

EE Measure Classification Whitepaper Discussion



CALIFORNIA

TECHNICAL FORUM

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Presentation Overview

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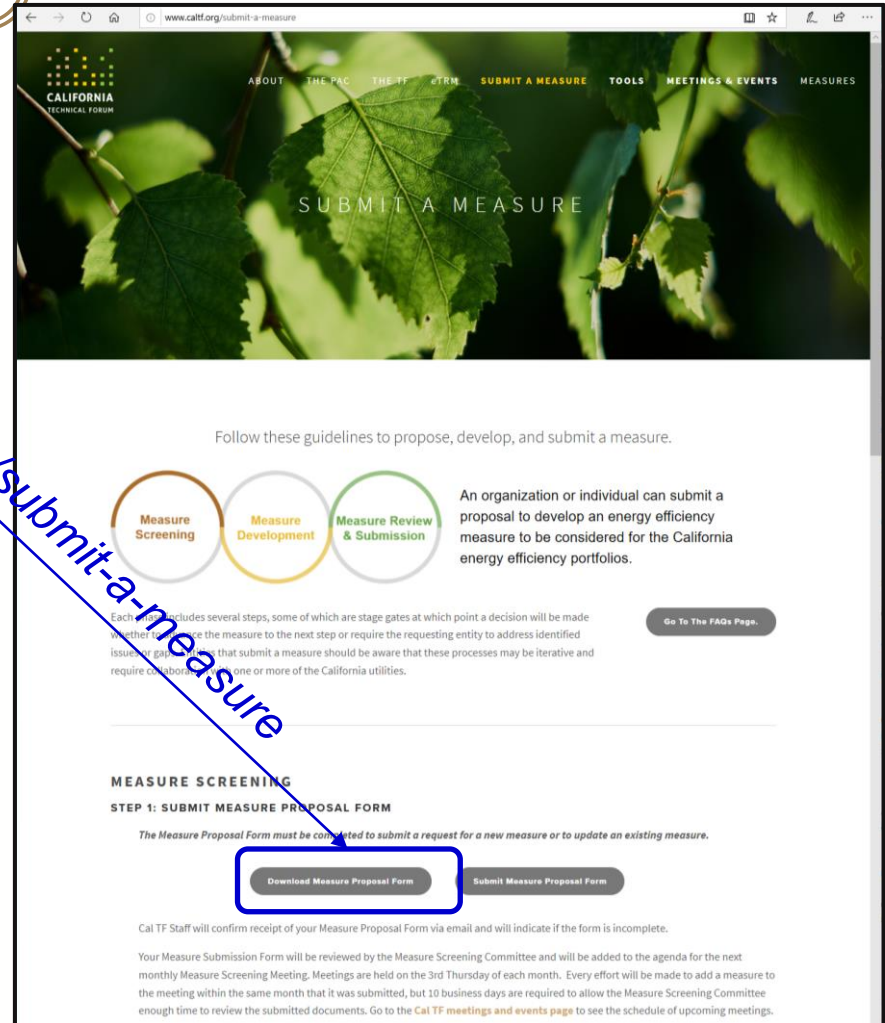
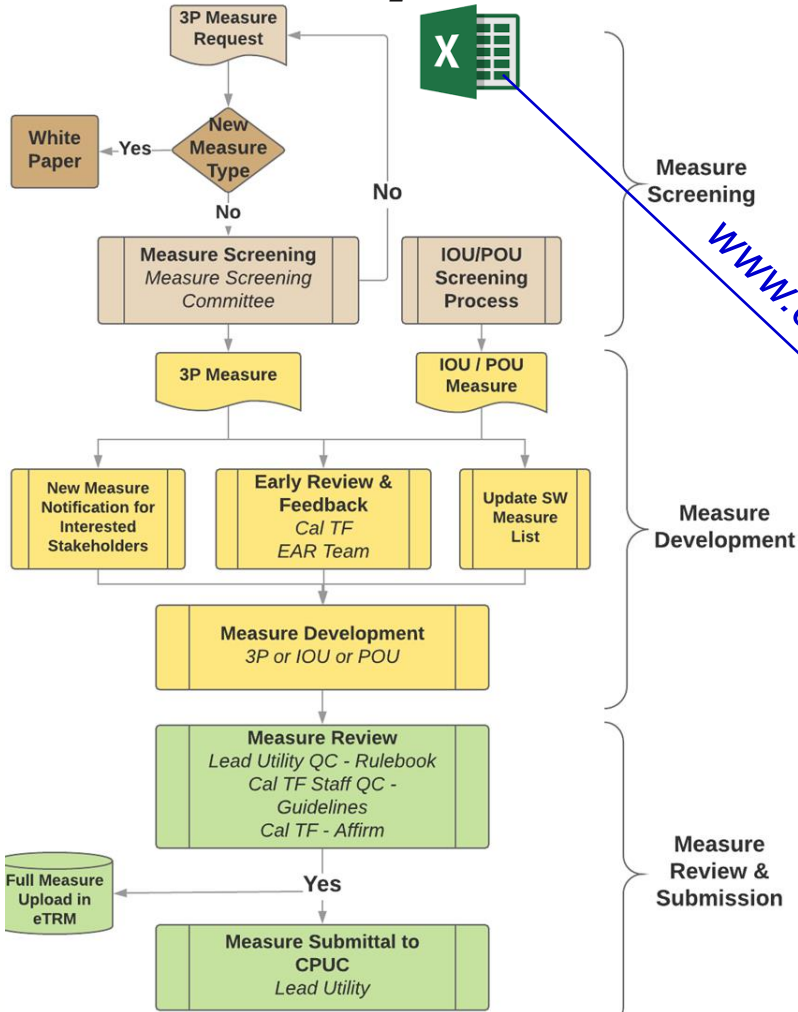
Objective: Seeking TF member feedback on draft measure classification whitepaper

- Background on Measure Classification whitepaper
- Measure Pathways review
- Measure Pathways comparison
- Operationalization ideas through Decision Tree
- Decision Tree examples

New Measure Process: Context

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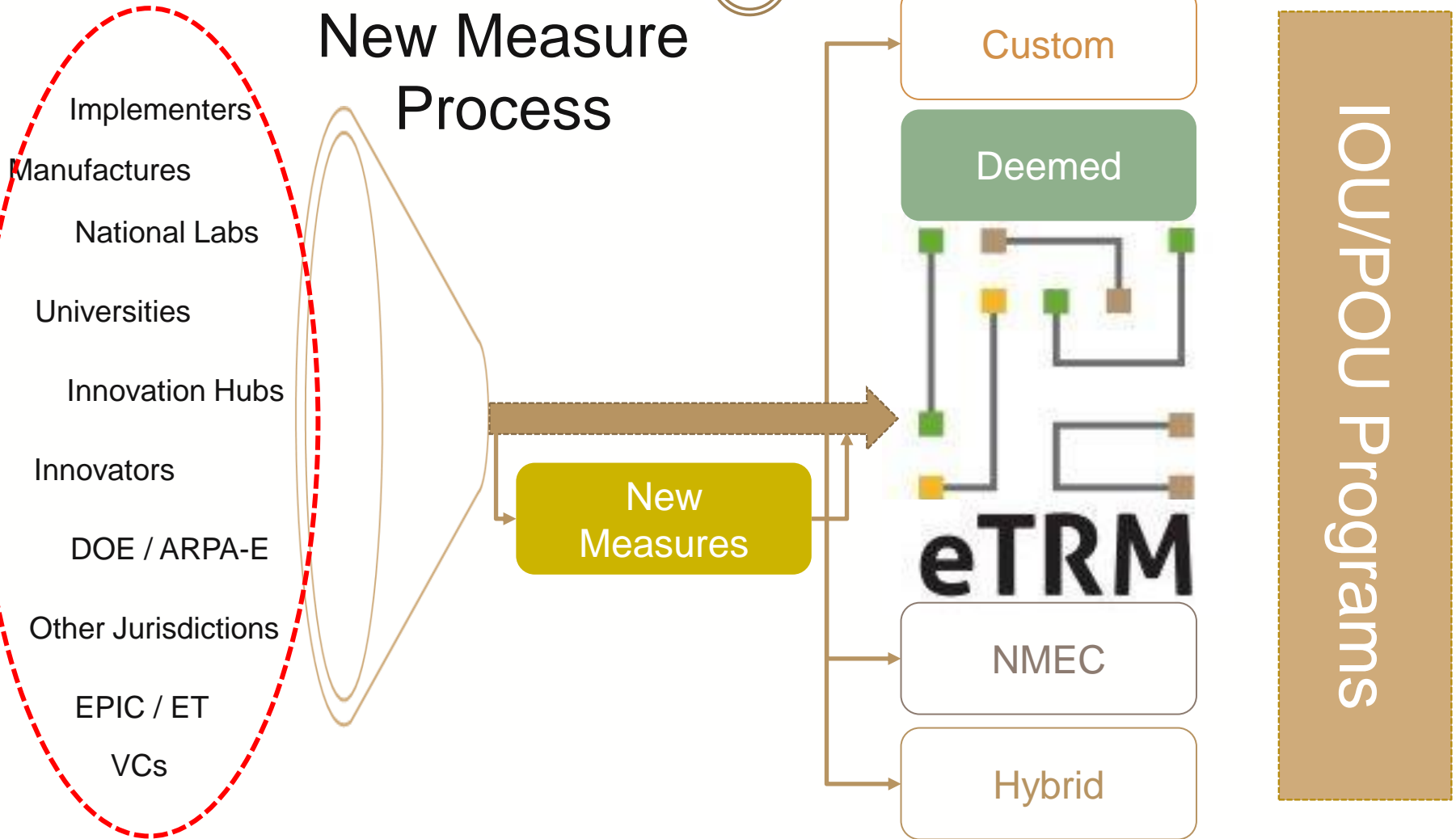
Proposal Form



