

Middle East & North Africa

Power Sector Financial Vulnerability Assessment

Concluded in February 2010

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# Key Findings

## *Power Demand & Supply*

- Lower demand growth in 2009/2010, around 4-5% per year. Medium to long term trends unchanged, typically in the 6-7% per year range
- Additional capacity is still needed & no major change to national investment plans.
- In the next 5-7 years:

	<b>Additional MW</b>	<b>Current MW</b>
Egypt	> 9,000	~ 22,600
Jordan	> 1,000	~ 2,600
Morocco	> 4,000	~ 6,100
Tunisia	> 1,400	~ 3,300

# Key Findings – Financing (1)

## *Public Investment*

- Generally on balance sheet – corporate financing
- Development FIs (especially regional ones) are active
- Local banks more active
- Islamic finance complements traditional finance
- Debt capital market instruments not widely used
- Benefit from concessionary/low interest rates
- Priority given to public-private partnership

## Key Findings – Financing (2)

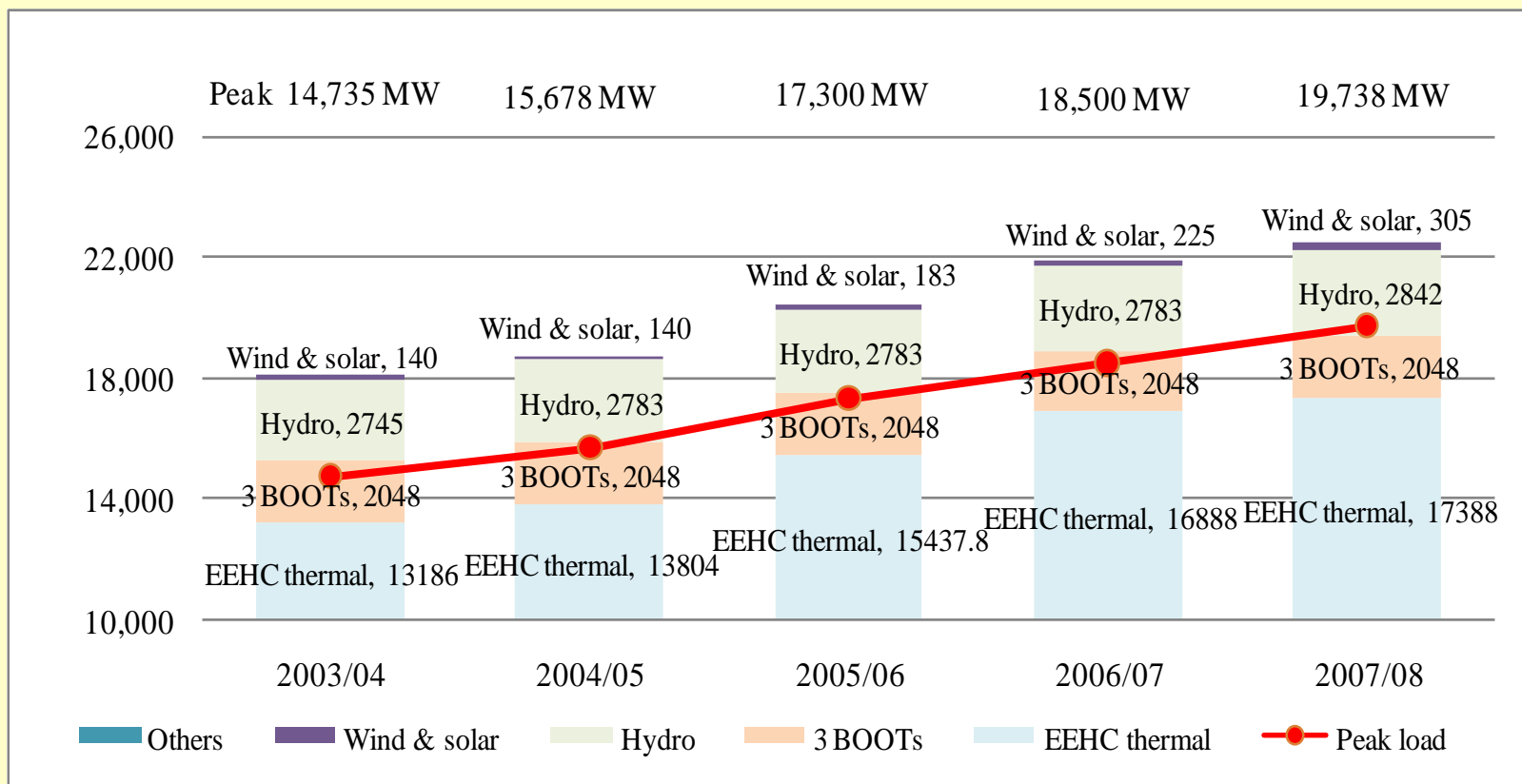
### *Private Investment*

- Development FIs and export credits are active. ECAs maximum tenor: 12 yrs post-completion for fossil fuel-fired & 18 yrs for renewables and nuclear. CIRR 2.4 – 4.1%.
- Higher commercial margin (+ 300 bps vs < 100 pre-crisis), but all-in financing cost remains commercially viable
  - Long-tenor swap/CIRR 4-5 % + margin 3-4% → 7-9% all-in
- International banks: lending shorter (< 10 yrs); requiring risk coverage; less number players
- Reduced leverage / higher bank fees / stricter covenants
- Local banks more active / Islamic finance complements traditional finance/ debt capital instruments not widely used
- Refinancing is envisaged

# Case Study - Egypt

# Egypt – A Case Study

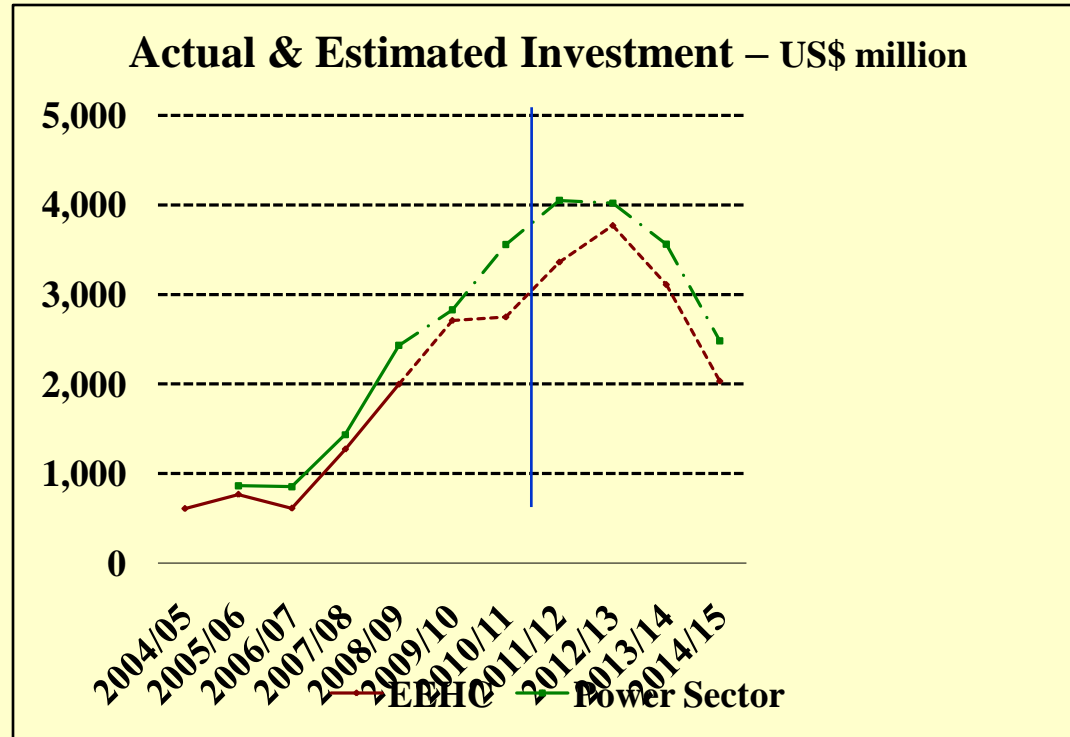
- An unbundled power sector, with 10% IPP share
- 22.6 GW installed capacity, of which 19 GW is fossil-fueled
- Fuel mix:  $\frac{3}{4}$  natural gas,  $\frac{1}{4}$  fuel oil, residual diesel



