

# Tenaga Nasional Bhd

Price : RM6.39

Market Capitalization : RM34,829.9 mln

Board : Main Market

Sector : Trading/Services

Recommendation : HOLD

Bursa / Bloomberg Code: 5437 / TNB MK  
Stock is Shariah-compliant.

## Key Stock Statistics

FYE Aug	FY10	FY11f
EPS (sen)	58.8	51.0
P/E (x)	10.9	12.5
Net Div/Share (sen)	15.6	16.0
NTA/Share (RM)	5.29	5.83
Book Value/Share (RM)	5.29	5.83
Issued Capital (mln shares)	5450.7	
52-week Hi-Low (RM)	5.94 - 7.43	
<b>Major Shareholders:</b>	<b>%</b>	
Khazanah Nasional Bhd	35.6	
EPF	14.0	
Skim Amanah Saham Bumiputera	9.8	

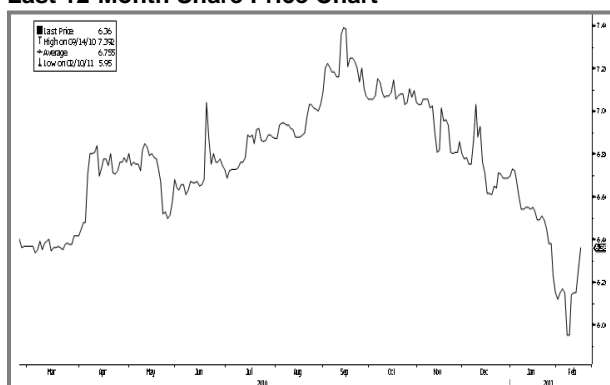
Figures adjusted for 1-for-4 bonus issue in January 2011.

## Per Share Data

FYE Aug	FY09	FY10	FY11f
Book Value (RM)	4.80	5.29	5.83
Cash Flow (RM)	0.83	1.31	1.30
Earnings (sen)	16.9	58.8	51.0
Net Dividend (sen)	10.7	15.6	16.0
Payout Ratio	63.0%	26.5%	30.0%
PER (x)	37.7	10.9	12.5
P/Cash Flow (x)	7.7	4.9	4.9
P/Book Value (x)	1.3	1.2	1.1
Net Dividend Yield	1.7%	2.4%	2.5%
ROE	3.5%	11.1%	8.7%
Net Gearing (x)	0.6	0.4	0.4

Figures adjusted for 1-for-4 bonus issue in January 2011.

## Last 12-Month Share Price Chart



## Investment Highlights / Summary

- **Core businesses in the generation, transmission and distribution of electricity** in Peninsular Malaysia and Sabah. TNB's electricity generation accounts for about 53% of total installed capacity in Peninsular Malaysia.
- **Key customers are from industrial and commercial sectors**, each contributing approximately 40% to Group revenue. Meanwhile, main cost components include fuel expenses and IPP payments, which collectively account for two-third of opex.
- **6-year revenue CAGR of 9%**, mainly driven by growth in electricity demand. Nevertheless, EBITDA grew slower at 6-year CAGR of 5% as rising fuel costs and IPP payments cramped profitability, resulting in EBITDA margin compression from over 30% prior to FY07 to the present high-20s percentage level.
- **Expects modest 5%-6% growth** in revenue over the next two years in tandem with the projected GDP expansion. Commercial sector continues to be the key growth driver as we move towards a service-based economy. Balance sheet-wise, net gearing has improved to 0.4x currently from over 1x prior to FY06, backed by a NTA/share of RM5.29 as at FY10 (adjusted for bonus issue in January 2011).
- **Major planned new capacity** in the pipeline include a 1000 MW coal-fired power in Manjung, a 250 MW hydropower plant in Hulu Terengganu, and a 372 MW hydropower plant in Ulu Jelai, all of which are expected to come on-stream beyond 2015.
- **Risks** include exposure to fluctuations in coal price and foreign currency, as well as unexpected changes in regulations.
- **Recommend Hold with a DCF-derived fair value of RM6.80.** Near-term outlook remains uncertain, clouded by escalating cost pressure and lack of clarity on possible tariff adjustments. As such, potential upside to share price may be muted until operating environment improves. Based on TNB's dividend policy, prospective net yield stands at 2.5%.

