

NINH BINH THERMAL POWER JOINT STOCK COMPANY (HNX: NBP)

Cao Thi Tinh Equity Analyst Email: tinhct@fpts.com.vn Phone: (84) – 37737070 – Ext:4385	Current price	18.400	<div style="display: flex; justify-content: space-between; width: 100%;"> -18% -7% 0% 7% 18% </div>				
	Target price	15.800	Sell	Less	Follow	Add	Buy
	Up/down	-3.400	SELL				
	Dividend yield	5,4%					

Technical chart



Trading information

31st Mar14

The highest price in 52 weeks	21,600
The lowest price in 52 weeks	12,700
The volume of issued shares	12,865,500
The average trading volume	2,250
% foreign owners	2.2%
The charter capital (in billion VND)	128
Market capitalization (in billion)	239

Valuation	2012	2013	2014F
Valuation			
EPS	2,205	2,444	1,876
P/E	8.3	7.53	9.81
P/B	1.11	1.04	1.00
BV/ share	16.507	18.362	18.826
ROE	13.59%	19.07%	13.89%
ROA	8.24%	11.4%	7.1%

Ownership

	%
The States	54.76%
Foreign investors	2.2%
Others	43.04%

Summary

- Because of outmoded technology and the small –size of production, NBP becomes one of the most material-intensive plants among coal-fired generators, creating disadvantages for NBP to negotiate higher commercial outputs in the annual contract with EVN and to sell its product in the competitive generation market.

- Coal makes up a significant proportion of the production cost (over 80%); NBP has been exposed to risk of volatilities of the coal prices.

- NBP is aiming at a replacement project of \$160 million from 2015 to 2018, using its own capital rather than bank loans. This will lead to a significant decrease in its cash flow during that period.

- *Thai Binh Thermal Power Project*: This project used to be under the management of NBP. However, since 2013, the management and implementation of the project have been assigned to another unit of EVN. NBP currently has not any investment in this project and does not plan to do so in the near future. Actually, NBP has no particular expansion projects in the next 5 years.

- Growth potential of NBP has been threatened as its production and consumption outputs have been in a downward trend, negatively affecting its scale efficiency.

- **2014 Outlook**: Selling output in 2014 tends to decline when the production in the contract with EVN is only 400mn kWh, compared to 500mn kWh last year. Additionally, NBP's electricity amount sold in the competitive generation market is small due to the relatively high prices; thus, we estimated that its production is only about 520mn kWh. Revenue is projected at about VND 800bn, down by 8% yoy. Net income is estimated at VND 24bn, and EPS will stand at VND 1,900.

Commentary: Profit margins of NBP are much lower than that of its peers due to its huge consumption of raw materials. NBP also has limited growth potential as its output has been in a downward trend, partially due to price competition in the market. Its liquidity is relatively low because of the modest number of shares outstanding. We recommend SELL as for this stock to all long and short term investors as its market price is higher than our estimation of VND 15,800, based on discounted cash flow methods.

Table of major figures and projection

Criteria	2013E	2014E	2015F	2016F	2017F	2018F	2019F
Net Sale (VNDm)	866,625	798,488	843,053	896,267	932,897	970,949	1,010,475
Sale growth (%)	38%	-8%	5.58%	6.31%	4.09%	4.08%	4.07%
Net profit (VNDm)	41,900	32,620	33,386	34,449	33,852	33,456	33,262
Dividend (%)	5%	3%	3%	3%	3%	3%	3%
EPS (VND)	2,444	1,902	1,946	2,008	1,973	1,950	1,939
P/E (x)	7.53	9.68	9.45	9.16	9.32	9.43	9.49
P/B (x)	1.04	0.94	0.88	0.81	0.76	0.72	0.68
Net profit margin (%)	12.22%	26.23%	19.57%	19.54%	19.21%	19.68%	19.79%
ROE(%)	19.07%	13.62%	12.78%	12.26%	11.25%	10.44%	9.79%
ROA (%)	11.4%	7.2%	14.9%	14.6%	12.6%	11.2%	10.2%
Debt / Equity (%)	8.9%	9.1%	9.1%	8.5%	8.0%	7.6%	7.3%
Debt service coverage ratio (x)	4,437	3,891	3,702	3,626	3,408	3,244	3,095

Historical development

Ninh Binh Thermal Power Jsc, formerly known as Ninh Binh Thermal Power Plant, was established on 17th Jan 1974, belonging to Northern Power Corporation. The company used to provide power to only three surrounding provinces during the war, but now it has participated to the national electricity system.