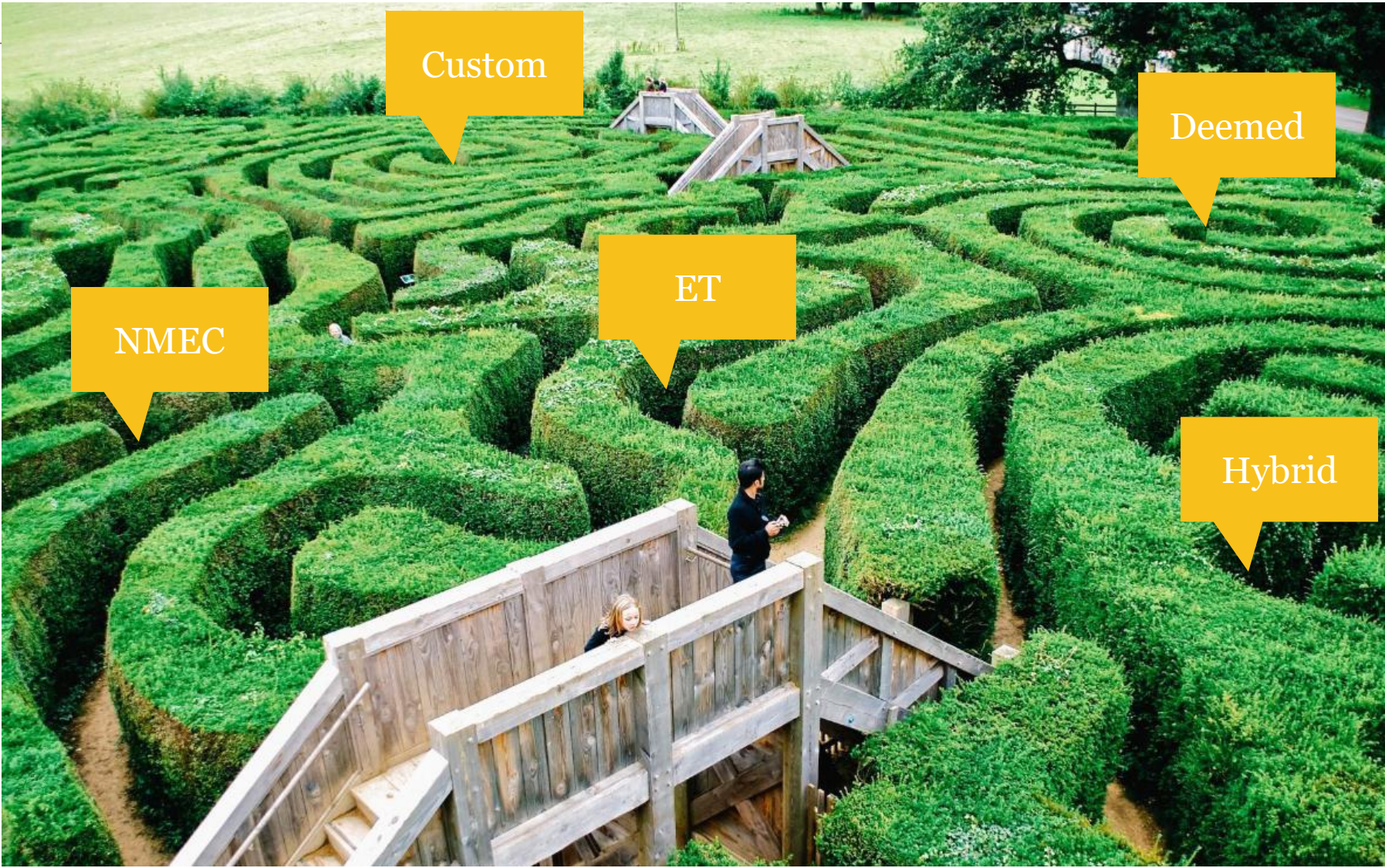
New Measure Process: Broad Funnel

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New Measure Process

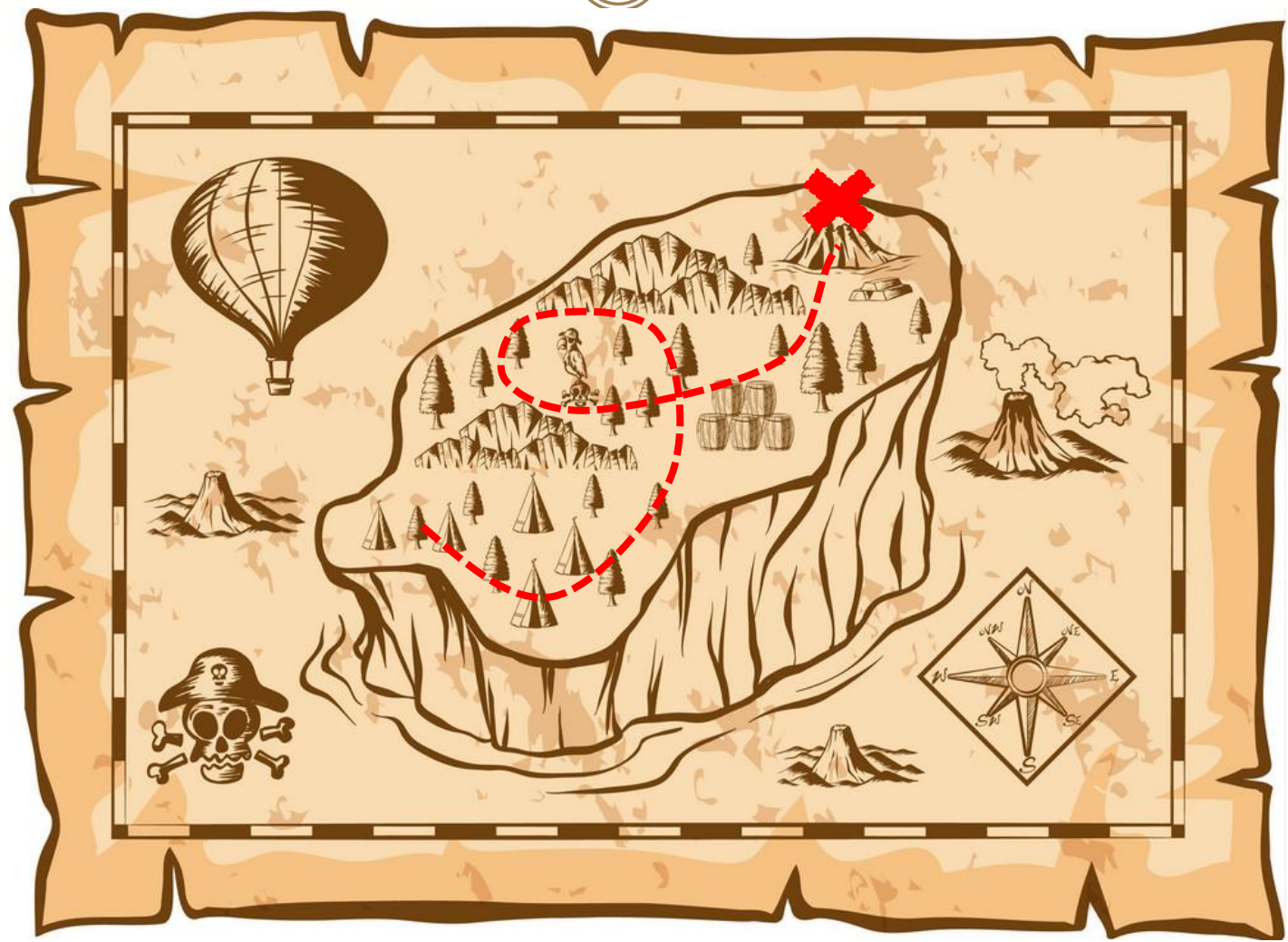


EE Landscape in the eyes of an Innovator



Goal of the Measure Classification WP

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Pathways under consideration