## Background

### Corporate profile

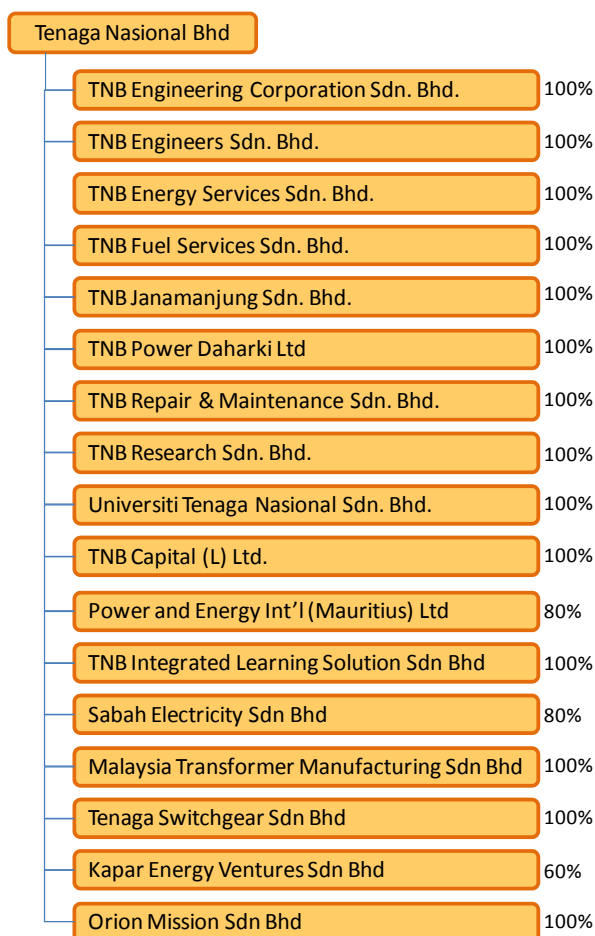
**Core businesses in generation, transmission and distribution of electricity in Peninsular Malaysia and Sabah**

Tenaga Nasional Bhd (TNB)'s core businesses are in the generation, transmission, distribution and sale of electricity in Peninsular Malaysia and Sabah. The Group also provides various power industry-related support services that complement its primary activities. In addition, TNB owns and operates the University Tenaga Nasional as well, which is one of the earliest private universities established in Malaysia.

TNB's history is traced back to 1949 when the Central Electricity Board (CEB) was first established. CEB was subsequently renamed the National Electricity Board (NEB) in 1965. NEB was succeeded by TNB in 1990 following a privatization exercise by the Government. TNB was listed on the Main Board (now known as the Main Market) of Bursa Malaysia on 28 May 1992.

TNB is a Government-linked Company (GLC) with its substantial shareholders being Khazanah Nasional Bhd (35.6%), Employees Provident Fund (13.96%) and Amanahraya Trustees Bhd (9.84%). The board is led by Non-Independent Non-Executive Director Tan Sri Leo Moggie, while key management sitting on the board includes President/Chief Executive Officer Dato' Sri Che Khalib Mohamad Noh and Chief Operating Officer, Dato' Ir. Hj. Azman Mohd.

### Corporate structure.



*Note: Only active direct subsidiaries are shown.*

## Business

TNB is principally involved in the generation, transmission and distribution of electricity in Peninsular Malaysia and Sabah.

### TNB's generation accounts for 53% of total installed capacity in Peninsular Malaysia

In terms of electricity generation, it operates and maintains eight thermal power stations and three hydroelectric power generating schemes in Peninsular Malaysia. The Group's total installed capacity as at FY10 is 9,109 MW, which consists of 7,198 MW thermal and 1,911 MW hydro stations. Inclusive of capacity from Kapar Energy Ventures Sdn. Bhd. (a 60%-owned subsidiary), TNB's total capacity is around 11,500 MW, which translates into approximately 53% of total installed capacity in Peninsular Malaysia. The remaining 43% capacity originates from Independent Power Producers (IPPs).