Year	Event
1974	Ninh Binh Thermal plant was built
1995	Established as a dependent accounting unit of EVN
2005	Changed its name as Ninh Binh Power Company – an independent accounting unit.
2006	Equitization
2009	Listed in HNX
2012	As one of 13 first generators participating in the competitive generation market.

Development strategies:

- Operating machinery safely – continuously – economically and maintaining the minimum annual output at 600 million KWh.
- Ensure safety production and enhance the productivity; aiming at investing into projects of power plant construction under orientation of EVN.
- Looking for new investment opportunities and developing new business in other sectors.

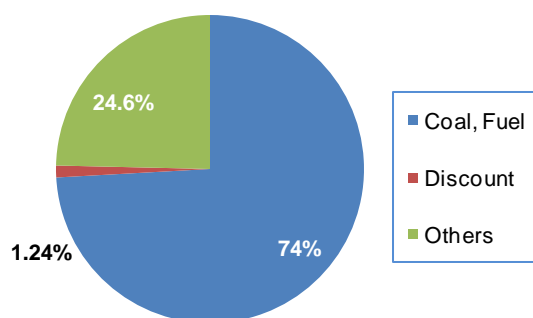
Production capacity

There are four production lines, each has capacity of 25MW. They were imported from China and started operating since 1974. Because the lifecycle of machinery is ranging from 10 to 15 years, NBP's machinery has been depreciated completely. NBP must implement annual overhaul, maintenance and repair with the average cost of VND 10bn per year.

Moreover, using the most obsolete technology, NBP has operated inefficiently, leading to its relatively high production cost compared to that of its peers, as followed:

- *High labour cost:* Although most contemporary machinery is automatic, that of NBP still requires a number of human's interfere.
- *Huge material consumption:* Designed material consumption rate of NBP is 580g coal/1kWh, compared to 450-500g - the average level of its peers. More specially, this rate is almost twice the rate of PPC (330g/1kWh).

NBP's production cost breakdown, 2013



Cost breakdown

Coal and fuel make up about 80% of NBP's production cost. NBP cost of amortization and depreciation makes up only a tiny proportion.

However, a high amount of raw material consumed has significantly raised its production cost. Coal usually makes up about 70% of the electricity production cost, but after a notable rise in coal price during 2013 (an average rate of 60%, with the price of more than VND 1,500,000/tons – transportation fee excluded), raising coal's proportion to 80% of the production cost.

Investment

NBP's cash flow is expected to decline when it invests in the replacement project during 2015 to 2018: NBP is going to replace its obsolete machinery and equipment with new and automatic ones, helping reduce expenses on labour and input materials. The company will invest in the next four years, with a total value of \$ 16mn (equivalent to VND 320bn) to replace most of the old equipment, including turbines, boilers, transformers and controllers, as so to enhance its proficiency rate from 28% to 31%. The whole budget of the project is from its own capital rather than the bank loans. Thus, NBP will spend an annual fund of VND 80bn to replace each machinery unit. With a humble amount of its contributed capital - VND 120bn, the investment with a value of VND 320bn significantly affects NBP's financial position.

This project is to reduce NBP's production cost, enhance profitability and decrease labour force required.

- In this year, NBP will partially reduce its labour expense when about 100 out of 820 workers are going to cease their jobs. Specifically, 40 workers will retire and the remaining will be transferred to Thai Binh Thermal project and Mong Duong Thermal project.
- Coal consumption rate will decline from 580g/1kWh to 560g/1kWh when the replacement project completes, helping reduce coal proportion in the total production cost.

No longer be involved in Thai Binh Thermal Project: Thai Binh Thermal project used to be under the management of NBP. However, the management and implementation has been allocated to another unit. In addition, NBP currently has no investment in this project and it targets to not do so in the future.

Main risks

Price competition: NBP is one of the most the most material – intensive producers among coal-fired generators; thus, the price of electricity that NBP sells to EVN is relatively high. Consequently, its product is not preferred to buy compared to that of other peers. Even though NBP is one of the oldest members in the competitive generation market, it is among a handful of generators who have not benefited from this market. More specifically, it is the fact that the relatively expensive prices of electricity that are offered in the market have limited its selling output. Meanwhile, the contract output sold to EVN has been on a downward trend when EVN prefers other generators with more competitive costs or buys more

Main institutional shareholders of NBP

Shareholders	Volume	% Ownership
EVN	7,045,440	54.76%
REE	3,045,700	23.67%
SSI	517,300	4.02%
Saigon Securities	513,000	3.99%
SSI Vision	305,500	2.37%
SSI Asset management	10,000	0.08%

