Distribution Development Plan

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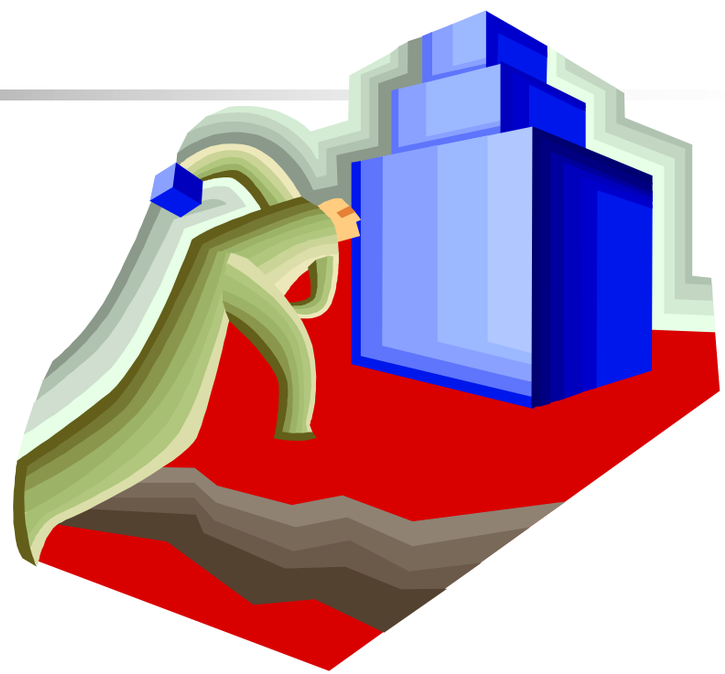
JICA Study team



Legal Basis

- **IRR Rule7 Section4(p)**

  DU shall prepare and submit to DOE an annual 5-year distribution development plan not later than 15th of March every year, for integration with the PDP and PEP.

- **IRR Rule7 Section4(r)**

  DU shall comply with the reportorial requirements as may be prescribed by the ERC and the DOE.

Legal Basis

- **Philippine Distribution Code**

  PDC 6.2.5

  1) DU shall collate and process the planning data submitted by the Users into a cohesive forecast.

  2) DU shall develop and submit annually to the DOE a DDP.

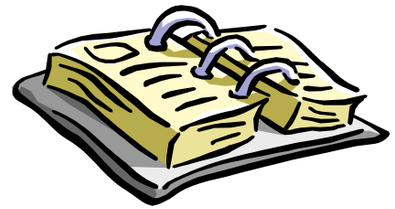
DU's Planning Responsibilities

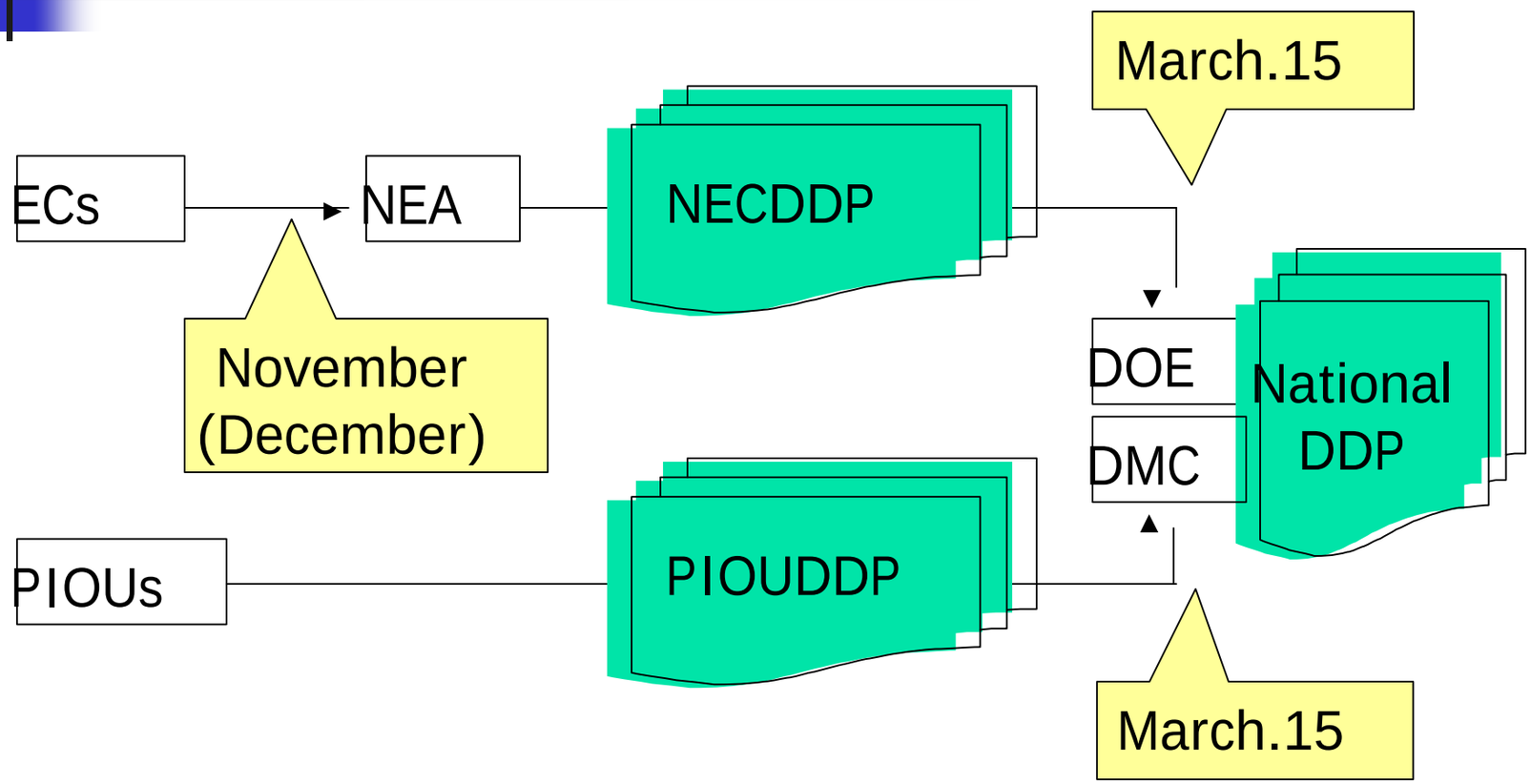
(1) **Analyze the impact of the connection of new facilities** such as Embedded Generator, Loads, Distribution lines etc.

