

# Cost Containment Metric for Transmission Project Evaluation in Public Policy Process

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Electric System Planning Working Group  
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# Project Objective

- The NYISO proposes to amend the Public Policy Transmission Planning Process in the OATT to establish the treatment of cost containment in the project proposal, evaluation and selection, and Development Agreement processes
- Assuming a positive stakeholder vote and Board approval, the NYISO plans to make a Section 205 filing so that the cost containment provisions will be accepted or approved by FERC in its tariff for Developers to use in proposing projects as solutions to any Public Policy Transmission Needs that are identified by the New York State Public Service Commission in the current and future transmission planning cycles
- The NYISO will address cost containment for the reliability and economic planning processes as part of the Comprehensive System Planning Process project that will continue later this year

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# Objective for Today's Discussions

- Review draft tariff language on cost containment treatment and metrics in Public Policy Process and in Development Agreement
- Propose additional treatment of soft cap based on percentage cost sharing in quantitative and qualitative cost containment metrics
- Propose treatment of soft cap based on percentage cost sharing through ROE and incentive adjustments on amounts over the cap through Development Agreement

# Capital Cost Evaluation Method

- **NYISO position:**
  - Cost containment considered in Public Policy Process will be limited to capital costs only
  - Evaluation methodology must be feasible for NYISO implementation
  - Consistency across projects must be maintained
  - Consideration of cost containment must not add to evaluation time and lengthen Public Policy Process that stakeholders have agreed already takes too long to complete
- **NYISO is proposing an evaluation methodology for capital cost containment that meets the objectives for use in the current and next cycles of the Public Policy Process**
- **Treatment of cost containment for upgrades to existing Transmission Owner transmission facilities by another developer will be addressed when rights to build and own such upgrades is addressed in the stakeholder process**

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# Review of Draft Tariff Language

- NYISO posted a detailed straw proposal on cost containment for discussion at the June 19, 2019 meeting
- NYISO received feedback from stakeholders, including the TOs and NextEra
- NYISO has drafted tariff amendments to the OATT, which are posted separately for this meeting:
  - Section 31.1: Definition of “Cost Cap”
  - Section 31.4: Consideration of cost containment as a metric for transmission project evaluation and selection in the Public Policy Process
  - OATT Section 31.7, Appendix D: cost containment and rate filing commitments in the *pro forma* Public Policy Transmission Planning Process Development Agreement
  - MST Section 6.10: Mechanism for the rate recovery of the Regulated Transmission Facilities Charge (“RTFC”)

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# Capital Cost Containment – Approach Overview

Developer may voluntarily propose cost containment for defined categories of capital costs. Developers may propose either a hard cap or a soft cap, as defined below:

- **Hard cap:** A hard cap for capital costs is defined as an amount (the cap) over which the Developer agrees not to recover capital costs from ratepayers
- **Soft cap:** A soft cap for capital costs is defined as an amount (the cap) above which excess capital costs are shared between shareholders and ratepayers based on a defined percentage; Developers would define the percentage of risk sharing as part of their cost containment proposal

# Cost Containment—Evaluation Overview

The NYISO will consider cost containment proposals in both a quantitative and qualitative manner:

- **Use in Quantitative Cost Metrics:** Depending on several factors, the NYISO will use the proposed cap for contained capital cost elements (included capital costs) to calculate the total capital cost of the project that is used in existing quantitative cost metrics.
- **Qualitative Evaluation:** In addition, the NYISO will assess any proposed cap qualitatively through a new metric. The additional metric is intended to factor in cost containment as one metric among a host of metrics the NYISO may consider to evaluate, rank and select the more efficient or cost effective transmission project to meet a Public Policy Transmission Need.

# Quantitative Factors – Hard Cap

- A hard cap for capital costs is defined as an amount (the cap) over which the Developer agrees not to recover costs from ratepayers for contained capital costs
- If the Developer's cost cap is above or below the IC cost estimate, the NYISO will use the Developer's cost cap as the estimate for contained costs
- NYISO will add the contained costs to its independent consultant's estimate of the Developer's excluded capital costs to calculate a total project capital costs
- The NYISO will use the total capital cost to compare project costs to benefits under the quantitative cost metrics in its tariffs, including capital cost and cost per MW