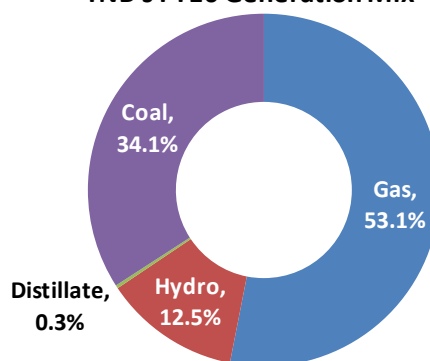
TNB's power stations are as follows:-

Power Station	Type
Tuanku Jaafar Power Station, Port Dickson	Thermal
Janamanjung, Manjung	Thermal
Sultan Ismail Power Station, Paka	Thermal
Connaught Bridge Power Station, Klang	Thermal
Putrajaya Power Station, Serdang	Thermal
Gelugor Power Station, Teluk Ewa	Thermal
Sultan Iskandar Power Station, Pasir Gudang	Thermal
Sungai Perak Power Station	Hydroelectric
Sultan Mahmud Power Station, Kenyir	Hydroelectric
Cameron Highlands Power Station	Hydroelectric
Kapar Energy Ventures (a 60%-owned subsidiary)	Thermal

### TNB's generation mix: gas (53%) followed by coal (34%)

As at FY10, gas fuel forms the largest portion of generation mix at 53.1%, followed by coal at 34.1%, hydroelectric (12.5%) and distillate (0.3%).

TNB's FY10 Generation Mix



Source: Company

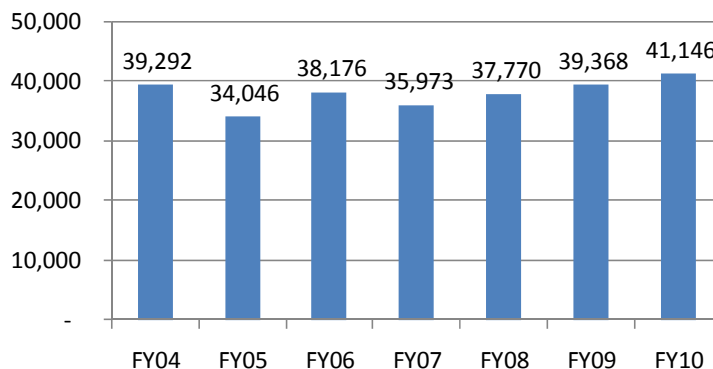
### Reduced gas supply to TNB from Petronas Carigali following a fire at one of the latter's plants

We understand that the coal generation mix for TNB has since risen at the expense of gas fuel, following a fire breakout at Petronas Carigali Sdn. Bhd.'s Bekok platform in December 2010, which resulted in reduced supply of gas to TNB. This is a negative development to the Group given the high price of coal presently. However, the situation may improve upon the commencement of operations of Petronas' LNG import terminal in Melaka, which is slated to be ready by July 2012.

**Averaging 5% growth in net unit of electricity generated**

In terms of electricity generation, TNB's net unit of electricity generated rose 4.5% yoy to 41,146 GWh in FY10. Since FY07, the Group's net unit of electricity generated has been recording an average of 5% yoy growth.

**TNB's net unit of electricity generated (GWh)**



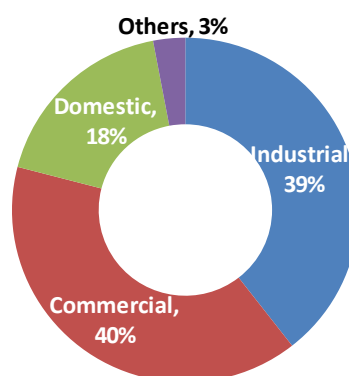
Source: Company

TNB's transmission division operates and manages the transmission network known as the National Grid, which spans across the Peninsular Malaysia linking TNB power stations and IPPs to the distribution network. It is also interconnected to Thailand's transmission system in the North and Singapore's transmission system in the South.

**Key customer segments: Industrial & commercial sectors**

At present, the Group supplies electricity to 7.9 mln customers in Peninsular Malaysia and Sabah. Its industrial and commercial customers consistently make up the bulk of TNB's revenue, collectively generating close to 80% of turnover in the past six years, while domestic customers' contribution remains fairly consistent at 18% of Group sales.

