New York ISO
Independent System Operator

Valuing Transmission Security

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Capacity & New Resource Integration Market Design

ICAPWG/MIWG

Oct 1, 2024

Agenda

- Previous ICAPWG presentations
- Project Overview
- Stakeholder Concerns with the Current Treatment of Transmission Security in the Installed Capacity Market
- Open Questions
- Next Steps

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Previous ICAPWG Presentations

Previous ICAPWG Presentations

Date	Working Group	Discussion Points and Links to Materials
February 7, 2024	ICAPWG	Valuing Transmission Security: Project Kick Off: https://www.nyiso.com/documents/20142/42807168/Valuing%20Transmission%20Security%20Kick%20Off%20v2.pdf/389f28dd-a518-bd2f-775d-c93aaa11e1dc
March 4, 2024	ICAPWG	Valuing Transmission Security: Key Concepts Overview: https://www.nyiso.com/documents/20142/43315080/Valuing%20Transmission%20Security%20Key%20Concepts%20Overview%20ICAPWG%2003_04%20v3.pdf/b0c9148d-534a-a649-3d10-881764de2283
May 30, 2024	ICAPWG	Valuing Transmission Security: Reliability Planning Process Overview: https://www.nyiso.com/documents/20142/44935892/Valuing%20Transmission%20Security%2005_30%20ICAPWG%20v7.pdf/2ba588c2-f9ec-5032-9804-125370370853

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Summary of ICAPWG Presentations

- **Project Kick-Off:**
  - Scope, deliverables and high-level timeline of the project
  - Informed stakeholders that “examination of reliability planning transmission security assessments and Transmission Security Limit (TSL) floor calculations” are not within the scope of this project
  - Schedule:
    - Q1-Q2: Educate stakeholders on existing practices and market structure
    - Q2-Q3: Identify and research issues; Discuss issues with stakeholders
    - Q3-Q4: Assess stakeholder feedback and finalize Issue Discovery report

- **Key Concepts Overview:**
  - Definitions of resource adequacy (RA) and transmission security (TS) and key differences between them
  - Use of TSLs in the Installed Capacity (ICAP) market and the most recent TSL floor calculation methodology

- **Reliability Planning Process Overview:**
  - NYISO Reliability Studies: STARs, RNA and CRP and Applying Reliability Criteria
  - How TS is currently valued in the ICAP market
  - Comparison of contributions of different resource types in RA Reliability Studies, TS Margin Reliability Studies & Installed Reserve Margin (IRM)/Locational Minimum Installed Capacity Requirement (LCR) Studies

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Project Overview

Project Overview

- **The consideration of TS is incorporated in the ICAP market by utilizing TSLs as floors in the LCR setting process**
  - However, TS requirements are not directly incentivized through the ICAP market as it is designed to satisfy RA criteria
- **A resource may have different contributions to TS and RA**
  - Due to these potential differing contributions, when incorporating both RA and TS in the ICAP market, a unit may have different capacity values when an LCR is set by the TSL rather than by RA needs
- **This project will evaluate if and how bulk TS should be incentivized in the ICAP market**
- **Deliverable: Q4 Issue Discovery**
  - The deliverable for this project will be a report and presentation delivered at a Q4 ICAPWG that provides an overview of the issues and market design considerations of various approaches for incentivizing TS

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MMU and Stakeholder Concerns with the Current Treatment of TS in the ICAP Market

MMU and Stakeholder Concerns

- **MMU and stakeholders have raised concerns about how TS requirements are incorporated in the ICAP market as minimum TSL floors**
  - MMU presented its concerns and recommendations at the September 24, 2024 ICAPWG
- **At the July 25, 2024 ESPWG, NYISO presented the 2024 RNA Preliminary Results that highlighted NYC TS margin baseline deficiency beginning in 2031, growing to 275 MW by 2034**
  - Current ICAP market structure does not explicitly provide market signals to procure in response to TS deficiencies