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- Deemed
 - High-volume, homogeneous interventions
 - Implication: need WP for ex-ante values
- Custom
 - Site-specific analysis for savings above baseline
 - Complex process with ex-ante estimation, ex-post verification
- Hybrid
 - Deemed-like process w/ allowable site-specific data
- NMEC
 - Program delivery w/ metered consumption + reg. analysis for savings
- Emerging Tech
 - Non-resource program, tech / mkt / program validation

Qualitative comparison of Pathways

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		Emerging Technology	Custom	Deemed	Hybrid	NMEC
Customer	Incentive Risk	2	3	4	3	3
	Project Timeline	3	3	4	3	3
	Data Collection Burden	3	3	4	3	3
Implementer	Savings Claims Risk	2	3	4	3	3
	Project Timeline	3	3	4	3	3
	Administrative Burden: Upfront	3	4	3	3	3
	Administrative Burden: Implementation	2	3	4	3	3
	Customer Satisfaction Level	3	3	4	3	2
Utilities	Savings Claims Risk	2	3	3	4	4
Regulatory	Timeline & Process of Measure/Project Development	3	3	3	3	3
	Regulatory Review Burden	4	3	3	2	3
	Ex Post Evaluation Risk	2	3	3	4	3
	Claims timing	2	3	4	3	3
	Net-To-Gross (NTG)	2	3	3	3	4

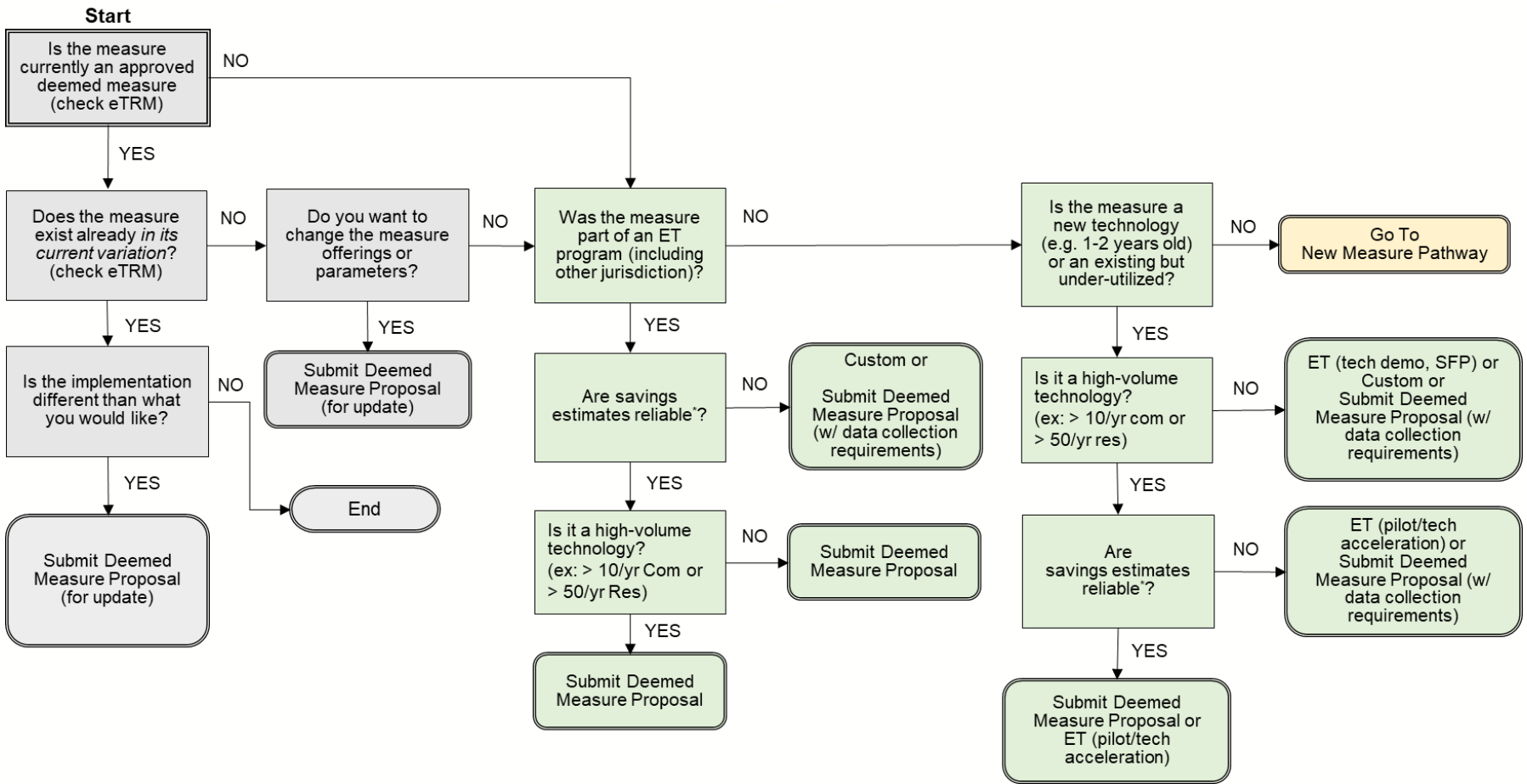
4	Low Risk OR Fast Timeline
3	Med Risk OR Med Timeline
2	High Risk, Long Timeline
1	Not Applicable, Unknown, Undetermined