**TNB's FY10 Revenue by Customer Segment**



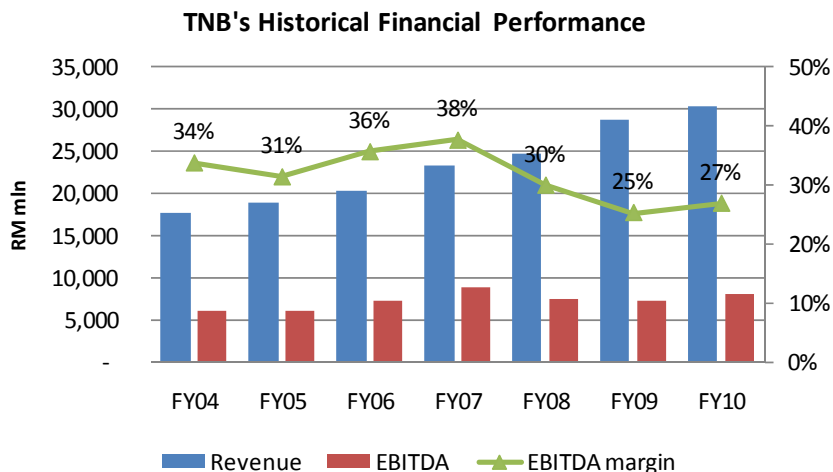
Source: Company

Apart from its core businesses, TNB is also involved in various power industry-related activities such as manufacture of transformers, high voltage switchgears and cables; provision of professional consultancy services; architectural, civil, electrical engineering works and services, repair and maintenance for power plant equipment; as well as research and development works.

### Financial Highlights

**6-year revenue and EBITDA CAGR of 9% and 6% respectively**

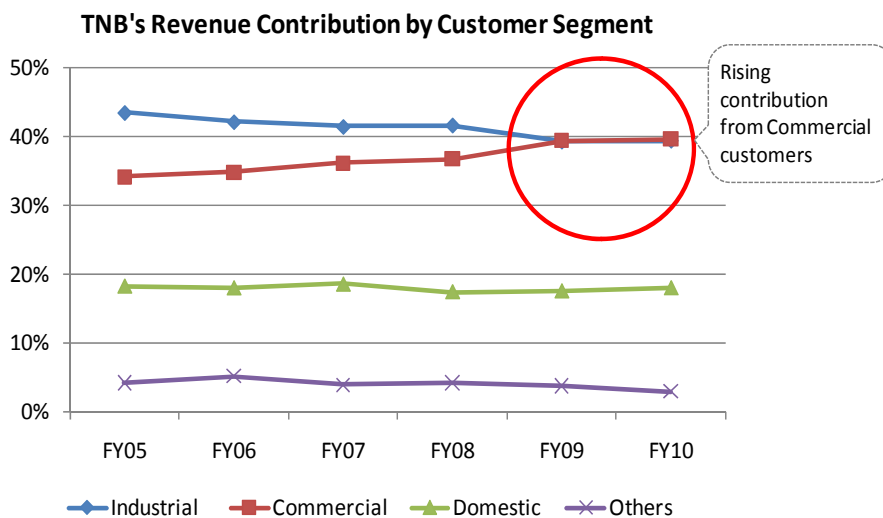
Between FY04 and FY10, TNB's revenue registered a 6-year CAGR of 9%, spurred mainly by growth in demand for electricity, and to a lesser extent, revision in tariff rates. However, EBITDA grew slower at 6-year CAGR of 5%, largely weighed down by rising opex, particularly fuel costs and capacity payments to IPPs. As a result, EBITDA margin fell from over 30% to mid-20s percentage level in recent years.



Source: Company

**Positive trend: Rising contributions from commercial customers**

In terms of revenue mix, industrial and commercial customers contributed 39.4% and 39.6% respectively to TNB's sales in FY10. From the chart below, we note a visible trend of rising contributions from the commercial sector as the Group revenue rises. Sales of electricity to the commercial sector made up only 34.1% of TNB's turnover in FY04, and has since gradually grown to 39.6% of FY10 revenue, surpassing contributions from the industrial segment. This trend is consistent with the direction of our country's progression towards a service-based economy from an industrial economy. This is a positive development for TNB as average electricity selling price to the commercial sector is the highest amongst all customer segments and hence, most profitable to TNB.

