PNG NATIONAL POWER SECTOR FORUM

Session 1: Sector Planning – Developing a Power Sector Master Plan, and Renewable and Climate Policies

Antonio S. Barcelona
Electric Power Industry Management Bureau
Department of Energy, Philippines

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Outline of Presentation

- The Department of Energy
- Overview of the Philippines Power Sector
- Energy Plan and Planning Process

The Department of Energy

MANDATE

Prepare, integrate, coordinate, supervise and control all plans, programs, projects and activities of the Government relative to energy exploration, development, utilization, distribution and conservation

VISION

A globally-competitive DOE powering up Filipino communities through clean, efficient, robust and sustainable energy systems that will create wealth, propel industries and transform the lives of men and women and the generations to come.

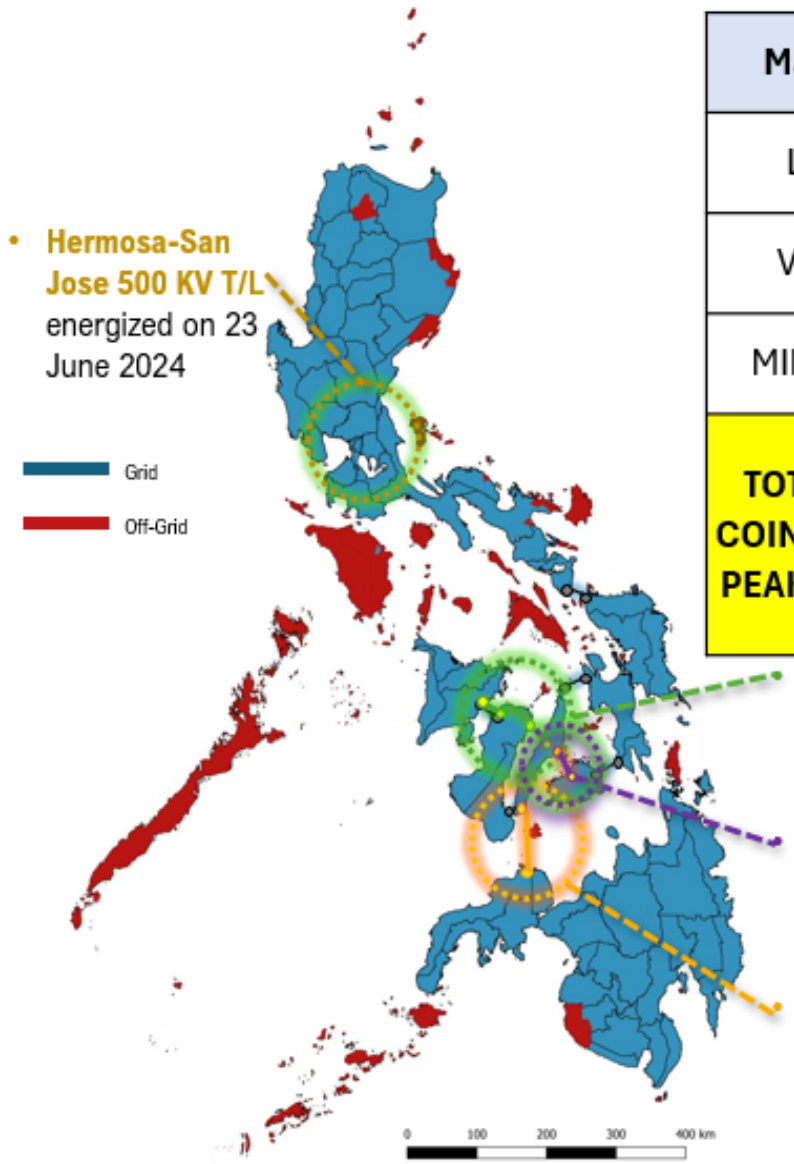
MISSION

We at the DOE, in partnership with our stakeholders, shall improve the quality of life of the Filipino by formulating and implementing policies & programs to ensure sustainable, stable, secure, sufficient, accessible & reasonably-priced energy.

In pursuit of this mission, we commit to render efficient service with utmost integrity & professionalism.

