



DIRECTORATE ENERGY CONSERVATION
DIRECTORATE GENERAL OF NEW RENEWABLE ENERGY
AND ENERGY CONSERVATION
MINISTRY OF ENERGY AND MINERAL RESOURCES
REPUBLIC OF INDONESIA

THE INDONESIAN ENERGY CONSERVATION
AND EFFICIENCY SOCIETY



1

The 64th Meeting of
APEC Expert Group on Energy Efficiency &
Conservation (EGEEC)
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ENERGY CONSERVATION PROGRAM AND POLICY IN INDONESIA

Presented by:
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Mr. Totok Sulistiyanto

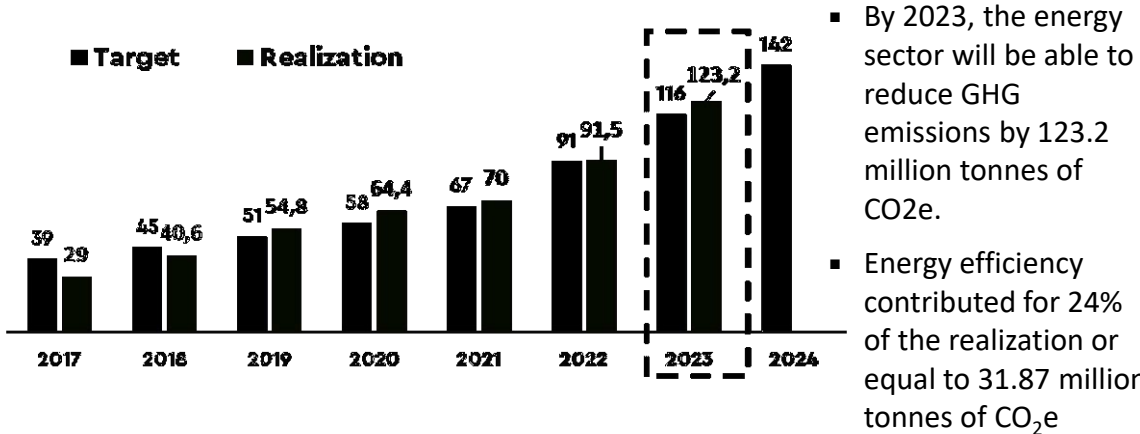
Source: Totok Sulistiyanto, 2025

TARGET NDC 2030 & NZE 2060

No	SeCtor	GHG Emissions 2010 (Juta Ton CO ₂ e)	GHG Emissions in 2030			Reduction	
			BaU	CM1	CM2	CM1	CM2
1.	Energy	453,2	1.669	1.311	1.223	358	446
2.	Waste	88	296	256	253	40	45,3
3.	IPPU	36	70	63	61	7	9
4.	Agriculture	111	120	110	108	10	12
5.	Forestry	647	714	217	-15	500	729
TOTAL		1.334	2.869	1.953	1.632	915	1.240

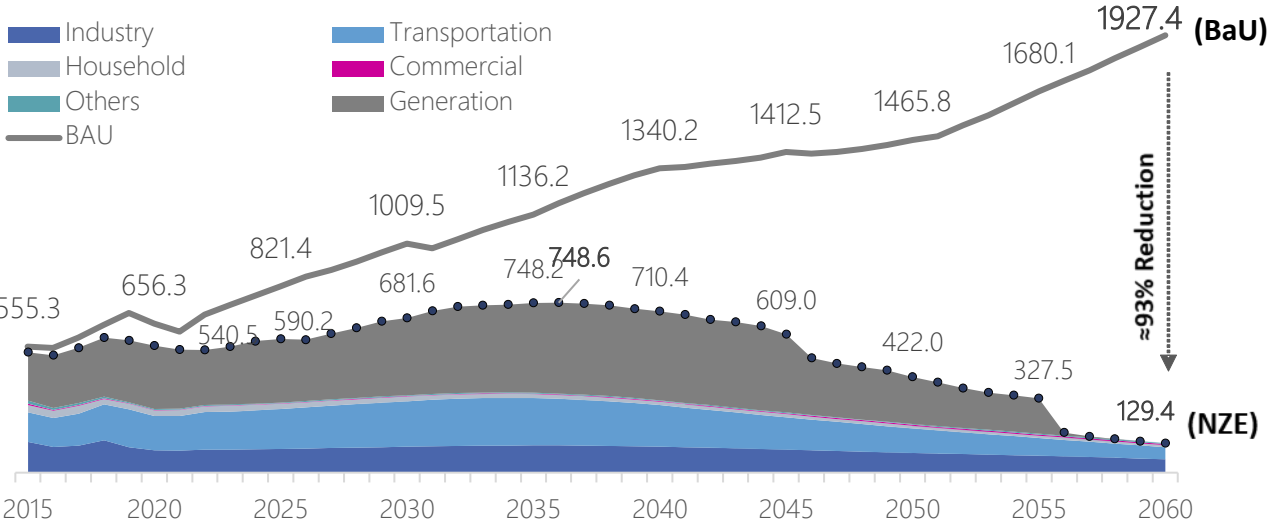
Note: CM: Counter Measure; CM1: self effort; CM2: international assistance; IPPU: industrial processes and production use