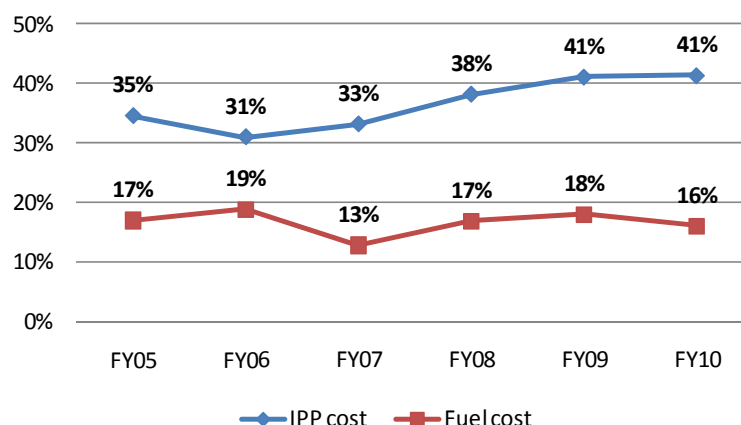


Source: Company, ZJ Research

**Main cost components: fuel expenses and IPP payments**

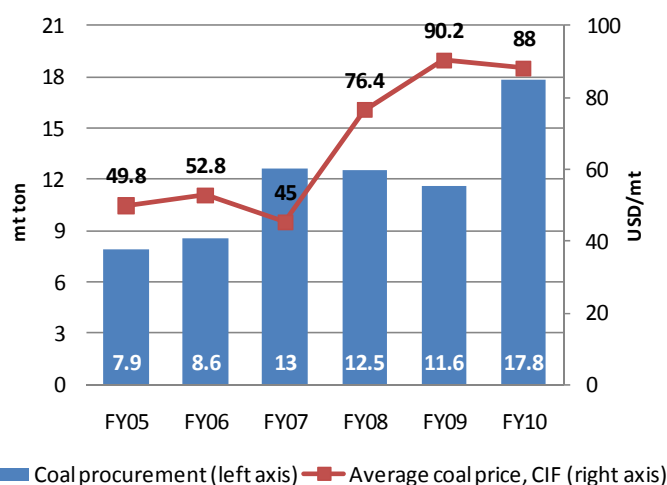
IPP and fuel costs are the two main cost components at TNB. In FY10, these two components collectively accounted for 57% of Group revenue or 66% of total opex. In recent years, IPP costs have risen faster than revenue growth, and now constitute 41% of Group revenue, up from 31% in FY06. Of the RM12.6 bln IPP costs in FY10, approximately 40% consists of capacity payments to the IPPs. Meanwhile, coal purchases are the largest component within fuel costs, and TNB's expenditure on coal has soared in tandem with the escalating coal prices and increase in supply procurement.

**Major Cost Components as a % of Group Revenue**



Source: Company, ZJ Research

**Coal Procurement & Average Coal Price**



Source: Company

**Net gearing improved to 0.4x as at FY10**

In terms of balance sheet strength, TNB's is on a much stronger footing today by comparison to a few years ago. The Group's net gearing strengthened to 0.41x as at November 2010, from high of 1.19x in FY06. This is accompanied by a higher interest coverage ratio, which rose to 7.6x in FY10 from 4.7x in FY06. ROE too, enhanced to 12.6% in FY10 from 10.9% in FY06.

TNB has benefited from the strengthening of RM and Yen against USD over the last two years given its exposure to USD and Yen-denominated borrowings. As at November 2010, out of RM21.3 bln borrowings, 21.2% is in USD, 25% in Yen while the balance is in RM.

## Earnings Outlook

### Rising electricity demand to support revenue growth

TNB's revenue prospects in the near future will continue to be underpinned by the expected growth in electricity demand. We estimate electricity demand to grow between 5%-6% per annum over the next two years, closely tracking the projected GDP growth. Our FY11 and FY12 revenue forecasts for TNB are RM31.99 bln (+5.5% yoy) and RM33.81 bln (+5.7% yoy) respectively. Meanwhile, our projected core net profit (before foreign translation gain/loss) is RM2.78 bln for FY11 and RM2.96 bln for FY12, assuming an average coal price of USD110 per mt.

### Benchmark coal price eased slightly to USD125/mt currently from high of USD140/mt in January 2011

The Newcastle coal price, a benchmark for Asia, recently rose to over USD140 per mt in January 2011 due to supply disruption in Australia and increased demand during winter season in the Northern Hemisphere. It has since retreated to approximately USD125 per mt currently. On a positive note, the strengthening RM partially helped mitigate the rising coal costs. Coal price is also expected to ease further going forward as situation improves in Australia and warmer weather in the Northern Hemisphere.

### No news yet on tariff review by Government

On tariff review, there has been no announcement from the Government so far although it usually undertakes review on the tariff twice a year in January and July. Nevertheless, talks of any tariff hikes may be muted, in our opinion, in the near term given the possibility of a general election this year. In view of the uncertainty, we have not factored in any tariff revision in our forecasts.

