periods reduces prices in the wholesale market. On summer afternoons when air conditioning loads drive peak demand to their highest levels, those hours are represented on the far left of the price duration curve. These hours can be defined several ways, including by:

- High Load: The hours in which *load* in a particular region exceeds a certain threshold amount.
- High Prices: The hours when wholesale *prices* exceed a certain threshold price.
- Peak Hours: A fixed set of hours, determined in advance, that are most likely to be the hours in which the highest loads and/or highest prices will occur. The most common example is summer afternoons.

The IPA may define peak load by any of the above definitions. CUB recommends the IPA consider all three, but for the reasons described below, CUB recommends “high load” as the method best suited for the IPA.

High Load

A relatively small number of high load hours that occur on summer afternoons – driven by air conditioning load – account for a disproportionate share of electric system costs that are borne by ratepayers. Not only are these loads served by our least efficient and therefore most expensive power supply stations, but their unpredictability drives higher risk premiums.

High Loads are easier to predict than high price. Although the correlation is not exact, it is more likely that high prices are experienced in hours with high loads. Energy efficiency measures such as the replacement of inefficient space cooling equipment with more efficient units would provide savings that directly correlate with high loads.

Reducing peak load would have the effect of reducing the upper limit on the loads that must be served by the suppliers of on-peak power. These suppliers would see a reduced risk of needing to procure the most expensive power for a small number of volatile hours. In turn, they can offer lower prices to remain competitive.

The threshold load level used to mark the boundary between on-peak hours and High Load hours must meet at least two criteria: (1) it must be set at a level that would allow competition from various demand reduction providers, and (2) it must define a set of hours large enough to achieve the effect desired. High load hours can be distinguished from “peak” hours; High Load hours must be established to allow for competition from various demand reduction providers, and it must define a set of hours large enough to achieve the effect desired. If High Load hours are defined such that they almost never occur, no reduction occurs, and no reduction in on-peak supply risk is achieved. If the set of hours is too large, neither demand response services nor energy efficiency measures will be able to provide the required reduction, and the procurement request will return empty.

CUB recommends that the High Load hours to be chosen are those hours whose actual system load is predicted to be within 5% of the seasonal peak load forecast for the summer months, June 1 – August 31. A similar methodology is available to energy efficiency providers in ISO New England, and has been used by energy efficiency programs administrators there for

the past three years.³ A threshold at this level should result in approximately 60 High Load hours each summer, based upon 2012 data.

High Prices

High priced hours can occur at any time of year, but are most likely to occur on hot summer afternoons. On those days, even the least efficient and most expensive generation stations are necessary to meet peak loads. These units set the wholesale cost of electricity at high levels during a very small number of hours. Because the goal is to reduce the overall cost of procurement, the IPA can reduce the risk premium in the on-peak hours by defining a subset of extremely high-priced hours to be procured separately. There are already demand response products at the wholesale level that are specifically targeted in this manner. Demand response providers are already comfortable offering their services into the energy market at an offer price above which they are willing to respond.

If the IPA uses this option, the high-priced hours can be determined by the wholesale day-ahead market prices in the PJM and MISO control areas. The day-ahead market prices have the greatest influence on long-term contracts between competitive suppliers and generation owners, and as such are the best available indicator of those prices. The actual value of the strike price could be set at any reasonable value that is likely to occur in the range of 20-60 hours per year. The actual value can be determined at a later point in the process of defining the procurement.

Setting a threshold price has a few difficulties, however. Most importantly, any threshold price can be greatly influenced by the underlying marginal fuel prices. As recently as 2008, the price of natural gas peaked at levels more than double today's prices. If the IPA were to set a threshold price at \$150 with the expectation that it would be exceeded in only 20 hours each year, the number of hours of occurrence could triple or quadruple with only a doubling of marginal fuel prices. This can be solved by indexing the threshold price to the marginal fuel price--though over time, that marginal fuel can and will change. Further, outages on either the

³ ISO New England Market Rule 1, Section I.2.2, definition of Demand Resource Seasonal Peak Hours.

electric system or the fuel system can cause temporary price spikes in fuel prices, which then effect electric prices. Setting a threshold price should be done carefully.