Qualitative comparison of Pathways: details

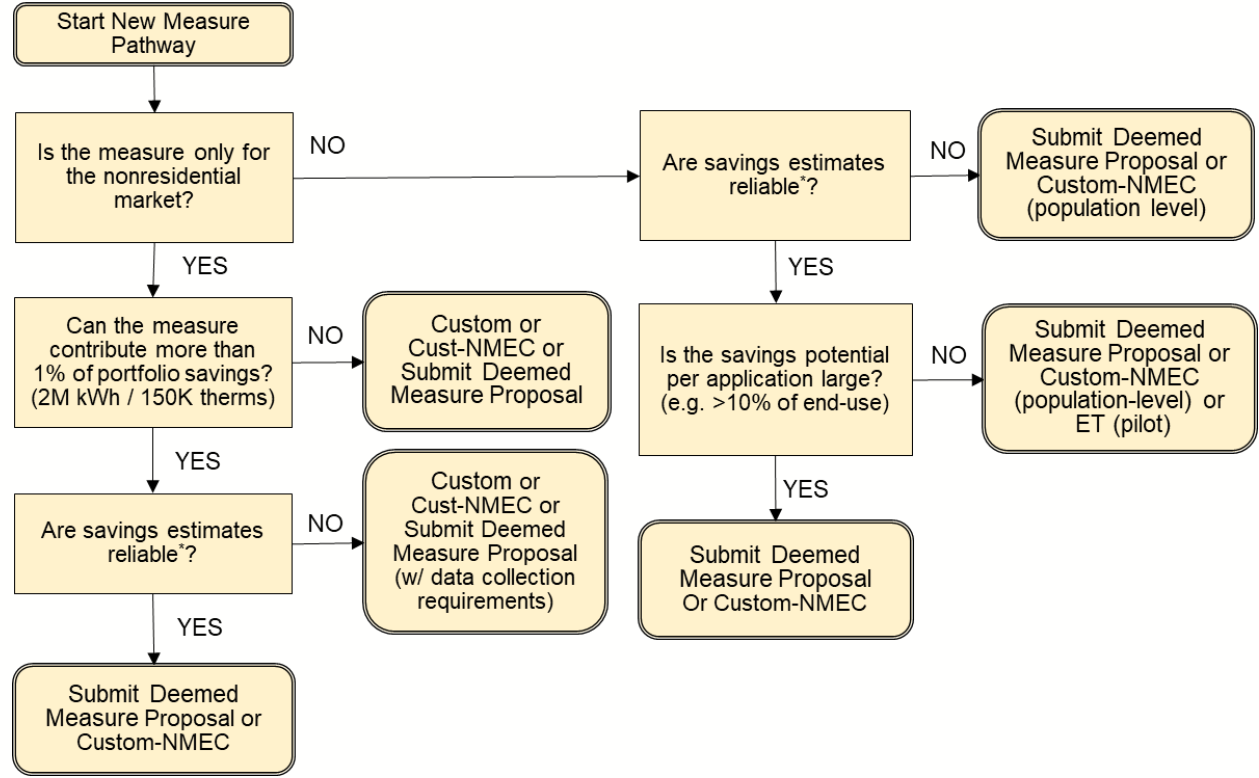
	Emerging Technology	Custom	Deemed	Hybrid (POU-only)	NMEC
Savings Claims Risk		Very High Risk & Uncertain Outcome; “investment” risk of time/effort in a project that might or might not get claimable savings	Low Risk; minimum TRC requirements as of 2021; some measures subject to retrospective savings claim risk	Low/Med Risk; depends if simple variation of existing deemed vs calculator-based approach	High Risk; need to see the impact on the utility meter and have the right M&V plan; non-routine events can cause additional disruption; need to ensure program criteria are met
Project Timeline	Usually long; project specific and dependent on data collection requirements	Long; multiple touchpoints; high uncertainty	Fast; program does not impose potential delays that are outside of implementer’s control	Fast; a bit more than deemed	Long, but known to include long term monitoring
Administrative Burden	High; program usually entails multiple touchpoints, technology validation, customer experience verification, significant data collection and analysis	Low upfront (no paperwork necessary) High implementation burden, project-specific; effort to generate the same amount of savings varies and may require differing approaches; influence documentation; multiple touchpoints during review; reporting + forecasting; risk of changing rules during project life; standard practice; cost documentation	Simple from implementation perspective (front-loaded / startup); High upfront for a new measure paperwork development, calculations, data collection, data analysis, etc. / ongoing maintenance; “high impact” makes burden even higher	Similar to deemed; some light additional verification requirements	Med difficulty for implementation High for M&V + data collection infrastructure; also needs specialized statistical knowledge & software at hand to extract signal from the data
Customer Satisfaction Level	Highly variable and measure / project specific	Mixed; high variation; historically suffering from customer perception issues of delays, uncertain incentives, multiple reviews, getting project cost documentation and standard practice determination	High satisfaction: paperwork might affect it, but generally every program element is known: what to expect, process, incentive level and timeline	High satisfaction; very similar to deemed with some variation due to project verification	Not enough data from this program design type to tell