# Quantitative Factors – Soft Cap

- **Soft cap:** A soft cap for capital costs is defined as an amount (the cap) above which excess costs are shared between shareholders and ratepayers based on a defined percentage
- If the Developer's cost cap is above the Independent Consultant (IC) cost estimate, the NYISO will use the Developer's cost cap to evaluate quantitative metrics in its tariff
- If the Developer's cost cap is below the Independent Consultant (IC) cost estimate, the NYISO will calculate an adjusted estimate for contained capital costs for use in the quantitative cost metrics
- The NYISO has proposed to adjust the cost estimate based upon the amount of financial risk that the Developer proposes to assume
  - The original method proposed by NextEra adjusts the estimate for contained capital costs by multiplying the difference between the Developer's capital cost cap and the Independent Consultant cost estimate for the same facilities by the raw risk percentage exposed to ratepayers
  - This method adds the ratepayer exposure amount to the Developer's cost cap, plus excluded capital costs, and uses the total for its quantitative metrics

# Example of Adjusting Project Cost with Percentage Cost Sharing using NextEra Method

	80/20 Risk Share		50/50 Risk Share		0/100 Risk Share	
	Contained Costs	Excluded Costs	Contained Costs	Excluded Costs	Contained Costs	Excluded Costs
Developer Proposal	100	75	100	75	100	75
Independent Estimate	200	75	200	75	200	75
Adjusted Estimate	180	75	150	75	100	75
Total Capital Costs for Evaluation	255		225		175	

# Scaled Methodology to Quantify Developer Soft Cap Project Cost

- In its May 22 presentation, the NYISO said that it was examining a potential adjustment to the expected capital cost of a project that will consider how effective the proposed cap will be in containing capital costs (*i.e.*, how strong is the incentive to the Developer not to exceed the proposed cap)
- The NYISO proposes to scale the difference between the cost cap and the SECO estimate by the effectiveness of the percentage shareholder sharing of cost overruns in providing an incentive to developers to contain their costs

# Cost Containment Effectiveness: Overrun Profits/Losses

- In order for a cost containment proposal to be effective at containing costs, it should align a Developer's profit motive with the minimization of cost overruns
  - This occurs when incremental costs in excess of the cap are accompanied by a financial loss – a decrease in overall value of the project
- Risk sharing arrangements can achieve profit motive alignment, depending on the amount of risk borne by the Developer
- However, it is possible for risk sharing arrangements below some amount to transfer insufficient risk to the Developer to be effective
  - This occurs when the portion of costs not recovered is insufficient to outweigh the incremental value the Developer stands to gain on the remainder

# Overrun Profits/Losses

- **One method to determine whether a Developer's profit motive is aligned with cost containment is to calculate the Net Present Value ("NPV") of an incremental cost overrun**
  - A negative NPV for an incremental cost overrun means that the Developer will maximize profits by ensuring project costs do not exceed the cost cap
  - A positive NPV does not necessarily mean that a Developer will maximize profits by maximizing costs - if, for instance, there are other, more profitable ways to utilize capital
- **In order to investigate potential metrics for cost containment, the NYISO performed analysis to estimate the risk sharing "breakeven" point**
  - *i.e.* the percentage risk undertaken at which a Developer is economically indifferent as to whether costs exceed its proposed soft cap; cost overruns do not result in a loss, but they also do not increase profits
- **This breakeven is important because risk sharing percentages above this amount are an effective means of cost containment**
  - Developer profit motives align with consumer benefit – it is in everyone's interest to avoid cost overruns