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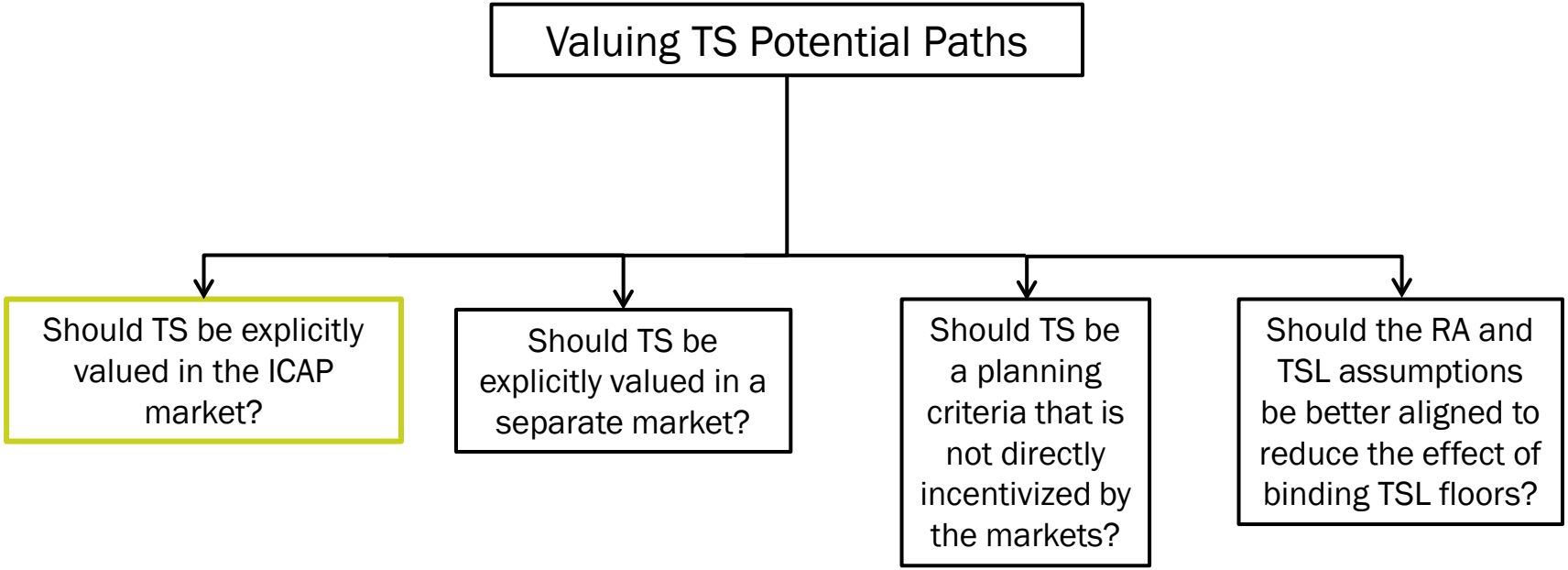
Open Questions

How to incentivize TS?



