IL EE SAG IPA TRC Subcommittee

DRIPE

Questions and Answers DRAFT Version 1.0 (March 3, 2015)

Action Items/follow-up: highlighted in yellow.

NRDC Proposal to Include DRIPE in TRC Test

Question 1 (Keith Goerss, Ameren IL): What is the NRDC proposal for the actual application of DRIPE to the TRC equation? Is NRDC proposing that DRIPE be applied to the Potential Study as well?

- NRDC's proposal is to include DRIPE for kW, kWh, and therms.
- [Neme to respond]

Question 2 (Brian Granahan, IPA): Is the NRDC proposal for a program-specific DRIPE applied to that program, or a portfolio DRIPE being applied to all programs?

A portfolio DRIPE applied to all programs.

"DRIPE Around the Country" Presentation (Roger Baker, ComEd)

 Key Distinction: In the states that have adopted DRIPE, statutes don't define TRC and what goes in. In each case we they have adopted; TRC defined by statute, but instead by the regulatory Commission.

Question 3 (Anthony Star, IPA): Are all of the states reviewed calling this DRIPE?

 Roger Baker, ComEd: Yes, all call this DRIPE. The New England study is more expansive, looking at DRIPE in several different ways.

Question 4 (Brian Granahan, IPA): Is this list of states a comprehensive list or is there more information out there?

- Roger Baker, ComEd: Not all states have accessible public dockets, so there
 may be more out there.
- Paul Chernick, Resource Insight: This is likely a comprehensive list.

Question 5 (Brian Granahan, IPA): Did the term "quantifiable societal benefit" come up in states that have addressed DRIPE?

- Roger Baker, ComEd: This phrase does not exist in states that have DRIPE.
- Brian Granahan, IPA: Parties making the transfer argument are essentially making the societal argument.

Question 6 (Pat Giordano, Giordano & Associates, on behalf of Comverge): The states that use DRIPE have quantified it as a societal benefit in the TRC test, correct?

Roger Baker, ComEd: The states that include DRIPE in the TRC test do not call
it a societal benefit; some call it a consumer benefit.

Question 7 (Keith Goerss, Ameren IL): In MISO, Ameren IL is one of the few utilities that is not vertically integrated. Is the same applicability for DRIPE appropriate for MISO as it is for PJM?

 Paul Chernick, Resource Insight: Calculations in the study only included the benefits in Illinois, for both PJM and MISO. Some calculations include the benefits to consumers in other states. There are parts of PJM that are vertically integrated (munis and coops; parts of several states, including Virginia, Michigan, and Indiana).

Question 8 (Keith Goerss, Ameren IL): For the states that include DRIPE in TRC, do they have defined budgets related to EE?

Phil Mosenthal, Optimal Energy, on behalf of IL AG: Most do not.

Question 9 (Keith Goerss, Ameren IL): Using DRIPE, what % of the bill is now associated with EE? How much is a residential customer paying on average for EE? What is the potential impact to rates?

- Phil Mosenthal, Optimal Energy, on behalf of IL AG: It is quite high in Massachusetts (apx. one cent per kWh). Massachusetts rates are higher than the Midwest. The differences from Mass and IL are not driven by DRIPE; all of their programs pass without DRIPE.
- Keith Goerss: In Illinois, the percentage of a residential bill is approximately 5-6%, or \$50-60 per year. Keith Goerss to confirm.

Question 10: What is the potential impact to residential rates if DRIPE is adopted?

- The key difference between MA and RI is all programs pass the TRC test, even without DRIPE.
- Follow-up. Mosenthal to confirm.

ICC Staff Presentation on DRIPE (David Brightwell, ICC Staff)

Question 11 (Paul Chernick, Resource Insight): Can ICC Staff provide an example of increasing demand that increases the market price?

- David Brightwell: Subsidizing efficient air conditioners through an EE program.
 Unless you have a flat supply curve, the price will go up.
 - Paul Chernick: Market transformation of high efficiency products tends to drive down the retail price (for ex: water heaters, CFLs, etc.).
 - David Brightwell: This is a short-term supply curve, not a long-term supply curve.

 Keith Martin, Ameren IL: We should be careful not to attribute the drop in price strictly to EE programs (for ex: LEDs).

Question 12 (Keith Goerss: If DRIPE is the change in price, how much should be applied to the TRC analysis? Benefits in the TRC are benefits that should be attributed to retail customers only. Even when the value is created, the part that should affect the TRC analysis is only the part that gets directed back to TRC. When and how do those dollars actually reach the customer?

