

Initiating Coverage
SECTOR: INFRASTRUCTURE



Patel Engineering



Towering high

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Patel Engineering

STOCK INFO. BSE Sensex: 13,799	BLOOMBERG PEC IN
S&P CNX: 3,962	REUTERS CODE PENG.BO

8 December 2006

Buy

Initiating Coverage

Rs445

Y/E MARCH	2006	2007E	2008E	2009E
Net Sales (Rs m)	8,029	11,577	16,810	21,209
EBITDA (Rs m)	1,077	1,558	2,244	2,840
NP (Rs m)	722	1,055	1,460	1,816
EPS (Rs)	14.4	17.7	24.5	30.4
EPS Growth (%)	78.1	22.4	38.4	24.3
BV/Share (Rs)	38.9	119.8	142.0	169.1
P/E (x)	30.8	25.2	18.2	14.6
P/BV (x)	11.4	3.7	3.1	2.6
EV/EBITDA (x)	22.6	16.8	12.4	10.3
EV/ Sales (x)	3.0	2.3	1.7	1.4
RoE (%)	44.6	23.2	18.7	19.6
RoCE (%)	15.9	14.2	14.4	15.0

KEY FINANCIALS

Shares Outstanding (m)	59.7
Market Cap. (Rs b)	26.6
Market Cap. (US\$ b)	0.6
Past 3 yrs. Sales Growth (%)	44.3
Past 3 yrs. NP Growth (%)	59.0
Dividend Payout (%)	14.1
Dividend Yield (%)	0.2

STOCK DATA

52-Week Range (H/L - Rs)	635/222
Major Shareholders (as of September 2006)	%
Promoters	54.9
Domestic Institutions	8.5
FII/FDIs	7.4
Others	29.2
Average Daily Turnover	
Volume ('000 shares)	173.5
Value (Rs million)	64.7
1/6/12 Month Rel. Performance (%)	0/-10/10
1/6/12 Month Abs. Performance (%)	6/39/65

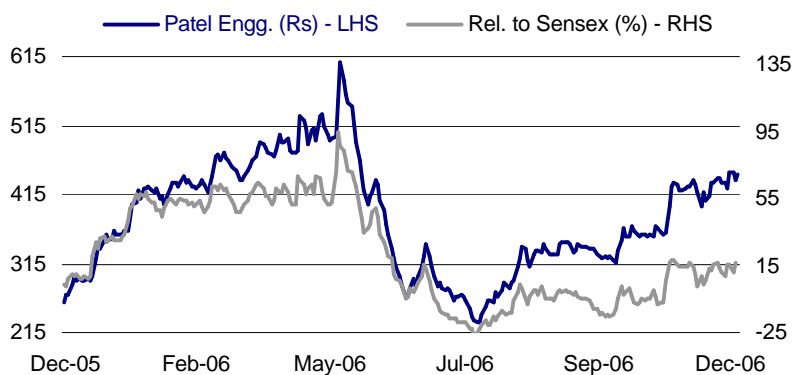
High end construction capabilities: Patel Engineering has expertise in hydro power, tunneling, irrigation, railways and roads. The company has: (1) 22% share in hydro power construction in India; (2) executed cumulative underground tunneling up to 162km (highest in Indian construction industry); and (3) access to niche technologies such as RCC dams, micro tunneling, underwater lake tapping etc.

Real estate - value unlocking possibilities: Patel Engineering has a land bank of ~400 acres spread across Hyderabad, Mumbai, Bangalore and Maharashtra (Karjat, Panvel etc). Whilst not much detail relating to acreage and location are available, management has stated that development plans should be finalized by end-FY07. Based on the valuation exercise undertaken ~4-5 years ago, value of the land bank stood at ~Rs2b-2.5b.

Strong earnings growth ahead: During FY06-FY09, we expect Patel Engineering (standalone) to report revenue CAGR of 38%, EBITDA CAGR of 38% and net profit CAGR of 36%. As of September 2006, the order book was Rs50b, with 78% comprising high margin segments such as hydro power and irrigation.

Recommend Buy: Based on our SOTP valuations, we arrive at a target price of Rs529. We value the core business at Rs365 per share (12x FY09 PER), subsidiaries at Rs7/sh (10x FY09 PER), investments in BOT projects etc. at Rs17/sh (at book value, March 2007) and real estate at Rs140/sh.

STOCK PERFORMANCE (FOR 1 YEAR)



Strong traction in construction business

Patel Engineering, established in 1947, is one of the leading players in the Indian construction segment with expertise in hydro power, tunneling, irrigation, railways and roads. Of the 32,326MW of hydro power capacity in India (as at March 2006), the company has executed 7000MW, translating into a market share of 22%. Patel Engineering is amongst the select few companies that have executed cumulative underground tunneling of 162km, the highest by any Indian construction company.

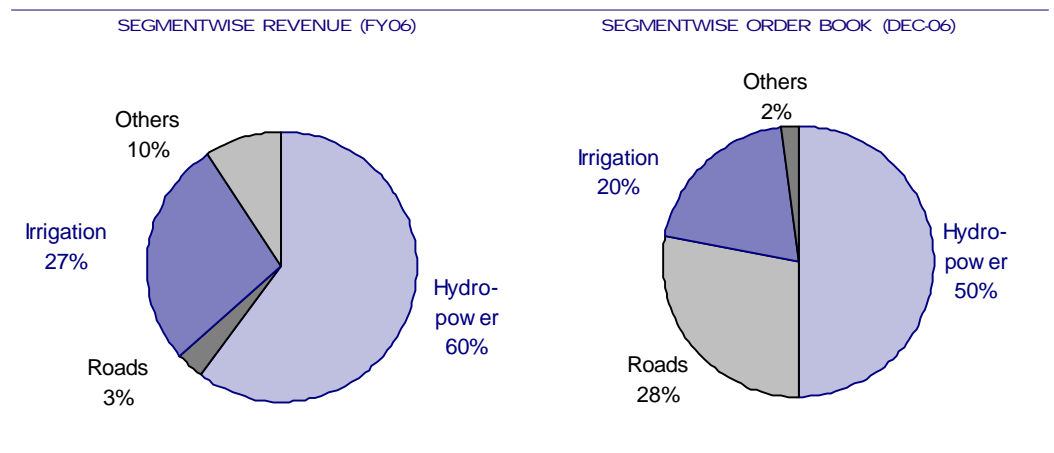
The only construction company with presence in US and Europe

