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THU DUC WATER PLANT BOO PROJECT

In December 2004, the Peoples' Committee of Ho Chi Minh City granted the investment license to Thu Duc BOO Corporation to invest, operate and own the Thu Duc Water Treatment Plant with a capacity of 300,000 m³/day under a Build-Own-Operate contract. The project would supply treated water to more than 1 million residents in Districts 2, 9, 7 and Nha Be. Investors in the Thu Duc BOO Corporation included HCMC Infrastructure Investment Corporation (CII), Construction General Corporation No. 1, HCMC Fund for Infrastructure and Urban Development (HIFU), Refrigeration Electrical Engineering Corporation (REE), Thu Duc Housing Development Corporation (TDH), and Water and Environment Corporation (WACO). The total investment cost in nominal prices was estimated at VND1,547 billion, of which VND1,047 billion were financed from the Development Bank of Vietnam (VDB). The EPC contract was signed with Hyundai Mobis of South Korea.

Investment Cost (2005 prices, VND million)

	2005	2006	2007
Investment costs (including construction, equipment, pipelines, resettlement and compensation, and soft costs)	283,443	635,412	464,858
Interests during construction	0	0	51,870

Debt Financing

Loan	VND1,047 Billion	
Interest rate	9.5% /year	
Maturity	12 years	
Drawdown	2006: 546 billion	2007: 501 billion
Interests during construction are not capitalized		
Principal repayment	Equal installments during 2008-2019	

Technical Specifications

Capacity	300,000	m ³ /day
Rated capacity in 2008	40%	of capacity
Rated capacity from 2009 onwards	100%	of capacity
Water production volume	105%	of rated capacity
Operating days in a year	360	days

This case study was prepared by Nguyen Xuan Thanh, lecturer at Fulbright Economics Teaching Program. Fulbright Economics Teaching Program's cases are intended to serve as the basis for class discussion, and not to make policy recommendations.

Water Tariff according to the BOO Contract (2005 price)

VND2,524 per m³ (excluding VAT)

Nominal water price each year will be based on the contracted water price in 2005 price escalated by the VND price index.

Operating Costs

Unit variable costs per m3 of water produced, 2005 prices

Chemicals	123
Electricity	210
Others	37

Fixed costs (VND million per year, 2005 prices)

Vehicles	1.723
Labor	1.165
Insurance	2.773
Maintenance	15.456

Management fee as a percentage of water sale revenue (excluding VAT)	5%
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Working Capital

Negligible

Corporate income tax

Fist 4 years from the first year generating profits	0%
Next 4 years	10%
Remaining years	25%
Loss carry forward: 5 years	

Cost of capital

Cost of equity (nominal)	20%
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Other information

VND inflation: 7% per year

Construction period: 2005-2007.

Depreciation: the total investment cost of the project is depreciated according to the straight line method in 20 years.

First year of operation: 2008.

Cash flow estimation period: 2005-2035

Cash flows after 2035 are assumed to be negligible.