Deemed Measure Property Data

CALIFORNIA
TECHNICAL FORUM

SEPTEMBER 22, 2022

AYAD AL-SHAIKH
CAL TF STAFF

Deemed Measure Property Data

MEMORANDUM

Date: September 14, 2022
To: Cal TF Members
From: Ayad Al-Shaikh, Cal TF Staff
Subject: Cal TF Proposal for Deemed Measure Property Data

I. Summary

To ensure that a deemed measure is installed in a manner that aligns with the deemed impacts that are claimed, Program Administrators (PAs) often define measure-specific eligibility and exclusion rules as well as site-specific data requirements. These rules and requirements are collectively referred to in this memo as Deemed Measure Property Data.

Deemed Measure Property Data define requirements for program eligibility, program exclusions, and data collection and may be unique to each Program Administrator (PA) based on the PA's program requirements. Currently, PAs independently review each deemed measure package once the measure package is approved by CPUC to extract Deemed Measure Property Data. These data are described within the measure package to list the basic requirements for:

- Program eligibility (in the Program Requirements section)
- Program exclusion (in the Data Collection Requirements section)
- Data collection (in the Data Collection Requirements section)

PAs convert the descriptive information in an approved measure package into a structured data format that includes the list of basic requirements from the measure package and additional validation criteria, allowable ranges for values, validation rules, timing for checks, and applicability for alternatives. This conversion is a manual process performed by each PA and differs across the PAs due to PA-specific criteria, formatting, and QA/QC methods. This conversion is intended to accurately translate requirements to the many users of the measure package for that specific PA, so the data reside within the PA systems.

The Cal TF proposes to create a statewide process to produce reviewed Deemed Measure Property Data, hosted and managed within the eTRM, for each measure version. By creating a statewide solution for each measure version and housing this data within the eTRM, we can achieve the following benefits:

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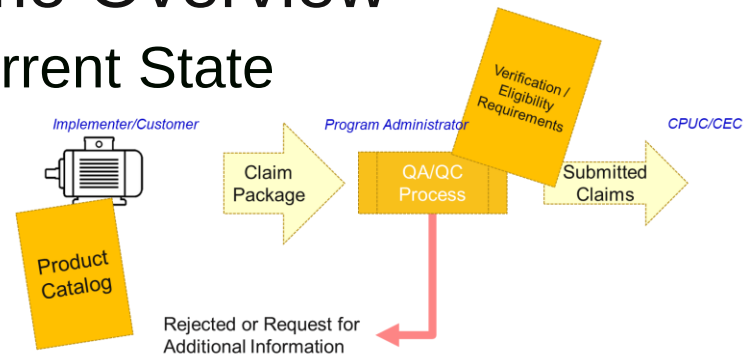
- Memo Overview
  - Current State



  - Proposed State
    - Data Entry - Statewide effort
      - *Are the fields proposed the correct ones?*
    - Data Maintenance – eTRM solution
    - Data Access – eTRM solution
      - *Comments on keeping stakeholders informed.*
    - Data Consensus – Engage stakeholders
      - *Comments on proposed review process.*