With the acquisition of engineering companies in USA (ASI RCC Inc. and Westcon Microtunneling Inc.), the company had a headstart over competition in terms of niche technologies like roller compacted concrete (RCC) dams, micro tunneling etc. Further, Patel Engineering is the only Indian construction company with a presence in the technologically advanced US and Europe. The company has recently acquired a controlling stake in Mumbai-based Michigan Engineers, which specializes in urban infrastructure such as underground works and foundations, atypical dredging, bridges, specialized sewer rehabilitation works etc., which complements its strengths in micro tunneling.

Dominant position in hydro-power (22% market share)

60% revenues arise from construction of hydro power projects, its core competency

Patel Engineering boasts core competency in the construction of hydro-power projects and has constructed 7,000MW out of 32,326MW in India (as at March 2006). The company has many breakthroughs to its credit in the hydro power segment viz. use of RCC technology in building Ghatgar dam, first Indian company to have executed “Underwater Lake Tapping” for Koyna project etc. Currently, hydro projects account for 50% of the order book (Rs50b as at September 2006) and contribute 60% to revenues.

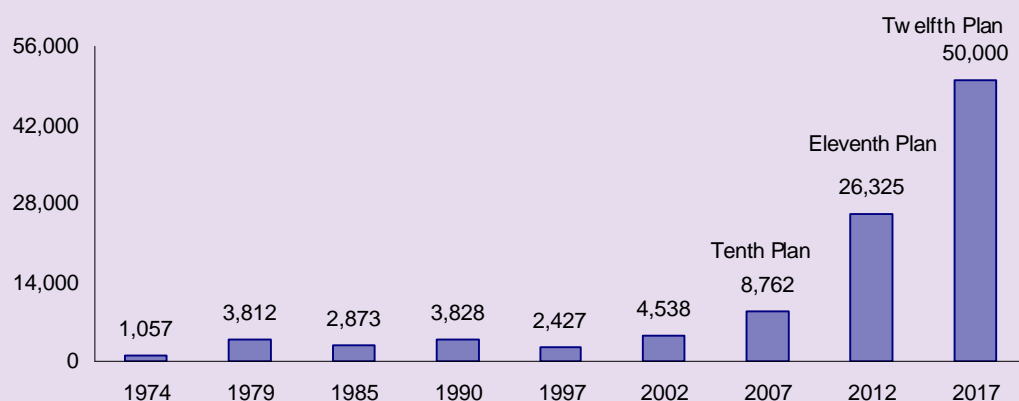


Source: Company

Hydro-power: One of the most exciting sectors in Indian construction

Strong traction: The hydro power sector is witnessing significant traction. As compared to hydro power capacity addition of 18,534MW during FY74–02, the hydro power capacity addition during the Tenth Plan (FY03-FY07) is expected at 8,762MW. Further, Ministry of Power has set a target of capacity addition of 20,000MW during the Eleventh Plan (FY08-12) and 50,000MW during the Twelfth Plan (FY13-17). Given the fact that a large number of hydro power projects are being awarded on BOOT basis and the construction component accounts for 70% of the cost of a hydro power project, we believe that this segment offers good growth potential.

TREND IN HYDRO POWER CONSTRUCTION (MW, FIVE YEAR PERIOD ENDING)



Source: Company/ Motilal Oswal Securities

Limited competition: There are only 6-7 construction companies in this segment with necessary pre-qualifications and the target market available for each player is sizeable. The key players in hydro power construction in India are: Jaiprakash Associates, Patel Engineering, Hindustan Construction, Gammon, L&T, Soma Enterprises etc. Also, with Jaiprakash Associates, the largest player in the segment focusing on IPPs, the available opportunity for Patel Engineering in the cash contract business has increased. Patel Engineering has been pre-qualified for projects worth Rs30b and is LI in projects worth Rs6b as of September 2006.

High margins: Construction of hydro power projects entail EBITDA margins of 15-20%, given the limited competition, high-end geological engineering, difficult terrain, specialized equipments etc. These levels of EBITDA margins are one of the highest in the Indian construction industry.

INDICATIVE MARGINS IN EACH SEGMENT (%)

Roads	5-8
Irrigation	11-13
Ports	14
Railways	10-11
Hydro Power	15-20

Source: Company/ Motilal Oswal Securities

Irrigation projects account for 28% of current order book of Rs50b

Irrigation and Water Supply: Mirroring the hydro power expertise

Due to expertise in hydro power construction and tunneling, Patel Engineering has been successful in garnering a sizeable share of Andhra Pradesh government's investment in irrigation projects. Further, Patel Engineering has been selective in terms of bidding for irrigation projects which involve complex engineering, thus entailing comparatively better margins. In Andhra Pradesh, the company bagged contracts worth Rs15b, out of project bids submitted of Rs20b — a success ratio of 75%. In terms of ranking in Andhra Pradesh, Patel Engineering was ranked third after Jaiprakash Associates (Rs19.3b) and Madhucon (Rs16b). The irrigation projects accounted for 21% of revenues for FY06 and 28% of current order book of Rs50b (September 2006). Some of the lift-irrigation projects bagged by Patel Engineering include the Rs6.5b Jawahar project, Rs5b Kalwakurthy project and the Rs3.8b Bheema project in Andhra Pradesh.

Irrigation and Water Supply: Increased spending

Andhra Pradesh has announced capex of Rs490b on irrigation projects during FY05-09. Of this, projects worth Rs250b have been awarded.