### Planned new capacity: 2 hydropower plants and 1 coal-fired power plant

In the longer term, the planned increase in capacity to meet future power demand will involve TNB constructing two new hydroelectric power plants – a 250 MW hydropower plant in Hulu Terengganu, Terengganu and a 372 MW hydropower plant in Ulu Jelai, Pahang – which will cost a combined RM3 bln in investments between now and 2015. The Hulu Terengganu hydropower plant is targeted to be operational by end-2015 while the Ulu Jelai is slated for operation in early 2016. Additionally, TNB had in August 2010 accepted an offer from the Energy Commission to build a 1,000 MW coal-fired plant at its existing site in Manjung. The power plant is targeted to come onstream by 2015.

Our current electricity reserve margin stands at 44% but management expects the reserve margin to decline to approximately 20% in 2015 based on the projected increase in electricity demand. This explains the need for the new power plants mentioned above, which are all scheduled to be operational sometime in 2015 and 2016.

### Small-scale ventures in renewable energy

Meanwhile, in line with the Government's push to promote the use of renewable energy, TNB has also ventured into this segment through its joint-venture involvement with FELDA to build a 10 MW biomass power plant in Jengka, Pahang. The biomass plant is expected to be ready by end-2011. In addition, TNB just announced on 23 February 2011 that it would be building the country's first solar plant in Putrajaya. Nevertheless, we note that these power plants are very small in scale and would neither add substantial capacity nor meaningful contribution to TNB's earnings.

## Investment Risks

**High coal price dampens earnings.** The prevailing high price of coal remains a drag on TNB's earnings given TNB's rising coal requirement. Management estimates to procure 18.1 mln ton of coal in FY11. Of this, only 18% of its requirements have been locked-in in terms of pricing. Another 48% is index-linked pricing while the balance is subject to negotiations with suppliers. TNB's only silver lining is the strong RM, which partially offset the rising coal costs.

**Regulatory risk.** The power sector is heavily regulated by the Government and any changes in regulations may have impact on TNB's earnings. For example, tariff adjustments require the Government's approval and while fuel costs have escalated beyond the threshold covered by the current rates, TNB is not able to raise rates to compensate for its rising opex without Government's agreement.

**Currency risk.** Almost half of TNB's over RM20 bln borrowings are in foreign currency (Yen and USD), and its coal purchases are also denominated in USD while its revenues are largely in RM. This exposes the Group to fluctuations in foreign currency rates. Management mitigates the risk by entering into foreign currency forward contracts, cross currency swap contracts, and interest rate swaps to protect its exposures. Nevertheless, this risk is minimal at present given the strong RM.

## Valuation

The table below lists the TNB's regional peers in the power industry. The peers are currently trading at an average PER of 20x and P/BV of 1.4x.

### Comparison with regional peers

Company	Share price (local curr)	PER (x)	P/BV (x)	Mkt Cap (USD mln)
Tenaga Nasional	RM 6.37	10.8	1.0	11,385.1
CLP Holdings	HKD 63.20	14.0	2.1	19,510.4
Hongkong Electric	HKD 52.20	16.4	2.2	14,293.7
Datang Intl Power	HKD 2.70	15.1	1.0	9,848.2
AGL Energy	AUD 14.76	18.6	1.1	6,776.9
Tepco	JPY 2160	33.1	1.2	41,653.9
Kepeco	JPY 2174	25.4	1.1	24,489.7
<b>Avg excl Tenaga</b>		<b>20.4</b>	<b>1.4</b>	

Source: Bloomberg, Company data.

While TNB appears to be trading at a discount to its peers, we believe the potential share price upside in the near-term may be muted given its relatively uncertain outlook (i.e. absence of tariff hikes and the prevailing high coal price). We have instead valued TNB using the discounted cashflow model (DCF) given its steady cashflow generation, and arrived at a fair value of RM6.80.

## Recommendation

### HOLD recommendation with fair value of RM6.80

We recommend a **Hold** on TNB at this juncture with a fair value of **RM6.80**. While its valuation appears to be undemanding by comparison to its regional peers, TNB's forward FY11 PER of 12.5x is nonetheless right at the median of its 3-year historical PER band. Based on the Group's dividend policy of paying out between 40%-60% of its annual free cash flow, we estimate the prospective net dividend yield at 2.5%.