Overview of the Philippine Power Industry

The Philippines' Power System



Main Grid	2024 Peak Demand (MW)	% Share
LUZON	14,016	73%
VISAYAS	2,681	14%
MINDANAO	2,577	13%
TOTAL NON-COINCIDENTAL PEAK DEMAND	**19,274**	**100%**

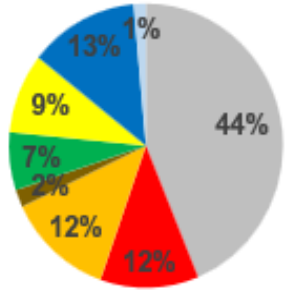
Cebu-Negros-Panay (CNP) Stage 3 230kV Transmission project completed on 27 March 2024.

Cebu-Bohol 230 interconnection project Line 1 energized on 16 July 2024; Line 2 energized on 30 September 2024

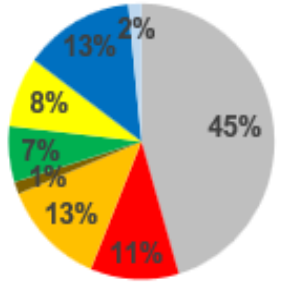
Mindanao – Visayas Interconnection Project (MVIP) Commercial Operation started on 26 January 2024 with full transfer capacity of 450 MW.

Plant Technology	Installed Capacity (MW)	Dependable Capacity (MW)
COAL	**13,006**	**11,863**
OIL-BASED	**3,448**	**2,806**
NATGAS	**3,732**	**3,281**
RENEWABLE ENERGY	**9,520**	**8,136**
GEOTHERMAL	*1,952*	*1,708*
HYDRO	*3,836*	*3,485*
SOLAR	*2,710*	*2,154*
BIOMASS	*595*	*378*
WIND	*427*	*412*
TOTAL CAPACITY	**29,706**	**26,087**
ENERGY STORAGE SYSTEM	634	599

Philippines - Installed Capacity



Philippines - Dependable Capacity



Coal · Oil Based · Natural Gas · Biomass · Geothermal · Solar · Hydro · Wind

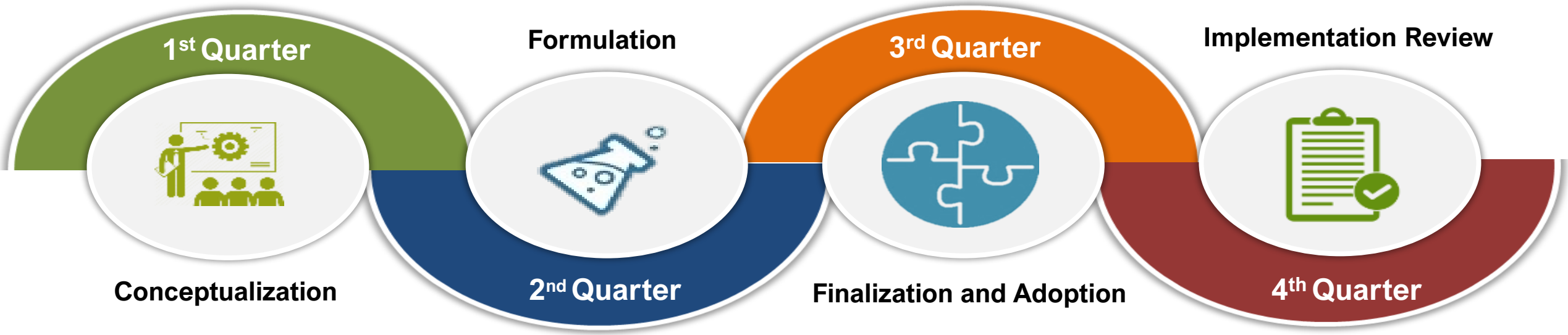
Source: Source: DOE List of Existing Power Plants as of 31 December 2024
NGCP Data

Energy Plan and Planning Process

PHILIPPINE ENERGY PLAN (PEP)

- POWER DEVELOPMENT PLAN (PDP)
  - TRANSMISSION DEVELOPMENT PLAN (TDP)
  - DISTRIBUTION DEVELOPMENT PLAN (DDP)
  - MISSIONARY ELECTRIFICATION DEVELOPMENT PLAN (MEDP)
  - NATIONAL TOTAL ELECTRIFICATION ROADMAP (NTER)
- ENERGY RESOURCE DEVELOPMENT PLANT (ERDP)
- NATIONAL RENEWABLE ENERGY PLAN (NREP)
- NATIONAL ENERGY EFFICIENCY AND CONSERVATION PLAN (NEECP)
- NUCLEAR ENERGY DEVELOPMENT PLAN (NEDP)
- DOWNSTREAM SECTOR