Realization of Energy Sector Mitigation Actions in 2023



Source: MINISTRY OF ENERGY AND MENIERAL RESOURCES, 2025

Net Zero Emission 2060 | Million Ton CO₂e



NZE emission reduction is 93% of BaU through optimizing supply with NRE and demand by implementing energy efficiency

NZE Strategies

- 1 Electrification** (EV, induction stove, electrifying agriculture, etc.)
- 2 NRE Development** (offgrid, ongrid, biofuel)
- 3 CFPP Moratorium & early retirement** of existing CFPPs
- 4 New energy sources** (hydrogen and ammonia)
- 5 CCS/CCUS**
- 6 Energy efficiency application**



MAIN PROVISIONS OF GR 33/2023 ON ENERGY CONSERVATION

① Energy Conservation Implementation

GR 33/2023 distinguishes energy conservation for the **upstream management and downstream management**.

② Parties required to conduct Energy Conservation

The subject of energy conservation under GR 33/2023 is **Energy Providers, Resource Energy Users and/or Energy Users**.

③ Obligation to Carry out Energy Conservation for the Downstream Side

GR 33/2023 requires **Energy Resource Users and Energy Users to carry out Energy Conservation in Energy Provision**, including transportation, industry, household and building sectors.

④ Parties that Conduct periodic Energy Audit

GR 33/2023 provides that **external Energy auditors with competency certificates** can conduct periodic energy audit.

⑤ Energy Performance Standards and Energy Saving Sign Labels

GR 33/2023 requires Energy Saving Equipment Producers and Importers to apply Energy Performance Standards or Energy Saving sign labels and comply **with local content requirement**.

⑥ Energy Conservation Financing

GR 33/2023 **regulates Energy Conservation financing** which can be sourced from: (i) Energy Providers and Energy Resource Users and/or Energy Users; or (ii) other legal financing sources in accordance with the applicable regulations. This provision indicates that Energy Providers, Energy Resource Users and/or Energy Users can be a financing company. Further clarity is needed on this.

⑦ Energy Conservation service business development

GR 33/2023 regulates **energy conservation service businesses development** as one of the activities under the Energy Conservation program, which can be conducted by: (a) business entities; (b) public service agencies; or (c) technical implementing units

⑧ Cooperation on the Field of Energy Conservation

GR 33/2023 provides that Energy Providers, Energy Source Users and/or Energy Users can **conduct Energy Conservation cooperation**.

⑨ Facilities, Incentives, and Disincentives

The provisions relating to facilities, incentives, and disincentives in GR 33/2023 specifically set-up in terms of **the subjects receiving the Facilities / Incentives / disincentives, the forms of facilities / incentives / disincentives, and the criteria to receiving incentives**.

MINIMUM ENERGY PERFORMANCE STANDARDS (MEPS)

MEPS Regulatory Basis

MEMR Regulation No. 14 of 2021 on Implementation of **Minimum Energy Performance Standards** for Energy-Using Equipment

Efficient Technology Implementation

Energy Performance Standard

MEPS for Appliances

Energy Savings Label

A label indicating that energy-using equipment meets certain energy-saving requirements