• Scott Fisher, NorthBridge: Only if you believe that the total potential is a benefit.

Question 13 (Brian Granahan, IPA): There is a continuum of actors that generally benefit from rate impacts; how is that calculated?

- Paul Chernick, Resource Insight: There is an adjustment in the calculation if it doesn't get through to the customers.
- Keith Goerss, Ameren IL: Have you taken into account support payments to generators that are non-economic?
 - o Paul Chernick, Resource Insight: They are very localized.
 - Phil Mosenthal, Optimal Energy, on behalf of IL AG: Doesn't the analysis inherently take that into account?

Question 14 (Keith Goerss, Ameren IL): If DRIPE exists / a benefit is created, how much of it gets to the end-use customer and when?

- Two year contracts.
- If someone uses a financial instrument to hedge price, would this cause the DRIPE effect to go away?

Question 15: What percent of customers are in long-term contracts and are hedged?

- Paul Chernick, Resource Insight: If it does not get through to customers, then it is not a benefit in DRIPE.
- Other reasons: Payments to generators some generators need to run anyway for grid support. What percent of power is providing grid support?
- For load served by Ameren IL, what percentage is under contract and what is the duration of the contract?
 - Keith Goerss to check.
- Anthony Star, IPA): There is no compiled source of muni agreements.

Question 16 (Pat Giordano): If there is a positive impact (meaning suppression of delivery charges for retail customers) should that also be reflected in the TRC?

Discussion of DRIPE Comparison Exhibit

Question 17: Is DRIPE a quantifiable benefit?

 Paul Chernick, Resource Insight: Changes in market prices tend to effect generation decisions some years down the line (over approximately 12 years). Chris Neme, Energy Futures Group, on behalf of NRDC: The assumption is the
effects start eroding in the first year. By year 12 they are down to 5%. It's a small
proportion by year 12. Taking the sum of that, on average it lasts about 6 years.

Question 18: What is the cause in the market of the effect eroding?

- Changes in market prices tend to affect generation down the line. The DRIPE effect erodes over time because consumers use more. Some plants would shut down or go into cold reserve or be otherwise unavailable. Lower prices would cause generation to go off-line, putting upward pressure on prices.
- Every year thousands of MW are retired in PJM. IL legislature is concerned about profitability.
- Paul Chernick, Resource Insight: 1) Because electricity prices are lower, customers are expected to use less; and 2) lower prices would cause some plants that generate energy in a significant amount to shut down seasonally and not contribute to reducing prices, or retire. As you add new plants, peaker plants look more attractive, etc. There is a shift away from resources that produce inexpensive energy.
- Scott Fisher, NorthBridge: We don't know what the threshold is; this could be a
 net penalty for customers over the long haul. There may be a short-term 'shock'
 to the market. If you inject more supply in market, you will suppress the market.
- Regulators will intervene in market; creates greater risk; increase in cost of capital. Adds risk to generators that will add risk to customers down the road.
 - Chris Neme, Energy Futures Group, on behalf of NRDC: Risk mitigation of EE offsets risks to generators from regulators intervening in the market. Relatively small risk compared to other risks in market (weather). EE benefits move with load. Generation does not have that benefit.

Question 19 (Brian Granahan, IPA): Is it possible that the effect is zero? Is the market focused on the policy change itself, or the number of new programs that wouldn't otherwise be there?

- Chris Neme, Energy Futures Group, on behalf of NRDC: One of the benefits of EE programs is that they are risk-mitigating.
- Anthony Star, IPA: How do you balance the value of EE that hires workers in IL that benefits paying workers in another state?
- Keith Goerss, Ameren IL: The market we will see in 10 years will be very different from the market we see today. Load going down 1% per year; renewables coming on-line. Could be load that is 20%.
- Scott Fisher, NorthBridge: There is no guarantee this will have a small effect in the long run. There is no cap that has been proposed. Energy avoided costs could be high.
- Chris Neme, Energy Futures Group, on behalf of NRDC: Programs are risk mitigating. Narrow the amount of up and down.

Question 20 (Keith Goerss, Ameren IL): What is the potential effect of an increased TRC on the cost of bidder programs?

