Issue #	Issue Description	Position Statement	Rationale	Position Statement	Rationale
1	**Do energy efficiency programs lower the market clearing prices for electric energy (below what they otherwise would have been absent the programs)?**	**Yes**	This is the basic law of supply and demand in competitive markets. When demand goes down, prices go down too. The effect is only realized in any potentially significant magnitude in jurisdictions with competitive wholesale markets.	**No disagreement on this point**	
2a	**What is the magnitude of the initial wholesale electric-energy price reduction?**	**0.5% to 1.0% reduction in kWh market clearing prices for every 1% reduction in IL load.** **.**	a) The Resource Insight study for NRDC estimates that for every 1% reduction in electricity sales in the region affecting Illinois there is approximately a 2% reduction in energy (MWh) prices. b) However, Resource Insight also concludes that the region affecting Illinois' energy prices is two to four times larger than just Illinois. Thus, a 1% reduction in Illinois electricity sales will only produce a 0.5% to 1.0% reduction in Illinois electricity prices. c) The Resource Insight study results are consistent with results of several other studies of the effects of efficiency and/or renewables in New York, New England, PJM and IL (by the IPA). d) Parties expressing concerns regarding potential flaws in the study methodology have not provided any empirical data to support their contentions. Moreover, the concern about confusion between cause and correlation is, at best, a dubious one since everyone acknowledges that economic theory supports the notion that lower demand will lead to lower prices and that electricity demand is nearly price-inelastic, at least in the short run. Also, the Resource Insight study normalized price data for each month it analyzed to remove inter-month variation in gas prices, seasonal capacity and maintenance outages. e) Finally, it is worth noting that Resource Insight's study methodology has been used and accepted by regulators in other jurisdictions.	**No alternative estimates have been developed or proposed by other parties. However, concerns have been raised by Staff as to whether the regression analysis used to estimate DRIPE could be improved**	a) Staff suggest that Resource Insight's DRIPE analysis confuses correlation (between magnitude of demand and price) with cause and that the models lack the sophistication to determine the direction of causality between LMPs and load. They suggest that there is feedback between prices and load that would account for some of the observed correlation.

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2b	**How much of that wholesale price reduction flows to customers?**	**Hedging assumption: 60% 1st year 40% 2nd year 20% 3rd year 2% other years**	Existing electricity contracts produce substantial hedging for a few years. While Resource Insight acknowledges that there is limited data on the degree to which IL consumers have short-term price hedging, its fairly substantial estimates of hedging effects are based on the best available information, including IPA policy, and are informed by expert opinion.	**Hedging % is uncertain**	The Resource Insight study may have over- or under-estimated customer hedging of supply costs. Increased hedging (e.g., longer fixed-price contracts) would decrease cost reductions for customers even if market prices go down. Resource Insight admits that there is significant uncertainty about the extent of customer hedging and that the lack of relevant available data on existing energy contracts "is a significant limitation in any analysis of the extent to which Illinois customers' energy supply is hedged."
3	**How long does the price reduction last?**	**It begins to erode immediately, and is completely gone within 12 years. The net effect of this erosion is to reduce the value of the effect to the equivalent of about 5 years of a full effect.**	Resource Insight estimates that the response of generators to the changes in market prices will gradually erode over time, with the rate of erosion accelerating after about 5 years, to the point where there are no remaining effects after 12 years (and the effects in the last few years leading up to that point are small). The net result of Resource Insight's estimates of generator responses to the changing market would be to reduce the lifetime effect of DRIPE to the equivalent of about 5 years of a full effect (once the impact of hedging and price responsive demand are considered as well, the net effect is reduced to the equivalent of about 4 years of a full effect). Resource Insight's estimates of the period of time over which generators would respond to the effects of reduced prices is based on anecdotal evidence from a number of power plants in the Northeast and Midwest that continued to operate for a number of years after market prices fell well below their operating costs. Though other parties have suggested market responses could be much swifter, they have provided no evidence to support such claims.	**1 to 3 years**	The Resource Insight study did not provide reliable evidence to support its estimate that portions of the DRIPE effect will lasts for 12 years. ComEd's consultant, Northbridge, suggests that there are reasons to believe that generators could respond much more quickly than that: • Decisions to abstain from market entry or to retire existing resources can be made and executed by parties fairly quickly; and • There is a large amount of "at risk" capacity in the market that may not be able to withstand further reductions in market prices.
4	**What would be the net impact of electric energy DRIPE on the TRC test for cost-effectiveness screening of efficiency in IL?**	**The impact will vary by measure or program (see discussion to the right). For measures with a 10 year life and an average ratio of peak savings to energy savings, TRC net benefits would increase by approximately 25%.**	The Resource Insight study suggests that impacts in the first couple of years are reduced substantially due to hedging from existing supply contracts. The benefits increase as the effects of those contracts largely disappear over the next three years, then gradually decline as the generators accelerate their response to the lower prices. Thus, the effects are estimated to vary by year. A summary of the benefits by year, expressed as a percent of avoided energy costs, are as follows: Year 1: 30% Year 2: 40% Year 3: 50% Year 4: 55% Year 5: 55% Year 6: 45%	**Much smaller than estimated by Resource Insight**	If the duration of the impact is limited to between one and three years, as suggested by Northbridge (see above), the estimated benefits would be 85-96% less than estimated by Resource Insight. Moreover, because market responses can be "lumpy", in that it may involve relatively large discrete responses such as the closure of a large generating unit, there could be an "over-compensating market response" that results in increased prices for consumers for a period of time.