Implementer

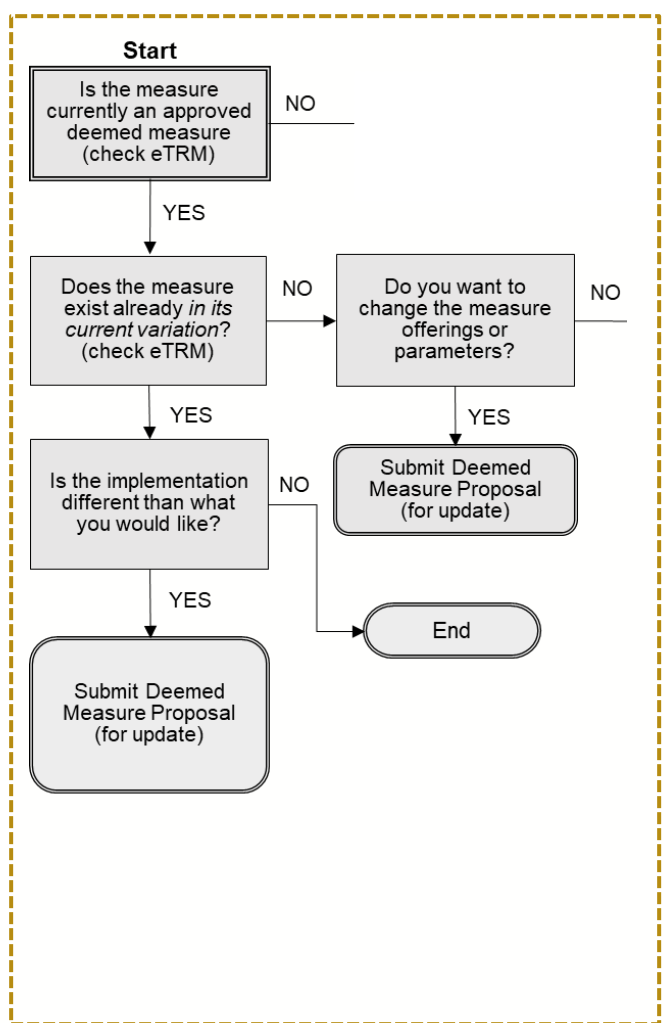
Determining the pathway: Decision Tree



Determining the pathway: Decision Tree



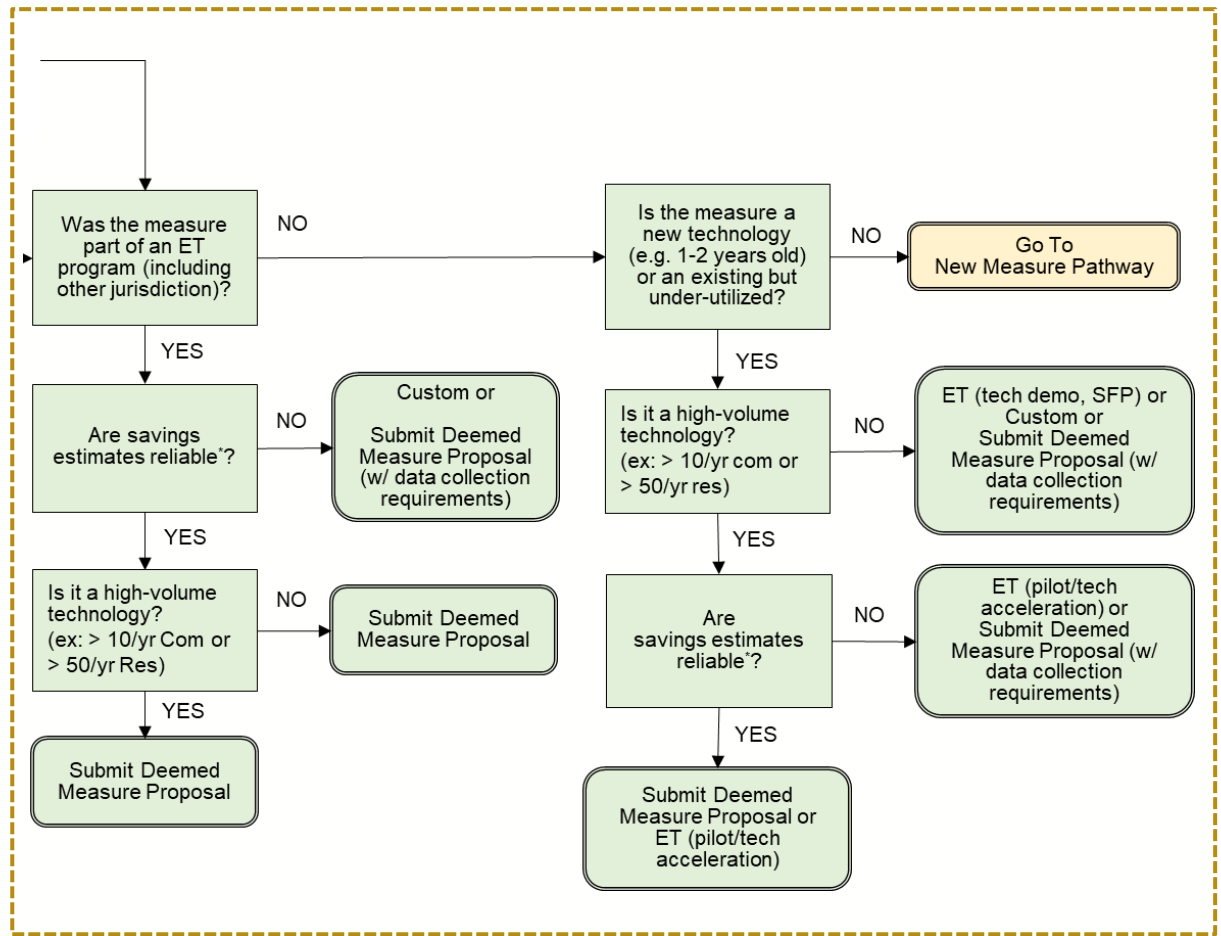
Determining the pathway: Decision Tree



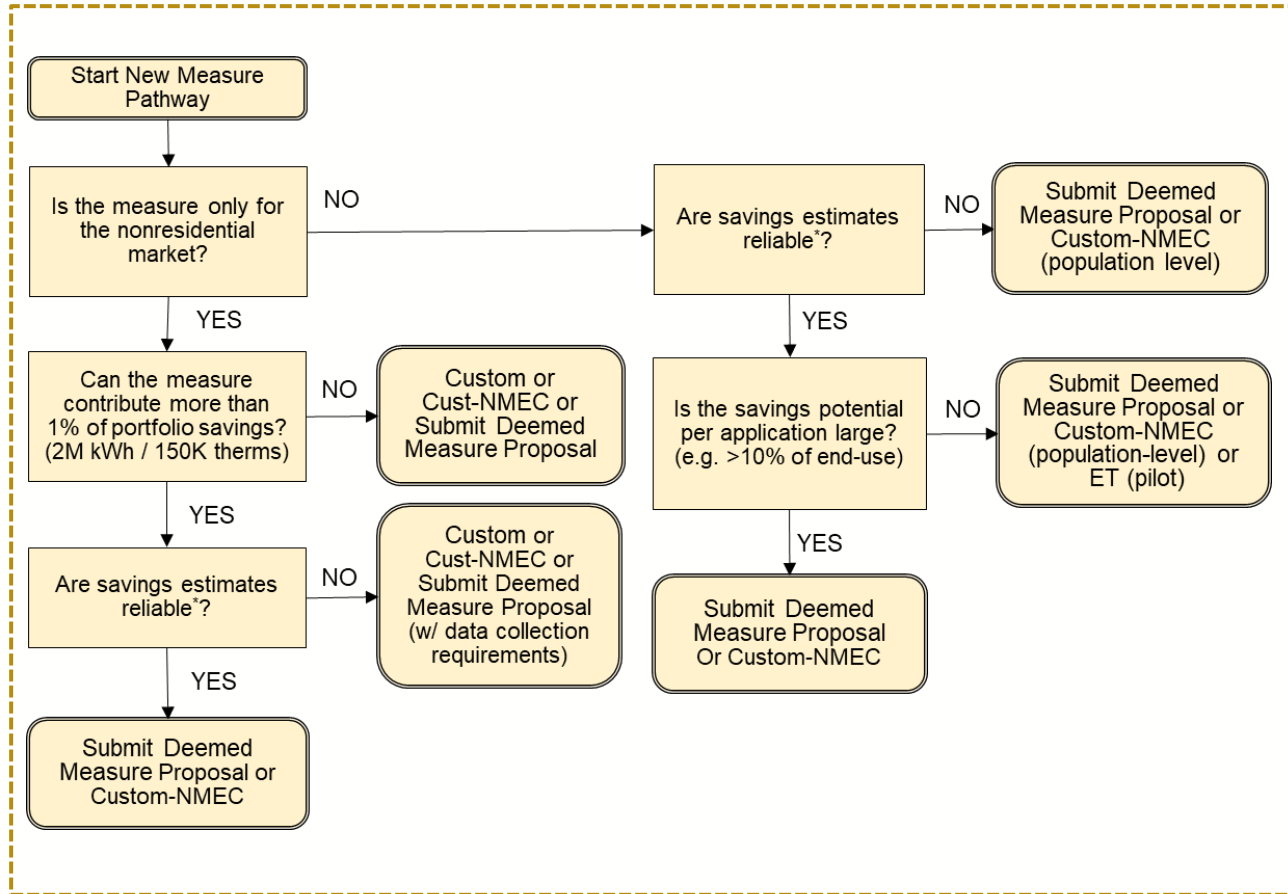
- 1) Existing Measure Variations
- 2) Sophisticated user
- 3) Simple questions

Determining the pathway: Decision Tree

- 1) New Technologies
- 2) ET grads from other jurisdictions



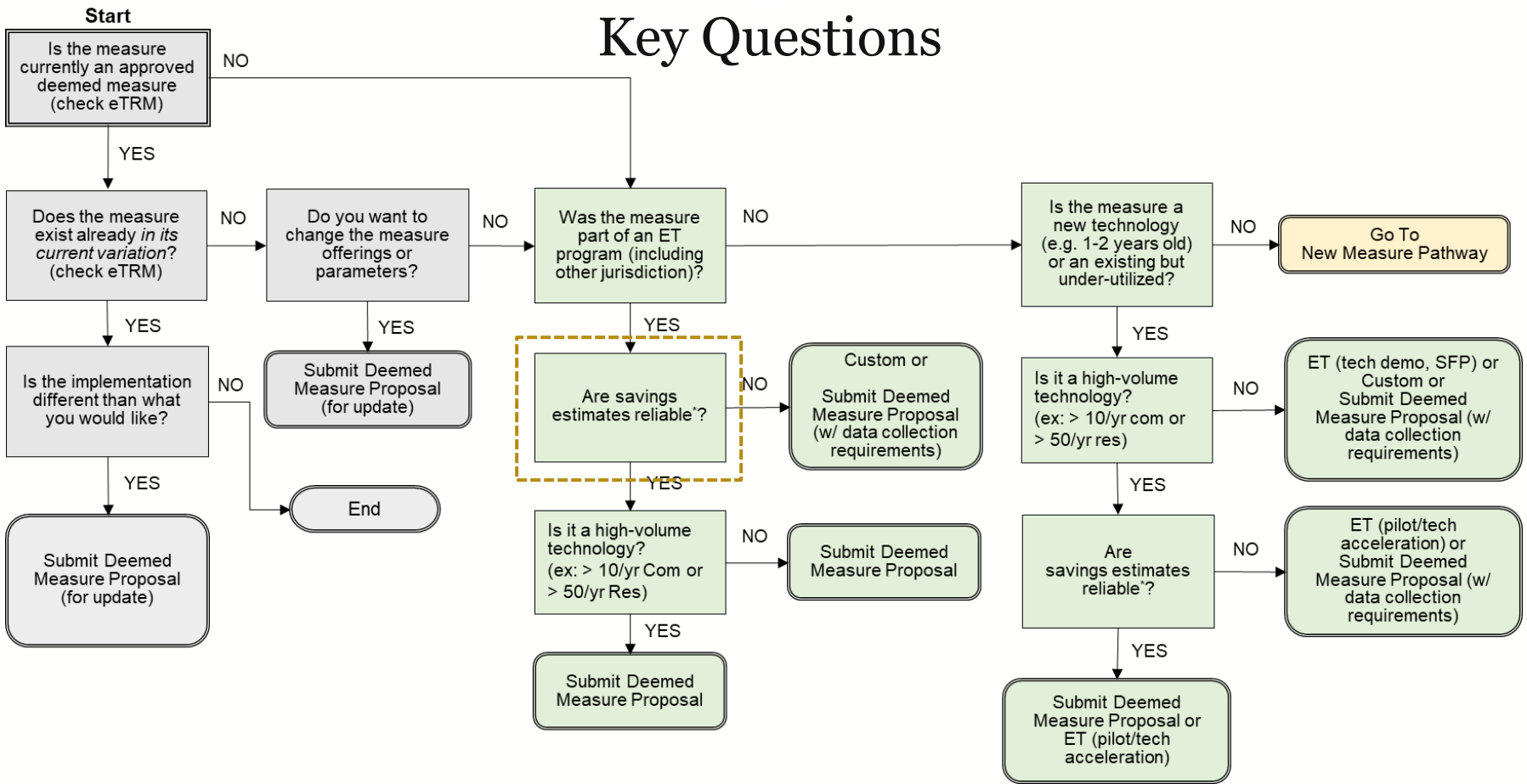
Determining the pathway: Decision Tree



New Measures
(not new tech)

