

# *US Embassy – Baghdad*

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## *Workshop on Principles of Electricity Regulation and Electricity Sector Laws*

June 28, 2012





# Agenda



- 9:00-9.15            Opening: Introductions by the Ministry and USG Representative
- 9:15-9.45            Regulatory Reform: Presented by Eng. Amer Rajab, MOE Electricity Regulatory Commission
- 9:45-10.30            Principles of Electricity Law and Regulation: Presented by David Lockhart
- Explain the functions of an independent regulatory body (e.g. issuing a license for IPP, dispute resolution, establish just and reasonable tariffs, etc.)
- Outline the structure of an independent regulatory body, its relations to the affected entities, the Government, and the public
- Examples of key features of other countries' electricity reform laws
- Mitigating risks associated with electricity reform
- 10:30-11.00/11.30    Focused Discussion: Facilitated by Eng. Amer Rajab and David Lockhart



# Key Principles



## Effective government policy is essential – first step

- Establishes commitment to reforms, development and direction of sector
- History in Iraq ... changes in direction and decisions
- Engagement with Deputy PM for Energy – vital
- Relationship with MoO today?
- What is policy today?
  - Increase generation  ... Master Plan? ... Regulatory body?
  - Corporatize? ... Integrated energy plan ... fuel/gas?



# Key Principles



## Electricity law *captures* policy for sector

- Covers whole sector: structure and operation; regulator, functions and relationship to government; Ministry's role and powers; sector participants and their roles; facilitation of private investment
- Primary legislation v. ad hoc piecemeal approach ...  
eg. Ministry Law and Electricity Regulatory Law
- Sets scene for future – framework
- Also defines approaches to cost recovery, regulation and subsidies

## Regulations *implement* the law

- Consultative process, led by regulator
- Detailed rules in form of regulations, codes, orders – secondary legislation, but still law
- Detailed rules on tariff-setting, within parameters set by law



# Regulatory Body



## Why? Rationale for independent regulator

- Technical expertise; push through reforms; assures fairness and consistency, a level playing field; vital to attract private capital

**Ideal regulator** – autonomy, authority, accountability, ability

## Different models

- Light-handed approach not proven effective
- European/U.S. models
- Regulator independent of policy-makers
- Middle East and emerging economies ... Ministries not ready to cede control, yet want private investment



# Regulatory Functions



- Implement government policy defined in law
- Tariff authority – de-politicize; different approaches
  - unpopular; what will work for Iraq?
  - whatever method adopted, cost recovery plus return will require subsidies
  - need to increase collections, especially as service improves
- License issuance – enables monitoring of performance and behavior
  - “impose on licensees minimum restrictions and financial burdens consistent with the performance of their business, taking into account the need to finance and plan their business with a reasonable degree of assurance”*
- Electricity market – oversight of reforms, input into and recommendations on design, strategy



# Regulatory Functions



- Information collection, monitoring performance
- Dispute resolution and enforcement
- Establishment of regulations, standards and codes
- Approval of industry agreements
- Consultations with stakeholders, dissemination of information and assurance of transparency
- Environmental standards?

**Electricity Regulatory Law** drafted in 2009 – excellent first step.

- Unfortunate political circumstances?
- Other issues?