ANDHRA PRADESH: IRRIGATION SPENDING (RS B)

	FY05	FY06-RE	FY07-BE
Funds Allocated to Irrigation	52	88	128
Total Budget Spend	457	496	635
Irrigation as % of Budget	7.2	12.1	15.5

RE Revised Estimates; BE Budget Estimates

Source: Budget documents

Going forward, several states like Rajasthan, Kerala, Karnataka, Madhya Pradesh, Orissa, Jharkhand, etc are also likely to announce large irrigation projects.

STATEWISE SPENDING ON IRRIGATION (RS B)

	FY04	FY05 (RE)	FY06 (BE)	INCREASE
Andhra Pradesh	15.4	36.1	56.6	41.2
Karnataka	18.0	24.2	31.5	13.6
Uttar Pradesh	7.4	13.1	18.5	11.0
Madhya Pradesh	10.8	15.4	17.5	6.7
Chhattisgarh	4.2	7.1	7.3	3.1
Punjab	0.8	2.1	3.6	2.7
Bihar	6.7	6.2	9.4	2.7
Rajasthan	8.9	9.0	11.5	2.6
Tamil Nadu	2.5	3.0	4.5	2.0
Assam	0.8	1.6	2.5	1.7
West Bengal	1.5	2.6	3.0	1.4
Jharkhand	3.2	4.3	4.5	1.2
Total	125.2	189.3	216.7	91.4

Source: RBI

River interlinking could provide significant opportunities: We believe that while the ambitious river inter linking project at the national level is still some time away, we could witness initial activities at the state level. For instance, in Gujarat, Narmada was connected to Sabarmati. Also, in Andhra Pradesh, projects are underway to connect Godavari river to Krishna and Musi and many lakes en route. In August 2005, Uttar Pradesh and Madhya Pradesh have signed an MoU to interlink Ken and Betwa rivers at a cost of Rs40b. Rajasthan has agreed to implement Parbati-Kalisindh-Chambal interlinking project with Madhya Pradesh, and the detailed project report is under preparation.

Transportation segment

Roadway projects constitute 20% of the order book as of September 2006

Patel Engineering has executed road projects for both NHAI and state level agencies. Given its strength in tunneling, bridges etc., the company primarily focuses on road projects which involve such activities, thus entailing better margins. Besides, it has completed several railway overbridges and railway tunnels. This segment accounts for 4% of its FY06 revenues and 20% of its order book position of Rs50b (September 2006). However, most of the road projects are in joint ventures with KNR, and thus there would be limited impact on the reported EBITDA margins of the standalone company.

National Highway Development Plan (NHDP) has been extended to *seven* phases, covering 50,000 km+ of highway network from *two* phases covering 13,000 km earlier. Capital cost has increased from Rs646b for two phases to Rs1,871b for seven phases, targeted to be completed by FY15. ***In all, the National Highway Upgradation Program will need an investment of about Rs2.1t to FY12, with Rs1.4t worth of contracts yet to be awarded.*** Pradhan Mantri Gram Sadak Yojna to develop 369,000 km and upgrade 368,000 km of rural roads, at an estimated cost of Rs1,330b, has been launched.

Several government announcements over the past few months, suggest that we can expect acceleration in terms of contract awards going forward:

- ✍ The Model Concession Agreement is close to getting finalized with the long impending issue of toll rates and hikes being resolved
- ✍ In October 2006, the Cabinet cleared 6-laning of 6,500km of the Golden Quadrilateral, under NHDP Phase V at a cost of Rs412b
- ✍ In November 2006, the Cabinet cleared construction of 1,000 km of expressways at a cost of Rs167b to 2015, under NHDP Phase VI

PPP projects: Moving up the value chain

Patel Engineering will also bid for projects via PPP in hydel power

Patel Engineering intends to bid for projects on public-private partnerships (PPP), and is thus enhancing its role as a project developer. To begin with, the company has identified projects in transportation and hydel power segments. It has earmarked Rs1.5b for investments in these projects by March 2008, out of the Rs4.3b raised in May 2006 through follow-on public offering.

During 2QFY07, the company incorporated two subsidiaries: Patel KNR Projects and Patel Engineering Infrastructure Limited. Patel KNR Projects is an SPV floated for executing BOT projects where in Patel Engineering has 60% stake. KNR is a Hyderabad-based company and works as a contractor. Patel Engineering Infrastructure is formed for undertaking IPP projects in the power sector.

The company will bid for power projects via the IPP route through its SPV

Patel Engineering Infrastructure Limited: Patel Engineering has formed this special purpose vehicle (100% owned) to bid for hydro power projects under the Independent Power Producer model. There is a huge market potential given that states like Himachal Pradesh, Uttar Pradesh, Punjab, Haryana, Madhya Pradesh, Karnataka, Kerala, Andhra Pradesh, Tamil Nadu, Orissa, West Bengal, Maharashtra and Rajasthan have already announced policies for setting up commercial hydro power projects through private sector participation. Its rich experience in using RCC technology in construction would boost its competitiveness in bidding as it encompasses the major cost for any hydro projects. Also, hydro power projects can be used to generate peaking power and thus the returns can be significantly higher than the regulated RoE.

Patel KNR Projects: Patel Engineering has strategically moved into the BOT space through a SPV, Patel KNR project, wherein it has 60% stake. The JV bagged an annuity project in Karnataka worth Rs.4.1b, and 36 semi-annual (over 18 years) annuities of Rs320m. The concession period is 20 years (including 2 years of construction). Patel Engineering has 60% stake in the joint venture. Financial closure is expected by March 2007, and expected project IRR is 12-14%. The joint venture intends to bid for further projects on a similar basis in the roads sector.

Subsidiaries possess niche technologies

Patel Engineering has acquired companies in order to gain access to niche technologies. Till date, the company has made the following acquisitions:

- ✦ **1997:** ASI RCC Inc. (100% subsidiary), which has access to Roller Compacted Concrete (RCC) Dam Construction and rehabilitation technology
- ✦ **2002:** Westcon Micro-tunneling (100% subsidiary), one of the leading micro-tunneling contractors in the United States
- ✦ **2007:** Michigan Engineering (51% subsidiary), specialized in urban infrastructure like underground works and foundations, atypical dredging, bridges, specialized sewer rehabilitation works etc., which complements its strengths in micro tunneling

Gaining access to niche technologies via acquisitions

Acquisition of companies has provided Patel Engineering with an added advantage in terms of access to niche technologies. Further, through the acquisition of ASI RCC Inc. and Westcon, Patel Engineering is the only Indian construction company with business presence in the technologically advanced US and European markets.