Local Content

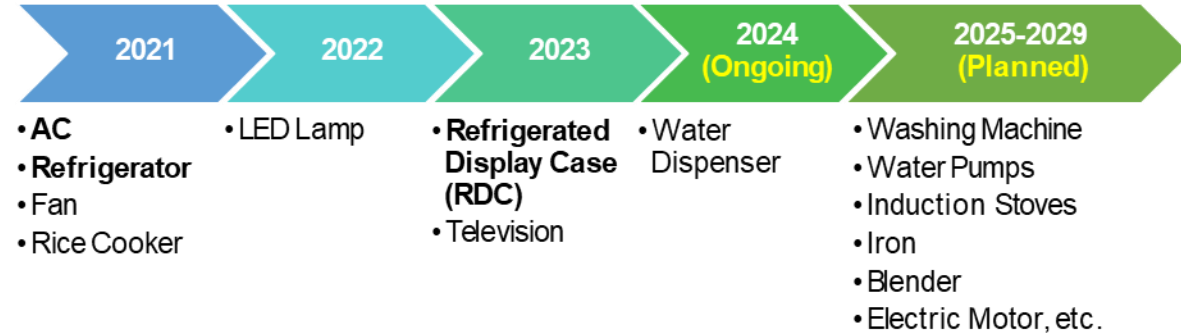
Implementation at the domestic component level is carried out in accordance with statutory provisions

Inclusion of the MEPS or energy saving label on the product and product packaging

Manufacturer / Importer



Roadmap of MEPS in Appliances



Existing Decrees on MEPS and Energy Savings Label on Specific Appliances :

- 1 MEMR Decree No. 103/2021 : **Air Conditioner**
- 2 MEMR Decree No. 113/2021 : **Refrigerator**
- 3 MEMR Decree No. 114/2021 : **Fan**
- 4 MEMR Decree No. 115/2021 : **Rice Cooker**
- 5 MEMR Decree No. 135/2022 : **LED Lamp**
- 6 MEMR Decree No. 126/2023 : **Refrigerated Display Case (RDC)**
- 7 MEMR Decree No. 162/2023 : **Television**
- 8 MEMR Decree No. 87/2025 : **Water Dispenser**

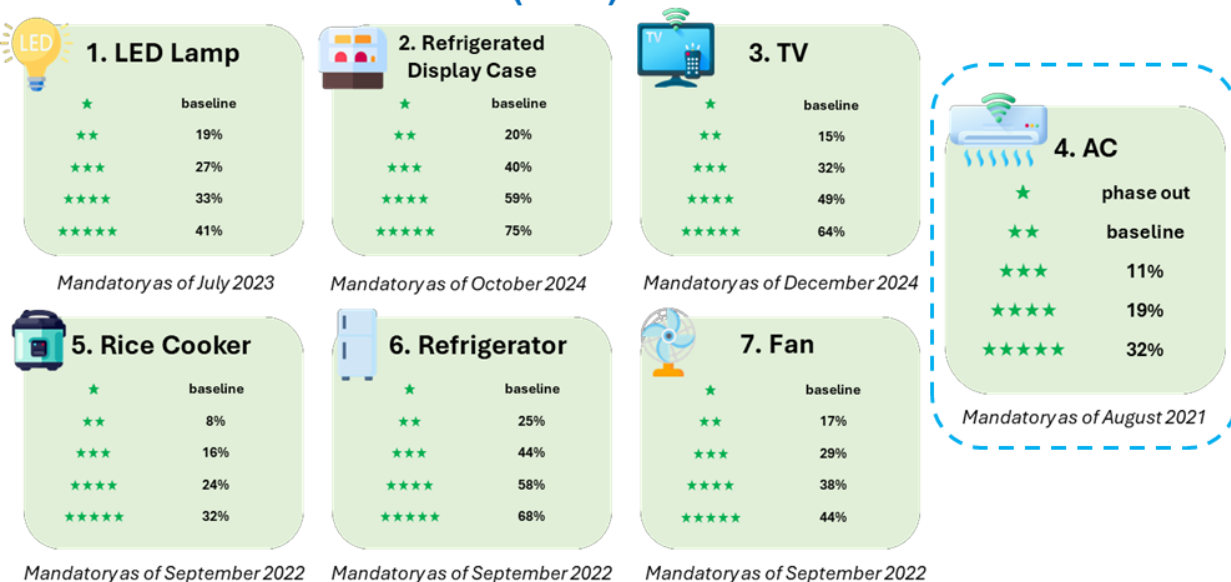


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ROADMAP FOR APPLIANCES AND ESTIMATED IMPACTS OF MEPS

Realization of MEPS in 2023

Realization of MEPS in % (2023)