- Keith Martin/Keith Goerss: Once you define the incremental DRIPE effect and raise the TRC benefits, this would give bidders the ability to increase their costs and still pass TRC.
 - Example: Implementer big box lighting program has TRC of 4.0 and is moving to IPA program.
- Chris Neme, Energy Futures Group, on behalf of NRDC: Companies could already bid higher today if they have a TRC of 4.0.
- Phil Mosenthal, Optimal Energy, on behalf of IL AG: We shouldn't undervalue avoided costs for this reason.

Question 21: Is DRIPE a societal benefit?

- Yes TRC test should include benefits to customers and utilities, not generators.
 - Ohris Neme: There are profits incurred in the production and sale of EE measures (from manufacturers to distributors to retailers to consumers). Those retail prices that consumers pay include profits all along the supply chain. If you argue that it is a transfer payment, you have to suggest it is along the entire supply chain.
- No It is a transfer payment.
 - Scott Fisher, NorthBridge: It is against competitive markets; trying to lower costs and get higher benefits.

Question 22: Is DRIPE a benefit to participants and the system?

- Phil Mosenthal, Optimal Energy, on behalf of IL AG: This isn't necessarily a separate question. The Commission considers the "bubble" to be the state of Illinois. We all agree that tax credits are a benefit of sorts, which is a transfer payment.
 - Arguments on tax credits were made in the IPA docket but the Commission did not rule on this issue.
- Scott Fisher, NorthBridge: Including DRIPE raises the threshold for EE measures under the TRC, allowing replacement of market resources that are out there. This creates a higher cost portfolio in IL. This needs to be viewed from a societal standpoint, as it increases the cost. "System" should be broadly defined.
 - Chris Neme: When regulators make decisions about allowable costs, they
 don't typically express concern that costs for generators are going down.
 The Commission does not make decisions about profit to generators.
- Keith Goerss, Ameren IL: The Commission has discussed concerns about bill and rate impacts to customers numerous times.
 - o Scott Fisher: They care about the economy to the state.
 - o Chris Neme: Low cost to a C&I program.
- Brian Granahan, IPA: The IPA statute chose to focus on all cost-effective resources. The focus should be whether or not it is cost-effective.
- Scott Fisher, NorthBridge: New York does not include DRIPE because they determined it was not a benefit to society, as DRIPE would lead to higher costs.

- Paul Chernick, Resource Insight: The New York decision was a result of Staff's position that generators are part of society. Staff determined that transfers from the generators are costs.
 - It is a cost to generators and a benefit to consumers.
- Chris Neme: It is the same resource.
- Scott Fisher: It is not the same resources under DRIPE.
- Scott Fisher, NorthBridge: DRIPE is not included in 5 out of the 14 states, because including it would lead to a higher cost resource mix.
- Anthony Star: We are assuming there are bids that would pass TRC including DRIPE (i.e. DRIPE in isolation). It is not necessarily so; we are still relying on vendors to make bids.
 - Keith Goerss: This could be anywhere from a 50-100% change; the proposals on the table are fairly substantial.
- Paul Chernick: From the ratepayer's point of view, it would be lower.
- Phil Mosenthal: There are many different kinds of barriers to efficiency.
- Chris Neme, Energy Futures Group, on behalf of NRDC: Where are you drawing the bubble? Globally or around ratepayers?
- John Paul Jewell, ELPC: If lower rates are a benefit, then including DRIPE is a more efficient cost-benefit analysis.
 - Scott Fisher, Northbridge: FERC has minimal offer prices rules and has stated that DRIPE is bad overall for society. The court found that price suppression should not be a benefit.

Question 23: Should the "system" include the generators or not?

• This is a value judgment, on yes or no.

Question 24: Were the economic results presented in the DRIPE study statistically valid?

- Paul Chernick, Resource Insight: Those that didn't make sense were not used.
- Chris Neme, Energy Futures Group, on behalf of NRDC: Which sub-regions were contributing to the overall effect?
- David Brightwell, ICC Staff: Staff brought up the issue of identification problems.
 Has Paul done any tests on variance inflation factors to identify whether colinearity was causing the problems?
 - o Paul Chernick: No, we have not gone back to do this.
- Paul Chernick: We are trying to measure the rate at which the supply curve changes related to demand.
 - David Brightwell: It is doubtful that this is measuring a supply curve. Does the study use an average demand?
 - Paul Chernick: No, the study used the ISO's published demand data.
- Paul Chernick: How is consumer demand in IL affected by an outage of a power plant?
 - David Brightwell, ICC Staff: Demand isn't, but supply is.
 - Staff to provide a numerical example to demonstrate.