Data Entry Timeline

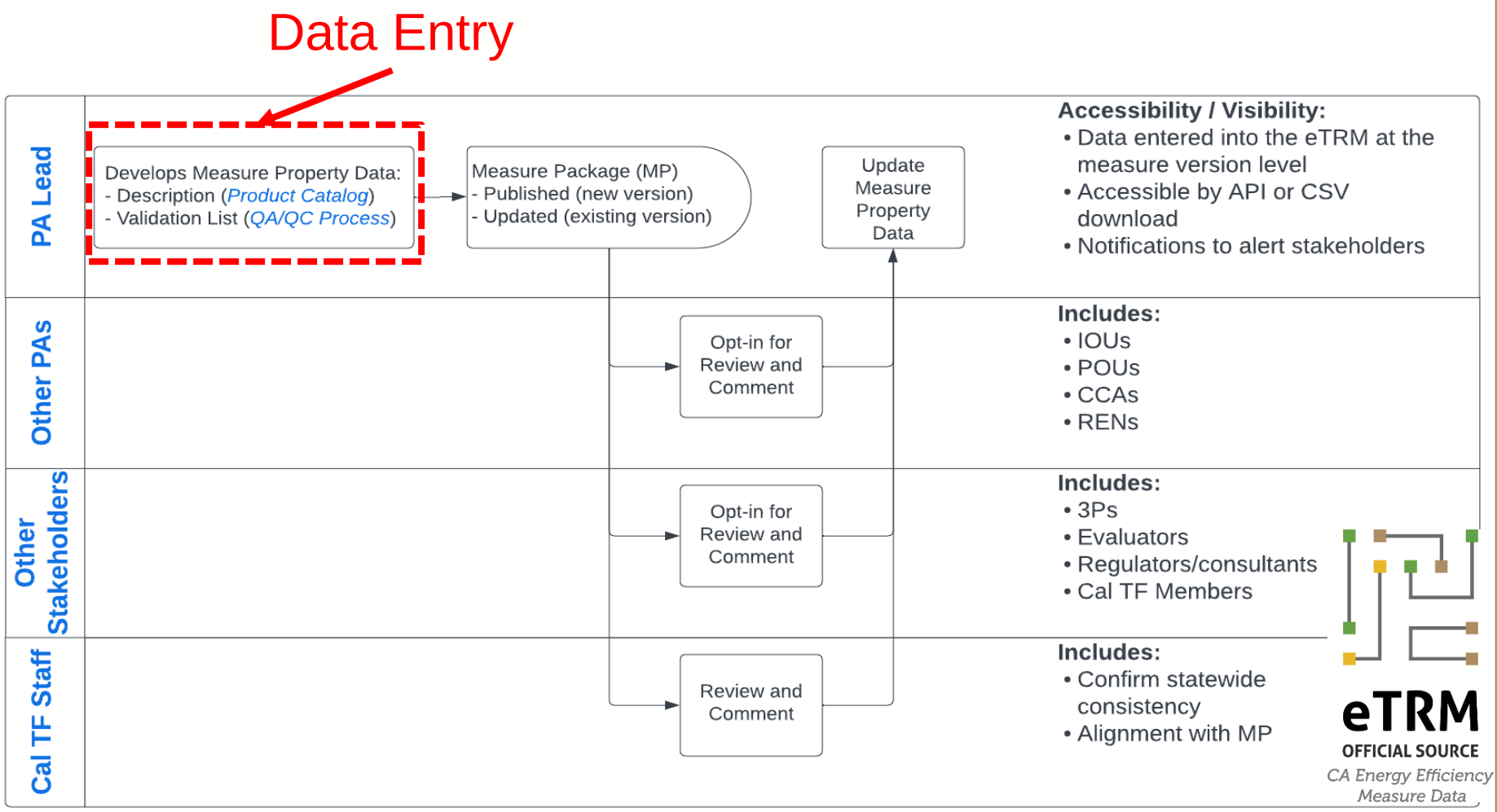
- Oct: Kickoff
  - Subcommittee feedback on: ***Thur, Oct 6th (9 - 11 am)***
    - Data structure for Validation List items
    - Top Validation List entries
    - Review process
  - Finalize memo

Review proposal from Memo today

- Oct – Jan*: PA Leads develop Measure Property Data
  - Typically, occurs during Measure Package (MP) development
  - PY2023 and 2024 MPs are all virtually complete/approved
- Dec – Mar*: Stakeholder feedback and upload
  - Review by Measure, Measure Group, Use Category, etc
  - Upload into the eTRM as available

*Timeframes may change due to priorities.