- ✦ **ASI RCC Inc.:** Patel Engineering is the first Indian company to incorporate the RCC Dam Construction and rehabilitation technology. All the three projects in India incorporating this technology have been awarded to Patel Engineering, providing a definite headstart, versus competition. ASI RCC also provides construction management services on projects globally.

RCC technology allows 60-70% of the cement in dam construction to be replaced by fly ash and thus reduces curing time. Further, limited constraints in terms of equipment usage for pouring of concrete also results in significant time savings. The technology enables to reduce the dam construction time by 40% and cost by ~30%.

- ✦ **Westcon Micro tunneling:** Westcon is one of the leading micro-tunneling contractors in the United States. The company is involved in urban tunneling for sewages, cables etc.
- ✦ **Michigan Engineering:** Recently, Patel Engineering acquired 51% stake in Mumbai-based Michigan Engineers, which specializes in urban infrastructure like underground works and foundations, atypical dredging, bridges, specialized sewer rehabilitation works etc. These activities complement the strengths of Patel Engineering in micro tunneling, as the combined entity can now provide end-to-end solutions (undertake both micro tunneling and sewer lining). Further, Michigan Engineering also had expertise in terms of marine works etc; and thus Patel Engineering can now take up large marine works

like jetties, break water etc. Finally, Michigan was an urban contractor, and thus can play an important role in catering to the large infrastructure spending being planned by various urban bodies.

While the acquisition amount is not disclosed, during FY06, Michigan Engineers had revenues of Rs300-350m and net profit margin in the range of 8-10%. The company had an outstanding order book of Rs1b as of September 2006. We expect Michigan Engineers to report strong revenue growth (45-50% CAGR to FY08).

Leveraging the technological expertise in India

Patel Engineering has always scouted for acquisitions in order to equip itself with complementary skills sets, niche technologies, unique pre-qualifications skills and local territory knowledge. The strategy is to leverage these skill sets in India for various dams and micro-tunneling projects. Being an early entrant, limited competition in these segments entail comparatively better margins for Patel Engineering.

Has constructed all the three dams in India using RCC technology

RCC has been a popular technology in US and is becoming popular in Asia. Going forward, we believe that this technology, given the inherent advantages, will gain acceptance in India. NTPC has also stated their intention to switch to RCC technology for dams construction, given that it also provides them an opportunity to optimally utilize Fly ash generated from thermal plants, and thus reduces the per MW capital cost significantly.

Bagged both the micro tunneling projects awarded in India over the past 2 years

The unexecuted order book of Patel Engineering from micro tunneling stands at Rs600m with the recent order of Rs370m from the Mumbai Municipal Corporation. The company expects size of the opportunity to be large in other metros as well, as increased concretization of roads will entail usage of trenchless technology.

Pioneers in New Technologies in India

RCC: Ghatghar dam (250 MW) built by using RCC technology is slated to achieve the landmark of being the 9th fastest built dam in the world. In initial stages of work, it was conceived to be the 4th fastest dam to be constructed in the world but was delayed due to high temperature of 43 degrees at the site. Other project using this technology in India is the Srisaillam lift irrigation project.

Micro tunneling: Micro tunneling is one of the several types of trenchless construction techniques to lay a pipe to a pre-determined line and level by remote control at the cutting head. Micro tunneling not only avoids traffic disruptions but also circumvents the need to dig newly laid roads and highways thus proving cost effective. Given the current concretization of the roads, there is increased scope for micro tunneling, and it can be used for pipeline laying for the Oil & Gas Sector, sewage systems, metros etc.

Under water lake tapping: Patel Engineering has gained inhouse competence in under water tapping technique, which is useful in expansion of the existing hydro power plant capacity. Underwater tapping is a technology of blasting under water in an existing hydro project without blocking (emptying) the reservoir and thus results in significant time savings. The current method is to deplete the reservoir, provide the connection and then wait for the monsoons for the reservoir to get filled up. Patel Engineering is currently working on the Koyna Dam to augment capacity by 400MW, which again is the first project in India using this technology.

Real estate: Significant value unlocking possibilities exist

Patel Engineering has a land bank of ~400 acres, spread across Hyderabad, Mumbai, Bangalore and Maharashtra (Karjat, Panvel etc).

- ✍ Of the total land bank, ~150 acres are located in Hyderabad (between Gachibowli and Shamshabad)
- ✍ In Mumbai (Jogeshwari), the company has FSI of 0.7m sq ft for development of commercial space
- ✍ The balance land bank is located at Bangalore and Maharashtra (Karjat, Panvel etc).
- ✍ Land bank is free of any encumbrance / encroachment
- ✍ All amounts pertaining to land acquisition have been paid for
- ✍ The company has plans to develop the land, through tie ups and development plans to be announced by end-FY07
- ✍ Market value of the land ~4-5 years ago was Rs2-2.5b (based on valuation exercise undertaken by the company)

A) Hyderabad land bank

Significant land bank is present in Hyderabad's prime development area

The management has stated that a significant part of the ~150 acres land bank in Hyderabad is between Gachibowli and Shamshabad. Several IT companies like Wipro, Infosys, Microsoft, Kanbay are located at Gachibowli. Also with several IT parks under construction, the belt is emerging as the most popular IT destination in Hyderabad. Shamshabad is the location for the new International airport that is being built in Hyderabad by the GMR-led consortium. The airport is to be completed by March 2008, with an initial passenger traffic capacity of 7m in Phase 1.