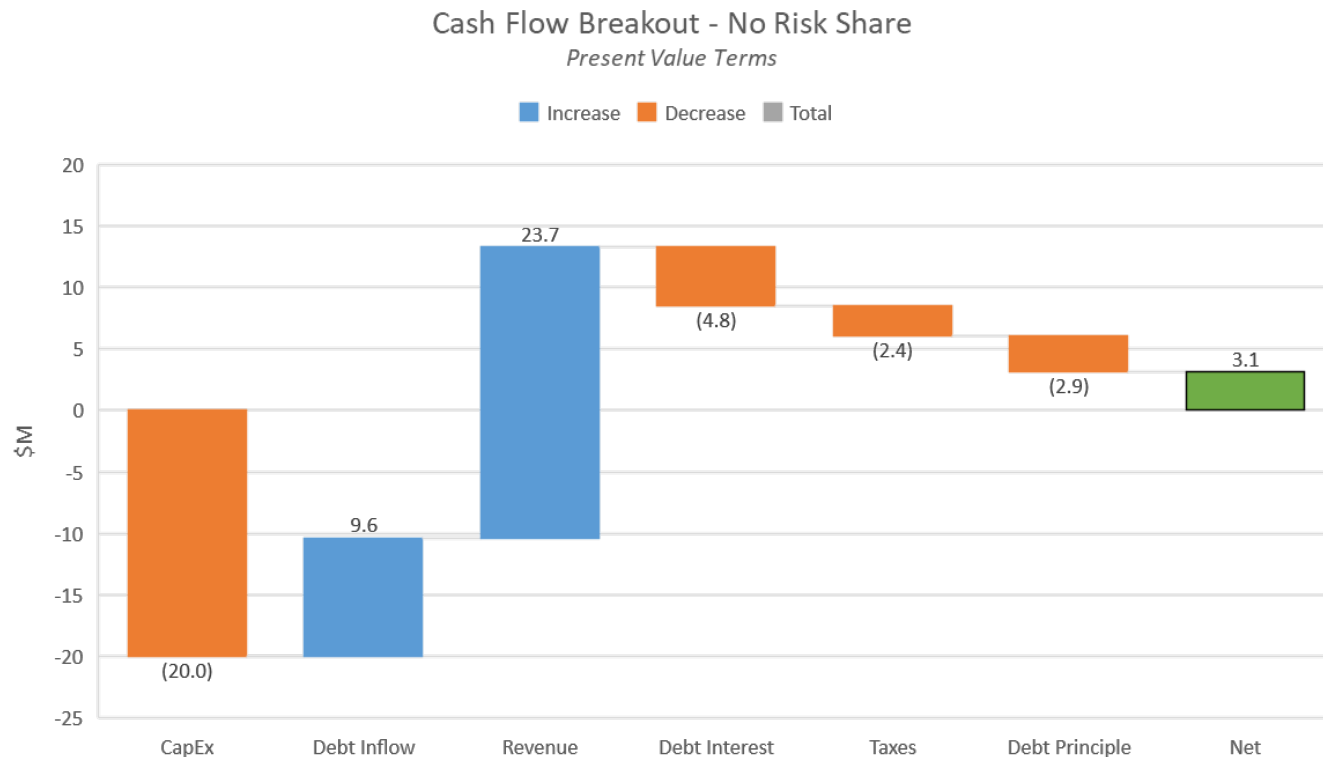
# Overrun Profits/Losses - Assumptions

- The following examples and calculations all use the same representative assumptions:

Cost Cap	\$100M
Cost Overrun (above cap)	20%
Debt%	48%
Equity%	52%
Cost of Debt	4.5%
Cost of Equity	10%
Tax Rate (Composite)	39.6%
ATWACC	6.24%
Book Life (years)	50
Discount Rate	ATWACC

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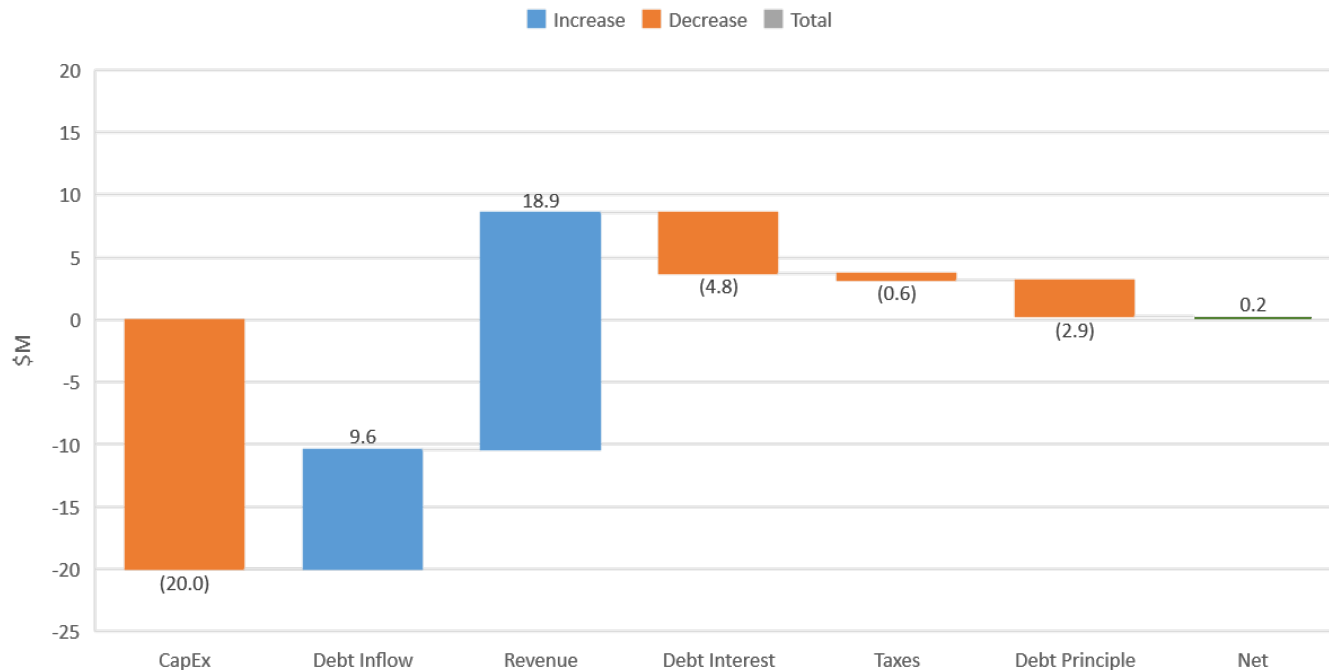
# Overrun Profits/Losses: No Risk Share