# Regulator's Relations with Govt, Utilities

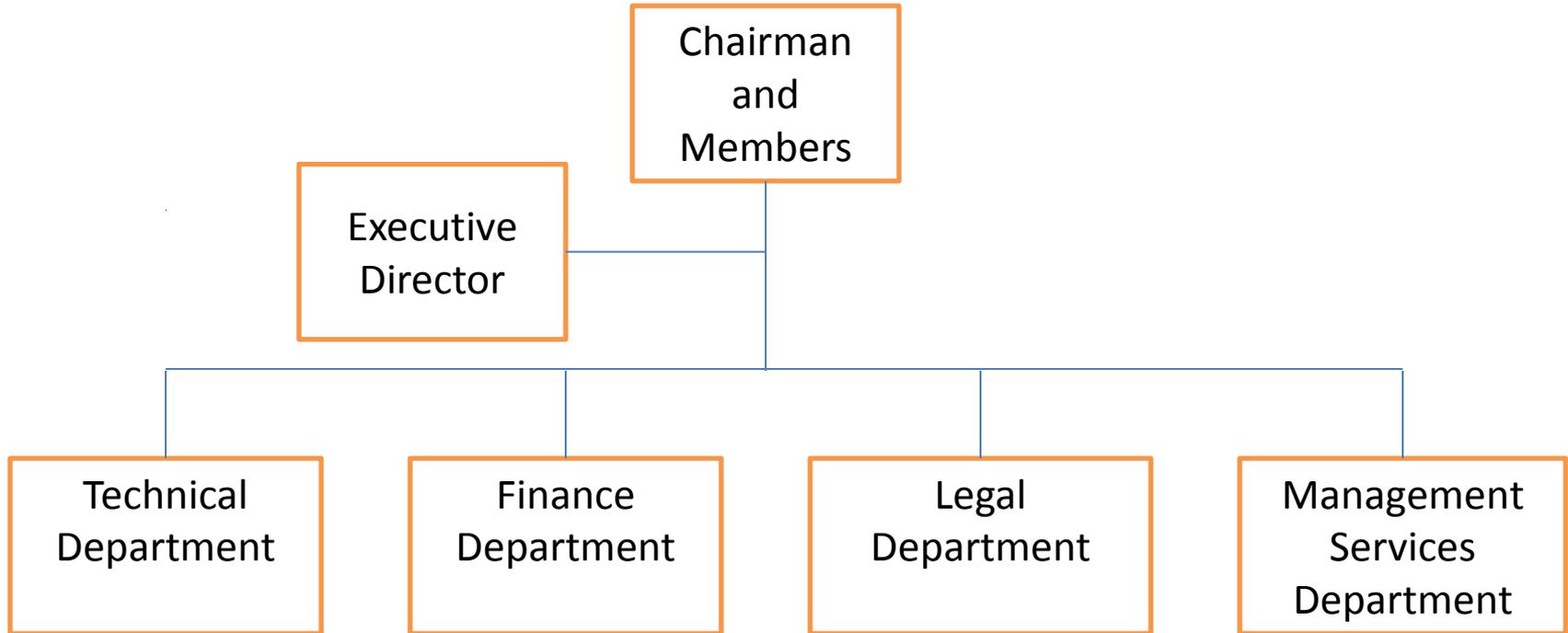


## Relations with Government, Entities it Regulates, Public and Investors

- Independence from political considerations – autonomy, authority, accountability, ability
- Realistically, what's possible in Iraq?
- Financing of regulator, appointment of commissioners
- Role of MoE: responsible for sector policy and market design; reflected in primary legislation; preparation of national electricity strategy; facilitation of investment in electricity sector; represents Iraq internationally, negotiating and cooperating with other governments
- Transmission, dispatch and distribution companies, other market service providers
- Market participants
- Consumers
- Role of courts and Civil Code in Iraq

