

# ESI

## Preliminary Thoughts & Questions

### New England States Committee on Electricity

NEPOOL Markets Committee

August 13-15, 2019

## Disclaimers –

### ISO-NE Design Proposal is Moving Too Quickly

- NESCOE does not have a point of view at this time about ISO-NE's Energy Security Improvements “ESI” proposal and this presentation should not be interpreted as expressing one.
- Because of the fast-tracking of all things energy security, today we provide for ISO-NE's and others' benefit some preliminary feedback, including some concerns and ideas requiring further development, based on what ISO-NE has presented to date.
- Concerns, questions and possible positions will emerge with continued dialogue and understanding.
- Today, we appreciate feedback to help us think through the range of questions and possible design solutions that ISO-NE's proposal raises.
- *The questions and ideas reflected in this presentation should not be viewed as a NESCOE or any individual state position.*

# Further Disclaimers

- NESCOE is continuing to assess ISO-NE's stated objectives for ESI.
- NESCOE is concerned about whether and to what extent ISO-NE's proposal might effectively achieve those fundamental objectives and *if the proposal will actually and appreciably change resource behavior*, especially during extended cold snaps
- None of the concepts identified in this presentation are intended or should be construed as opining on whether ISO-NE's proposal or the concepts identified in this presentation are adequate or appropriate to advance key energy security objectives

# At this point, as we noted at FERC ...

ISO-NE's proposal is a major redesign of New England markets

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There remain many open questions. ISO-NE design incomplete, preliminary Impact Analysis not discussed until July 30<sup>th</sup>; ISO-NE encourages amendments to its proposal two weeks later



Work on a long-term solution comes on the heels of fast-tracked Mystic litigation and a simultaneously fast-tracked Interim Solution process



*Too much too fast*, coupled with increasing complexity of market rules, can lead to unintended consequences, unnecessary consumer costs, and/or a solution that doesn't actually deliver results

# Would More Time Help?

- Many open issues – non-exhaustive examples:
  - Could the design basis of a sloped demand curve be established?
  - Additional analysis on the nine non-winter months could be accomplished
  - Market power/mitigation concerns could be more fully developed
  - More “unpacking” of the ISO-NE and alternate proposals could occur
  - Additional analysis and information that show states’ concerns satisfied could lead to support
- ISO-NE clear it would not embark on seasonal forward component
- Do not want implementation date to change

# Open Issues – For Example

- **Issue:** ISO-NE proposes to close out options against the system LMP, not a resource's nodal LMP. When one zone is expected to have substantially higher LMPs, this approach could fail to address the misalignment problem and create the desired incentives.
  - Resources within the constrained zone would not be exposed to the potential impact on zonal LMPs
  - Would not have the intended incentive to acquire fuel.
  - The proposal to settle at system LMP also raises questions about how the options would be co-optimized with DA (nodal) energy prices.
- **Solution:** Different solutions bring on different issues

- ✓ **Enough** more time would help – **six months**  
(a few months would not)
- ✓ **If** used to effectively address core consumer protection measures the ESI lacks today
- ✓ **Without more time to address core consumer protection measures** (market power, a sloped demand curve), even the promising ESI design will not be supportable

# Preliminary Concerns, Ideas for Consideration & Feedback Regarding ESI

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Not a proposal or a position



# Emerging Concerns

- Time is limited to understand not only the ESI proposal but other stakeholder proposals
- How likely is it that the proposal will prevent or limit retirements/RMRs?
  - Understand no one can predict with certainty, but not much discussion on likelihood to date.
- Market Power/Mitigation
  - What risks will consumers be exposed to through the design?
- Unwarranted costs – Costs with little benefit

# The “Leaks”

- “*Slow Leak:*” Concern about an increase in consumer cost during times of year (e.g., the non-winter period) when energy security is not a concern and, therefore, it is hard to make a case that ESI is needed or providing any value;
- “*Fast Leak:*” Concern about an increase in consumer cost due to exercise of market power during times when the system is tighter and there are pivotal suppliers able to raise prices above competitive levels due to ineffective market power mitigation.

# Possible “Solutions”

- Demand Curve(s)
- Set RER and EIR to Zero in the Nine Non-Winter Months
- Higher Strike Price

# Current Demand Curve

- Currently ESI has a **vertical** demand curve with a few segments based on different constraint penalty factors
  - This fails to mitigate market power or to effectively limit its cost impact, unless the penalty factors are set very low.
- Ex ante market power mitigation unlikely to be practical
  - Risk either over or under mitigation – both are negative to consumers
- The demand curve represents the maximum willingness to pay and only allows market power to raise prices (and, often, DA LMPs) to the price along the demand curve.