Recent examples of land transactions in these regions:

- ✍ IVRCL Prime Urban is constructing an IT Park, Hotel and Retail Mall at **Gachibowli**, Hyderabad. The project entails 11.28 acres, and development area of 2.0m sq ft. Based on the expected realizations and construction cost, the company expects gross margin of Rs7b-9b from this project. This works out to gross margin of Rs600-800m/acre. Post factoring in financing costs, developer margins etc., and the discounting rate, we calculate the land value at ~Rs450m+/acre.
- ✍ At **Shamshabad**, post commissioning of the airport, there exists a possibility of increased development in the adjoining areas. Recent land auctions by Hyderabad Urban Development Authority (HUDA) in the outskirts of the city have been in the range of Rs30-100m/acre.

Valuation: Given the constraints in terms of lack of information, we value ~150 acres of land at Hyderabad at Rs40m/acre, which is towards the lower band of the price spectrum (based on recent auctions by HUDA).

Has rights to develop large commercial spaces in suburban Mumbai

B) Mumbai land bank

The company has rights to develop 0.7m sq ft of commercial area at Jogeshwari, Mumbai. We value the Mumbai land at Rs1.4b, which is ~15% discount to the current prevailing rates. As we expect construction to be completed over the next 3-4 years, we calculate the NPV based on 15% discounting rate. We believe that this could be one of the first projects to be undertaken for development by Patel Engineering.

MUMBAI LAND: VALUATION

Saleable Area (m sq ft)	0.7
Realizable Price (Rs/sq ft)	5,000
Development Cost (Rs/sq ft)	2,000
NPV of Profit (Rs m)	1,381
Value (Rs/sh)	23

Source: Motilal Oswal Securities

C) Other land banks

Patel Engineering has land banks situated at Bangalore and Maharashtra, of ~200 acres. We value these at Rs5m/acre, based on discount to the prevailing rates at the outskirts of these cities. We thus arrive at a value of Rs1b for these land banks.

Total Land Bank Valuation

LAND BANK	RS M	RATIONALE
Hyderabad Land	6,000	150 acres at Rs40m/acre
Mumbai Land	1,381	NPV Calculation
Other Cities	1,000	200 acres at Rs5m/acre
Total	8,381	
Rs/Sh	140	

Source: Motilal Oswal Securities

Value unlocking from its real estate properties could be significant

Value unlocking can be significant

The company is working out the details for the development plan and is likely to announce the same by end FY07. The valuation exercise undertaken by the company ~4-5 years ago, indicated the market value of the land at ~Rs2-2.5b. Given the surge in land prices in most of the regions over the past 4-5 years, particularly in Hyderabad and Mumbai, we believe that the current market value could be in multiples of the earlier valuation. While not much of the details regarding the acreage and location of the land banks are available, the scope of value unlocking could be sizeable, which cannot be ignored.

Risks to our land bank valuations

- ✍ Much of the details regarding acreage and location of the land banks are not available
- ✍ Possibility of delay in monetizing the same

Financials: Expect robust growth

Buoyant order book ensures revenue visibility

Patel Engineering has order book position of Rs50b as of September 2006, translating into book to bill ratio of 6.2x FY06 revenues. This ensures strong revenue visibility for the next 3-4 years. In addition to the existing order backlog, the company has emerged as an L1 bidder for projects of Rs6b (most of which are hydro projects), thus effective order book stands at ~Rs56b.

Order backlog is skewed in favor of hydro power and irrigation

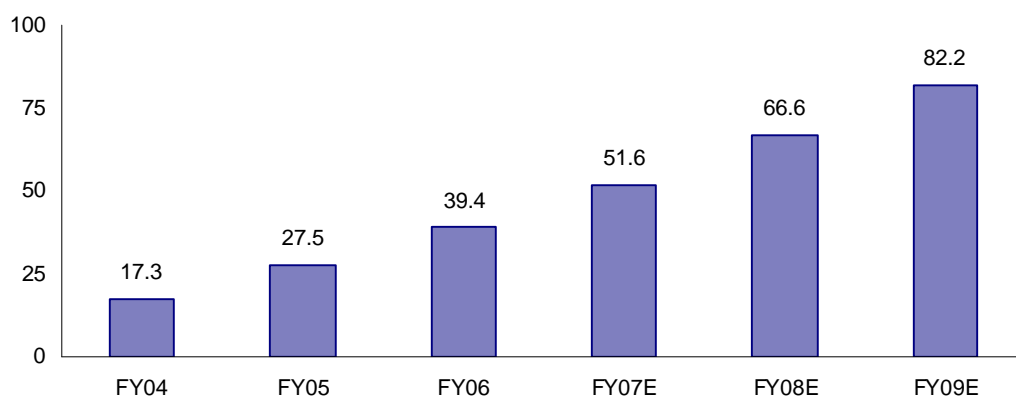
TREND IN ORDER BOOK (RS M) AND COMPOSITION (%)

	MAR-05*	MAR-06*	JUN-06#	SEP-06#
Order Backlog	27,531	39,381	42,000	50,000
Order Book Composition (%)				
Hydro-power Projects	54.3	40.2	43.0	50.0
Irrigation and Water Supplies	41.3	38.0	33.0	28.0
Transportation	3.6	21.8	24.0	20.0
Others	0.8	0.1	-	2.0

(*) Standalone; (#) Consolidated

Source: Company

TREND IN ORDER BACKLOG (RS M)



Source: Company/ Motilal Oswal Securities

The order backlog of Rs50b is skewed toward hydro power and irrigation projects, with these segments constituting 78% of order backlog. Given the large opportunities in hydro power construction in India, this segment is expected to constitute an increasing pie of the order book. Management expects hydro power to account for 55% of the order book as at March 2007. Also, Patel Engineering is focusing on large-sized projects, and going forward, management intends to bid for hydro projects with a minimum size of Rs2b and irrigation projects with a minimum size of Rs1.5b.