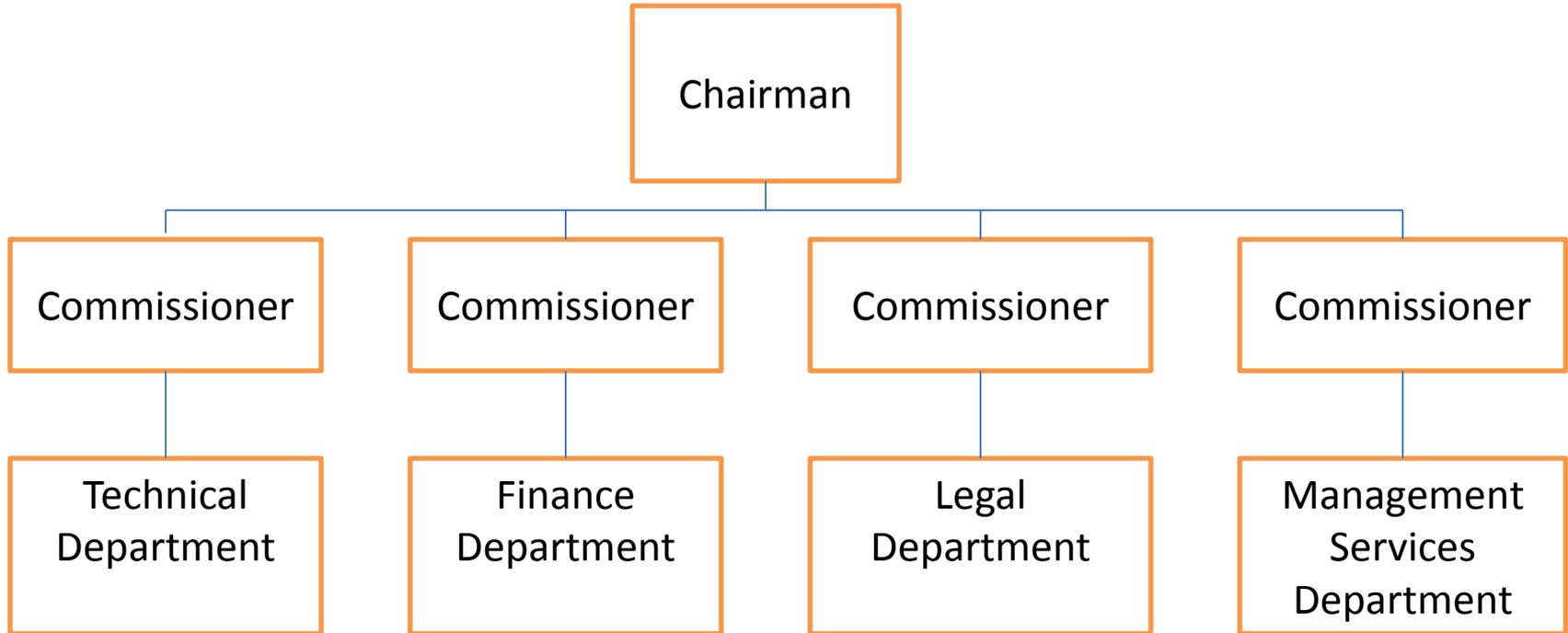


# Structure of Regulator 1





# Structure of Regulator 2





# Electricity Sector Reform



## History of and rationale for reforms

## Examples of other country reforms

Jordan

Abu Dhabi/UAE

Turkey

Qatar

Egypt

Oman

Others?