# Egypt – A Case Study (cont.)

## *Key Issues*

- Step-up investment program: 9,000 MW vs 22,600 MW installed
- Higher capital cost for new projects



# Egypt – A Case Study (cont.)

## *Key Issues (2) – structural issues creating financing gap*

- Tariffs increases (~7% pa) commenced in 2004, now on hold
  - Average tariff 3.4 US cents/kWh
- Public power utility:
  - Highly leveraged (liabilities-to-equity > 8x)
  - Limited room for significant cost control
    - Fuel unit cost is already low (gas \$1-3/MMBtu; HFO/diesel < \$100/ton)
    - Reasonable T&D losses of around 12%
    - Already long depreciation ~ average 33 years
    - Staff cut is unlikely
    - Financing cost already at or below prime rates



# Egypt – A Case Study (cont.)

## *A Working Roadmap*

- Reduce public utility investment program & recapitalization
- Re-engage private sector investment
  - sequencing to reduce financing bottleneck
  - leverage local lenders
  - credit enhancement supports for international lenders
  - manage contingent liabilities
- Selective tariff increases
  - current tariffs: residential 1-9 US cents; commercial 4-11; heavy users 1-5 cents / kWh
- Selective cost control
  - hiring freeze

# Egypt – World Bank Group current activities

## *Investment Lending*

- 2,250 MW Giza North power project
- 1,300 MW South Helwan power project
- ~100 MW Qom Ombo concentrated solar power project
- Electricity transmission project

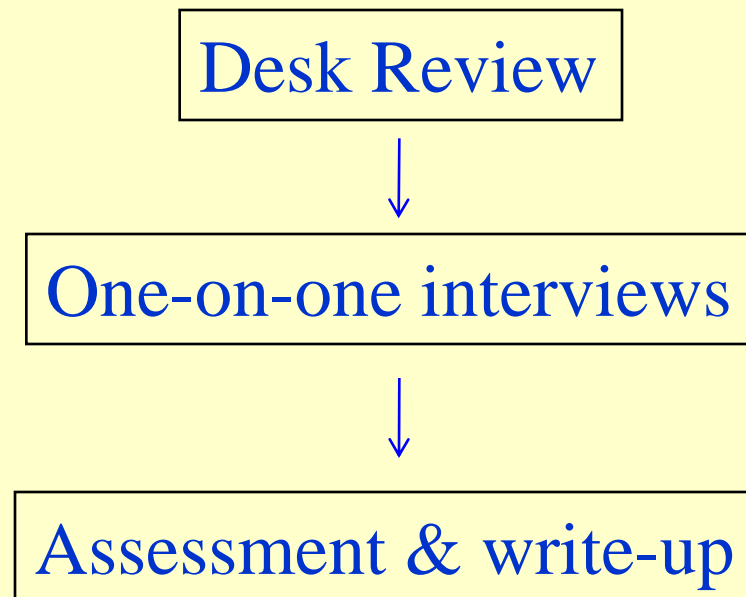
## *PPP and Technical Assistance Activities*

- 1,400 MW Dairut IPP project – IFC Advisory
- Wind IPP program development ; wind measurement & wind power integration
- Power system planning assessment (up to 2020)

**Thank You**

# Assessment Approach

- Build on Bank Group's on-going sector activities with the countries: Jordan, Egypt, Morocco, Tunisia
- Draw on internal knowledge – Bank, IFC, MIGA



## Assessment Approach (2)

### *Desk Review* – useful sources:

- Central banks, MOF, MOE, commercial banks, stock exchanges, law firms
- Power utilities and regulators
- Project finance publications

### *Interview* – tips:

- Target diverse stakeholders: local, regional & international financiers / development FIs / developers / gov. agencies
- Send question list prior to meetings