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# Overrun Profits/Losses: 80/20 (cons./dev.)

Cash Flow Breakout - 80/20 Risk Share  
*Present Value Terms*

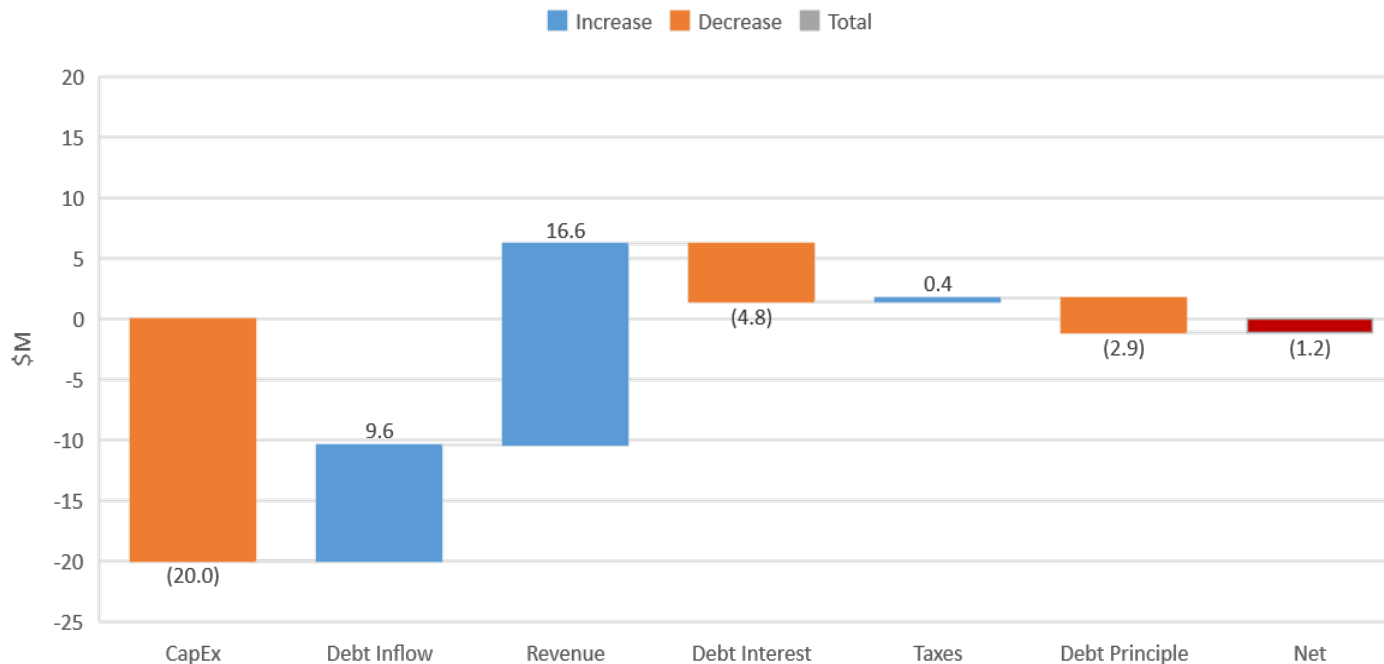


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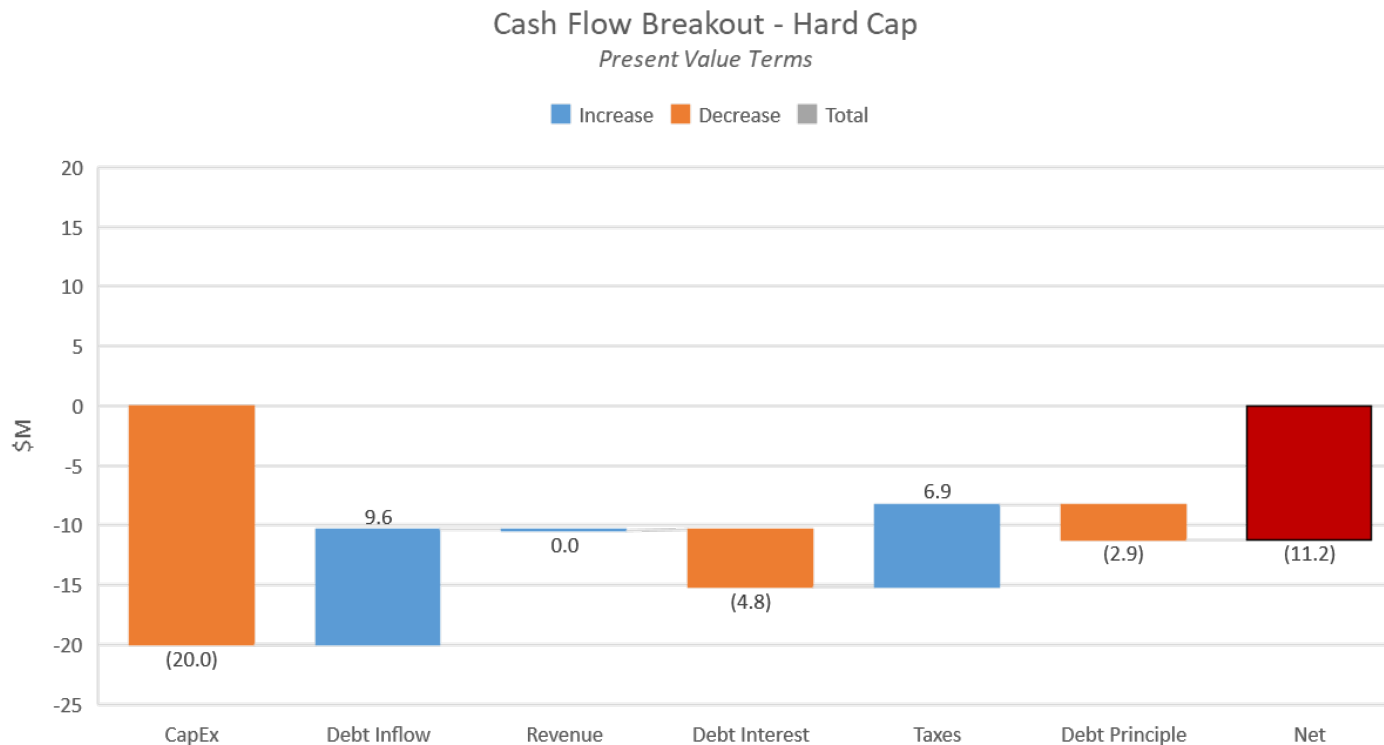
# Overrun Profits/Losses: 70/30

