Overall Summary

The **2025 Metering Standard** represents a **comprehensive rewrite and modernization** of the **2022 R3 version,** emphasizing:

- Consistency with CEC Part 1 and evolving metering practices,
- Integration of Distributed Energy Resources,
- Enhanced clarity and accessibility for developers and electricians, and
- Stronger safety, compliance, and access requirements.

Overall Structure & Organization

- **2022 Version:** Structured traditionally by section (General Requirements, Types of Metering, Residential, Commercial, etc.).
- **2025 Version:** Fully **restructured and modernized** — reorganized by functional topics:
    - Clear separation between General Information, Distributed Energy Resources, Service Types, and Utility Metering.
    - Improved navigation with expanded and detailed **Table of Contents** and consistent section numbering.
    - Inclusion of an **Introduction, Preface, Contact Information, and Disclaimer**, which were not present in 2022.
    - New sections addressing **service types**, including **Temporary Construction Service, Overhead Secondary Service, and Underground Secondary Service**.

Formatting & Presentation

- Modernized layout with **clearer definitions, improved readability**, and consistent formatting.
- Use of **tables, headings, and defined subsections** (e.g., “Meter Access Requirements,” “Conductor Installation,” “Meter Socket Installation Requirements”).
- 2025 version adds **drawings, tables, and cross-references** for field usability.
- Includes linked reference to relevant section for improved navigation

Key Technical & Content Changes

1. Definitions

- Expanded and rewritten for clarity.

- Now includes over 50 detailed definitions (e.g., Cold Sequence Metering, Bulk Metering, DER, MG, CT, PT, Polyphase Service, Pad-mount Transformer).
- Aligns terminology more tightly with **Canadian Electrical Code (CEC Part 1)** and industry standards.

2. General Requirements / General Information

- Expanded guidance on:
    - **Access requirements to meter system equipment**
    - **Utility right to refuse energization**
    - **Demarcation points** for overhead and underground services
    - **Meter service area rules** clarified (one meter per defined area; no double/sub-metering)
- Added new subsections for **temporary meter removal** and **electrical modifications** (including cost responsibility and process).

3. Distributed Energy Resources (DER)

- Formerly "DG & MG" now consolidated under "Distributed Energy Resources (DER)."
- Clarifies application and approval process.
- Adds **DERConnect@enmax.com** contact and updated procedural information.
- New requirements for **warning notices, line diagrams,** and **disconnecting devices** for DER sites.

4. Service Types

- Expanded and separated into subtypes:
    - **Overhead**, **Underground**, **Network**, **Temporary Construction**, and **Unmetered Services**
- Each includes technical details (height, clearance, accessibility, wiring, conductor requirements).
- New **Ladder Access Requirements** and **Safe Ladder Use** guidelines with associated drawings.

5. Metering Systems

- More comprehensive section on **Utility Metering**, combining and expanding prior "Self-contained" and "Instrument Transformer Metering."
- Adds explicit requirements for:
    - **Meter socket approval and location**

  - **Connectivity testing**
  - **Site safety**
  - **Clearances and working space**

- Consolidated tables for meter socket types, CT enclosures, and load management devices.
- **Current Transformer Enclosure Sizing Table** updated for services rated for 120/208, 200-600 amps from (H*W*D) 76(30)* 76(30) *25(10) **minimum size to 91(36) x 91(36) x 30(12).**

6. Appendices & Figures

- Updated and renumbered diagrams and tables for clarity.
- Adds **Pre-Energization Readiness Guides** and visual checklists for sites rated at 200 amps or less and greater than 200 amps.

Substantive Policy / Requirement Updates

- **Transformer efficiency:** Reaffirmed 98% minimum nameplate requirement (line side of utility meter).
- **No LBs or access to unmetered conduits** permitted (restated and emphasized).
- **Meter height range standardized** to 0.91 m–1.83 m (was 0.46 m–1.8 m in 2022).
- **Cold sequence as standard;** hot sequence limited exceptions.
- **Connectivity testing** now required for all multi-unit sites.
- **Prohibition of submetering/double metering** clarified.
- **DER/Distributed Generation** process modernized with updated contacts and safety labeling requirements.