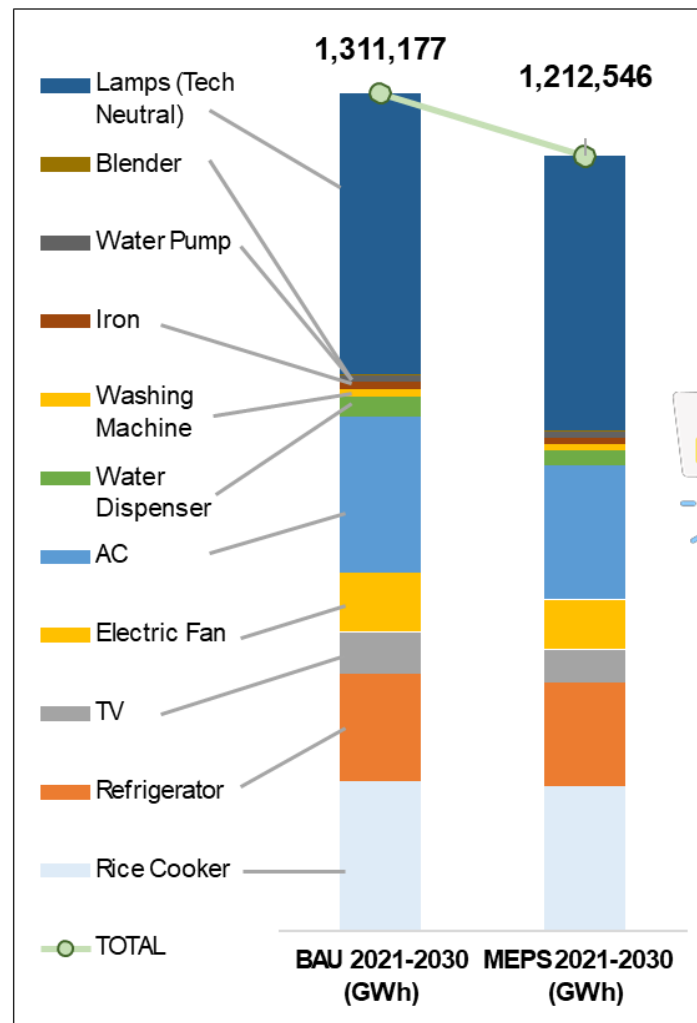


Energy Saving Achievements (2023)

Realization of energy savings of **2,066 GWh**, electricity cost savings of IDR 3 trillion, and emission reduction of **2.18 million tons of CO₂**.

No.	Equipment	Total Production /Import	Energy Savings	Emission Reduction	Energy Cost Savings
		(unit)	(GWh)	(Mil. ton CO ₂)	(Rp Trillion)
1	AC	2,616,326	1,907.91	1.76	2.76
2	Rice Cooker	4,868,459	5.84	0.27	0.000008
3	Refrigerator	1,466,035	158.66	0.15	0.23
TOTAL			2,066.57	2.18	2.99

Estimated Impact of MEPS (2021-2030)



The implementation of MEPS for ten years (2021-2030) can save the energy up to **8% (98,632 GWh)** or **62 MBOE** and will reduce GHG **83.8 Million Tons of CO₂**.



Equivalent to **0.7 Million Hectares** of typical forest* absorbing CO₂.