AVERAGE ORDER SIZE (RS M)

FY91	200
FY04	620
FY05	1,660
FY06	1,821

Source: Company

PATEL ENGINEERING: COMPARATIVE WITH OTHER CONSTRUCTION COMPANIES

	ORDER BOOK CURRENT	PROJECTS (NOS)	AVG ORDER SIZE	MARGINS (%) (FY06)
Gammon	80,000	75	1,067	11.6
Hindustan Construction	98,170	33	2,975	9.2
IVRCL	70,150	125	561	9.0
Jaiprakash Associates*	72,000	10	7,200	24.0
Larsen and Toubro*	306,720	150	2,045	7.6
Nagarjuna Construction	66,917	85	787	8.9
Patel Engineering	50,000	28	1,786	13.4

* L&T and Jaiprakash: Engineering and Construction business

Source: Company/ Motial Oswal Securities

EBITDA margins to sustain at FY06 levels

Insulated from commodity prices, as hydro projects are star rate contracts

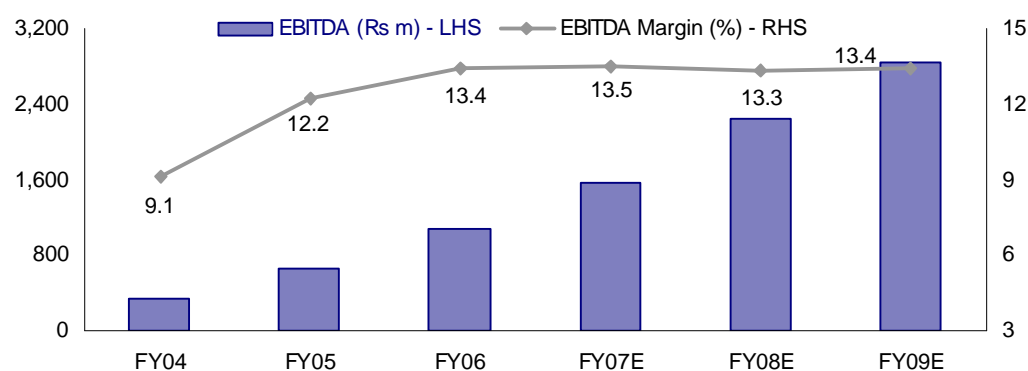
As nearly 75% of the company's current order book is from the high margin hydro projects, RCC dams and irrigation projects, we expect the company to report EBITDA margins of 13-13.5%. Also, increasing contribution from micro-tunneling segment could improve overall margins, as the segment entails margins ~ 25-30%.

The company is also not impacted from increased commodity prices, as hydro projects are star rated contracts and therefore price hikes are pass on. Also, for road projects, a significant part of the price hikes can be passed on.

EBITDA MARGINS TREND OF VARIOUS SEGMENTS (%)

	1HFY07	1HFY06
Hydro Power	19	17-18
Irrigation	13-14	12-13
Road	7-8	4-5

TREND IN EBITDA (RS M) AND EBITDA MARGINS (%)



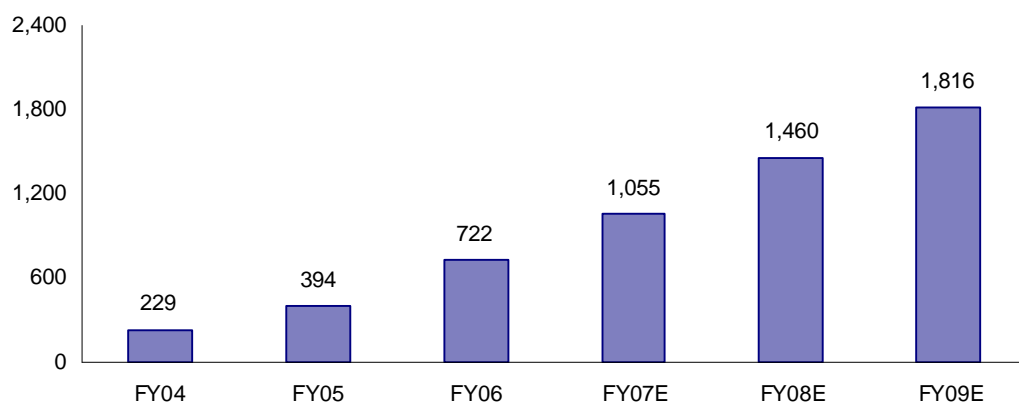
Source: Company

Strong earnings CAGR of 36% over FY06-09

Robust revenue and net profit CAGR

During FY06-FY09, we expect Patel Engineering (standalone) to report revenue CAGR of 38%, EBITDA CAGR of 38% and net profit CAGR of 36%. On a consolidated basis, we expect the company to report net profit of Rs1.1b in FY07, Rs1.5b in FY08 and Rs1.8b in FY09 (CAGR of 34% during FY06-FY09).

TREND IN NET PROFIT-STANDALONE (RS B)



Source: Company/ Motilal Oswal Securities

Overseas subsidiaries have lower margins, company focused on domestic operations

International subsidiaries: Margins to improve

For Patel Engineering, international subsidiaries (ASI RCC and Westcon) accounted for 39% of total revenues during FY04, which declined to 26% in FY05 and 18% in FY06. Given the opportunities in domestic market, the company is now focused more on domestic operations, where margins are better.

The contribution of these subsidiaries to the topline though significant (at Rs2b during FY06), they add marginally to the bottomline (Rs11 m during FY06) as the mature markets of US and Europe entail lower margins of 1-2%. Going forward, the management aims to re-allocate resources and focus on margins. However, these companies will continue to remain an insignificant part of the overall profitability.