This table below provides a high-level mapping of the ENMAX **Metering Standard** changes between the 2022 R3 version and the 2025 Rev 4 release. The table below identifies where sections have been reorganized, merged, or expanded and highlights key updates to technical or procedural content.

Old Section (2022 R3)	New Section (2025 Rev 4)	Summary of Key Changes
1.1 General	3 Introduction / 5.1 General	Rewritten and expanded with Preface, Contact Info, and Disclaimer. Clarifies customer responsibility and links to ENMAX website/email.
1.2 Access to Metering Equipment	5.2 Right to Access Meter System Equipment	Wording modernized for legal consistency; adds reference to Distribution Tariff and requirement to provide keys for locked access.
1.3 Right to Refuse to Energize	5.3 Right to Refuse to Energize	Same principle retained; expanded to include unsafe conditions, CEC noncompliance, and ENMAX discretion to disconnect.
1.4 Meter Location Standard	7.6 Utility Metering → Meter Socket Location & Installation Requirements	Reorganized; adds detailed mounting height table, cold sequence requirement, and restrictions on transformer efficiency (≥ 98%).
1.5 Safety Requirements	7.6 Utility Metering → General Site Safety and Clearances	Expanded with new list of hazardous locations, lighting, ventilation, and clearance dimensions; aligns fully with CEC 2-310.
1.6 Care of Metering Equipment	5.1 General and 7.6 Utility Metering	Removed as standalone section; merged under general metering responsibilities.
1.7 Temporary Meter Removal	5.8 Temporary Meter Removal	Process clarified—now requires online form submission through enmax.com and specifies ENMAX-only handling.
1.8 Non-Standard Services	7.6 Utility Metering / Meter Electrical Configuration Requirements	Policy retained but integrated into configuration approval workflow; email updated to rmplanner@enmax.com.
1.9 Distributed Generation (DG & MG)	6 Distributed Energy Resources (DER)	Fully rewritten: consolidated DG/MG terminology under DER; added approval process, contact, isolation and signage requirements.
1.10 Construction Requirements	5.9 Electrical Modifications to Existing Services	Streamlined and expanded to clarify customer responsibilities, upgrade obligations, and ENMAX cost recovery.
1.11 Metered & Unmetered Conductors	5.6 Metered & Unmetered Conductors / Conduit	Strengthened prohibition on LBs or removable covers; requires CEC Part 1 compliant junction boxes with ENMAX approval.
1.12 Meter Service Area Definition	5.5 Meter Service Area (Requirements & Exceptions)	Adds single meter in multi-tenant criteria and prohibits double/sub-metering with new examples.

New Section	7 Service Types	Temporary Construction Service, Overhead Secondary Service, and Underground Secondary Service.
2 Types of Metering	7.6 Utility Metering and 8 Additional Information	Rewritten and merged into unified metering section with new tables for socket types, CT enclosures, and readiness checklists.
3 Residential Services	7.7 Residential Meter Systems	Reorganized and simplified; adds connectivity testing and site-address labeling rules.
4 Farm Services	— (Removed)	Farm-specific content absorbed into Residential/Commercial guidance.
5 Commercial Services	7.8 Commercial Meter Systems	Modernized layout; clearer delineation of voltage classes and interval metering; adds Primary Metered Service section.
6 Commercial or Industrial Primary Metered Service	7.8.5 Primary Metered Service	Maintains core requirements but simplifies conduit, grounding, and diagram references.
7 Interval Metering Requirements	7.8.4 Interval Meter Requirements	Integrated into Commercial Meter Systems; adds clarifications for new vs. existing sites.
8 Use of Metering Signals for Load Management	7.6 Utility Metering → Approved Load Management Devices	Now table-based; defines allowable devices and approval process via RMPlanner@enmax.com.
9 Connectivity	7.6 Utility Metering → ENMAX Connectivity Testing	Expanded—connectivity tests now mandatory for all multi-unit sites; ENMAX performs validation before energization.
10 Appendices	8 Additional Information / Tables / Drawings	Rebuilt with updated diagrams (Figures 1–15) and new Pre-Energization Readiness Guides.
11 FAQ Section	— (Removed)	FAQ content replaced with in-line guidance and updated contact references.