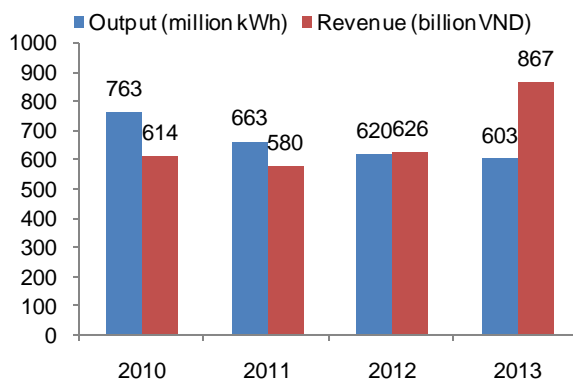
from the competitive generation market.

Risk of volatility of input material prices: Taking over 80% of the production cost, coal expense has a huge influence in NBP's profit margins and its cost of goods sold. However, the price of coal is expected to rise in 2014 as so to make it closer to the market price.

Risk of illiquidity: NBP has low liquidity in the stock market with the average trading volume of 2 thousands per day. Therefore, the investors are highly exposed to illiquidity risk. Indeed, of 12.8mn shares issued, 89% is currently held by institutional investors, namely EVN (55%) and REE (24%). The actual number of tradable shares is only 10%, equivalent to 1.4mn, a tiny amount compared to the scale of the market.

FINANCIAL ANALYSIS AND PROJECTION

Annual sales and outputs of NBP, 2010 - 2013



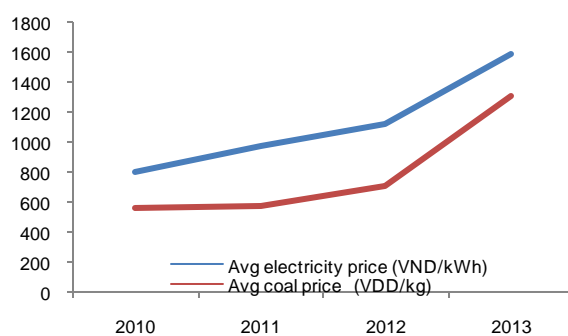
Business performance in 2013

Growth

Enjoying the highest growth in the last five years thanks to significant improvement in electricity prices.

Production output has been in a downward trend because the output in the contract with EVN has been reduced and the amount sold in the competitive generation market is fairly low because of high prices. During the last 4 years, NBP's output declined by 6%/year in average.

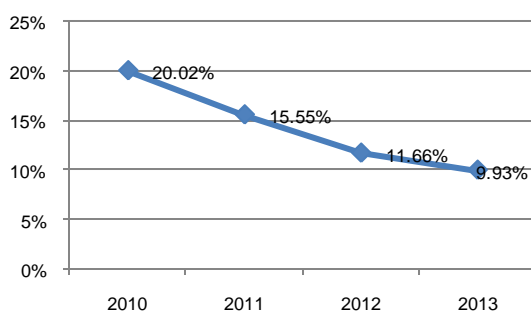
Prices of electricity and coal used by NBP, 2010 - 2013



This trend is expected to persist in the near future when there are more and more generation plants with much lower prices that are put into operation, namely Nghi Son Thermal plant, Quang Ninh Thermal Power plant, Hai Phong 2, etc...

Sale of NBP in 2013 was VND 867bn, up by 38% yoy compared to the last year's level and reached the highest level since the company went public. This result from remarkable rises in the price sold to EVN. The average level in 2013 was VND1,592 /kWh, up by over 42% yoy. The main reason behind the improvement of sale of NBP is the increase in its production cost when the price of coal soared by 60% in 2013. As a result, there was no considerable improvement in its net income despite a high growth rate of its sale.

NBP's gross profit margins, 2010 - 2013



Profitability

Profit margin has been decreasing for years.

The coal price went up over years and the production output has gone down, hampering NBP's operation efficiency. Its profitability criteria declined for years. In 2013, its gross profit was VND 86bn, up by 17% yoy, much slower than the rate of its sale (38% yoy).