Draft Statewide Process



Data Entry
Validation Items

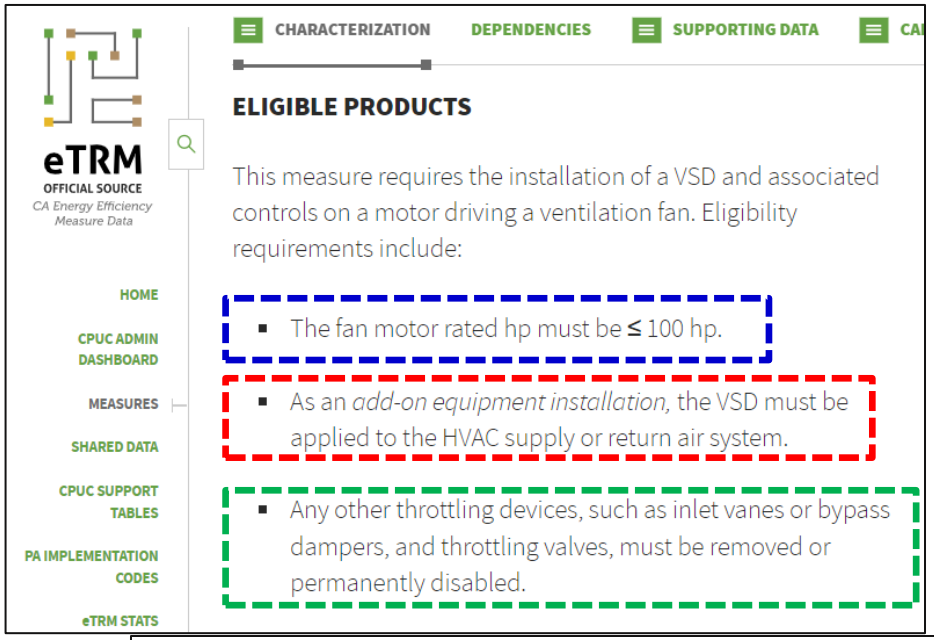
Example:

SWHC018

VSD for HVAC Fan Controls, Commercial

Program Requirements

Program Requirements Section



ELIGIBLE BUILDING TYPES AND VINTAGES

This measure is applicable for the following nonresidential building types:

- Education – Secondary School
- Education – Community College
- Education – University
- Health/Medical – Hospital
- Health/Medical – Nursing Home
- Lodging – Hotel
- Office – Large
- Retail – Multistory Large
- Grocery – Grocery

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Data Entry
Validation Item

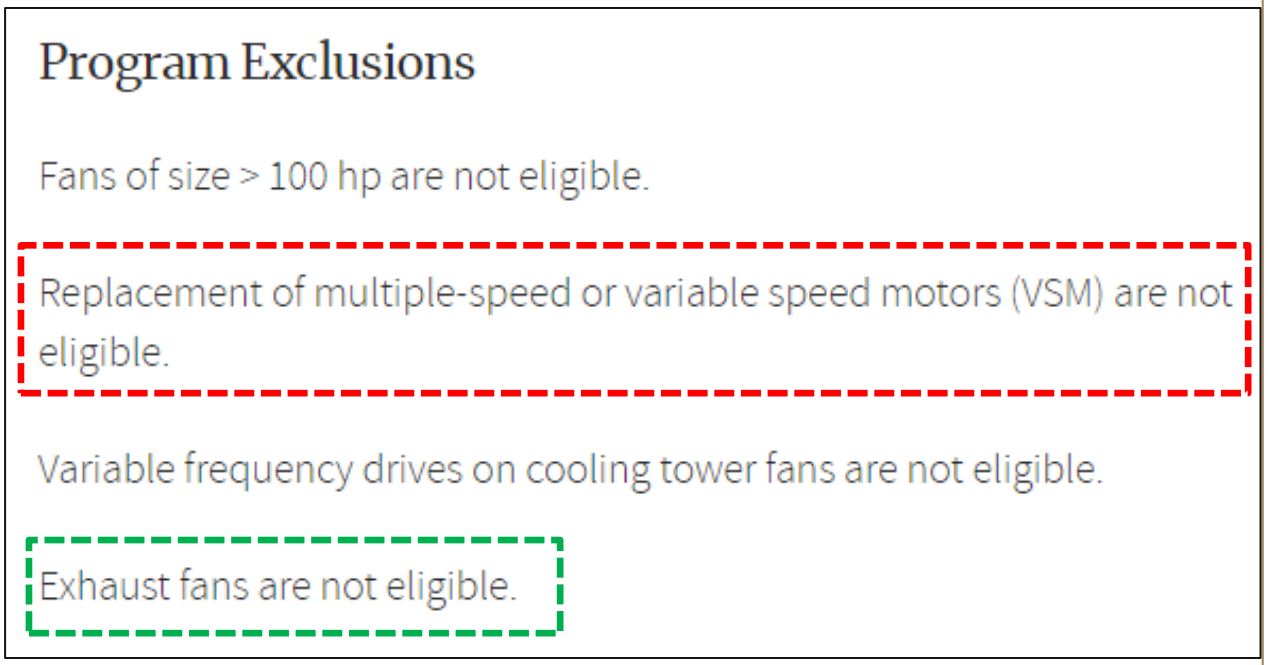
Example:

SWHC018

VSD for HVAC Fan Controls, Commercial

Program Exclusions

Program Exclusions Section



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Data Entry
Validation Item

Example:

SWHC018

VSD for HVAC Fan Controls, Commercial

Data Collection Requirements

Data Collection Requirements Section

Data Collection Requirements

Per *Resolution E-5152* and to substantiate conformance with program requirements, all claims will require the submission of an invoice or other supporting documentation that includes the following: R1503

DATA COLLECTION REQUIREMENTS
SiteID - A unique identifier for the installed location of the incentivized equipment, including site address.
Equipment ID
Existing motor HP
Existing fan controls
Existing fan type
VSD manufacturer
VSD model number

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Example Validation List for SWHC018

- **Property Fields**
- **Validation Fields**
- **Alternative Validation Fields**
- **Additional Flags**

- **Category Fields**

Required:

1. VFD Manufacturer
2. VFD Model
3. Site ID / Equipment ID
4. Building Type
5. Input rating (HP)
6. Is the VFD being installed on an existing HVAC supply or return air system?
7. Are there any other throttling devices, such as inlet vanes or bypass dampers, and throttling valves still operating?
8. Does the installation include the replacement of multiple-speed or variable speed motors (VSM)?
9. Is the VFD being installed on cooling tower fans?
10. Is the VFD being installed on an exhaust fan?

Recommended:

9. Does the HVAC VFD application call for varying air?
10. Input rating greater than 3 hp?
11. Was the VFD placed as close to the motor as possible?
12. Was sufficient airflow maintained through the motor?

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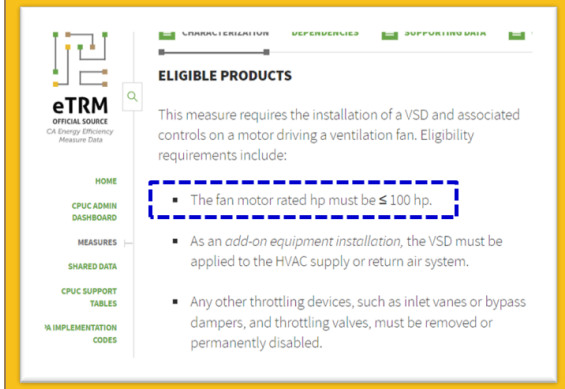
Common Data Validation Items

- Model
- Make
- Manufacturer
- Building Type
- Building Vintage
- CA Climate Zone
- Serial Number
- Equipment ID
- Site ID
- Location
- Retail Price
- AHRI Reference Number
- Measure Size Category
- Input Rating
- Cap-Tons
- Refrigerant Type

- Is the equipment new (not used or rebuilt)?
- Is the unit operational?
- Existing Flow Rate (gpm)
- Flow Rate of Installed Unit (gpm)
- Who was the party that filled out the POE documentation?
- Has Customer agreed to the QM Service Agreement?
- Customer existing baseline fuel type
- ENERGY STAR Qualified?
- Min. Cooking Energy Efficiency (%)
- Uniform Energy Factor (UEF)
- Heating Seasonal Performance Factor (HSPF)

Data Entry
Validation Item



- **Property Fields**
- Validation Fields
- Alternative Validation Fields
- Additional Flags

Sort Order	1	Sort Order – sequential/unique order of validation data records
Source Record (Item from Workpaper requiring Property)	This measure requires the installation of a VSD and associated controls on a motor driving a ventilation fan. Eligibility requirements include: • **The fan must be ≤ 100 hp.**	Source Record – copied text from the measure package to directly connect to the Property Name.
Property Name	Input Rating (HP)	Property Name – validation property name that can be chosen from a list of common properties or created as a custom entry. Common properties are preferred to drive consistency across measure packages.
Property - Label	What is the input power rating on the fan motor (HP)?	Property – Label – further description of the name to make the property easier to interpret; sometimes can be modified to a question.
Property - Installation - Control Type	Number	Property - Installation - Control Type – choice (Date, List, Text, Number, ~~Formula~~, None)
Property - Installation - Values - Custom		Property – Installation – Values – Custom – choice from List values
Property Comment	Input power located typically on the motor, not the fan.	Property Comment – *measure specific comment to provide context or specific instructions*