A threshold price should be established for the wholesale day-ahead market price in the relevant territory (Ameren in MISO, ComEd in PJM) such that a limited number of high price hours occur. Specifically, CUB recommends the threshold should be set at the price that is the average day-ahead price for the highest 30 hours of the year in the past three years. Demand reduction would be mandatory during each of these hours, up to a maximum of 30 hours. The timeframe should be limited to the months of June 1 through August 31 so that service providers can effectively target the types of load reduction they will seek to procure to meet their obligation. This is the timeframe in which such high prices are most likely to occur.

CUB expects demand response providers to offer such a product, as it is very similar to wholesale energy market products offered at a particular strike price. Energy efficiency providers can be expected to offer such a product because they are comfortable installing measures that can reduce load during all summer afternoons, which would encompass the hours most likely to experience prices above the stated threshold price. Although the energy efficiency measures would likely reduce load in many more hours than necessary, they would reduce load in the required hours, and thus would be eligible.

Peak Hours

It is difficult to predict even a few months in advance just when high prices or high loads will occur, or how many there will be if they are defined by a fixed threshold without a specific limit. Demand reduction from energy efficiency measures occurs on a regular pattern akin to its end use, not based directly upon time-varying energy prices. This makes the regime of high-priced hours difficult for energy efficiency providers. This uncertainty can be avoided if the specific hours of need are determined in advance. They should be selected to be those hours most likely to contain the high priced or high load hours. Setting a specific set of hours in advance lends greater certainty to those parties seeking to provide the demand reduction product sought. The typical set of hours would be summer afternoons to target air conditioning loads.

CUB recommends that the fixed set of peak hours to be chosen should be summer afternoons between 2pm and 6pm, non-holiday weekdays, from June 1 through August 31,

regardless of actual system loads or wholesale price at the time. These are the same set of hours used by PJM to measure energy efficiency in their capacity market⁴, which are intended to cover those hours in which the annual peak load is most likely to occur. This definition is already familiar to energy efficiency providers and they have already begun the technical measurement and verification studies necessary to prove demand reductions in these hours.

Recommendations

CUB recommends the IPA include the three products defined above in its procurement, though the High Load product may prove to be the best option for the IPA because high load hours are easy to predict, and high load hours correlate with hours when more efficient space cooling equipment provide savings. Additionally, the IPA has the flexibility to designate the number of High Load hours that allow for robust competition from various demand reduction providers, and that are large enough to achieve the reduction desired. Regarding the applicability of energy efficiency and demand response programs to these products, differences in the types of service that energy efficiency and demand response provide make their providers more comfortable with different sets of defined hours. Because energy efficiency measures reduce demand during a predictable set of hours, energy efficiency providers prefer being measured for performance in a pre-defined set of hours. Demand response providers prefer responding to specific prices when the revenues exceed the cost of curtailment. This is almost certainly a more limited number of hours than the ones in which energy efficiency reduces demand.

Fit with Other Opportunities

There are already opportunities for energy efficiency and demand response in Illinois; ComEd and Ameren are required to meet statutory energy efficiency and demand response goals pursuant to Section 8-103 of the Act and facilitate the procurement of incremental energy efficiency pursuant to Section 16-111.5B of the Act. Both utilities may receive revenues or offset costs from the MISO and PJM wholesale markets for these programs, and ComEd has already taken advantage of this opportunity for additional revenue. The products defined above are distinct from those requirements and complement the wholesale market opportunities. For example, if there are energy efficiency programs that do not pass the Total Resource Cost

⁴ PJM Manual M-18B, Page 5.