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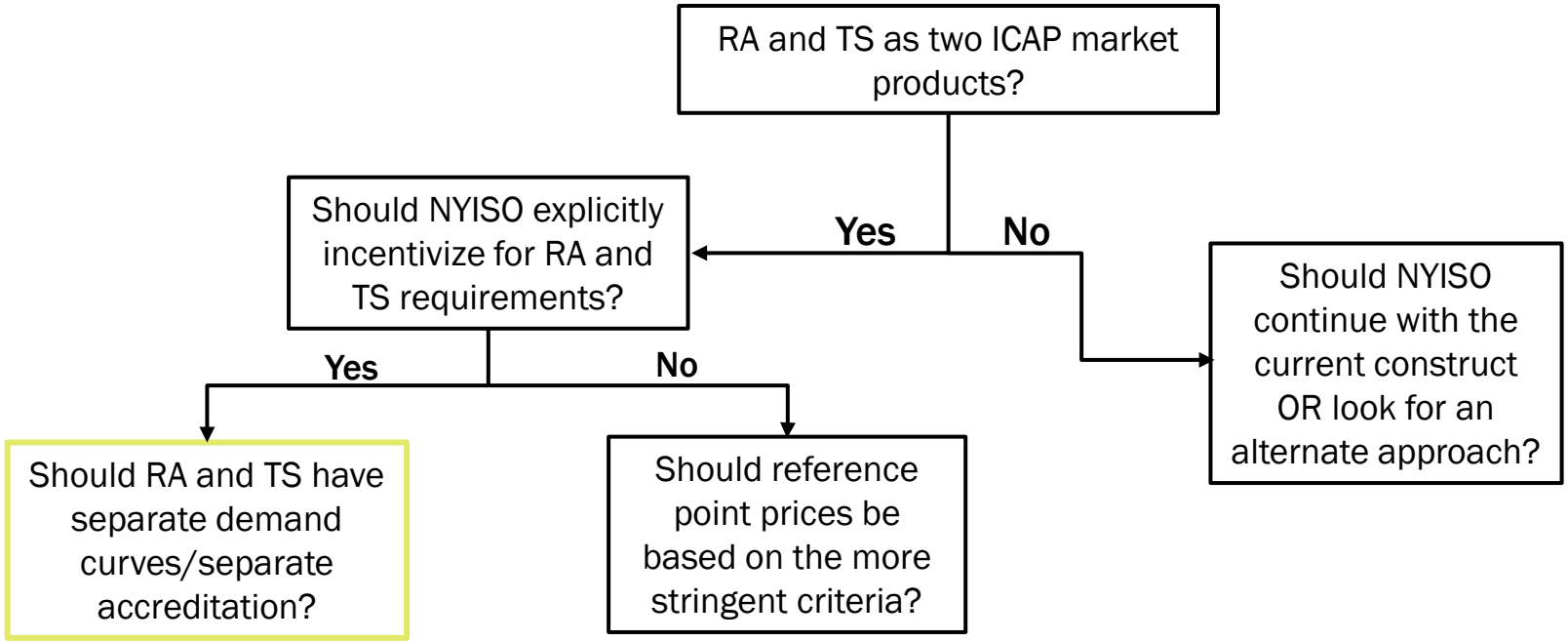
If TS is explicitly incentivized in the ICAP market



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Should RA and TS have separate demand curves/separate accreditation?

- If RA and TS have separate demand curves/separate accreditation:
  - Would these products be co-optimized?
  - How would we determine a resource's TS value?
  - How would we determine an appropriate demand curve for TS?
  - Would the two demand curves have different requirement sets and different reference units?
  - How would we compensate resources that contribute to both sets of requirements?

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MMU's proposal

- Determine separate requirements, curves, and accreditation for RA and TS
- Solve for RA and TS prices separately
  - Resources earn their RA Unforced Capacity (UCAP) times RA price plus their additional TS UCAP times the TS premium over RA price (if any)
- Please refer to MMU's September 24 2024 ICAPWG presentation for further details