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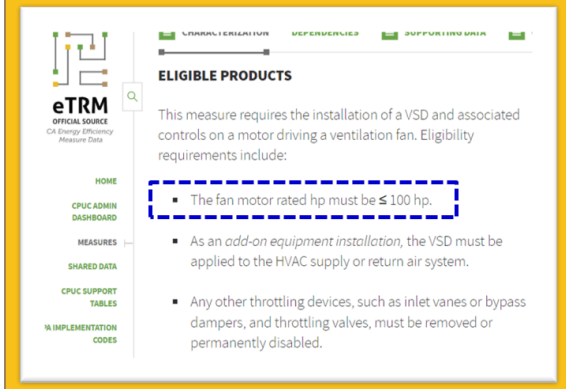

- Property Fields
- **Validation Fields**
- Alternative Validation Fields
- Additional Flags

Validation Rule	Must be ≤ 100 hp	Validation Rule – logical statement or assertion that describes the passing state
Validation criteria	LTE 100 hp	Validation Criteria – logical statement of how the correct answer can vary (ie, Equal to, Greater than, etc)
Validation Correct Answer	LTE	Validation Correct Answer – value that designates the passing criteria
Numeric Type	General	Numeric Type – number type (currency, number, percent, none)
Min Value	3	Min Value – minimum range of the value allowed
Max Value	100	Max Value – maximum range of the value allowed
Decimal Places		Decimal Places
Validation Checkpoint	Inspections	Validation Checkpoint – when is data expected to be collected (Application, Inspection, QA Checklist)
Validation Verification	Photograph the nameplate of the HVAC Fan to capture the power rating, hp (if accessible).	Validation Verification – What data should be used and how should data be used to validate this item
Pass Criteria	Use the nameplate power rating (hp) to validate what is listed in application; the power rating must be <= 100 hp	Pass Criteria – statement of what passing data should look like

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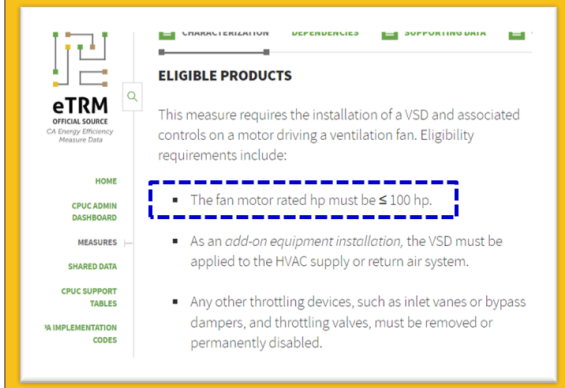

- Property Fields
- Validation Fields
- **Alternative Validation Fields**
- **Additional Flags**

Alternate Validation Checkpoint	QA Checklist	Alternate Validation Checkpoint – when is data expected to be collected; only required if primary validation data is not available
Alternate Validation Verification	Use photographs of the manufacturer spec sheet to validate the power rating (hp) of the fan motor	Alternate Validation Verification – how should data be used to validate this item
Alternate Pass Criteria	The power rating of the fan must be <= 100 hp	Alternate Pass Criteria – statement of what passing data should look like
Data Use Category (Eligibility / EM&V)	Eligibility	Data Use Category (Eligibility / EM&V) – choice on whether the data is used to determine eligibility (‘Eligibility’) or required as part of a data collection requirement (‘EM&V’)
Check (Required / Recommended)	Required	Check (Required / Recommended) – choice on whether data is 'Required’ since it is explicitly documented in the measure package or ‘Recommended’

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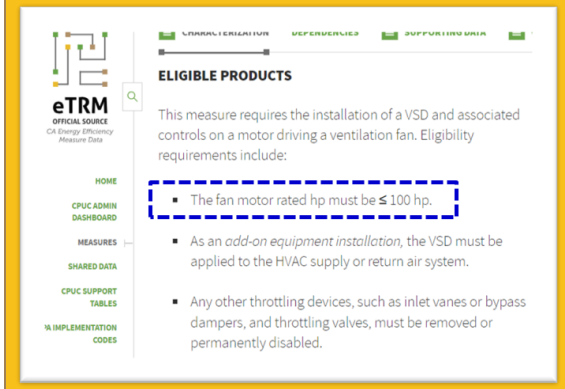