Cash Flow Breakout - 70/30 Risk Share  
*Present Value Terms*



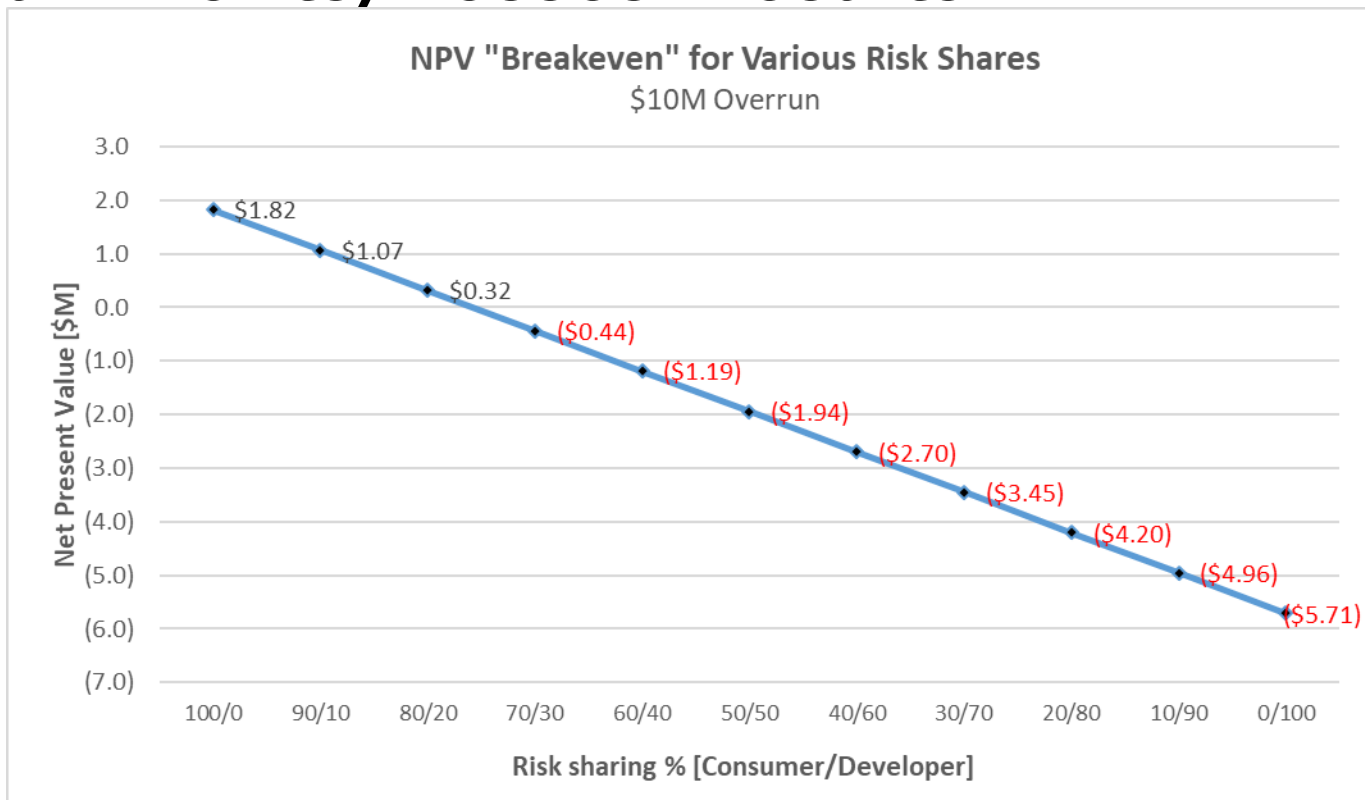
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# Overrun Profits/Losses: 0/100 (Hard Cap)



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# Overrun Profits/Losses: Results



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# Breakeven – Considerations

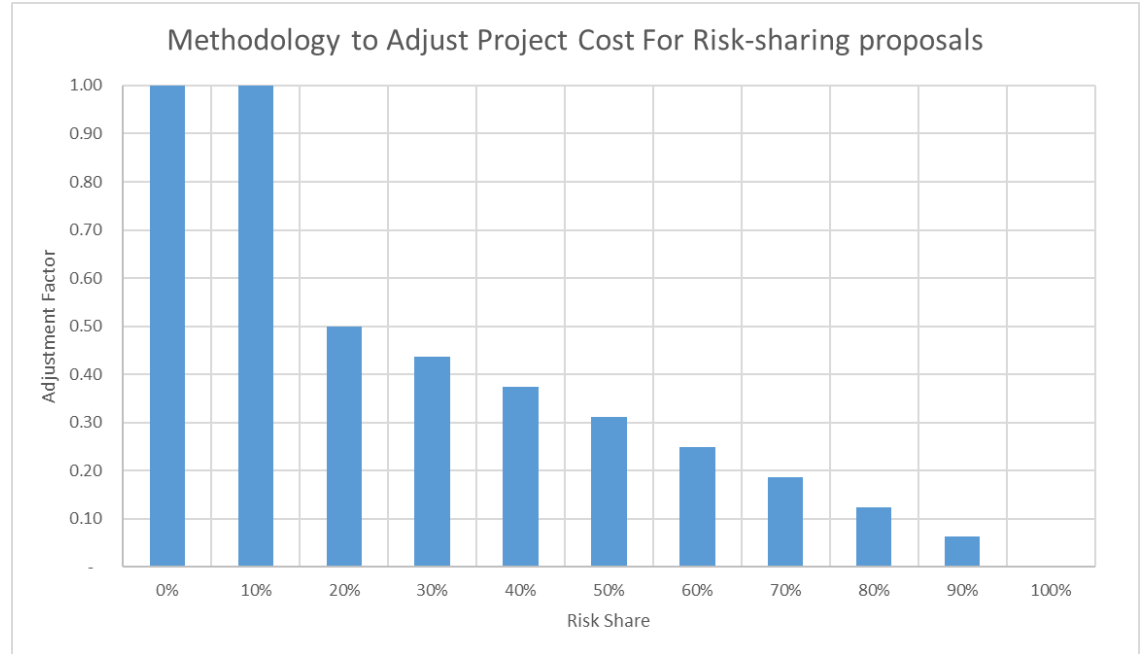
- **The breakeven depends on cost of capital & structure – not the same for everyone**
  - Calculating a project and Developer-specific breakeven is not practical given the information available during the selection process
- **A quantitative approach is informative**
  - e.g., when comparing proposals on the same side of the breakeven, but with different risk sharing amounts
- **It is clear that the “starting line” is not 100/0:**
  - The NYISO’s analysis suggests that risk sharing proposals begin to guarantee effectiveness around 80/20
  - Although it is possible for risk sharing below the breakeven to be an effective mechanism for cost containment, the assurance of effectiveness brought about by the alignment of profit motives minimizing cost overruns is inherently valuable to consumers