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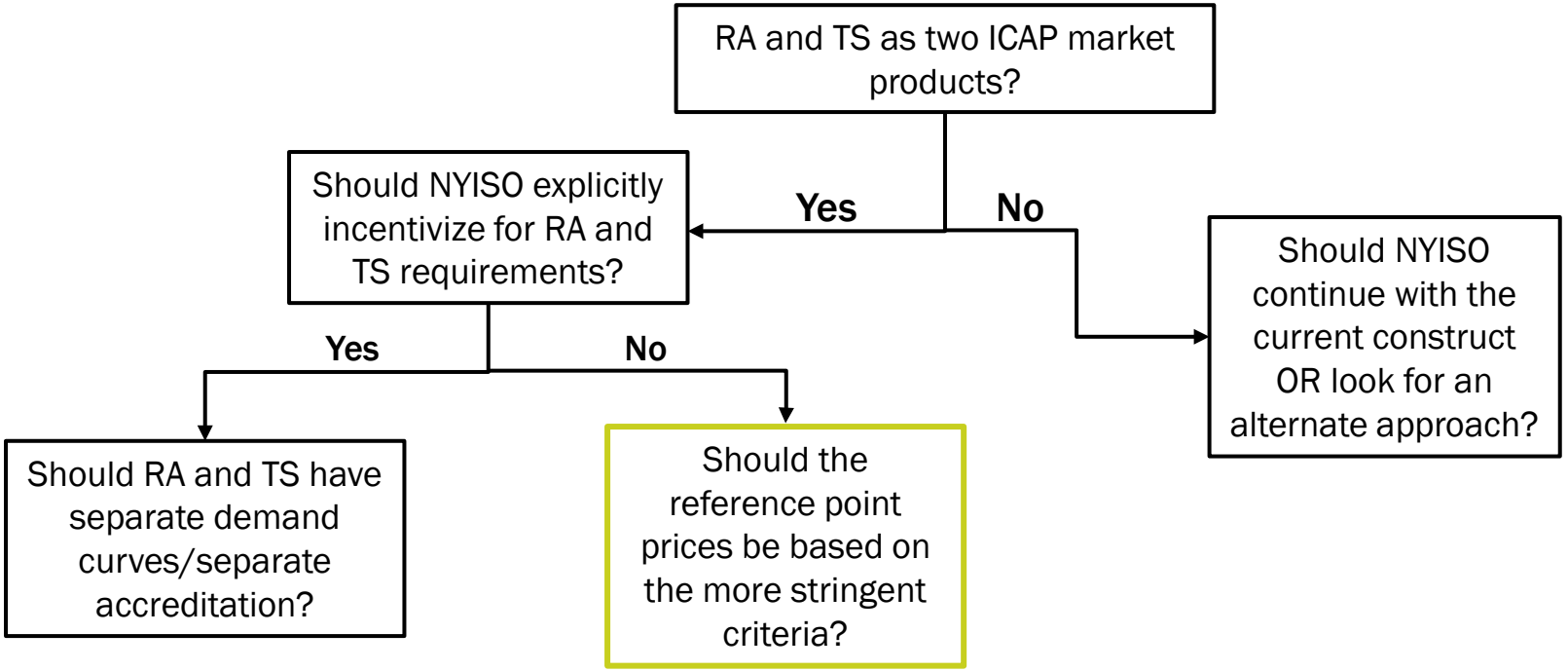
If TS is explicitly incentivized in the ICAP market