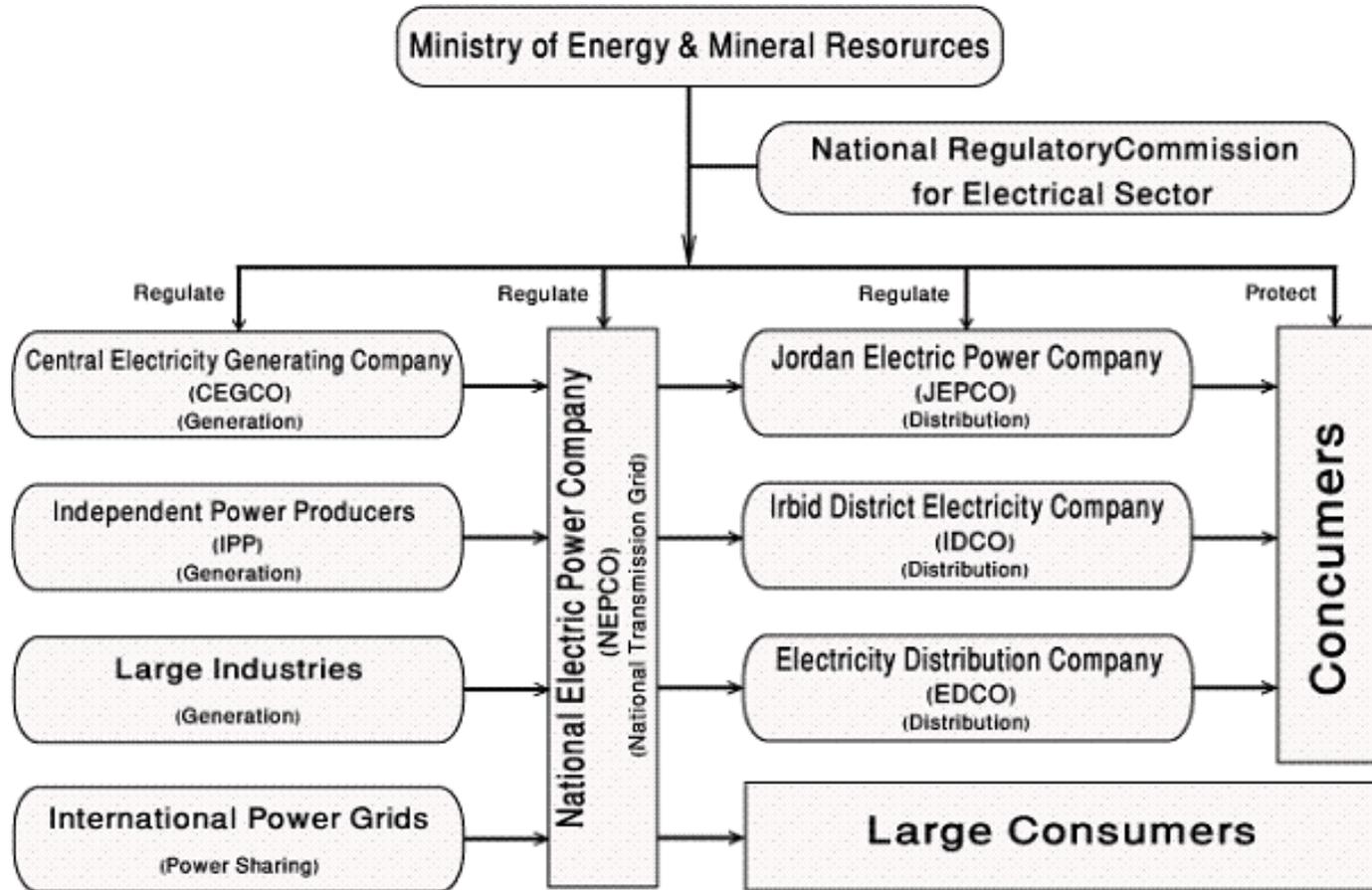
# Jordan



After unbundling in 1999, Jordan began divestiture of power generation, followed by divestiture of its distribution assets in 2008.

## What was done?

- Corporatization and unbundling undertaken in late 1990s
- Division into 3 concession areas served by different distcos
- Single-buyer model
- Legal and regulatory reform
  - 2002 electricity law sets privatization agenda and process
  - independent regulator created in 2005





# Jordan



## What has been achieved?

- Responded to 8% annual growth in demand through private generation tenders
- Created an independent regulating body, reduced subsidies
- Achieved 99% electrical coverage kingdom-wide
- Achieved privatization through a competitive bid process with multiple bidders
- Still early to measure distribution performance improvements, but losses are falling



# Jordan



## Relevance for Iraq?

- Process to achieve divestiture took a very long time – was not easy
- Bidding process benefitted from having Electricity Law to set the process and establish regulatory framework
- Divestiture was not fully explained to the public, creating problems – shows the importance of public outreach early on, and throughout