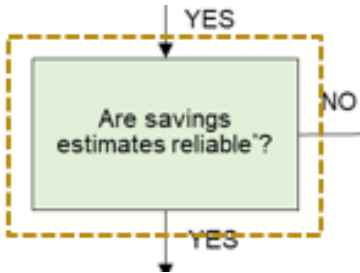
Determining the pathway: Decision Tree

Key Questions



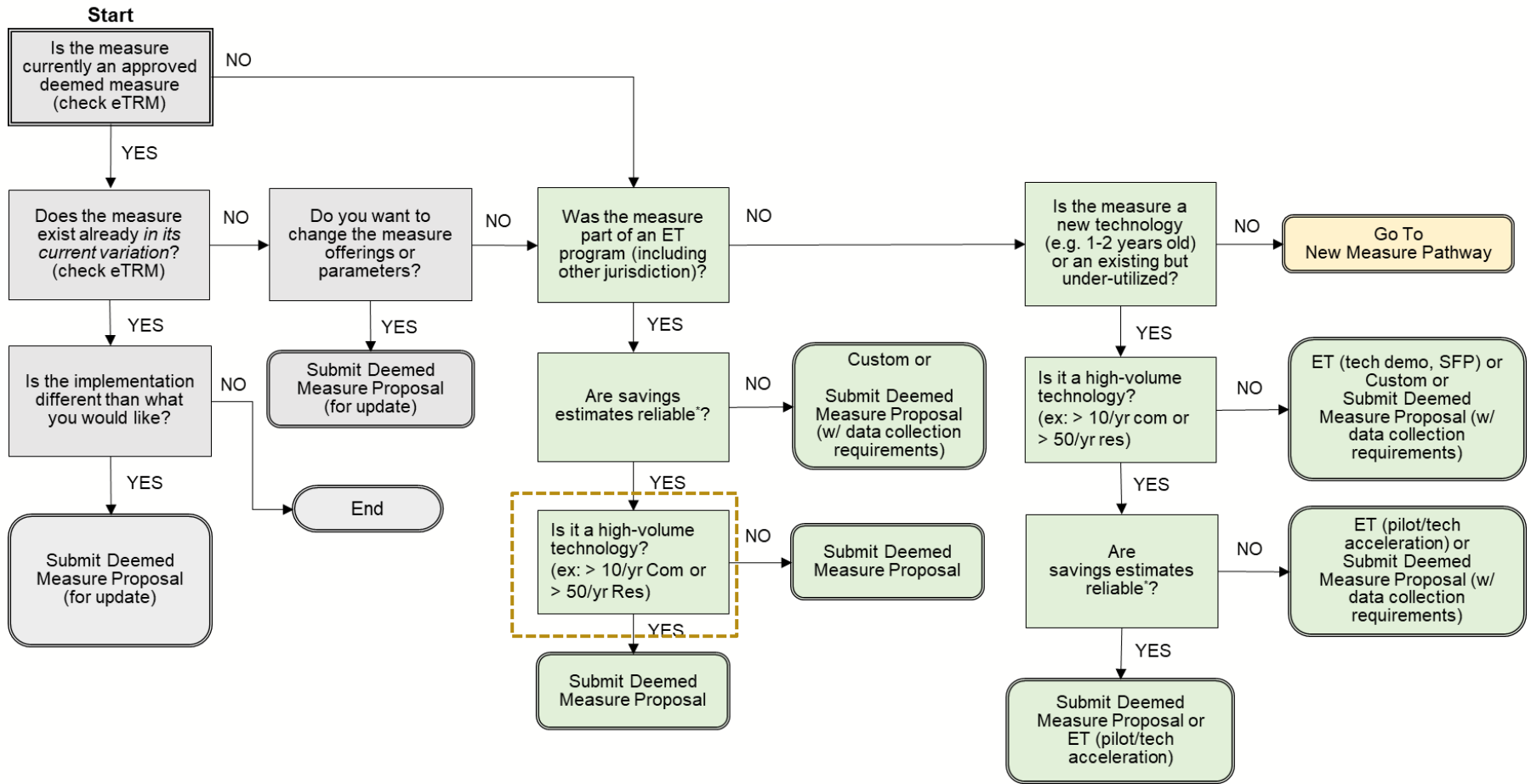
Are Savings Estimates Reliable?

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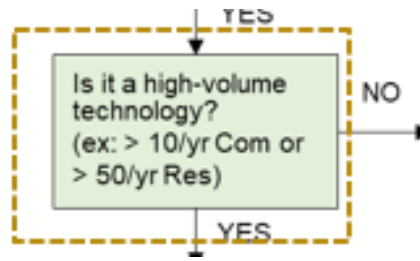
- Measure has achieved sufficient market penetration to determine with statistical significance (80/30 minimum):
 - ❑ Baseline Energy Consumption
 - ❑ Efficient Measure Energy Consumption
 - ❑ Cost data
- For High Impact measures (>1% of portfolio savings) statistical significance goes up to 90/10

Determining the pathway: Decision Tree



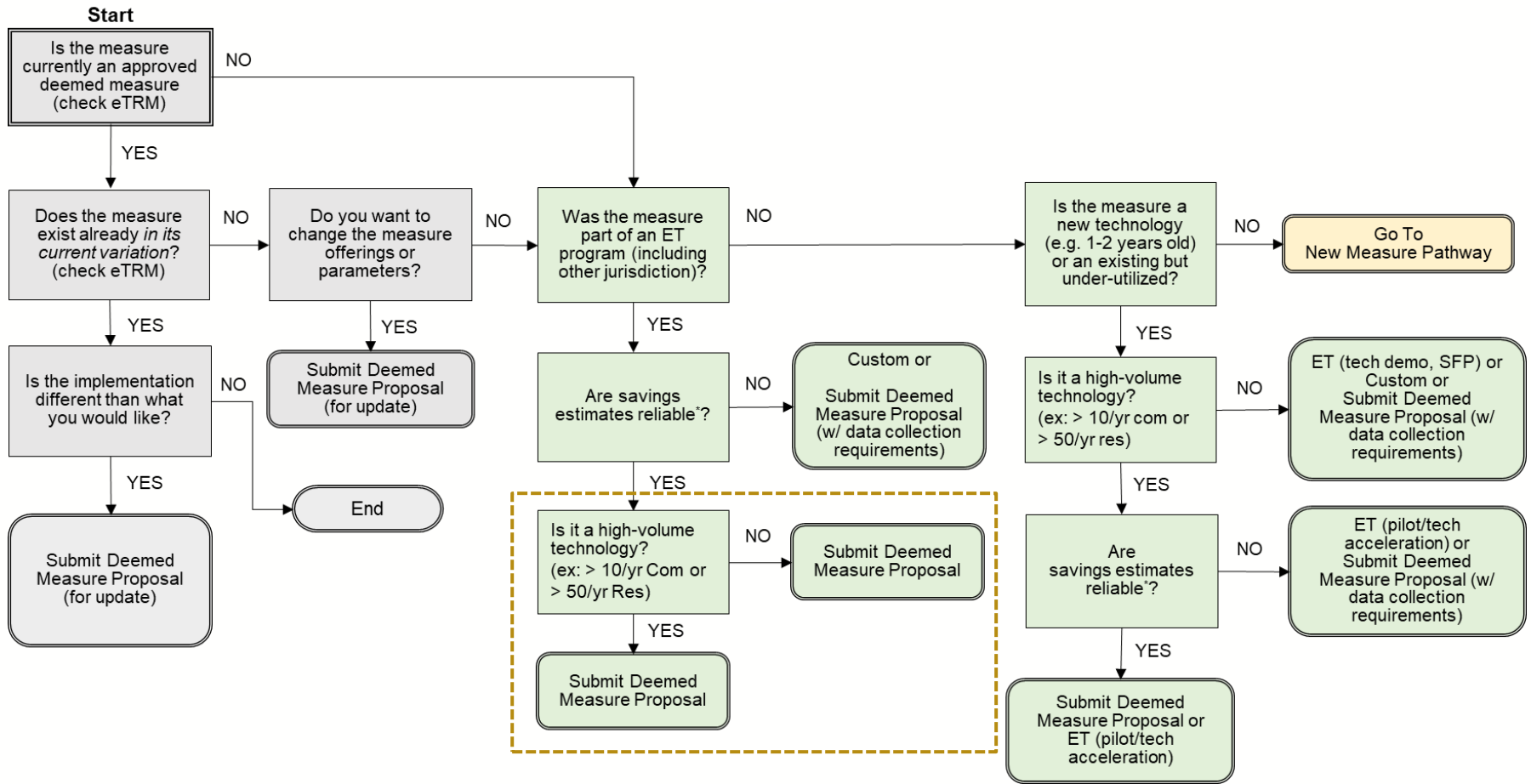
Is it a high-volume technology?