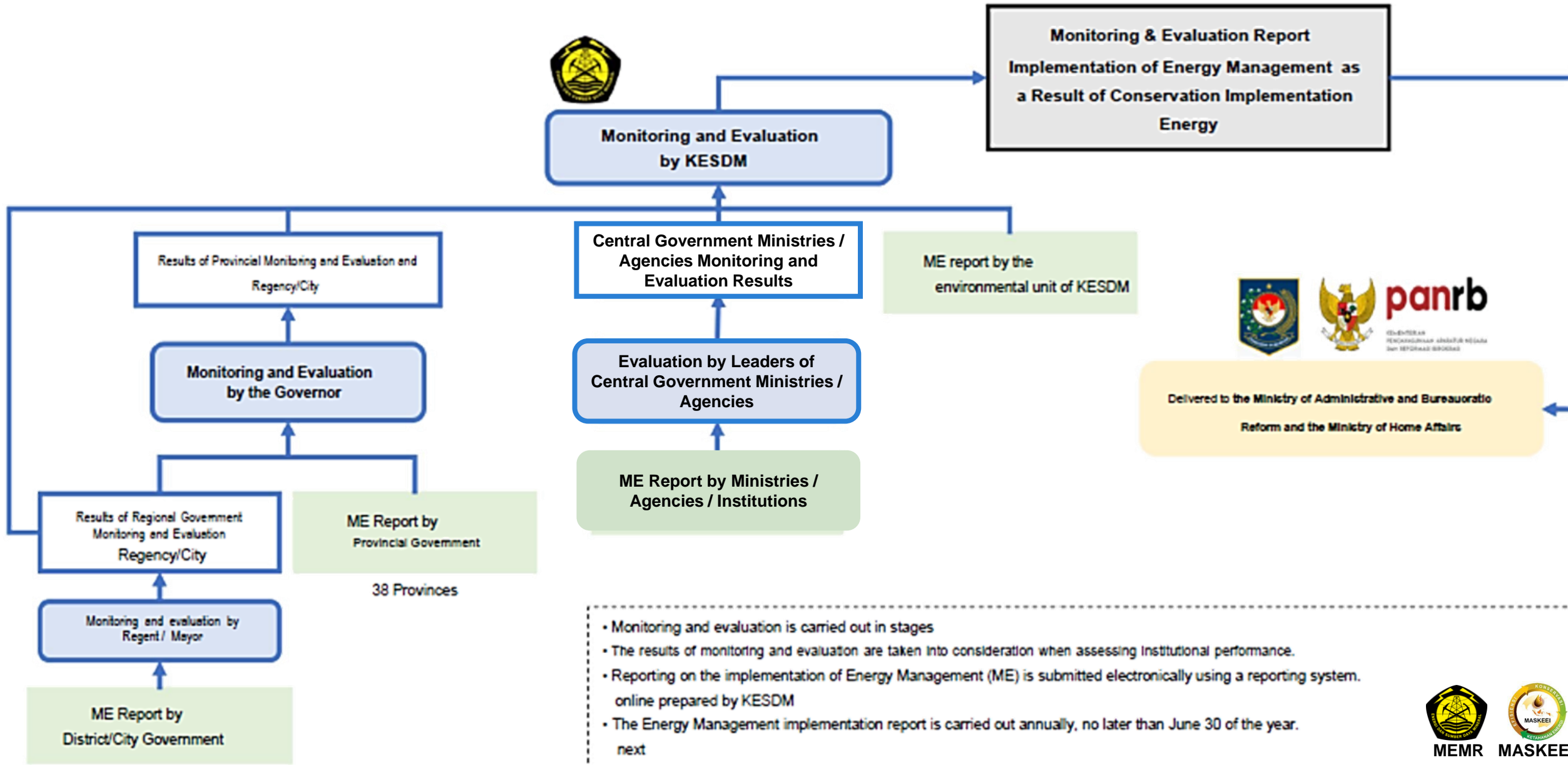


*RETScreen Software conversion factor

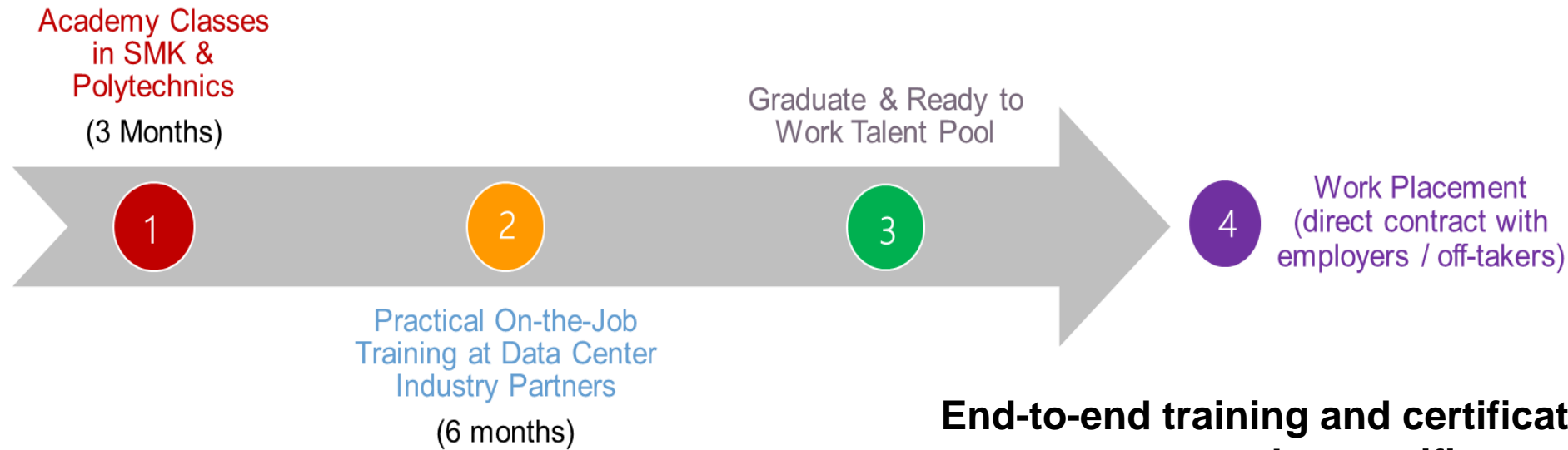


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MONITORING & EVALUATION OF ENERGY CONSERVATION PROGRAM



MASKEEI PROGRAM ON EE CAPACITY BUILDING



AIMS

1. Produce national ready-to-work talents in energy management sector.
2. Contribute to Indonesia's energy management capabilities.
3. Enabling Indonesia to create its own "in-country" talent pool.
4. Help producers, manufactures, and industry players to attain "ready-to-work" talents in Indonesia.
5. Assist to reduce national unemployment
6. Participate in strengthening Indonesia's energy economy sector.

End-to-end training and certification process to meet the specific needs of industry/building, including:

- Curriculum creation
- Learning materials production
- Online Learning Management System
- Live discussions from industry practitioners
- Training program operations and management
- Trainer/facilitator provision
- Hands-on learning during "On-the-Job Training" stage
- Assessment and certification
- Talent pool management