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			Year 7: 40% Year 8: 30% Year 9: 25% Year 10: 20% Year 11: 10% Year 12: 5% The effects from different efficiency measures are therefore a function of how long-lived the efficiency savings are. In general, the shorter-lived the measure the greater then benefits as a percent of avoided energy costs. For example, the impact on cost-effectiveness screening of an efficiency measure or program with a 10 year life would be an increase in the net present value of avoided energy costs of about 40%. For ComEd, avoided energy costs represent approximately two-thirds of the total value of efficiency measures with average peak to energy savings ratios. Thus the effect for a measure or program with a 10 year life would be to increase estimated benefits by an average of about 25%.		
5	**Is the DRIPE effect a benefit that should be included in energy efficiency cost-effectiveness screening?** 8-103(a) (electric EE) and 8-104(b) (gas EE) states that: the total resource cost (TRC) test should be used for screening, that the test includes "benefits that accrue to the system and the participant" and "other quantifiable societal benefits"	**Yes**	a. IL legislation mentions price reduction as a goal of DSM (20 ILCS 3855 §§1-5(1) and 5(3), 1-5(F) and 1-10) b. State regulators in restructured markets typically define the "system" that they care about as encompassing distribution utilities and their ratepayers. They are not typically concerned about profit margins of generators, except to the extent that such profits might adversely affect ratepayers. c. That view is consistent with national definitions of the TRC – i.e. that it encompasses only the effects on the utility and efficiency program participants (see Woolf, Tim et al., *Energy Efficiency Cost-Effectiveness Screening: How to Properly Account for "Other Program Impacts" and Environmental Compliance Costs*, published by the Regulatory Assistance Project, November 2012). If regulators are to take a more expansive view of the range of impacts about which they are concerned, including impacts on generators, then they are essentially adopting the view of the Societal Cost Test (*not the TRC*). Moreover, if regulators are going to adopt an expensive view of the Societal Cost Test, then they must also include in screening all other societal benefits. d. Treating DRIPE as a benefit is consistent with the way regulators treat efficiency measure and program costs. For example, if a utility succeeds in negotiating a lower price from a vendor for delivering an efficiency	**No**	a. DRIPE is a transfer of wealth, from generators to consumers, rather than a true economic benefit to society. b. Because DRIPE is not a societal benefit, including it in cost-effectiveness screening of efficiency measures and programs would harm the electric system by distorting the market: • Under the DRIPE proposal, resources that are truly not cost-competitive would be injected into the market (on the basis of artificial benefits). That is tantamount to market price manipulation, resulting in non-economic efficiency resources replacing cost-competitive resources, and creating a higher-cost overall portfolio of resources for society. • The resultant proven risks of further market manipulation to the detriment of the competitive resources that serve Illinois' consumers could increase the cost of capital for supply resources, encourage additional supply resource retirements, and/or discourage future investments in competitive supply resources, leading to increased costs for customers in the long-run. ("Markets require appropriate price signals to alert investors when increased entry is needed. By allowing net buyers to artificially depress prices, these necessary price signals may never be seen. While a strategy of investing in uneconomic entry…may seem to be good for customers in the short-run, it can inhibit