# Percentage Cost Sharing Floor

- **Scaling of percentage cost sharing reveals that overrun cost sharing below 80% ratepayers/20% shareholders neither provides sufficient developer incentives, nor protects ratepayers from cost overruns**
- **Accordingly, the NYISO proposes a minimum risk sharing of 20% to shareholders for NYISO to consider cost containment in selection process**

# Alternative Adjustment

- Proposals without risk-sharing have an adjusted estimate reflecting 100% of the difference between their bid and SECO
- Proposals above the breakeven are adjusted according to the formula below, up to a max of 50% of the difference



$$Adjustment\ Factor = \begin{cases} \left( \frac{1 - \frac{Risk_{Developer} - 20\%}{80\%}}{2} \right), & \text{for } Risk_{Developer} \geq 20\% \\ 1, & \text{for } Risk_{Developer} < 20\% \end{cases}$$

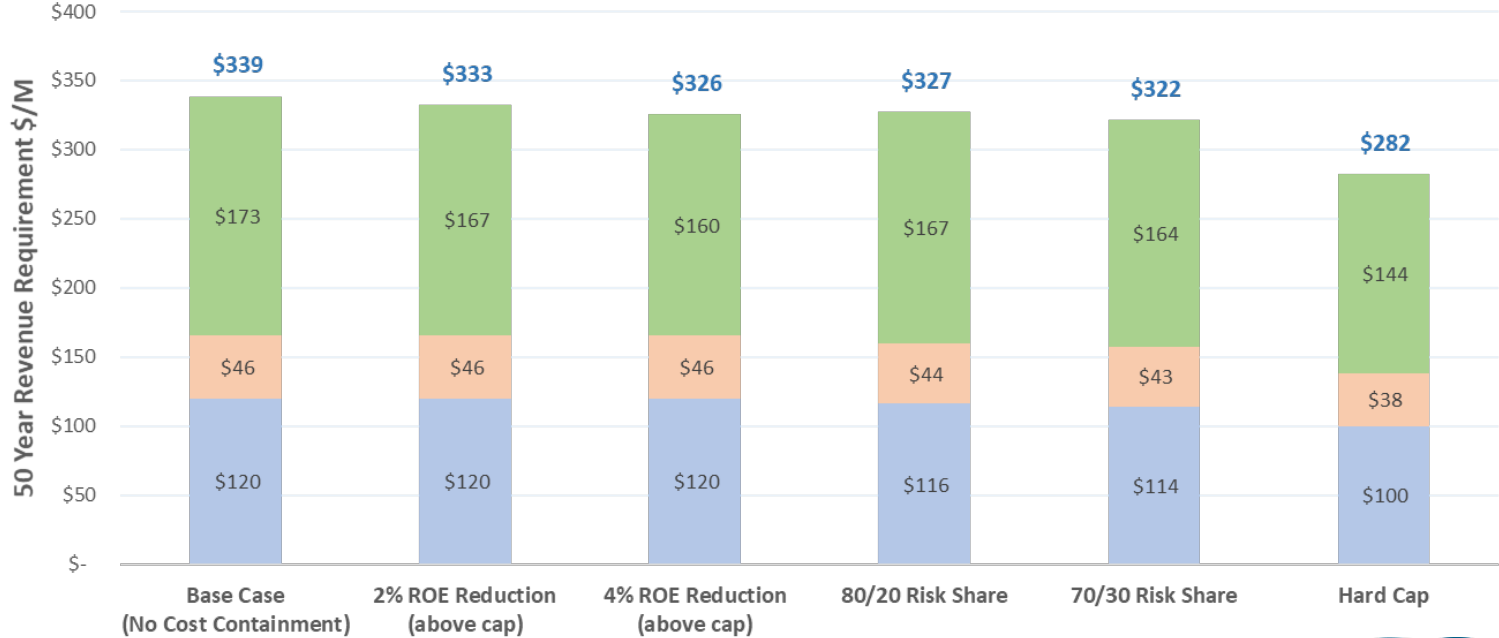
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# Alternative Adjustment