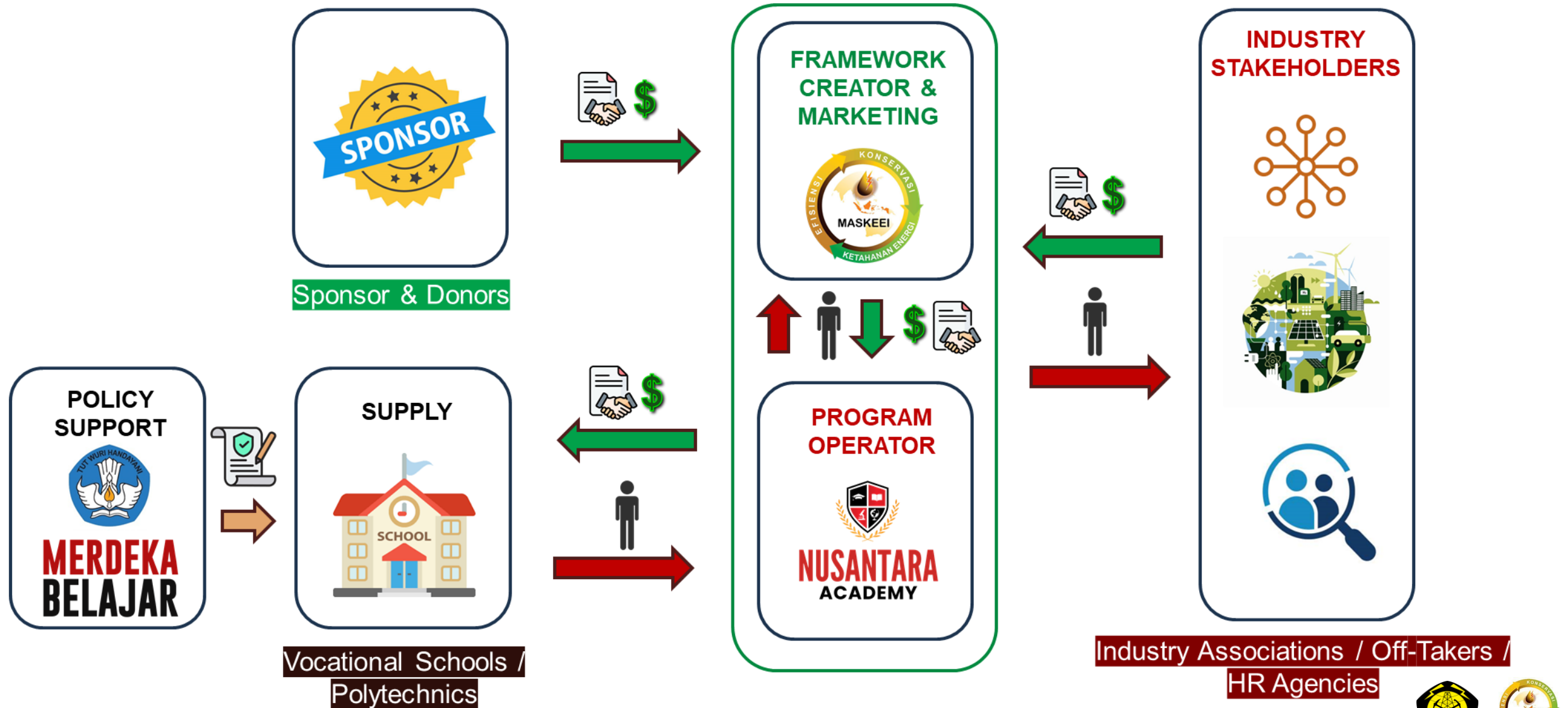


MEMR



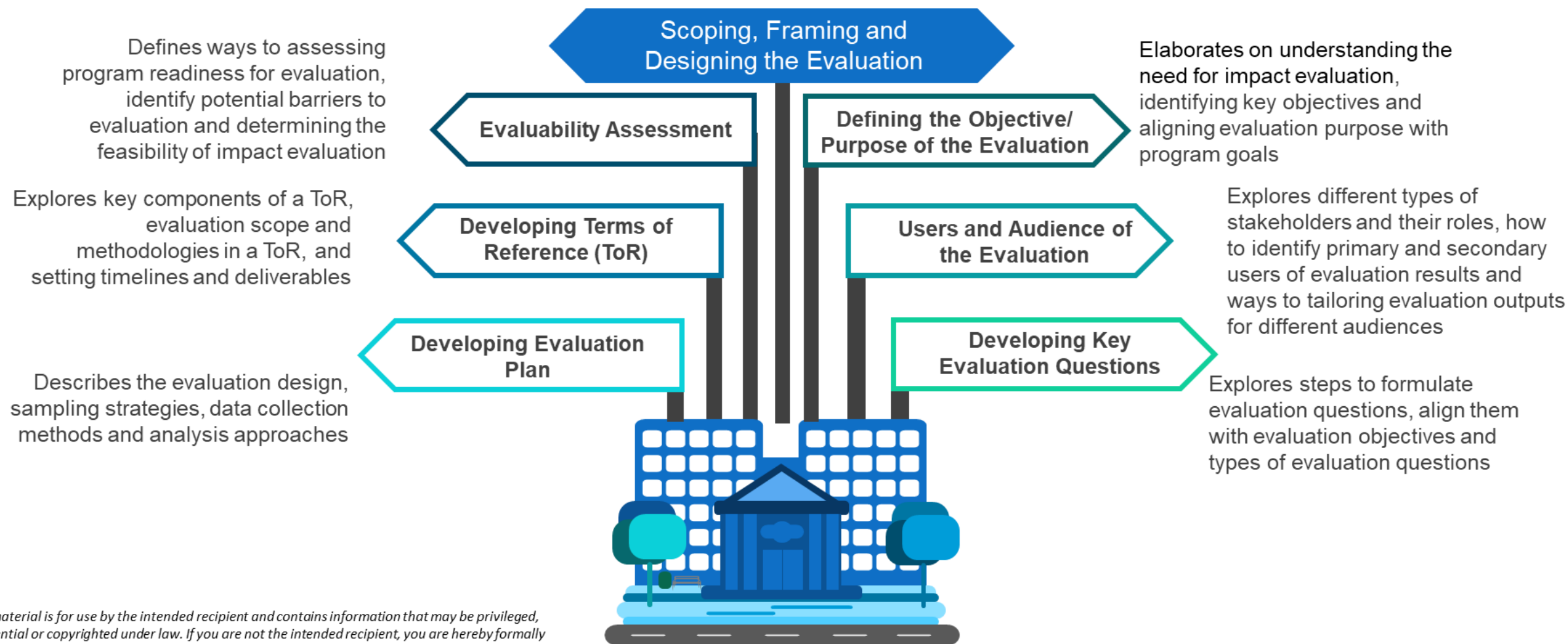
MASKEEI

STAKEHOLDERS OF MASKEEI CAPACITY BUILDING PROGRAMS



MASKEEI PROGRAM ON EE MONITORING & EVALUATION

Evaluation Capacity Development for Energy Efficiency and Decarbonization of the Building Sector in Indonesia