(2) **Plan the expansion of the Distribution System** to ensure its adequacy to meet forecasted demand and the connection of Embedded Generator

(3) **Identify and correct problems** on Power Quality, System Loss and Reliability in the Distribution system

Work Flow

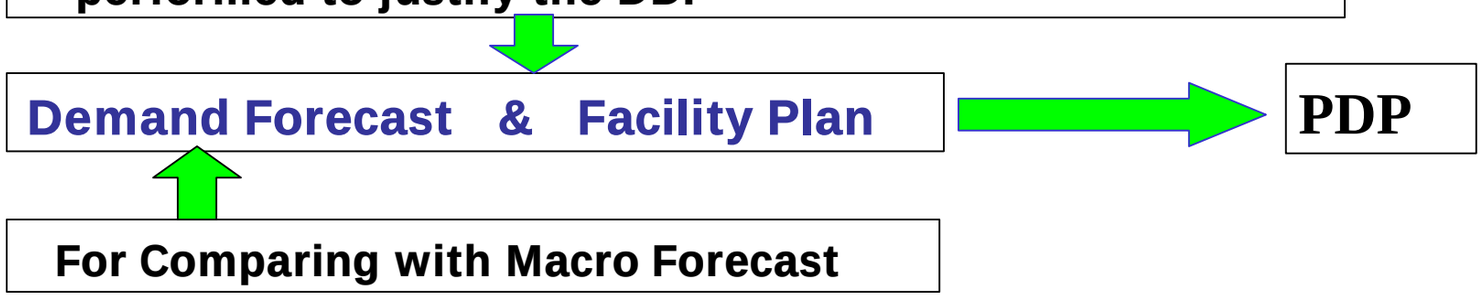



March.15
ECs
NEA
NECDDP
November
(December)
DOE
National
DDP
DMC
PIOUs
PIOUDDP
March.15

Contents of the DDP

<Contents of the DDP in Philippine Distribution Code>

- Energy and Demand forecasts
- Sub-transmission capacity expansion
- Distribution substation siting and sizing
- Distribution feeder routing and sizing
- Distribution Reactive Power compensation plan
- Other Distribution reinforcement plan
- A summary of the technical and economic analysis performed to justify the DDP



Data Gathering Format Example (Historical)

Forecast/Planning Results	Units	Historical			
		1998	1999	2000	2001
16. Distribution/Transmission Facilities:					
16a. Transmission/Subtransmission, circuit kilometers					
Voltage, 230kV	Ckt-KM	0	0	0	0
Voltage, 138kV and less than 230kV	Ckt-KM	0	0	0	0
Voltage, 115kV and less than 138kV	Ckt-KM	0	0	0	0
Voltage, 69kV and less than 115kV	Ckt-KM	0	0	0	0
Voltage, 34.5kV and less than 69kV	Ckt-KM	12	12	12	12
Voltage, 13.8kV and less than 34.5kV	Ckt-KM	37	37	38	38

Data Gathering Format Example (Forecast)

Forecast/Planning Results		Units			Forecast	
					2003	2004
18a. Reactive Power Compensation Plan						
Reactive Capacity		MVAR			300	600
Rated Voltage		kV			34.5	34.5
Type of Equipment						
Shunt Indoctor						
Shunt Capacitor					1	2
Static Var						
Operation Control						
Fixed						
Variable						
Automatic					1	2
Manual						

Audience in the Workshop

Next Step

1) Finalization of DDP Survey Form
2) Validation of DDP
3) Establishment of the Database System
4) Utilization of Data
   - To grasp the outline of total distribution facilities
   - To check the balance between Demand and Supply
5) Integration of DDP to PDP

Thank you