

Outline of **Developing the Master Plan of TRANSCO Transmission System up to the year 2018**

1. Contract period: July 7, 2008 – September 30, 2009
2. Contractual coverage: EHV transmission system developed by TRANSCO
3. Contents of consulting service
  - (A) Development of the master plan up to the year 2018  
TRANSCO is planning to install several EHV substations to meet the increased power demand. TEPCO will evaluate and propose the optimum network connection to develop the master plan.
  - (B) Assessment of the technical feasibility of the EHV cables to be installed  
The detailed feasibility study will be carried out in order to prevent equipment failure. TEPCO will propose countermeasures, if required.
  - (C) Cable route survey  
TEPCO will propose the appropriate route and type of cable installation for EHV underground cable, based on the site survey of several routes.
4. Client: Abu Dhabi Transmission & Despatch Company (TRANSCO)  
Seat of TRANSCO: the Emirate of Abu Dhabi, the United Arab Emirates  
Outline of TRANSCO: TRANSCO is a subsidiary of Abu Dhabi Water & Electricity Authority (ADWEA) and is responsible for developing, operating and maintaining high voltage power transmission and bulk water transmission networks within the Emirate of Abu Dhabi.

5. Power Sector in UAE

Abu Dhabi Water and Electricity Authority (ADWEA) and Dubai Water and Electricity Authority (DEWA), governmental organizations, are responsible for the power and water supply in UAE.

Independent Water and Power producer (IWPP) produces and generates water and power, whose 60% of shares are owned by ADWEA. Abu Dhabi Water and Electricity Company (ADWEC) purchases all their production as a single buyer, and then sells it to two distribution companies, Abu Dhabi Distribution Company (ADDC) and Al Ain Distribution Company (AADC).

TRANSCO is responsible for the planning, development, operation and maintenance of high voltage transmission system and water supply system in the Emirate of Abu Dhabi.

6. Power Demand of Abu Dhabi

(MW)

Items	Abu Dhabi	TEPCO
Generation Capacity	8,367	61,835
Hydro	-	8,993 (14.5%)
Thermal	8,367 (100.0%)	35,530 (57.5%)
Nuclear	-	17,308 (28.0%)
Others	-	4 (0.0%)
Peak Demand	5,286	64,300 (July 2001)

\*1) As of 2007

The power demand is expected to double in the five years between 2008 to 2012.

(MW)

Year	2008	2009	2010	2011	2012
Abu Dhabi (Peak Demand)	5,830	7,443	8,276	9,770	11,706

7. Abu Dhabi