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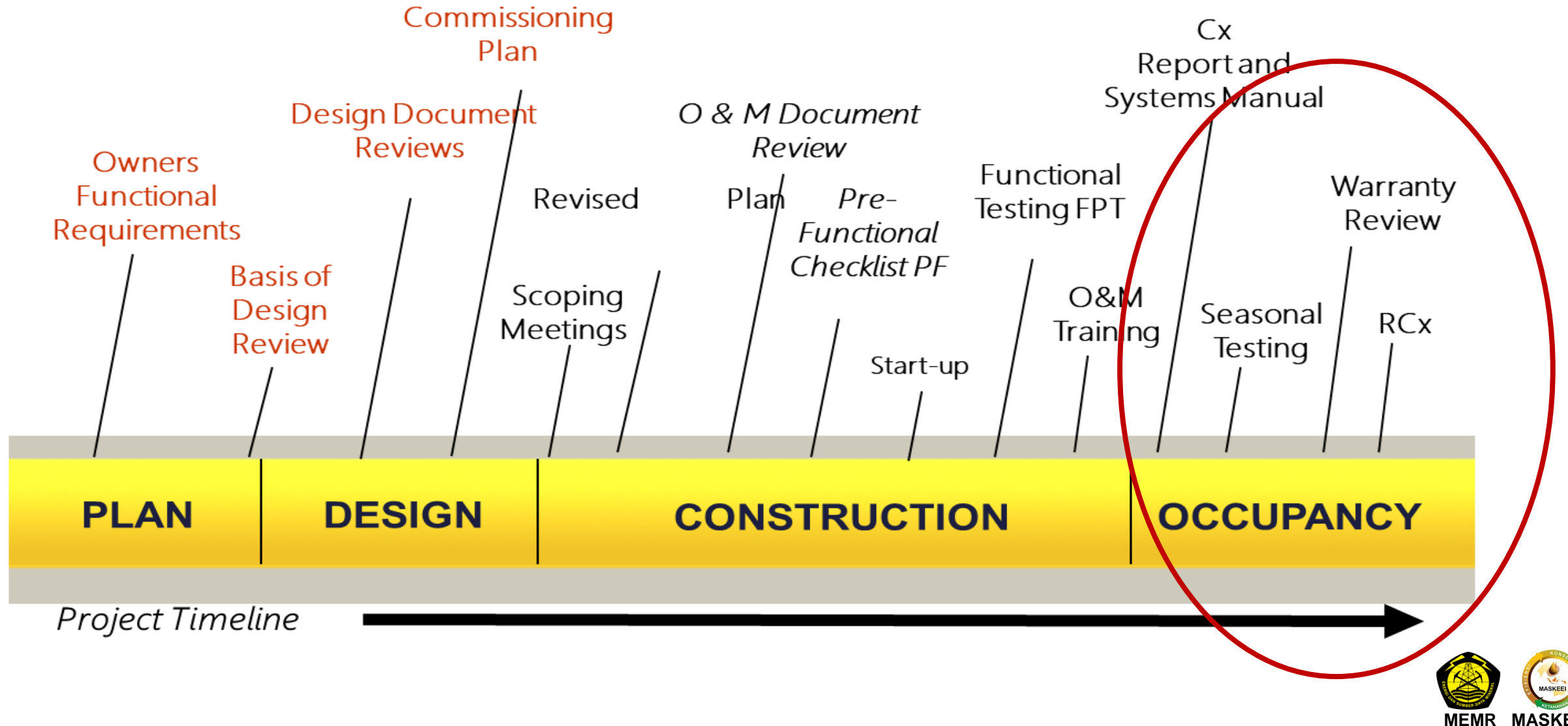
Training Audience

- 01 Policymakers and Regulators**
 Government officials responsible for formulating and implementing policies.
- 02 Evaluators and M&E Practitioners**
 Professionals specializing in monitoring and evaluation.
- 03 Energy Sector Professionals**
 Engineers, Architects, Energy Managers, and Technical Experts involved in designing and implementing energy efficiency projects.
- 04 Academics and Researchers**
 Scholars and Analysts focusing on evaluation methodologies, sustainable energy systems
- 05 CSOs and Community Leaders**
 Representatives from NGOs and Community Groups advocating for sustainable energy.
- 06 Private Sector Stakeholders**
 Industry Professionals, including Developers and Investors, are interested in integrating evaluation findings.



MASKEEI'S PROPOSED COMMISSIONING PROCESS FOR GREEN BUILDINGS

Commissioning Process



Thank You

CONTACT INFORMATION



Masyarakat Konservasi & Efisiensi Energi Indonesia
Indonesian Energy Conservation & Efficiency Society

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