Philippine Energy Plan- Planning Process



- Pre-consultation with DOE Bureaus and Services, Attached Agencies and oversight Government Agencies
- New Directives/Agenda/Goals setting
- Framing energy strategies
- Identification of assumptions and target indicators
- Updating of Sectoral Roadmaps/Catch-up Plans

- Preparation of energy demand projections
- Assessment of energy resources and technologies
- Supply-Demand balancing
- Drafting of sectoral write-ups to consider energy-related development Plans
- Consultation with Attached Agencies and Industry Stakeholders

- Revision of draft PEP
- Secretary's Approval
- Publication of the PEP
- Transmittal to OP and Congress (on or before 15 Sept)
- Circulation to energy stakeholders
- PEP IEC (includes survey of stakeholders' satisfaction)
- Integration of PEP with national and local development plans
- Alignment of PEP to international frameworks such as UN Sustainable Development Goals, APEC and ASEAN energy cooperation plans of action

- PEP monitoring, evaluation and assessment
- Sectoral performance Appraisal
  - ✓ Review of Sectoral Roadmaps
  - ✓ Assessment of Sectoral Challenges

Framework for Government-Enabled Participative Energy Planning

DEPARTMENT OF ENERGY

Creation of Local Planning Group

Energy Development Advisory Group (EDAG)