	90/10 Risk Share		80/20 Risk Share		0/100 Risk Share	
	Contained Costs	Excluded Costs	Contained Costs	Excluded Costs	Contained Costs	Excluded Costs
Developer Proposal	100	75	100	75	100	75
Independent Estimate	200	75	200	75	200	75
Adjusted Estimate	200	75	150	75	100	75
Total Capital Costs for Evaluation	275		225		175	

# Revenue Requirement Comparison

Base Case Project Cost: \$100M, 20M Overrun  
 10% ROE, 52/48 Capital Structure  
 (Nominal)



■ Depreciation ■ Debt ■ Equity

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# Consideration of Soft Cap in Qualitative Metric

- The NYISO will assess percentage risk sharing proposals of at least 80% ratepayers/20% shareholders in qualitative ranking of cost containment proposals
  - How close is the cost cap to the IC estimate?
  - Is the cost cap significantly above the IC estimate so that it is unlikely to bind and provide benefit to ratepayers?
  - Does the cost cap exceed the IC estimate only by a small amount, meaning that the cost cap could provide a benefit to ratepayers in the event that the Developer's costs exceed the IC estimate?
- How effective is the proposed cap in incenting developers to maximize their profits by avoiding cost overruns?
- How effective is the proposed cap in protecting ratepayers from capital cost overruns?

# Potential Soft Cap Alternatives Equivalent to Percentage Capital Cost Sharing

- IOUs have suggested use of ROE and incentives as financial adjustments to a cost cap
  - Such a method would examine total transmission project revenue requirement over the life of the asset using reduced ROE (including base and any incentives) for amounts in excess of the cap, rather than foregoing recovery of capital costs
  - Reduced ROE/incentives on amounts in excess of cost cap were included in TransCo and NextEra approved rates

# Proposed Flexibility for Rate Design of Soft Cap

- NYISO considering modifying its proposal to allow the following:
- In the selection process, the NYISO would evaluate a proposed risk sharing/soft cap related to capital costs, as described above.
- Then, the selected Developer would have limited flexible to propose alternative rate treatment at FERC
- Specifically, Developers may make rate filings to effectuate percentage capital cost sharing considered in the selection process through:
  - a reduction of its return on equity (including base and any rate incentives) only on amounts in excess of the soft cap, and/or
  - foregoing cost recovery of a share of capital costs above the proposed cap
  - Any such proposal must achieve a rate adjustment that it equal to or better for ratepayers than a percentage reduction in recovery of actual capital costs in excess of the cap

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# Flexibility for Rate Design of Soft Cap, cont'd

- **NYISO will not allow for ROE adjustments on total amount of capital costs because there are too many unknown variables to determine whether such adjustments would achieve a reduction in long-term transmission project total revenue requirements that is the same or better for ratepayers than a reduction of cost recovery**
  - These variables include the base return on equity to be adjusted, and the capital structure of the overall project (debt/equity proportion), which will not be known at the time the transmission project is proposed
  - The NYISO has been able to calculate the impact of adjusting ROE and incentives on amounts in excess of the cost cap on the long-run total project capital costs
- **Failure of a Developer to file its Cost Cap as submitted to the NYISO in the project proposal and in the Development Agreement, or a Developer seeking cost recovery in excess of its Cost Cap, would violate the tariff and constitute a breach of the Development Agreement**
- **FERC has expressed willingness to enforce voluntary cost containment commitments in transmission rates**

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# Next Steps

- Please submit additional comments on presentation and tariff language to [PublicPolicyPlanningMailBox@nyiso.com](mailto:PublicPolicyPlanningMailBox@nyiso.com)
- The NYISO will consider all oral and supplemental written comments
- Revised tariff language will be presented to ESPWG based on feedback today and in comments, including language on: (i) scaled calculation of cost containment impact on developer capital cost bids; (ii) use of ROE and incentive adjustments to implement percentage capital cost overrun sharing in the Development Agreement; and (iii) full process for quantitative and qualitative treatment cost containment in the evaluation and selection process
- Vote at BIC on tariff language late summer/early fall

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# Questions?

# The Mission of the New York Independent System Operator, in collaboration with its stakeholders, is to serve the public interest and provide benefits to consumers by:

- Maintaining and enhancing regional reliability
- Operating open, fair and competitive wholesale electricity markets
- Planning the power system for the future
- Providing factual information to policy makers, stakeholders and investors in the power system



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