Fundamentally, we expect the Group revenue to grow modestly in tandem with the projected GDP growth. However, moderating factors include high cost pressure and lack of clarity in terms of possible tariff adjustment exercise. Against this backdrop, we remain neutral on the stock until clearer prospects emerge.

## Recent Developments

**23 February 2011:** TNB is reported in media to be building the country's first solar power plant, located in Putrajaya, Selangor. While it marks the Group's foray into solar energy, the capacity of the plant is nonetheless small and is not expected to contribute significantly to earnings and overall generation capacity. Size of investment and timeline were not available.

**17 February 2011:** Sabah Chief Minister, Datuk Musa Aman announced that the controversial 300 MW coal-fired power plant in Lahad Datu, Sabah has been called off following a consensus to explore alternative energy sources instead of coal. TNB was supposed to build the power plant had the plan not been canceled.

**7 February 2011:** TNB entered into a MoU with Reseau de Transport d'Electricite (RTE) of France to co-operate in the transfer of technology in power-related areas. RTE is the largest operator of high voltage and extra high voltage networks in Europe.

**31 January 2011:** TNB announced the acquisition of a new 33-storey corporate tower together with common facilities and 460 parking bays for RM232.2 mln in cash (i.e. RM540 psf) from Magic Coast Sdn. Bhd., which is an indirect subsidiary of Amanah Raya Berhad. The corporate tower will be used to streamline and consolidate TNB's departments and divisions, which are currently renting offices in the Bangsar and Petaling Jaya areas.

**19 January 2011:** TNB announced 1QFY11 results with revenue and net profit at RM7.7 bln (+5.3% yoy) and RM712.9 mln (+0.9% yoy). 1QFY11 EBITDA margin stood at 28.5% vs. 29.5% in 1QFY10.

**12 January 2011:** TNB signed two agreements in relation to its Ulu Jelai Hydroelectric Project. The first contract, worth AUD22.1 mln, is with SMEC International Pty Ltd and SMEC (Malaysia) Sdn Bhd Consortium for the detailed engineering plan and review for the project. The second agreement is with Tindakan Mewah Sdn. Bhd. and Salini Costruttori S.p.A Consortium, which will be undertaking the main civil, electrical and mechanical works for the project. The second contract is worth RM2.05 bln.

**6 January 2011:** TNB completed its 1-for-4 bonus issue exercise with the listing of additional 1.09 bln ordinary shares, and hence, raising total shares outstanding to 5.45 bln.

**P&L Summary**

<b>FYE Aug (RM mIn)</b>	<b>FY09</b>	<b>FY10</b>	<b>FY11f</b>	<b>FY12f</b>
Revenue	28,785.6	30,320.1	31,987.7	33,811.0
EBITDA	7,260.4	8,132.9	8,668.7	9,129.0
Depreciation	(3,561.5)	(3,950.2)	(4,286.4)	(4,463.1)
Net Int Exp	(949.7)	(861.2)	(826.8)	(876.4)
Pre-tax Profit	1,543.1	4,022.1	3,600.6	3,835.5
Eff. Tax Rate	44.7%	20.5%	23.0%	23.0%
Net Profit	917.9	3,201.9	2,777.5	2,958.3
EBITDA Margin (%)	25.2%	26.8%	27.1%	27.0%
Pre-tax Margin (%)	5.4%	13.3%	11.3%	11.3%
Net Margin (%)	3.2%	10.6%	8.7%	8.7%

Source: Company, ZJ Research

**Balance Sheet Summary**

<b>FYE Aug (RM mIn)</b>	<b>FY09</b>	<b>FY10</b>
Total Assets	71,363.0	74,081.1
Non-Current Assets	59,404.2	59,285.6
Current Assets	11,958.8	14,795.5
Current Liabilities	7,262.8	9,700.8
Long Term Liabilities	38,053.9	35,565.8
Share Capital	4,337.0	4,352.7
Shareholders' Equity	26,006.1	28,778.9

Source: Company, ZJ Research

Analyst: Nicole Tan Yoke Ping ([nicole@zi.com.my](mailto:nicole@zi.com.my))

**RATING GUIDE**

BUY	Price appreciation expected to exceed 10% within the next 12 months
SELL	Price depreciation expected to exceed 10% within the next 12 months
HOLD	Price movement expected to be between -10% and +10% over the next 12 months from current level

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