Privatization & Outsourcing of Water & Waste Water Facilities

An Overview of One Form of Privatization: Build Own Operate (BOO) and Build Own Operate and Transfer (BOOT) Contracts

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PRESENTATION OUTLINE...

- Company Overview

- Build Own Operate (Transfer):
  - Some Terminology
  - Basic Model
  - Risk Allocation
  - Tariff Options
  - General Considerations
  - Demand Considerations

- BOO Contract Overview
  - BOO vs BOOT

- Privatization Trends

- Key to Success
COMPANY OVERVIEW

- Dubai-based company started in 2005
- Major shareholder (95%): Istithmar
- Minority shareholder (5%): Hyflux Singapore
- Water-related Utility Developer:
  - Potable Water Plants – Reverse Osmosis
  - Sewage Treatment Plants
  - Irrigation &/or Commercial Water
  - Networks & Collection Systems
- Priority Market: MENA
- Prefer long term Build Own Operate (BOO)
- Key clients: Nakheel, Jebel Ali Free Zone Authority

Typical Projects

- **The Palm Jumeirah**
  - 2 RO Plants - 64,000 m³ potable water
  - Polishing plants - for cooling applications
  - Sewage treatment plants
  - Related collection & network systems

- **Golf Estates**
  - 150,000+ m³ sewage treatment plant
Terminology . . .

Definition

- Many terms or acronyms are used to describe the same thing:
  - Design, Build, Own Operate ("DBOO")
  - Build, Own and Operate ("BOO")
  - Design, Build, Own, Operate and Transfer ("DBOOT")
  - Build, Own, Operate and Transfer ("BOOT")

- BOO and/or BOOT contracts are not same as EPC or Design Build Contracts:
  - Project Company (Service Provider) provides all the capital/funding in a BOO or BOOT
  - Project Company owns and manages the assets
  - Relationship between Project Company & Buyer of the output or service (called the Off-Taker) is set out in either a Water Purchase or Concession Agreement

Basically the same concept
There is a design element in both

Assets get transferred back
Usually after 15, 20, 25+ yrs
Otherwise identical concept
**Model Elements**

- Design
- Build
- Own
- Operate

Works if:
- Agreements
- Bankable
- Fair Risk Allocation

**Service Provider** Provides Dedicated:
- Design & Engineering
- Technology
- Financing
- Operations & Maintenance

**Cost to Off-Taker** = \( m^3 \) per day tariff
Basic Model . . .

Contractual Relationship

Utility → Off Taker
- Purchases the Service or Output
- Guarantees Certain Purchase Level

Service Provider → Project Company
- Provides the Service or Output
- Guarantees Certain Performance Levels
Benefits to Off-Taker and End User

- Frees up capital for other uses
- Frees up resources for other uses
- Allows company to focus on core business
- One-stop shopping for all services
- Negotiated competitive prices
- Dedicated service for end user/customers
Risk Allocation . . .

General Principles:

**Issue:** Which party bears what risk?

**Practice:** The party in the best position to mitigate the risk, bears it.

Default position = End user or Off-Taker

Higher tariff if Project Company bears risk it cannot mitigate,

This practice is established in MENA – user pays for any additional costs.

Normal starting point is to agree on risk allocation.

Project Company can take more risk but only if tariff is higher to offset the risk.
General Principles

**Bankable agreements needed:**
- to raise debt financing
- commensurate with investor risk/return trade-off

**If agreements not bankable:**
- no debt financing - financed via equity only
- higher tariff (to compensate equity investors)

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<thead>
<tr>
<th>Risk Category</th>
<th>Company Risk</th>
<th>Off-Taker Risk</th>
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<td>Design</td>
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<td>Technology</td>
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<td>Operations - Controllable Factors</td>
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<td>Change of Law</td>
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<td>Sewage Treatment + Water</td>
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Eg: New corporate tax, higher land charges, More stringent water or sewage standards

Eg: Membrane Replacement, Maintenance, Chemicals

Eg: Energy Prices

Off-Taker Must Accept Limited Risk
Risk vs Return

Risk Allocation...

- Highest risk
- Lowest risk

Phases:
- Development: No Revenues, Costs May Not be Recovered
- Construction
- Operation and Maintenance: Project Returns After COD

Project Returns:
- 2x
- 3x
- 4x
Tariff Options...

Most Common Approaches to Tariffs

- **Two Part Tariff**
  - Designed to Recover:
    - Operating costs
    - Maintenance costs
    - Energy costs
    - Consumables
  - Applied per m³
  - Depends on Demand

- **Levelized Tariff**
  - Designed to Recover:
    - Availability Component
    - Operating Component
  - Applied per m³
  - Requires Minimum Off-Take

- **Fixed Amount**
  - Designed to Recover:
    - Capital Investment
    - Interest Payments
    - Return on Investment
  - Fixed Amount per Month
Tariff Options . . .

Regardless of approach:

1. Need to agree on formula to use for annual adjustments
2. Tariff should be fixed per m$^3$ for each year
3. Need agreement on ‘risk allocation’ for all major occurrences
Other General Principles

• Nothing is “free”
  • If Project Company takes unexpected risk - tariff adjusted
  • If Off Taker takes unexpected risk - tariff adjusted

• Key to have lowest possible tariff is to ensure:
  • Demand projections are “reasonable” - most realistic
  • Minimize “overbuilding” utility infrastructure
  • Try to match construction program to fit demand
  • Allocate risk to party best able to mitigate it
  • Minimize “unexpected risk” for each party

• Risk Allocation must be “fair”:
  • If in favour of Off Taker - higher tariff
  • If risk not reflected in tariff - bank unlikely to lend
Reasonable Demand . . .

Need To Agree On Demand Expectation

Is this growth likely?

Consider April 1, 2007 target?
### Typical Features

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<th>Description</th>
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**BOO vs BOOT**

- If technology an issue - BOO preferred
- BOO likely to have lowest 1st yr tariff
- Can be problems agreeing on “T” rules
- BOO more in line with “privatization”
Privatization Trend in Oman...

Installed Capacity Megawatts

- Phase 1 - Manah IPP: 90 MW
- Phase 2 - Manah IPP: 180 MW
- Al Kamil IPP: 290 MW
- Barka IWPP + 20 MGD: 420 MW
- Salalah Power Concession (BOOT): 240 MW

Private Investment
Total: 1,124 M USD
Foreign: 846 M USD

Year
- '96: 90 MW
- '00: 270 MW
- '02: 560 MW
- '03: 1,227 MW

+ 585 MW & 33 MGD at Sohar

50% of Installed Capacity
Key Success Factors . . .

Successful Transitions to Privatization

• Communication and transparency are critical
• Let the private sector do what they are good at
• Focus on “performance measures” & results
• Prescriptive at “high level” only - define parameters
• Fair risk allocation
• Have a “competitive process” for best tariffs and prices
• Spend the time and effort on the general framework
• Be flexible during implementation
• If outsourcing, be fair and open with all employees