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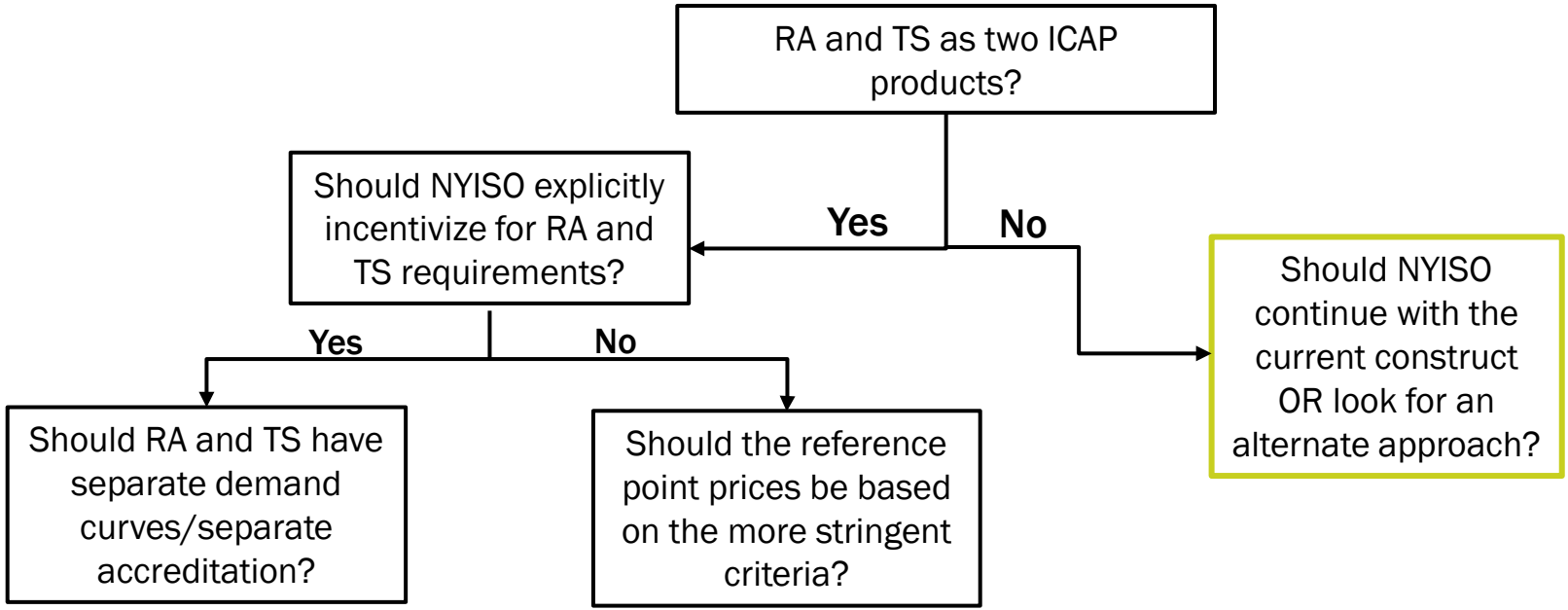
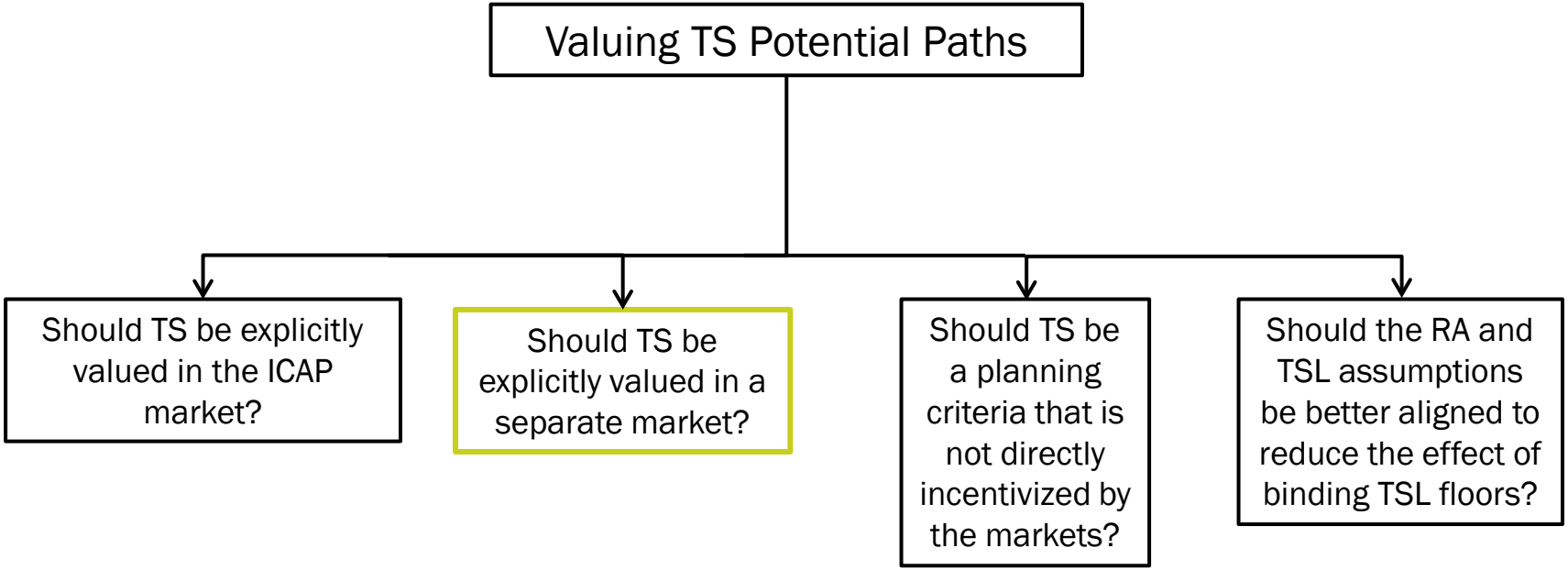
If TS is explicitly incentivized in the ICAP market (cont'd)



How to incentivize TS?