Energy Resource Assessment

Assistance

Energy Resource Assessment

Participative Local Energy Planning

Coordination

National Energy Planning

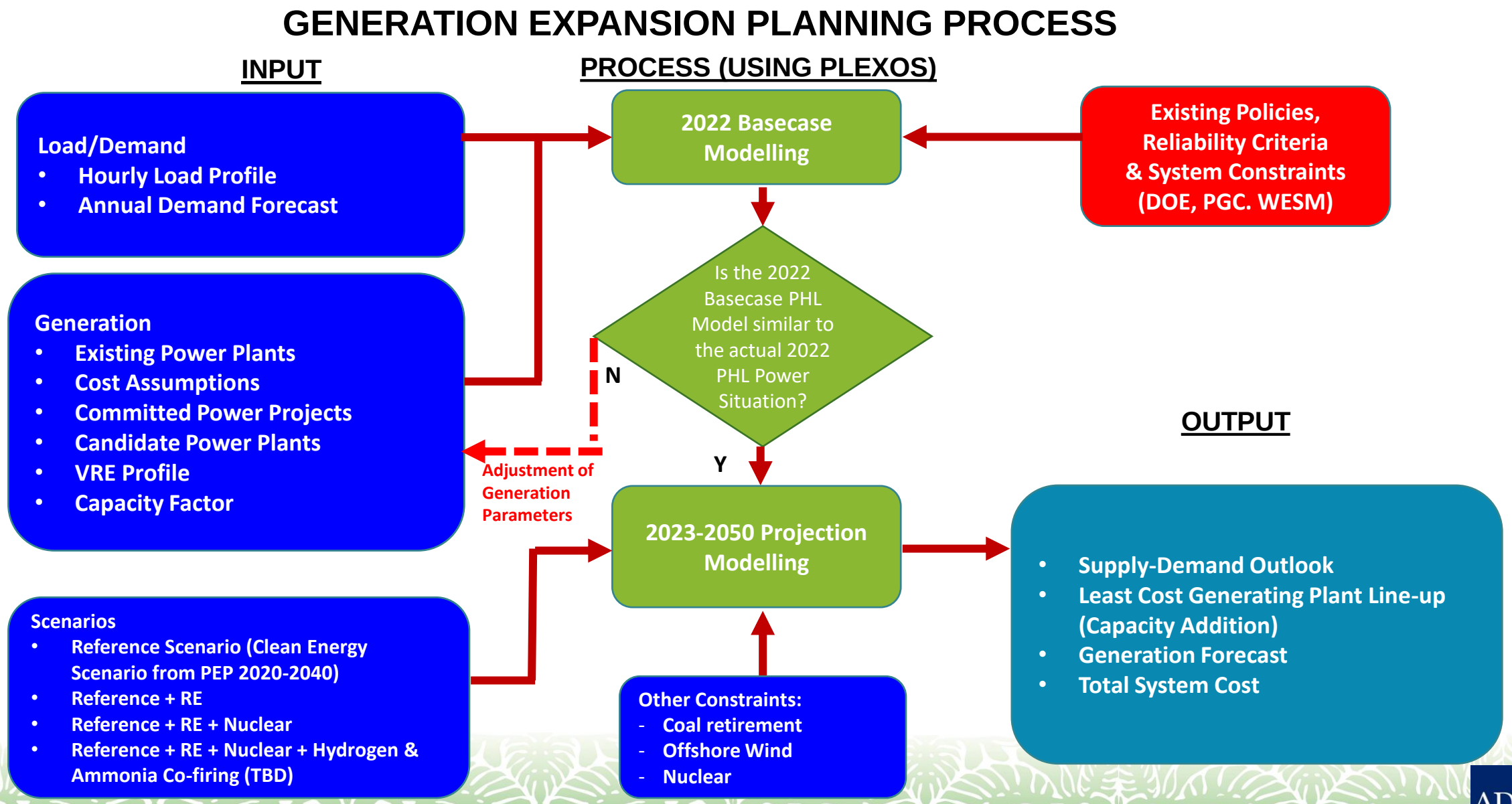
Public Consultation

Adoption of Local Energy Plan

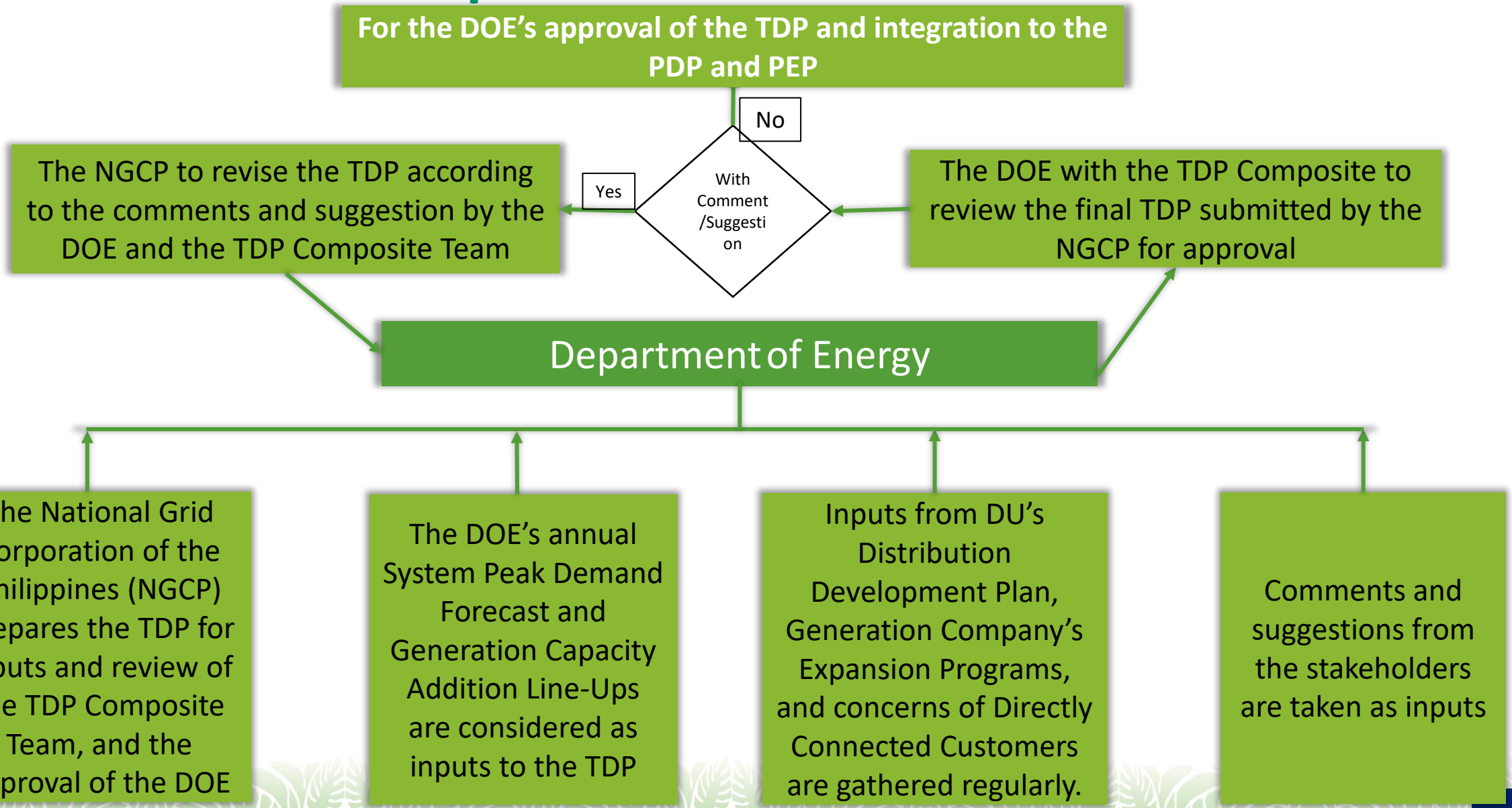
Integration to the Philippine Energy Plan