# The More Effective Demand Curve

- A **sloped** demand curve would be much more effective in containing the potential impact of exercise of market power.
- It should offer prices at each quantity reflecting the marginal reliability value of incremental commitment
- The marginal reliability value of the last incremental of ISO's desired procurement quantity is very low, so
- A proper, marginal reliability value-based demand curve would slope to near-zero values at the full quantity.
  - Would also partially mitigate over procurement concerns

# Prevent the “Slow Leak”

- ISO-NE contends there is little to no cost in the nine non-winter months due to no fixed costs and,
  - Per ISO-NE, option close out should net close to \$0 costs for consumers
- We remain concerned while it may be low, it will be over 75% of all hours
- ***Potential Solution for Discussion:*** Set RER and EIR to 0 quantity in the non-winter months until ISO-NE and stakeholders have time to better analyze the costs and benefits in the nine non-winter months or until some experience in actual operation is gained

# Costs with Little Benefit

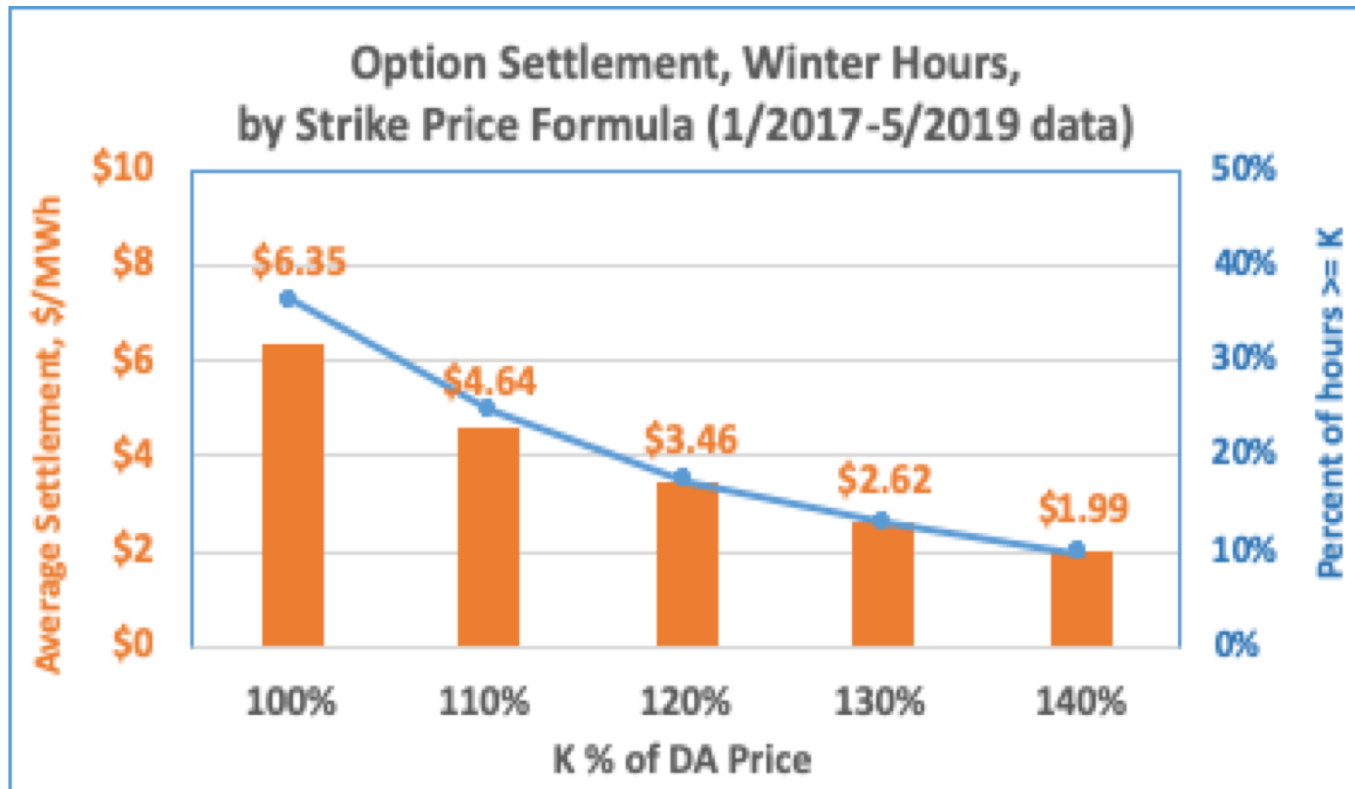
- **Issue:** Option will get exercised at times when energy security is not an issue both in the winter and non-winter months
  - This creates option risk for providers
- **Potential Solution for Discussion:** Increase strike price by 20%
  - Reduces the frequency of option getting exercised, should lower costs
  - Has minor effect on incentives to cover the call
- This could also increase participation under the ESI proposal
  - Increases likelihood of design being successful

# Higher Strike Price

- A higher strike price would shrink the option close out value (RT price – K).
  - Because offers reflect this settlement, a higher strike price would reduce offer prices and clearing prices.
- It would reduce the number of market participants whose marginal cost is greater than the strike price. This may make participation somewhat more attractive to these market participants.
- For sellers whose settlement is not fully hedged by RT operation and add a risk premium to their offers, a higher strike price would reduce such risk premiums, by shrinking the exposure.