TREND IN SUBSIDIARY PERFORMANCE (RS M)

	FY05	FY06	FY07E	FY08E	FY09E
Revenue					
- Standalone	5,295	8,029	11,577	16,810	21,209
- Consolidated	7,912	10,223	13,615	18,930	23,414
Contribution from Subsidiaries	2,617	2,194	2,039	2,120	2,205
Net Profit					
- Standalone	390	724	1,055	1,460	1,816
- Consolidated	416	733	1,075	1,492	1,860
Contribution from Subsidiaries	26	9	20	32	44

Source: Company/ Motilal Oswal Securities

*Company guidance —
25% revenue over next
three years*

Management guidance: Going forward, management has guided for steady growth in both revenue and order intake and margin expansion:

- ✂ Revenue growth of at least 25% for next three years on a consolidated basis
- ✂ EBITDA margins in FY07 to improve v/s FY06 levels
- ✂ Margins at the net level to improve by 25-50bp YoY in FY07, on a consolidated basis
- ✂ US subsidiaries' margins aimed to improve from 1.5-2% to 3% at net profit level
- ✂ Capex: Rs500m p.a. in FY07 and FY08

Cash flow analysis

Patel Engineering raised Rs4.3b through a follow on public offering (FPO) during May 2006. Until September 2006, the company had utilized Rs1.6b, primarily towards repayment of contractee advances and debt; and towards general corporate expenses. As at March 2007, we expect the cash balance on the books at Rs2.2b, and debt of Rs4.2b (including advances of Rs2.3b).

UTILIZATION OF FPO PROCEEDS (RS M)

	PLANNED UTILIZATION			ACTUAL
	FY07E	FY08E	TOTAL	(SEPT 06)
Investment in Capital Equipment	500	200	700	56
Repayment of Contractee Advances/ Debt	800	0	800	793
Invts in Infrastruct. Projects, Subsid. Acquis.& JVs	900	600	1,500	76
General Corporate Purposes	700	300	1,000	515
Issue Expenses	250	0	250	161
Total	3,150	1,100	4,250	1,601

Source: Company

Valuation

We recommend Buy, an upside of 19% from current price of Rs445

Based on our SOTP valuations, we arrive at a target price of Rs529, an upside of 19% from CMP of Rs445. We value the core business of the company at Rs365 per share (12x FY09 PER), subsidiaries at Rs7/sh (10x FY09 PER), investments in BOT projects etc. at Rs17/sh (at book value, March 2007) and real estate at Rs140/sh (land bank valuation).

While full details regarding the acreage and location of the land banks are unavailable, management has stated that the company is in the process of tabling details for the development and is likely to announce plans to monetize the same by end-FY07. This could result in significant value unlocking going forward.

SUM OF THE PARTS: PATEL ENGINEERING

EQUITY VALUATION	BUSINESS SEGMENT	METHOD	VALUATION MULTIPLE	VALUE (RS M)	VALUE (RS/SH)	RATIONALE
Patel Engineering Ltd.	Construction	FY09E PER (x)	12	21,790	365	In line with peers
Subsidiaries	Construction	FY09E PER (x)	10	441	7	Discount to peers, given the lower profit size
BOT Projects / Investments	BOT Projects	FY07, Book Value		992	17	At Book value, as projects are yet to achieve financial closure
Land Bank		SOTP		8,381	140	
Total				31,604	529	

Source: Motilal Oswal Securities

Concerns

Execution capability: We believe that retention of employees given the increased traction in domestic construction and engineering sectors is one of the biggest challenges. With the pick up of capex in China and the Middle East, and increased traction in the domestic market, execution capability is the biggest constraint.

Infrastructure capex is highly cyclical: The fortunes of the construction companies are highly dependent on the pace of build up of infrastructure in the economy, which to a large extent depend upon government policies.

BOT projects depress initial RoE: Due to the very nature of infrastructure projects, financial performance of BOT companies in initial years is impacted due to higher capital charges and slower build-up in traffic. The initial gestation period and lower contribution to profitability depress the initial RoE for BOT players. Patel Engineering intends to build up a BOT portfolio, which can impact its RoE in near term.

More disclosures required on land bank: We have valued the land bank of the company at Rs8.4b (Rs140/sh), which accounts for 26% of our SOTP based price target. Much of the details regarding acreage and location of the ~400 acres of land bank in the books of Patel Engineering are not available. While we have used conservative parameters for valuing the land bank, there exists possibility of negative surprises as well. Further, while management has announced that the development plans would be announced by end-FY07, any postponement could lead to a delay in terms of value unlocking.

Key assumptions

ORDER BACKLOG (INCL JVS) (RS M)

Y/E MARCH	FY06	FY07E	FY08E	FY09E
Hydro-power	15,816	21,352	28,825	36,031
Roads and Transport	8,569	9,854	11,333	13,033
Irrigation and Water Supply	14,952	20,185	26,240	32,800
Others	44	200	250	313
Total	39,381	51,591	66,648	82,176

REVENUES (RS M)

Y/E MARCH	FY06	FY07E	FY08E	FY09E
Hydro-power	4,849	6,326	8,541	10,089
Roads and Transport	268	361	488	659
Irrigation and Water Supply	2,146	3,738	6,055	7,872
Others	767	1,151	1,726	2,590
Income from Operations	8,029	11,577	16,810	21,209

SEGMENTWISE EBITDA (RS M)

Y/E MARCH	FY06	FY07E	FY08E	FY09E
Hydro-power	679	917	1,238	1,463
Roads and Transport	11	18	24	33
Irrigation and Water Supply	215	392	636	827
Others	184	230	345	518
Total EBITDA	1,088	1,558	2,244	2,840

SEGMENTWISE EBITDA MARGIN (%)

Y/E MARCH	FY06	FY07E	FY08E	FY09E
Hydro-power	14.0	14.5	14.5	14.5
Roads and Transport	4.0	5.0	5.0	5.0
Irrigation and Water Supply	10.0	10.5	10.5	10.5
Others	24.0	20.0	20.0	20.0
EBITDA Margins	13.4	13.5	13.3	13.4