# Oman

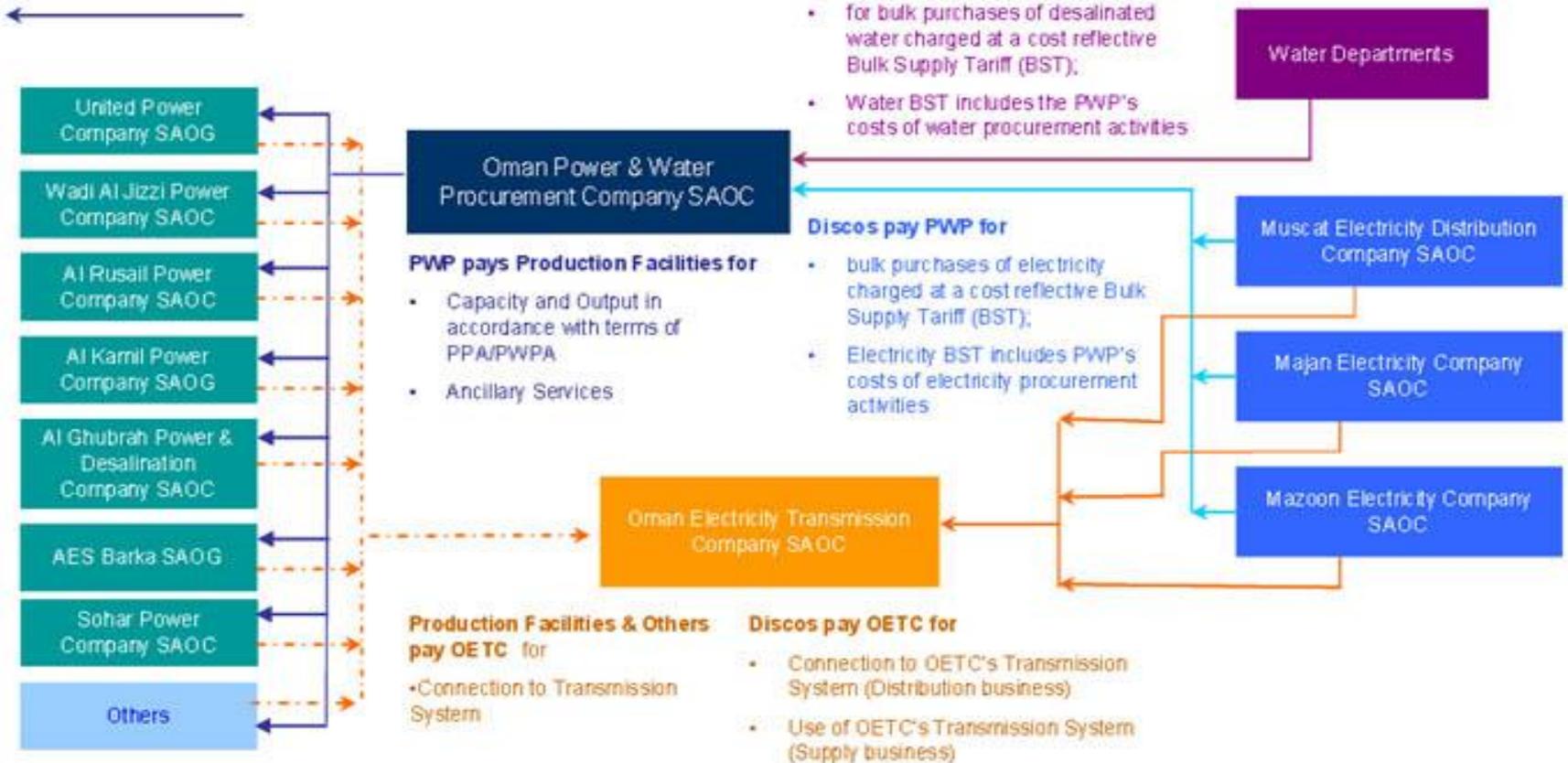


Migrated from Ministerial structure to unbundled system, in 2005

## What was done?

- Unbundling to create several distribution companies
  - One company formed to focus on difficult to serve areas/electrification
- Single-buyer model
- Legal and regulatory reform
  - Passage of a comprehensive law to codify the reform
- Corporatization of all enterprises under holding company structure
- New method of subsidization
  - revenue requirements and loss targets set by regulator, Cabinet sets tariff
  - difference injected quarterly into each distco