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- High Volume – intuition is more volume = more data, more likely to be Deemed
 - 50 Res / 10 Com is arbitrary but has logic behind it
- Generally, high volume / homogeneous interventions are for Deemed; low volume / unique are for custom

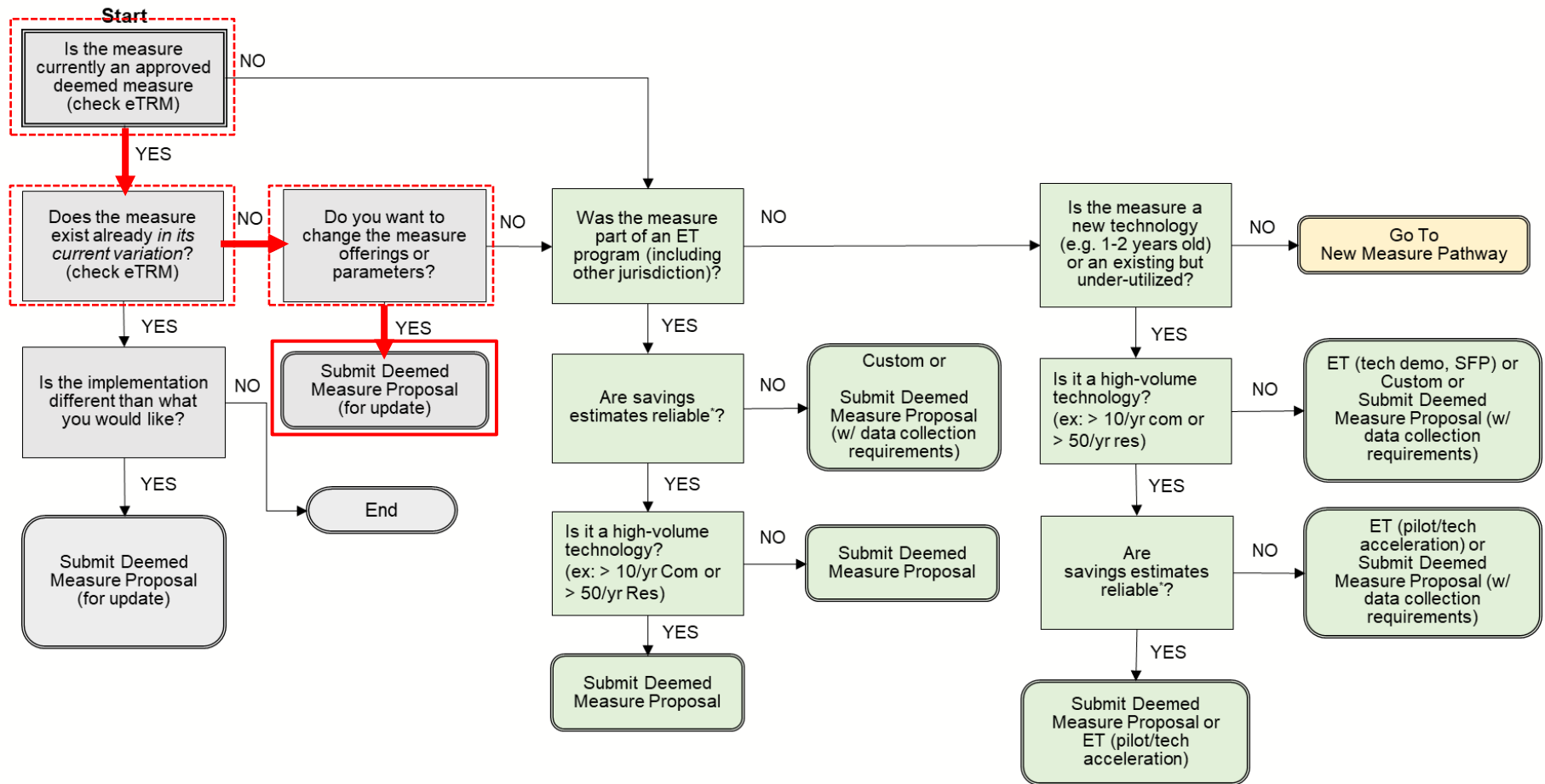
Determining the pathway: Decision Tree



Determining the pathway: Example 1

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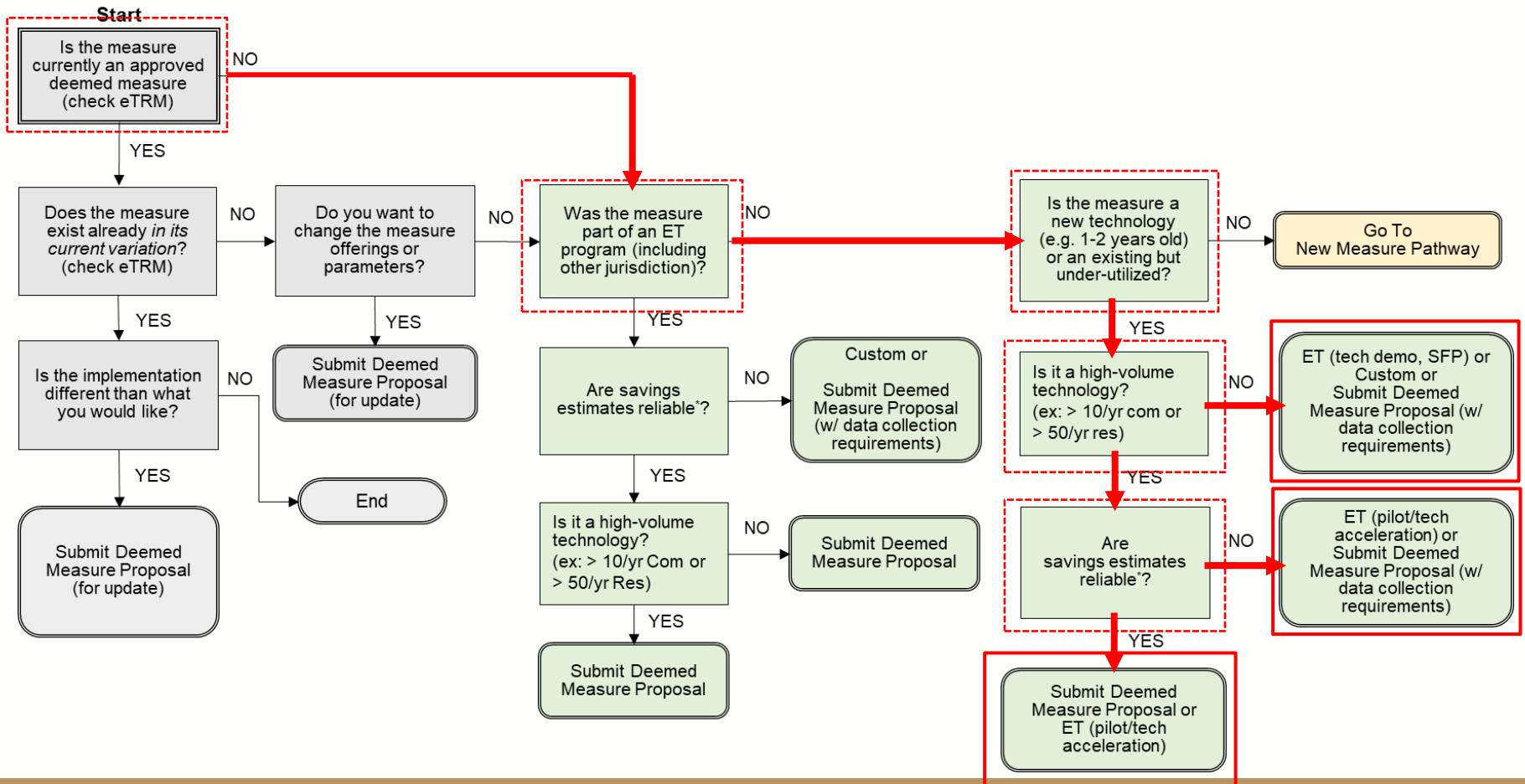
Proposing to include large boilers (currently custom) into deemed programs