- **Category Fields**

Workpaper ID	**SWHC018**	Measure ID
Revision #	**02**	Measure Version ID
WP Name	**VSD for HVAC Fan Controls, Commercial**	Measure Name
WP Offering ID	**Any**	Offering ID – Offering ID referenced from Offering ID value table within the measure
MeasAppType	**Any**	MeasAppType – Measure application type (choice)
DeliveryType	**Any**	DeliveryType – Delivery type (choice)
Vintage	**Any**	Vintage – Building vintage (choice)

- Validations items may be applied to:
  - All permutations
    - For example: “Any offering, measure application type, delivery type or vintage”
  - Groups of permutations
    - For example: “Direct Install”, “Accelerated Replacement”, “Electric Offering”, “New Construction”

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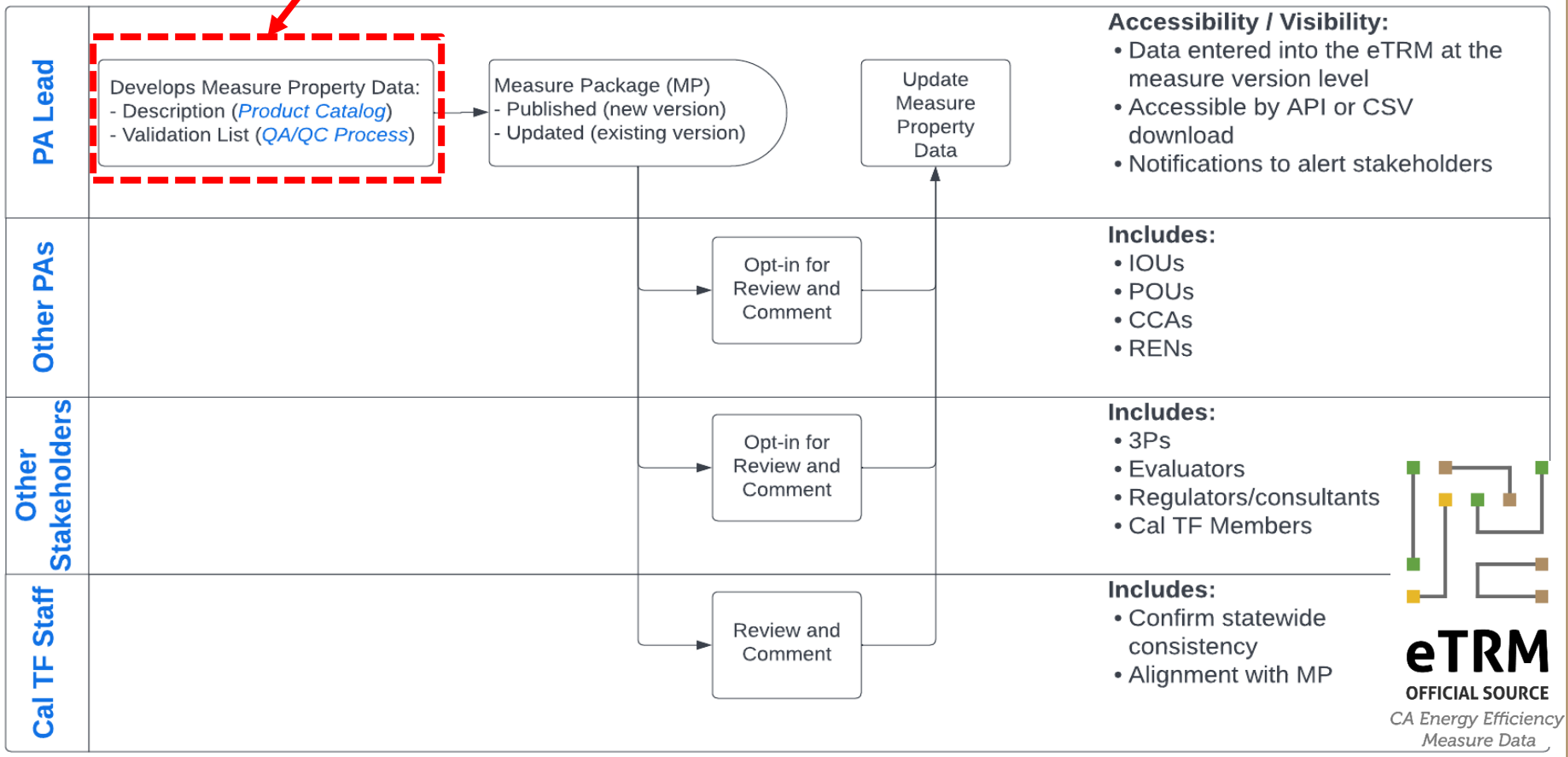
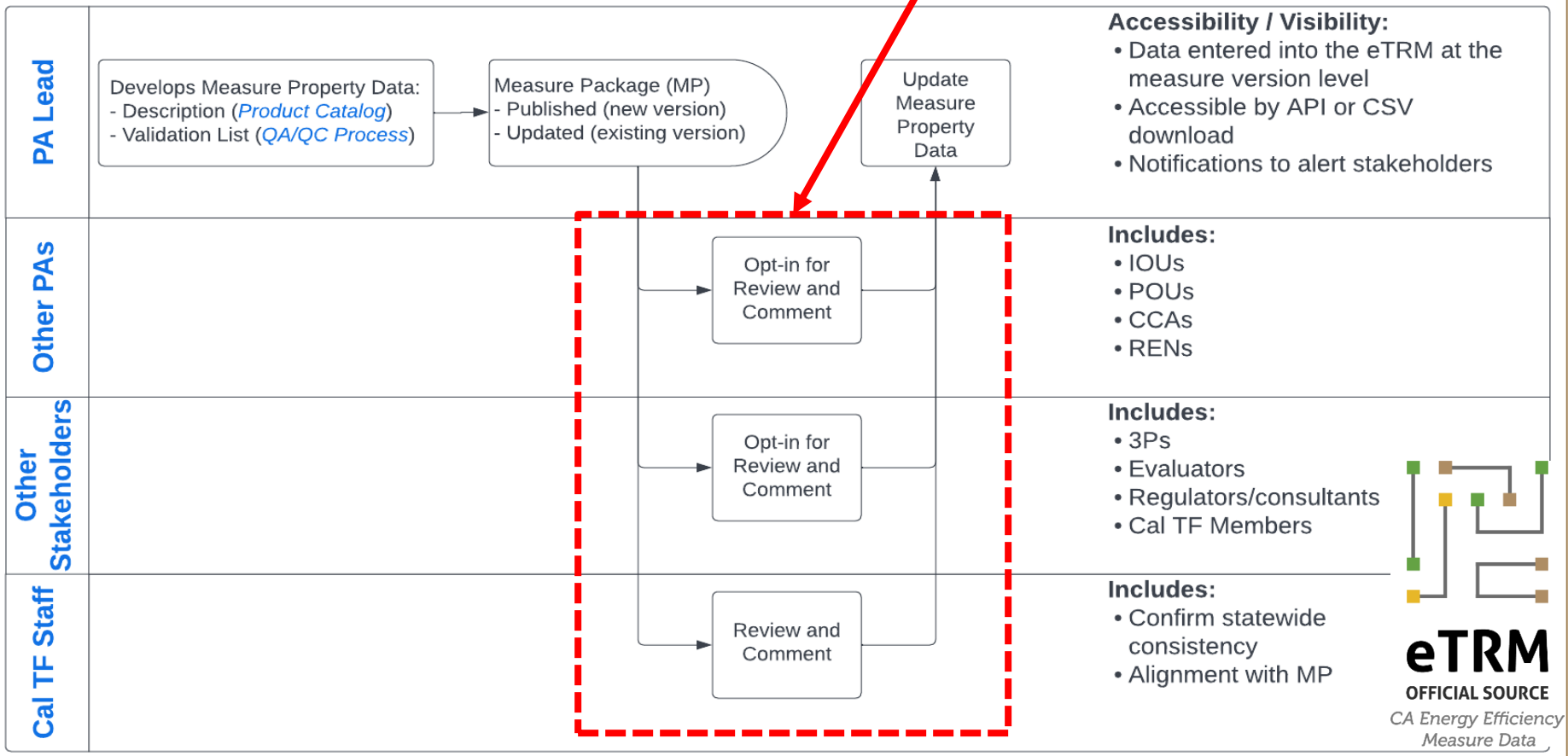
Draft Statewide Process