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			program, that lower price – even if it is ultimately just a reduction in the vendor's profit margin – is treated as a lower cost for efficiency (i.e. a good thing) rather than as a "transfer payment" or "transfer of wealth" from vendors to consumers (i.e. a thing about which we are indifferent). Finally, most incremental cost assumptions for efficiency measures are based on estimates of retail prices consumers pay for efficiency measures. Those retail prices include the cumulative effects of profits for manufacturers, distributors, retailers or contractors and/or other parts of the supply chain. If DRIPE is to be considered a "transfer payment" or "transfer of wealth" as some argue, then to be consistent we would have to lower current assumptions about the costs of efficiency measures to exclude at least a portion of the profits earned all along the supply chain for each efficient product (one could argue that a minimal level of profit is necessary to make it worthwhile for the product to be produced and sold, but any profits above that minimum level across the entire supply chain would be "transfer payments"). e. 7 (CT, RI, MA, MD, DC, DE, ME) of the 12 other restructured states include DRIPE effects in their cost-effectiveness screening of efficiency measures; though not a restructured state, Vermont regulators include the impacts of DRIPE in neighboring restructured states in their screening of the benefits of efficiency measures installed in their state. DRIPE is also considered a benefit in evaluating renewables in many of those states plus NY, OH, and IL. f. The kind of regulatory risk that opponents of including DRIPE in cost-effectiveness screening have raised – e.g. that Wall Street will increase utilities' cost of capital as a result – is not justified. The magnitude of any impact on demand from the kinds of modifications to cost-effectiveness screening being discussed will be miniscule in comparison to factors like weather extremes, changes in the economy and adoption of environmental regulations. Moreover, concerns about distorting markets ignore the reality that the markets are already distorted in many ways. There are numerous subsidies currently in effect for generators – many of which dwarf any effect on the market that including DRIPE in cost-effectiveness screening of efficiency programs would have. For example, demand resources are not allowed to compete on a level playing field with traditional transmission investments for meeting system reliability concerns. The federal Price-		new entry, and thereby raise price and harm reliability, in the long-run." 122 FERC ¶ 61,211) • It would be a step toward undermining the "effectively competitive electricity market that operates efficiently" that the Restructuring Act requires the ICC to "act to promote. • The result would be signaling to Wall Street that the IL Commission is willing to give preferential treatment to more expensive resources and is willing to create an uneconomic market structure for electric generation. Thus, Wall Street will view IL as a more risky investment if the most economic resources are selected, and will increase utility cost of capital, a negative for both the system and customers. • In contrast, rejection of the DRIPE proposal would reassure parties that they will be able to compete in Illinois without the threat that their long-term investments will be devalued by regulatory market manipulation. This will better encourage innovation and competition across all resources on the basis of lowest cost, to the benefit of customers. It also will avoid forcing customers to pay above-market premiums for supply.

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			Anderson Act, through which taxpayers are effectively covering insurance costs for nuclear generation, is another example. Finally, opponents of including DRIPE in cost-effectiveness screening (i.e. supporters of considering it just a transfer payment from consumers to generators about whom IL policy-makers ought to be equally concerned) have not produced any evidence to support claims that the adverse long-run impacts on the markets which they fear will actually materialize (even though some states – e.g. Massachusetts – have been including DRIPE in efficiency program screening for many years).		
6	**If DRIPE is to be included in IL TRC cost-effectiveness screening, is it only electric energy DRIPE? Or are there other DRIPE effects that should also be included?**	**Conceptually, all types of DRIPE should be included. However, specific values should only be adopted once studies to document the magnitude of different forms of DRIPE have been conducted.**	There are potentially several different forms of DRIPE: • Electric energy DRIPE (MWh) • Electric capacity DRIPE (MW) • Gas DRIPE • Cross-fuel DRIPE (e.g. any lowering of gas prices will indirectly lower electricity prices, and vice versa, because gas-fired power plants are often at the margin on the electric grid) Conceptually, all of these forms of DRIPE ought to be included in TRC cost-effectiveness screening. There is no conceptual reason for including one type of DRIPE but excluding another. At the moment, only estimates of electric energy DRIPE have been developed. However, if reasonable estimates of other forms of DRIPE are developed in the future, those other forms should be added to screening at that time. If DRIPE is determined to be a benefit to include in screening, then studies to quantify the magnitude of other forms of IL DRIPE should be conducted.	**No forms of DRIPE should be included in TRC screening in IL**	See arguments above.

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