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If TS is valued in a separate market

- How do we determine a resource's TS value?
- How would we determine an appropriate demand curve and the corresponding ICAP requirement for TS?
- For resources that contribute to both RA and TS, how would we address the overlap and incentivize the UCAP MWs that contribute to both RA and TS needs?

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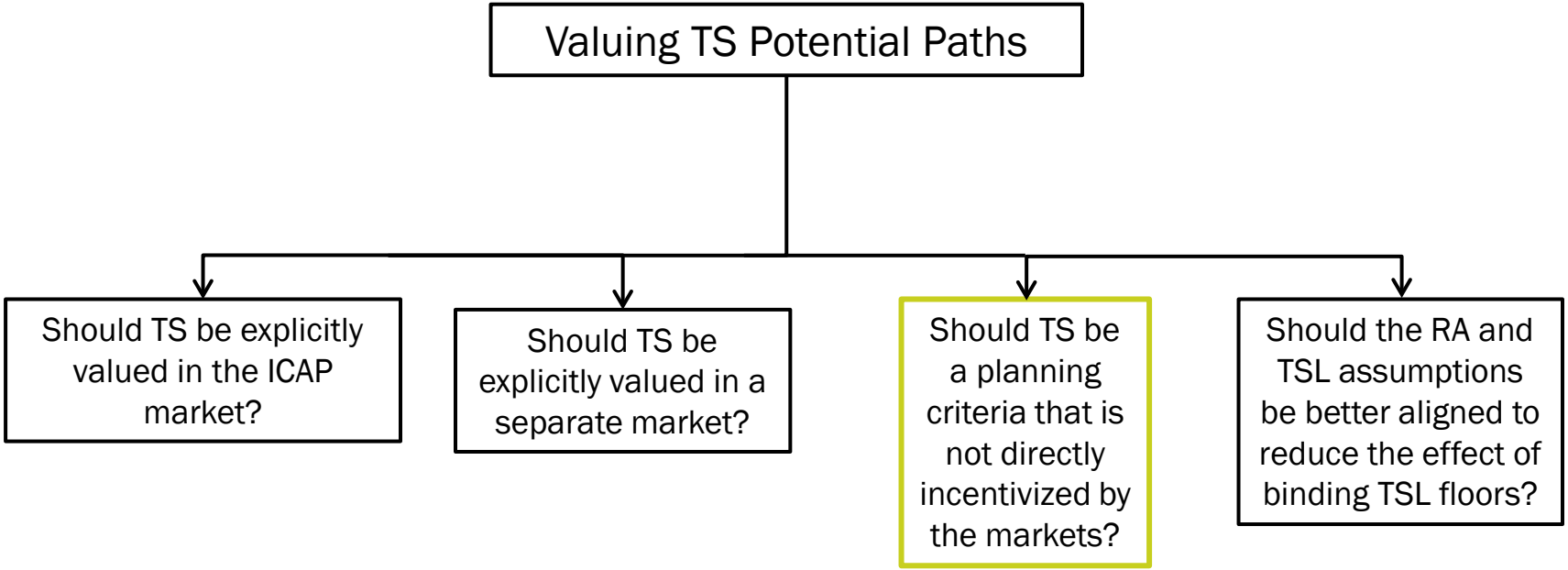
How to incentivize TS?