E: MOST Estimates

INCOME STATEMENT		(RS MILLION)				
Y/E MARCH	2005	2006	2007E	2008E	2009E	
Net Sales	5,295	8,029	11,577	16,810	21,209	
<i>Change (%)</i>	-	51.6	44.2	45.2	26.2	
Total Expenses	4,648	6,952	10,019	14,566	18,369	
EBITDA	647	1,077	1,558	2,244	2,840	
<i>% of Net Sales</i>	12.2	13.4	13.5	13.3	13.4	
Depreciation	210	256	325	460	570	
Interest	190	200	211	249	407	
Other Operating Income	145	102	149	211	282	
Other Income	50	45	35	35	70	
PBT before EO Items	443	769	1,206	1,781	2,214	
Extra-ordinary Items	-5	2	0	0	0	
PBT after EO Items	438	770	1,206	1,781	2,214	
Tax	48	46	151	321	399	
<i>Rate (%)</i>	10.9	6.0	12.5	18.0	18.0	
Reported PAT	390	724	1,055	1,460	1,816	
Extra-ordinary Income (net of expenses)	-5	2	0	0	0	
Adjusted PAT	394	722	1,055	1,460	1,816	
<i>Change (%)</i>	72.0	83.2	46.0	38.4	24.3	
Consolidated PAT	416	733	1,075	1,492	1,860	
<i>Change (%)</i>	-	76.4	46.7	38.8	24.7	

E: MOSt Estimates

BALANCE SHEET		(RS MILLION)				
Y/E MARCH	2005	2006	2007E	2008E	2009E	
Share Capital	49	50	60	60	60	
Reserves	1,245	1,897	7,090	8,414	10,026	
Net Worth	1,294	1,947	7,150	8,474	10,086	
Loans	1,203	2,585	1,850	1,850	3,000	
Contractee Advances	1,854	1,770	2,315	3,362	4,242	
Deffered Tax Liability	144	122	122	122	122	
Capital Employed	4,495	6,424	11,437	13,808	17,449	
Gross Fixed Assets	2,491	2,590	3,286	4,186	5,186	
Less: Depreciation	856	863	1,159	1,577	2,096	
Net Fixed Assets	1,635	1,727	2,127	2,609	3,090	
Capital WIP	41	46	50	50	50	
Investments	282	168	1,160	1,910	3,160	
Curr. Assets	4,550	6,861	11,416	14,043	17,242	
Inventory	1,428	2,854	4,123	5,987	7,554	
Debtors	768	1,022	1,586	2,303	2,905	
Cash & Bank Balance	917	520	2,152	591	271	
Loans & Advances	1,436	2,465	3,554	5,160	6,511	
Current Liab. & Prov.	2,014	2,379	3,316	4,803	6,092	
Creditors	1,696	1,865	2,508	3,641	4,594	
Other Liabilities	281	490	706	1,026	1,294	
Provisions	36	25	102	136	204	
Net Current Assets	2,536	4,482	8,100	9,240	11,150	
Application of Funds	4,495	6,424	11,437	13,808	17,449	

E: MOST Estimates

RATIOS					
Y/E MARCH	2005	2006	2007E	2008E	2009E
Basic (Rs)					
Adjusted EPS	8.1	14.4	17.7	24.5	30.4
<i>Growth (%)</i>	-82.8	78.1	22.4	38.4	24.3
Consolidated EPS	8.5	14.7	18.0	25.0	31.2
<i>Growth (%)</i>	-	71.5	22.9	38.8	24.7
Cash EPS	12.4	19.6	23.1	32.2	40.0
Book Value	26.6	38.9	119.8	142.0	169.1
DPS	1.0	1.3	1.5	2.0	3.0
Payout (incl. Div. Tax.)	14.1	10.6	9.7	9.3	11.2
Valuation (x)					
P/E (standalone)		30.8	25.2	18.2	14.6
Cash P/E		22.7	19.2	13.8	11.1
EV/EBITDA		22.6	16.8	12.4	10.3
EV/Sales		3.0	2.3	1.7	1.4
Price/Book Value		11.4	3.7	3.1	2.6
Dividend Yield (%)		0.3	0.3	0.4	0.7
Profitability Ratios (%)					
RoE	35.0	44.6	23.2	18.7	19.6
RoCE	12.9	15.9	14.2	14.4	15.0
Turnover Ratios					
Debtors (Days)	53	46	50	50	50
Inventory (Days)	98	130	130	130	130
Creditors. (Days)	146	108	100	100	100
Asset Turnover (x)	1.4	1.5	1.3	1.3	1.4
Leverage Ratio					
Debt/Equity (x)	0.9	1.3	0.3	0.2	0.3
<i>E: MOST Estimates</i>					

CASH FLOW STATEMENT		(RS MILLION)				
Y/E MARCH	2005	2006	2007E	2008E	2009E	
PBT before Extraordinary Items	443	769	1,206	1,781	2,214	
Add: Depreciation	210	256	325	460	570	
Interest	190	200	211	249	407	
Less: Direct Taxes Paid	48	46	151	321	399	
(Inc)/Dec in WC	-393	-2,343	-1,986	-2,701	-2,230	
CF from Operations	401	-1,164	-394	-531	563	
Extra-ordinary Items	-5	2	0	0	0	
CF from Operations after Extra-ordinary items	396	-1,163	-394	-531	563	
(Inc)/Dec in FA	-428	-353	-730	-942	-1,052	
(Pur)/Sale of Investments	-205	114	-992	-750	-1,250	
CF from Investments	-634	-239	-1,722	-1,692	-2,302	
(Inc)/Dec in Networkth	13	-16	4,250	0	0	
(Inc)/Dec in Debt	1,067	1,298	-190	1,047	2,030	
Less: Interest Paid	190	200	211	249	407	
Dividend Paid	55	77	102	136	204	
CF from Fin. Activity	836	1,006	3,747	662	1,418	
Inc/Dec of Cash	598	-396	1,631	-1,561	-320	
Add: Beginning Balance	319	917	520	2,152	591	
Closing Balance	917	521	2,151	591	271	

E: MOSt Estimates

For more copies or other information, contact

Institutional: Navin Agarwal. **Retail:** Manish Shah, Mihir Kothari

Phone: (91-22) 39825500 Fax: (91-22) 22885038. E-mail: inquire@motilaloswal.com

Motilal Oswal Securities Ltd, 3rd Floor, Hoechst House, Nariman Point, Mumbai 400 021

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Disclosure of Interest Statement	Patel Engineering
1. Analyst ownership of the stock	No
2. Group/Directors ownership of the stock	No
3. Broking relationship with company covered	No
4. Investment Banking relationship with company covered	No

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