 Jim Zolnierek, Staff: The diagram in the Resource Insight presentation shows there are a random number of points; it is not statistically meaningful. It is a statistically invalid estimate.

Question 25: Can DRIPE be quantified for 8-103 and 8-104 programs? Is it a benefit that accrues to the participant or is it quantifiable/societal?

- Chris Neme: It's an either or; it has to address either one or the other of those hurdles. It doesn't have to fit in either one or the other. To exclude it, it would need to fail on both accounts.
- Chris Neme/Paul Chernick: It is a benefit to consumers, and consumers are part of the system.

Question 26: For opponents of DRIPE, what scale would you have to see impacts such that it would influence decision-making?

- Keith Goerss, Ameren IL: Depending on the pace of the impact, trying to estimate this out for multiple years becomes very difficult.
- Paul Chernick, Resource Insight: How much of an effect could DRIPE have; and how much of an effect could that have on generators?
- Chris Neme, Energy Futures Group, on behalf of NRDC: Is there any evidence of DRIPE causing issues in other states? NorthBridge to follow-up.

Question 27: Assuming DRIPE were adopted, how would it be implemented? What is the multiplier for each year over time?

- Chris Neme, Energy Futures Group, on behalf of NRDC: The adder on avoided costs would be around 30%.
- Chris Neme to provide the multiplier per year.

Question 28 (Keith Goerss, Ameren IL): Is DRIPE being proposed as applicable to capacity and/or gas? If so, what is the support for it? What is the proposal to impact the numbers?

 Chris Neme: DRIPE's impacts on capacity and gas are no different than on electric. The jurisdictions that include DRIPE include all of those forms. An analysis would be needed to develop an estimate.

Question 29: What if DRIPE were capped at a certain limit, on a pilot basis?

- Mike Brandt: Bidders will not understand what DRIPE is; ComEd will receive the same number of bids.
- Keith Goeress, Ameren IL: Bidders may understand DRIPE once they realize that the TRC has increased.
- Keith Martin, Ameren IL: The law may not have this flexibility.
- Phil Mosenthal, Optimal Energy, on behalf of IL AG: The IPA law requires acceptance if a program passes TRC.

Additional Issues

Question: What are unexpected consequences of including DRIPE in the TRC test?

Question (Brian Granahan, IPA): The introduction of additional EE programs by including DRIPE as a benefit under the 8-103 cost-effectiveness criteria could be viewed as a 111(d) compliance strategy. In terms of some of the potential negative effects and challenges cited by DRIPE opponents, are there reasons to believe those challenges be more acute via increased EE via DRIPE versus other potential compliance solutions? Stated differently, we know that the state will have to do something eventually to comply; are there specific reasons to believe that DRIPE may not be the most efficient thing? [Northbridge to respond]

Question (Brian Granahan, IPA): When DRIPE has been introduced in other states, how has it impacted those states' EE portfolios? [Mosenthal to respond]

Question (Brian Granahan, IPA): What is the specific argument re: DRIPE with respect to 8-103; is it a "benefit that accrues to the system and the participant," or is it an "other quantifiable societal benefit"? [Neme and/or Mosenthal to respond]

Question (Brian Granahan, IPA): Are there other analogous situations where we don't consider generator profits and draw a similar circle around utilities and ratepayers? [Neme and/or Chernick to respond]

Generator Response to DRIPE:

 Question (Brian Granahan, IPA): At what scale would this impact their [generator's] decision making? How does the size of DRIPE compare to other things that force them to make decisions? [Northbridge to respond]

Wall Street Response to DRIPE:

- Question (Brian Granahan, IPA): Do we have comparable examples of the Wall Street response? [Northbridge to respond]
- Question (Brian Granahan, IPA): Is the Wall Street response also "lumpy,"
 i.e. can/would Wall Street respond via a hundredth of a percentage cost of
 capital adjustment? [Northbridge to respond]

Validity of NRDC/Resource Insight Study and results [Paul Chernick to respond]

- What statistical tests were run, and what were the results of the tests, to validate the conclusion that a 1% reduction in demand leads to a 2% reduction in price?
- What data/observations were not used in the regression, and why?
- What is the evidence to support the assumption that DRIPE would last for 12 years in IL?

Next Steps

Timing/process for litigation of DRIPE is an open issue. At the March meeting, the Subcommittee will resume discussion of TRC issues that were directed by the Commission in the IPA Final Order. The Subcommittee will resume the DRIPE process discussion this spring after determining whether additional TRC issues are consensus or non-consensus.