Data Entry – Lead PAs will draft Measure Property Data



Draft Statewide Process

Data Review Process



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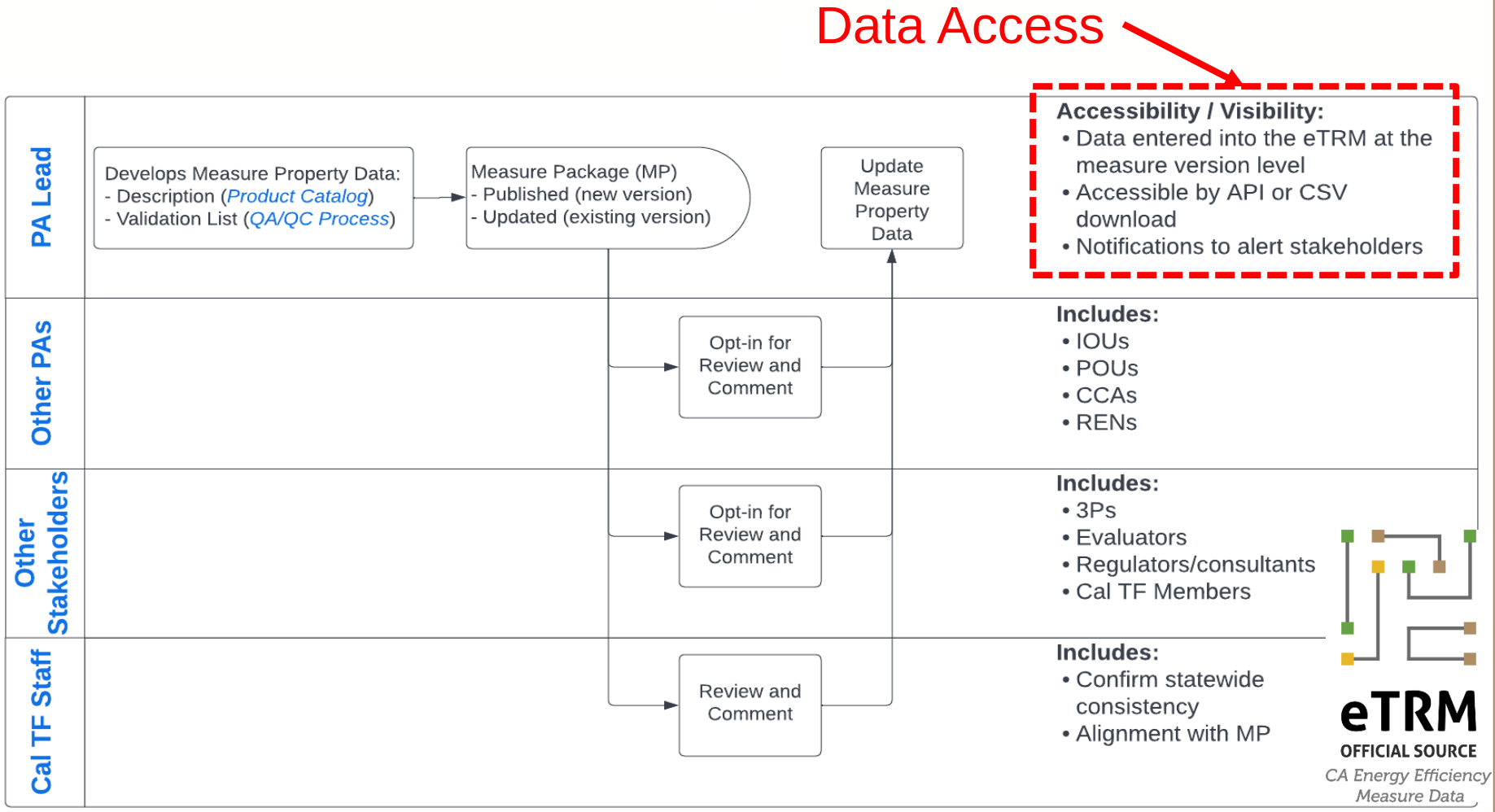

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