Arrows denote direction of payments



All intra sector transactions: (i) regulated & (ii) cost reflective (no direct subsidy)



# Oman



## What has been achieved?

- Successfully attracted significant IPP investment
- Managed rapid growth – exceeding 12% annually
- Tangible customer service and protection improvements
- Significant decline in losses
- 25% at the time of restructuring (2005) to 14% target (2011)
- Useful experience in distribution benchmarking



# Oman



## Relevance for Iraq?

- Reform model was codified in a comprehensive law, which took two years to develop and pass
- Single buyer model was the only achievable way to go; competitive market was not achievable
- Investors like the model, with significant competition for new opportunities
- Distribution losses still remain higher than desirable
- Private sector participation under consideration



# Electricity Sector Reform



**Why reform in Iraq, restructure?**

**What are the objectives for Iraq?**

- is it to attract private capital to increase generation (IPPs off the table)?
- or, new more commercially oriented utilities needed; “Ministry” model not working – service goals, performance targets needed
- greater governorate control over distribution? Transmission?
- increase collections
- reduce demand growth

**What are corporatization and commercialization? Rationale for, benefits**



# Sector Participants



## How other countries define sector structure

- dispatch
- wholesale market
- transmission
- distribution and supply
- government-owned entities
- private sector engagement

## How laws define participants

- corporate form, ownership
- exercise of control
- commercial imperatives, incentives for participants

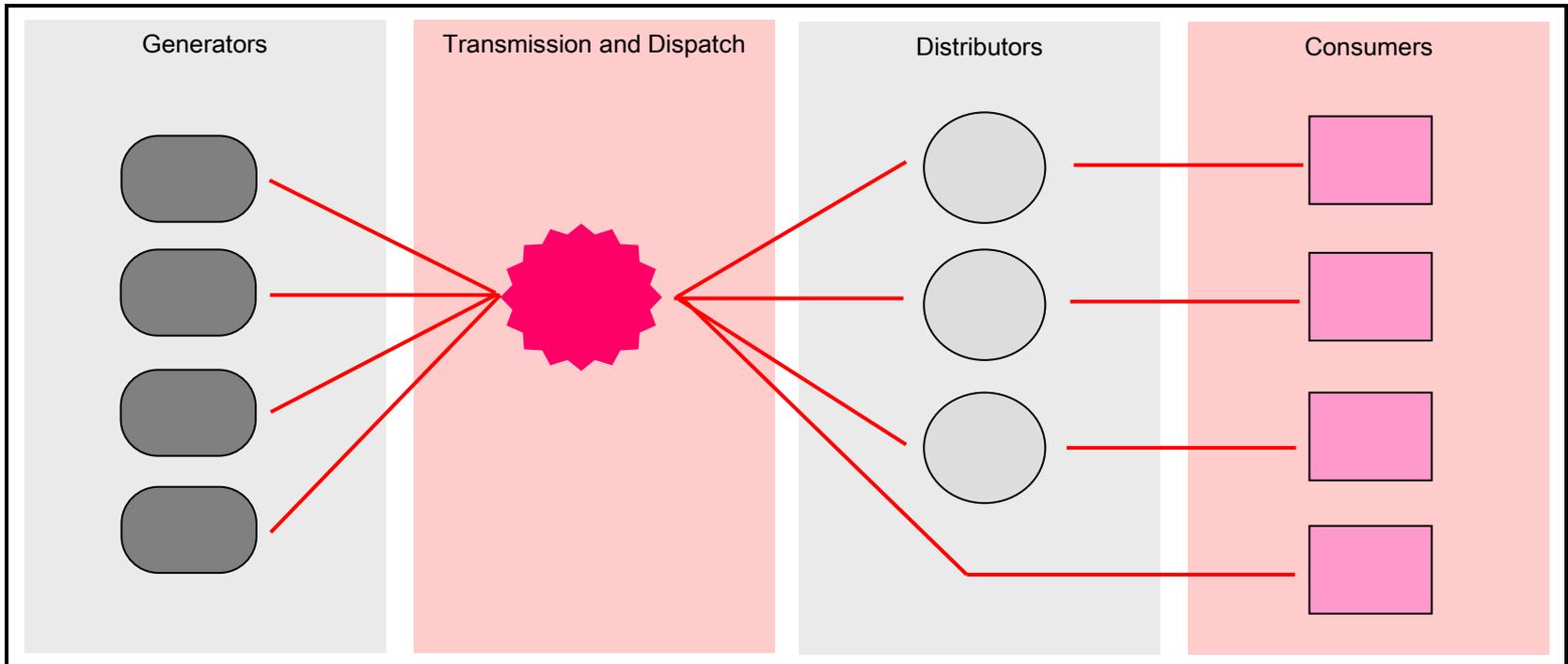
## Approaches of laws in defining private sector involvement