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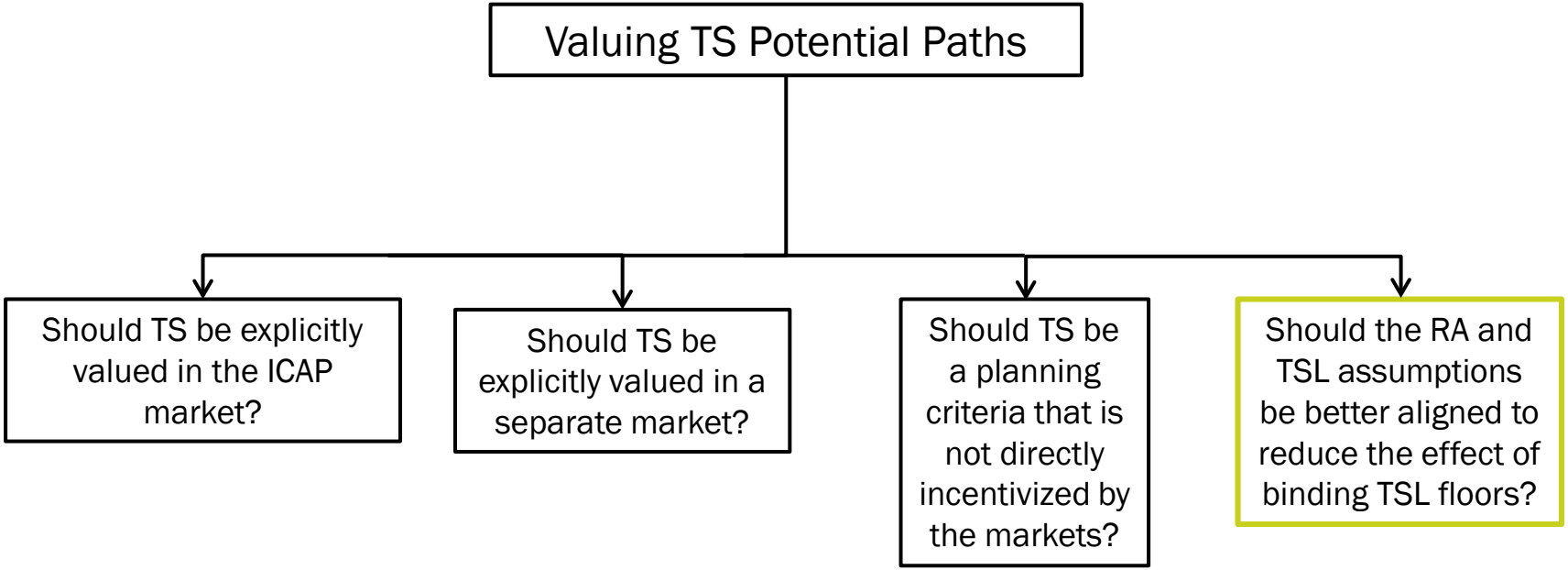
How to incentivize TS?



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Better align RA and TSL assumptions

- **The NYISO is evaluating modifications to the RA assumptions and TSL methodology**
- **Target is to better align the LCR and TSL results to minimize the impact of TSLs on setting LCRs**
- **NYISO-NYSRC discussion:**
  - NYSRC recommended the ICS adopt the following assumptions changes within the IRM 2025-2026 Preliminary Base Case
    - Limit Voluntary Curtailment and Public Appeals to three calls/year
    - Switch to 10-year cable transition rates
    - Apply line specific limits to the HVDC lines importing to the Localities
  - This will likely increase IRM and LCR requirements
- **TSL Floors: There are concerns that the application of TSL floors and their calculation might become more complicated and impractical if the NYISO proceeds with the more granular capacity zones and seasonal ICAP market framework projects**

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Next Steps

Next Steps

- Return to a future ICAPWG, if needed, to continue stakeholder discussion on identified issues and other concerns/questions
- Q4: Issue Discovery Report and Presentation

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Questions?

Our Mission & Vision

Mission

Ensure power system reliability and competitive markets for New York in a clean energy future

Vision

Working together with stakeholders to build the cleanest, most reliable electric system in the nation

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