(“TRC”) test, the cost effectiveness analysis required for the statutory energy efficiency programs, but are cheaper than the cost of supply in these high-cost hours, they should be offered at the price necessary to fund these programs and procured. These programs may either be incremental beyond what is being offered today, or expansions to existing programs made available by this separate funding source. Any demand reduction offered here should also be offered into the wholesale markets to the extent they are eligible to do so. Any revenue from those markets – or other funding sources - works as an offset to the offer price submitted to the IPA.

Additional Procurement Details

In procuring “negawatts,” the IPA should consider the following:

Verification: Each proposal should clearly explain the method by which the proposer will measure and verify savings during the high-peak hours. The proposal should specify expected use of smart meter data to measure and/or verify savings in order to maximize the investment of ratepayers in widespread smart meter deployment. Demand reduction providers will not be held liable for any failure by the utilities to provide AMI data.

Cost Justification: Each proposal should clearly explain the justification for the offer price provided. The offer price should be expressed in \$/MWh or cents/kWh. This justification should include expected initial and ongoing costs to maintain the demand reduction being offered, and net out expected revenues from other sources (such as wholesale market revenue) or expected savings at customer sites from avoiding the use electricity or other fuels. Offers will be judged on their ability to reduce demand in the appropriate hours and on lowest offer price.

Penalties: Failure to demonstrate obligated megawatt-hour reductions in the applicable hours will be subject to a penalty of 1.25 times the contract price for the amount of undelivered quantity.

Timing and Purchase Amount: CUB recommends staging the procurement in a ladder approach, in the same percentages used for the energy supply procurement. Pages 43-44 of the IPA draft 2014 Electricity Procurement Plan (August 15, 2013) describes this approach.

7.2.1 Standard Market Products

7.2 Procurement Strategy

7.2.1 Standard Market Products

As the IPA notes, the selection of the Agency's procurement strategy is driven by three chief considerations.

- Price hedging: the Agency ought to find the best compromise between hedging against adverse price movements and retaining the flexibility to respond to rapidly changing market conditions. IPA Draft Plan at 87.
- Load hedging: the accuracy of load forecasts increases as time to delivery decreases particularly with regard to switching risk. For instance, load forecasts for the delivery year 2014-2015 that the utilities will submit in March 2014 should be more accurate than the forecasts for that year submitted in July 2013. Therefore, the Agency ought to ensure it has the opportunity to adjust its supply strategy to account for changes in load forecasts. *Id.*
- Control of overhead cost: RFPs for energy contracts are costly and the Agency ought to take this into account in its procurement strategy. *Id.*

The IPA recommends that the basic strategy from the 2013 Procurement Plan be slightly modified. IPA Draft Plan at 88-89. The procurement goal for a mid-April 2014 procurement event is to hedge 106% of the expected load forecast for June-October 2014 and 75% for November 2014 – May 2015. *Id.* The Agency recommends that the utilities update their load forecasts in March 2014, which will include the effect of approved energy efficiency programs and provide the expected case as well as the high and low scenarios. Absent any large reduction in the Required Purchase Amounts, a procurement event should be held in April, 2014 for each utility to acquire contracts.

During the summer of 2014, the Agency will determine whether it is worthwhile, considering the value at risk and the procurement cost, to have a procurement event in September to bring the hedge levels to “fully hedged” for the period November 2014 – May 2015. The decision will take into account the utilities' July 2014 forecasts, expanded to include the November 2014 to May 2015 period. Currently, for example, the unhedged volumes suggest

that the IPA would have a September 2014 procurement event to acquire contracts for ComEd and no procurement event for Ameren.

CUB supports the IPA's proposed multiple procurement schedule. This increased flexibility creates the opportunity for better risk management which should, over time, lead to overall lower prices for consumers. We also recommend that the IPA and Commission consider the potential value of holding procurement events on more than just one or two occasions in future plans. While portfolio flexibility is only one of several important values – and so, for example, it is doubtful whether 12 events would provide much in additional savings opportunities- consumers may very well benefit from the IPA's ability to take advantage of market conditions at a particular time.