### Best model – single buyer Transco? Bilateral contracts

- what's possible in Iraq; government's approach?
- subsidies – explicit, transparent treatment



# Single Buyer Model





# Advantages and Disadvantages



## Advantages

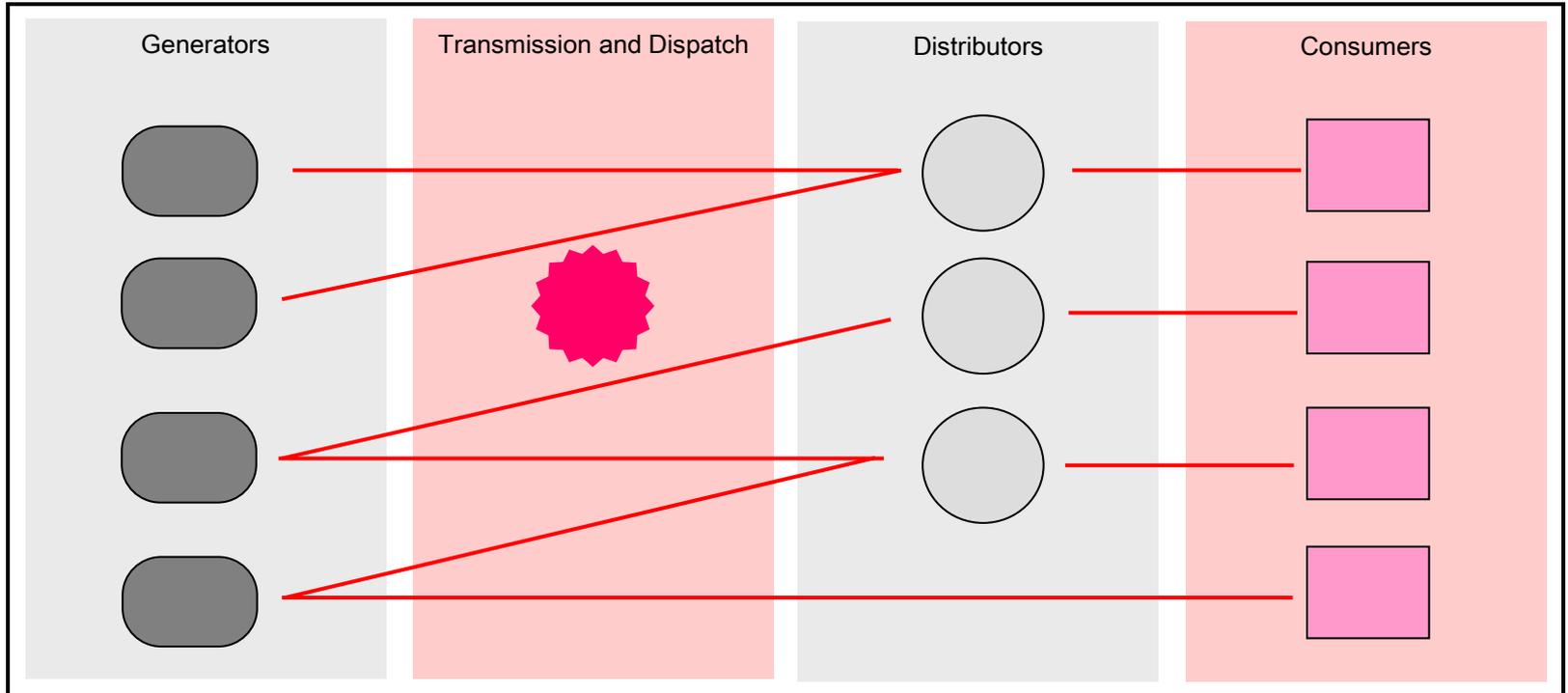
- transco acts as single buyer – facilitates physical balancing; complex third party access regime not needed
- simplifies regulation of wholesale prices
- shields financiers from market risk
- preserves Ministry involvement in generation investment decisions