ADB

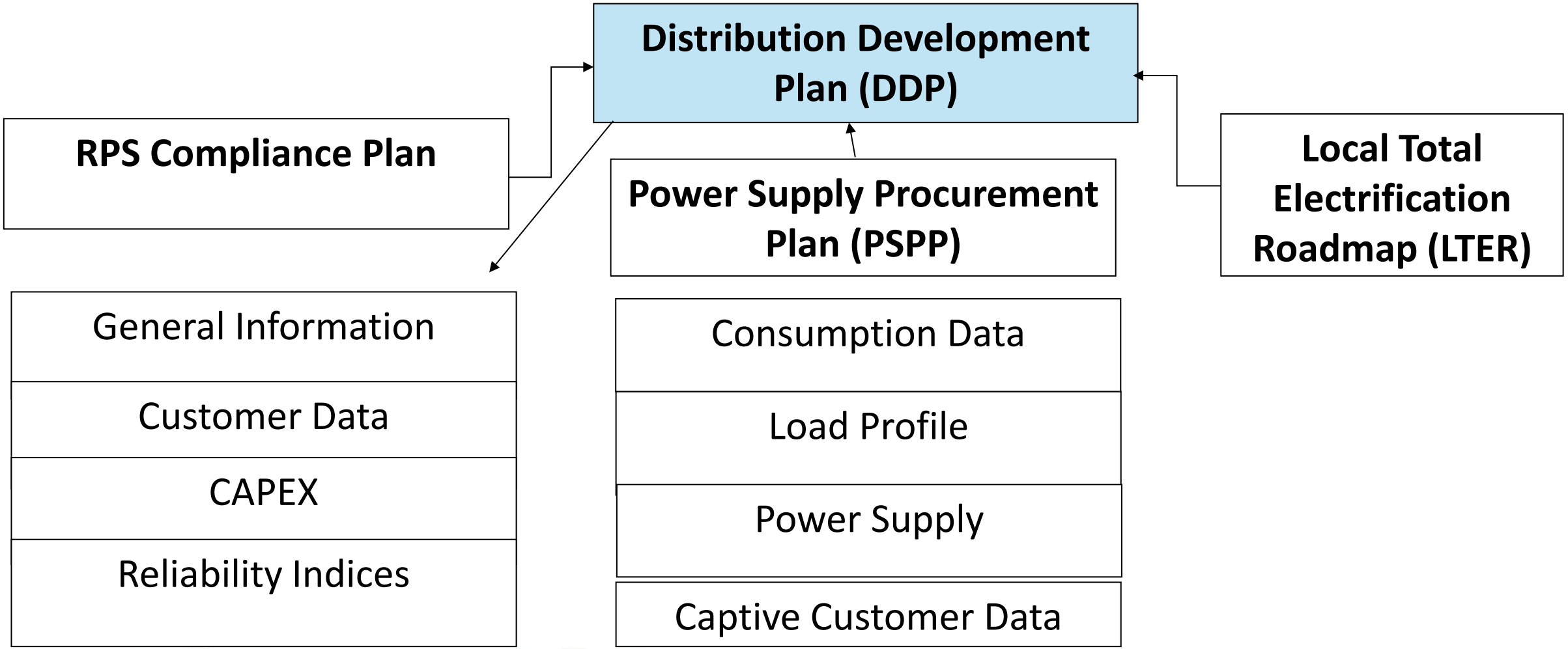
Power Development Plan Process



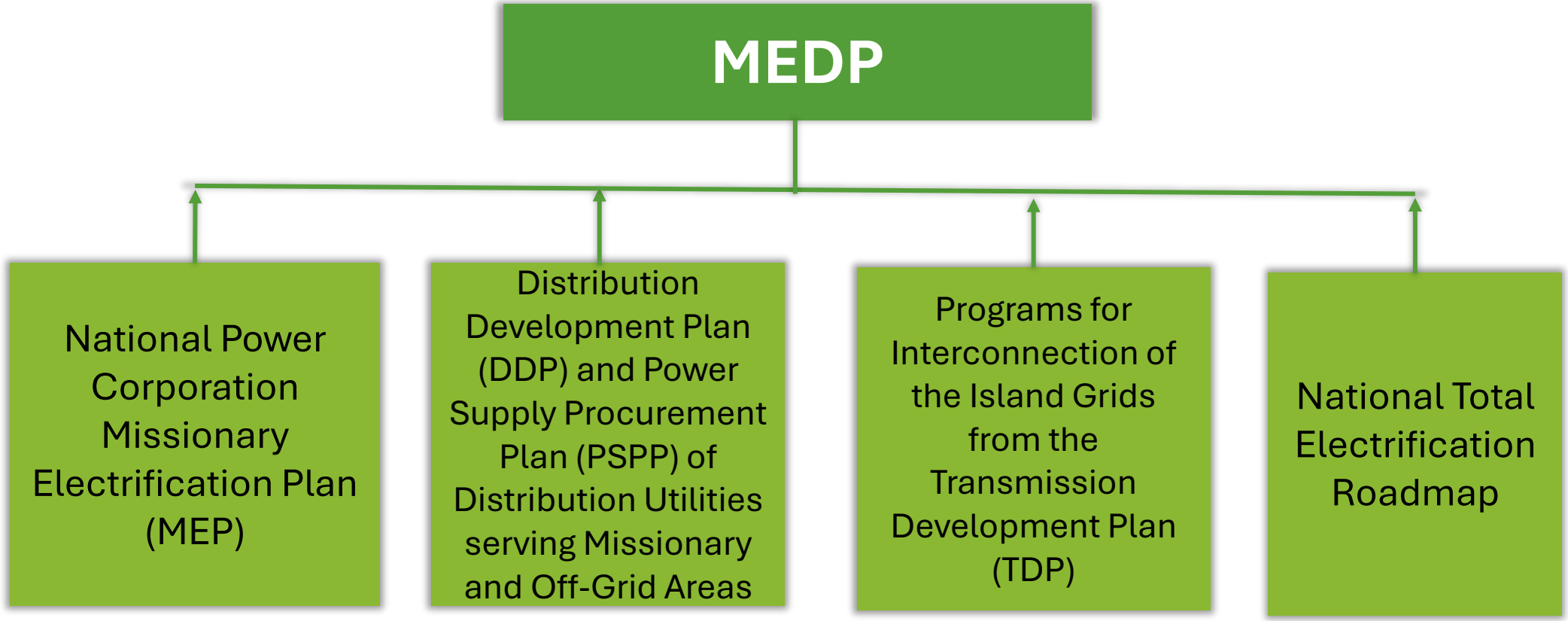
Transmission Development Plan



Distribution Development Plan



Missionary Electrification Development Plan (MEDP)



Key Take Aways..

Energy planning is crucial for ensuring sustainable development, economic stability, and environmental protection. It involves the proper management of energy production, distribution, and consumption to meet present and future needs. Effective energy planning is essential because of the following:

1. Ensures Energy Security
2. Promotes Sustainable Development
3. Boosts Economic Growth
4. Enhances Energy Efficiency
5. Supports Climate Change Mitigation
6. Improves Quality of Life
7. Facilitates Policy and Infrastructure Development

Conclusion

- **Planning plays a critical role in ensuring energy security, economic growth, and environmental protection.**

- **Adopting a strategic and forward-thinking approach to energy management, governments and organizations can create a more sustainable and resilient energy future.**

Thank you..

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