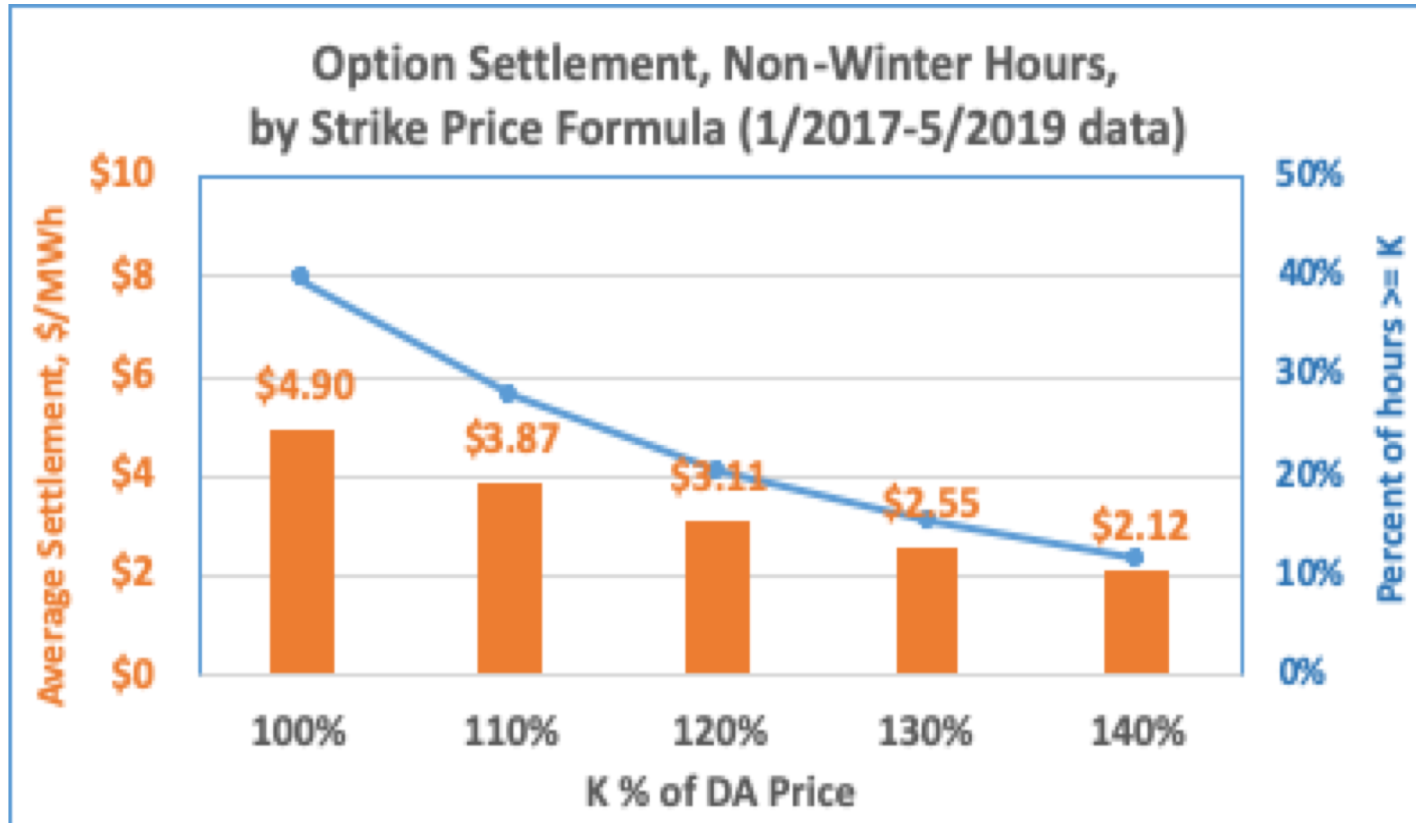


# Option Settlement - Winter



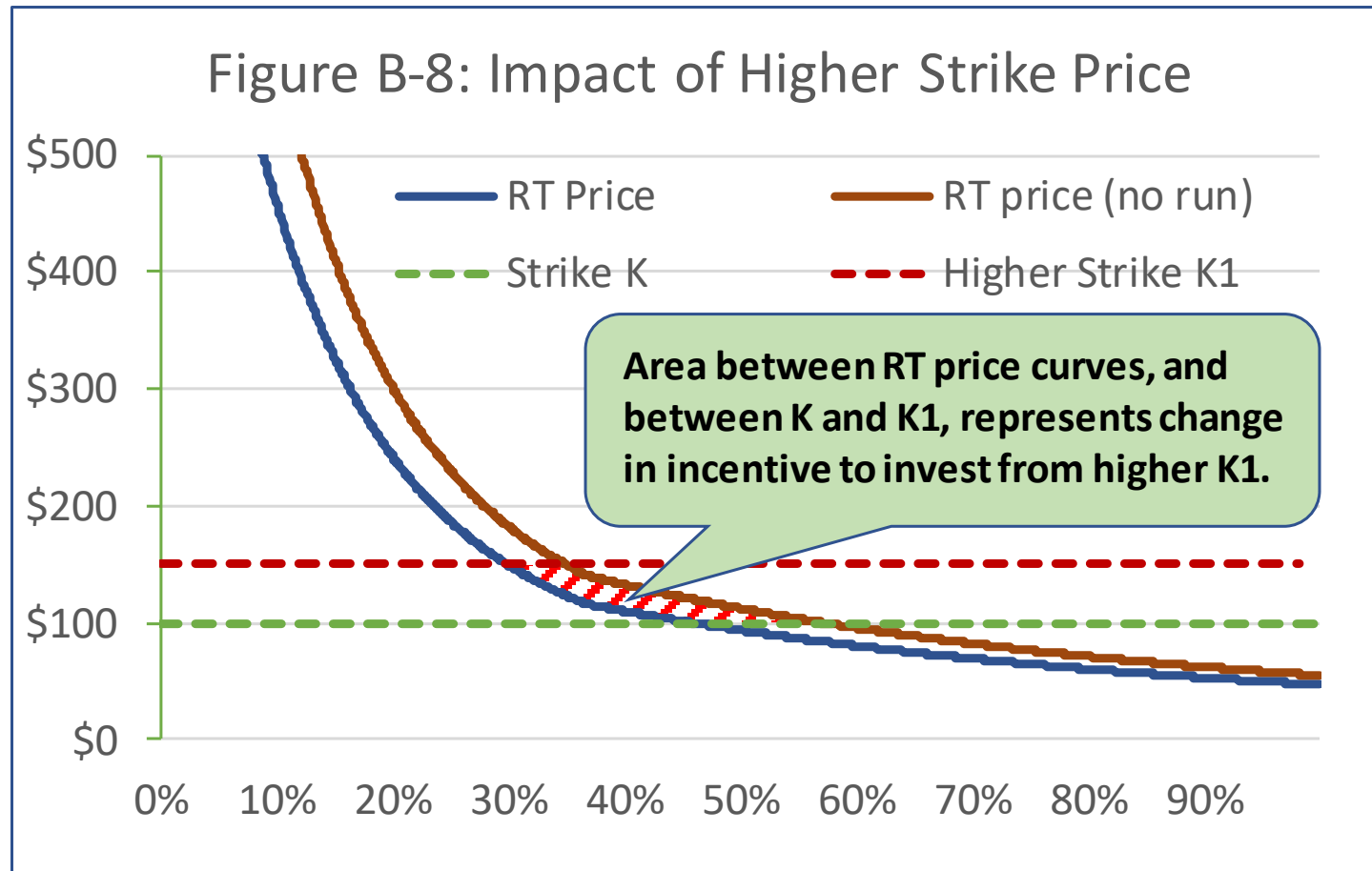
Increasing the strike price reduces frequency and lowers close out costs

# Option Settlement - Summer



Same in the Summer

# Higher Strike Price Has Small Impact on Option Incentive



# Why 20%, not 10% or 30%

- Balancing the incentive decrease with potential benefits and consumer savings is subjective
- Looking at slides 17/18 the reduction in cost/frequency of option strike declines significantly after 20%
- 20% balances consumer savings and still provides incentive when RT prices spike into scarcity hour range

# Tradeoffs of Higher Strike

- Downside is a somewhat weakened incentive to invest in fuel created by the option.
  - Also dependent on market participants' expectations of RT prices and their expectations regarding how their output impacts RT prices.
- The tradeoff – *greater participation and lower consumer cost* with a higher strike price, in *exchange for somewhat lower incentive impact* – may be especially attractive in the *early years* of ESI implementation, when there is little or no experience of how the proposal will work under various system conditions, and much uncertainty about its possible cost impacts and vulnerability to exercise of market power.

# Thank You We Look Forward to Your Feedback

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