## Disadvantages

- creates liabilities for government – take or pay obligations to generators
- weakens distco incentives to collect if single buyer does not pursue payment



# Bilateral Contracts Model





# Advantages and Disadvantages



## Advantages

- financial risk transferred to individual buyers and sellers
- decisions on new construction of new generation falls on private investors

## Disadvantages

- balancing system matching contracted quantities with physical production needed
- transmission access and pricing regime that reflects capacity constraints and loss factors required



# *Tariffs – Cost Recovery and Subsidies*



**Special sector conditions require eg. lifeline tariff**

**Collections are poor and tariffs do not cover costs**

- losses (technical and non) extremely high
- pre-2003 collections were 90%

**Objectives must be to**

- improve collections
- raise prices *but* vast improvements in service and social conditions needed

***Points to continuing need for subsidies***

***BUT***

***not to the extent presently in Iraq***



# Tariffs – Cost Recovery and Subsidies



## Lessons from other countries

- tariff methodology should be well defined in the law
- subsidy = financial support and is a role of government, not of utilities → separate mechanism needed
- should be explicit, transparent
- in all systems, utilities are assured that their actual total costs, including normal profit, are covered
- why? drive commercial practices; incentives for utilities
- set building blocks now – services will improve

## Examples of other laws



# *Tariffs – Cost Recovery and Subsidies*



## **Key issues/questions for MoE and government**

- when can MoE move on tariffs?
- what can be done to increase revenue? Many in Iraq benefit from subsidies they do not need
- what kinds of subsidies: Capital? Fuel? Operational?
- what can be done to reduce costs?
- education campaign initiatives? Rationale for increases; promotion of conservation; energy efficiency
- local generators – update on policy for summer 2012



# Tariffs – Cost Recovery and Subsidies



## Example of law – Support for Vulnerable Customers

The Ministry responsible for energy shall, within one year from the date this law becomes effective, develop, in consultation with ERE and other stakeholders and appropriate ministries, and propose to the Council of Ministers, a program to assist vulnerable household customers in paying their bills for electricity service. The program shall include at least the following elements:

1. Eligibility requirements for support based on the economic need of the supported household;
2. Direct support by the Government to vulnerable customers from revenue sources other than tariff charges by licensees, to avoid cross subsidies and price distortion; and
3. Funding for support for vulnerable customers should be accomplished in a non-discriminatory manner, and in particular should not be funded from electricity customers.

Upon approval and implementation of the program defined in paragraph 1, above, ERE shall eliminate any cross-subsidies from tariffs and prices for electricity services, including cross-subsidies designed to assist vulnerable customers, and shall ensure that the revenues collected from each customer class, including household customers, are sufficient to recover the cost of providing service to such class.

[draft proposed for Albania]