Determining the pathway: Example 2

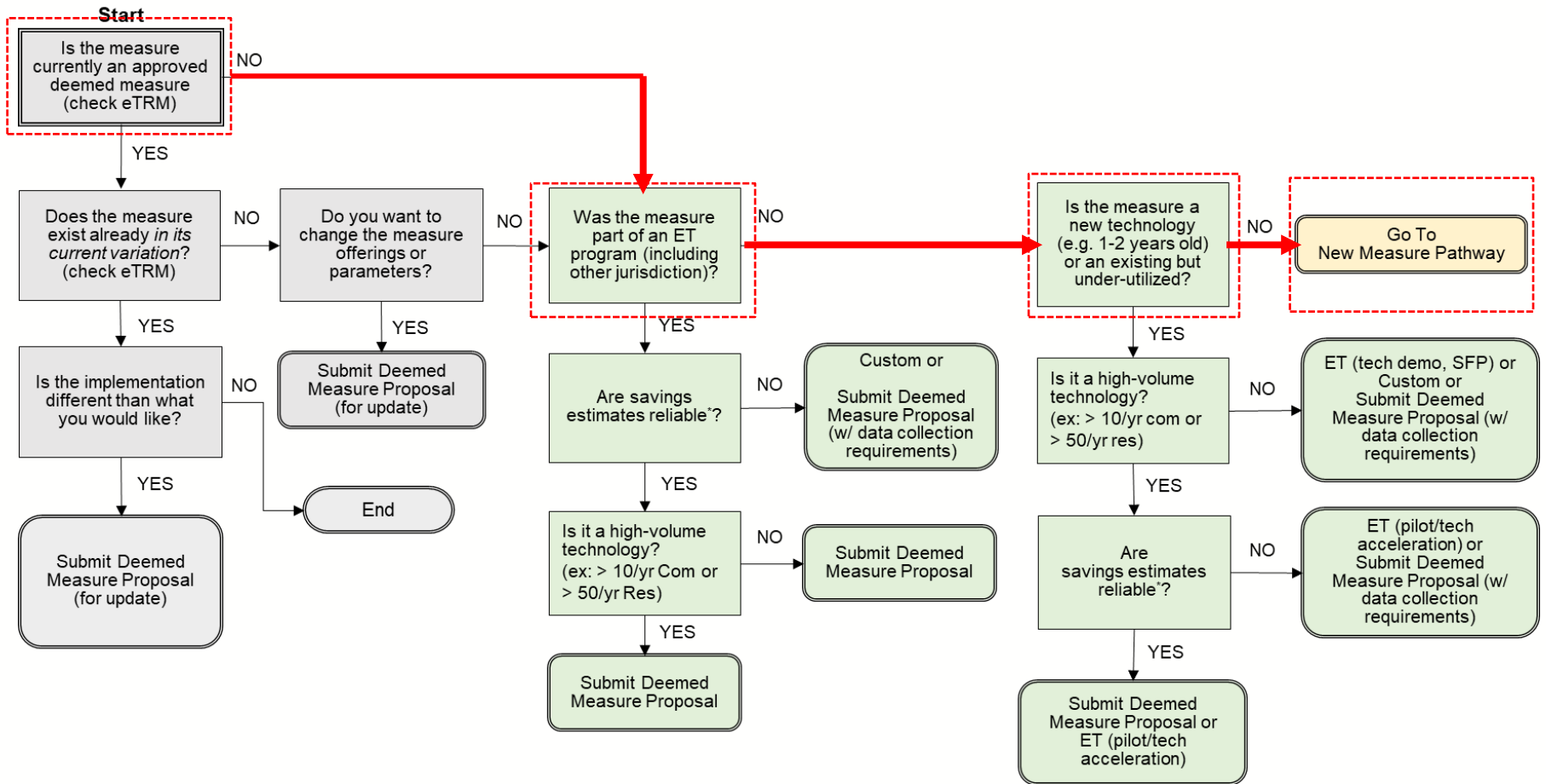
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New Measure proposal: EMS (software) for Industrial applications

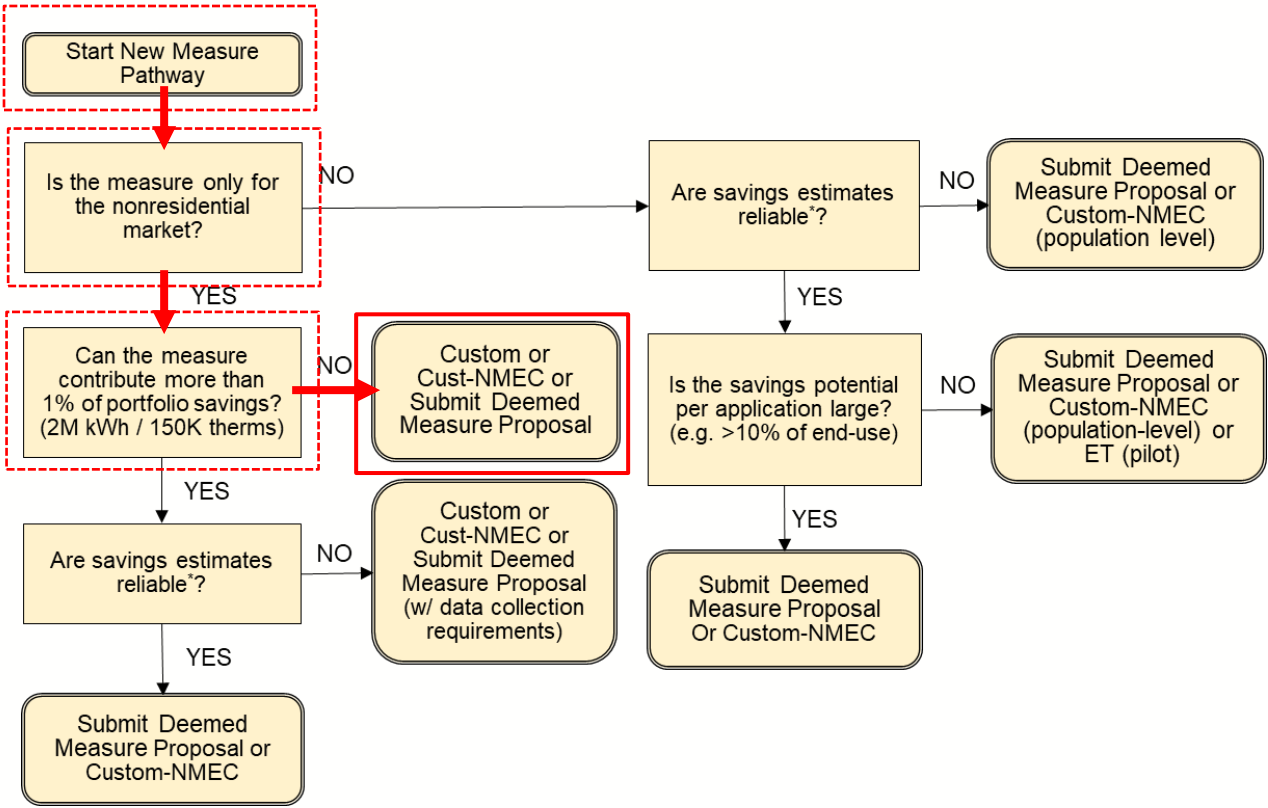


Determining the pathway: Example 3

New Measure proposal: ductless fume hoods (lab applications)



Determining the pathway: Example 3



Next Steps

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- Feedback / comments period for 4 weeks
- Final whitepaper for Nov Cal TF meeting
 - Affirmation
- Operationalization
 - Ideas?
- CPUC / EAR Team Review