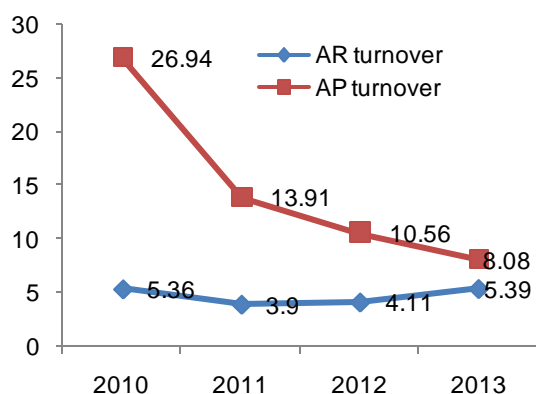
Capital and assets' composition

NBP is likely to use little long and short-term bank loans to finance its working capital and its investment projects. It becomes one of the companies having the least financial leverage in the industry. The item with the highest value among payable accounts is the

NBP assets composition by 31/12/2013

	Value	% Total Assets
Current assets	420	92,92%
Cash and cash equivalents	113	25,00%
Account receivables	177	39,16%
Inventories	122	26,99%
Non-current assets	32	7,08%
Fixed-assets	29	6,42%
Total assets	451	100,00%

NBP's operation efficiency, 2010-13



item of payables to sellers (this is impending cost when NBP bought coal from TKV). The high value of this item is regulated in the trade contract between NBP and TKV. With this regulation, NBP can take advantage of short-term payable accounts for its working capital.

In the assets structure, current assets make up an overwhelming part of the total assets. In contrast, its non-current assets take only under 10% because most of its fixed-assets have been fully depreciated and the long-term financial investment is relatively small.

Its liquidity is fairly high when 25% of total assets are composed of cash and cash equivalents. However, the largest item in its assets is receivables from customers (EVN), preventing a huge proportion of assets from being used efficiently.

Operation efficiency

Most recognized revenue of NBP comes from the trade with EVN, however, a large proportion of its sales is realized as account receivables, which makes up a large percentage of its total assets with a value of VND 163bn, up by 24%yoy. However, the value does not have much effect on its requirement of working capital as NBP can take advantage of a large amount of account payables from TKV who is responsible for providing input materials to NBP.

Outlook in 2014

Production and sale outputs are likely to continue their downward trends. The amount of electricity that EVN is committed to buy is as much as 400mb kWh compared to 500mn kWh in 2013. Meanwhile the output could be sold in the competitive generation market is estimated at only 100mn kWh; thus, the sale output of NBP approximates at about 520mn kWh in 2014.

The electricity price is calculated based on the production cost and % profit margin that each generator can gain (it is assumed to equal to the yield of 5-year government bond). The coal price during early 2014 has been VND1,587/kWh and we assume that this is the average level of coal price for the whole year. Revenue and net income in 2014 are expected to be VND 798bn and 24bn, down by 8% and 23.3% respectively. EPS in 2014 is projected at VND 1,900.

Estimated operation performance and projection, 2014-2018 (mn VND)

Criteria	2013	2014F	2015F	2016F	2017F	2018F
Net sale	866,625	798,488	843,053	896,267	932,897	970,949
Gross profit	86,074	60,925	64,325	68,385	71,180	74,083
Profit or loss from financial activities	6,030	9,640	9,124	8,655	7,004	5,512
Selling expenses	395	364	384	409	425	443
Administration expenses	49,694	39,924	42,153	44,813	46,645	48,547
Profit from operating activities	42,015	30,276	30,911	31,818	31,113	30,606
Profit before tax	41,900	32,620	33,386	34,449	33,852	33,456
Profit after tax	31,445	24,465	25,040	25,837	25,389	25,092
Minority interests	31,445	24,465	25,040	25,837	25,389	25,092
EPS (VND)	2,444	1,902	1,946	2,008	1,973	1,950

VALUATION MODELS

Evaluation modeling

The main operation activity of NBP has been relatively stable, and so is the cash flow from the operation activities. However, it almost does not use any long-term bank loan for years; the cash flow from financial activities remains low. We prefer the discounted cash flow methods (DCF) to be as the main method estimating NBP's value, with the following assumptions:

1. Annual outputs in the next 5 years will stay relatively stable and be similar to that of 2014.
2. The coal price and fuel will be adjusted in proportion with the forecasted inflation rate.
3. The electricity price sold to EVN will be the sum of the production cost and % profit margin for generators. % profit margin is assumed to equal to yield of the five-year government bond.
4. Revenue from financial activities: most investment of NBP is recognized as bank deposit accounts and a tiny proportion is allocated to invest in its associates. We project future financial revenue to at least equal to investment return on banking deposits.
5. Long-term growth rate: we assume $g = 1\%$ because NBP has no expansion projects and its output is declining.

Multiple valuation methods: We apply two multiple methods, namely P/E and P/B, to evaluate NBP. On 31st March 2014, the average rate of P/E and P/B in the industry are 8.86x and 1.98x respectively. With forward EPS is estimated at VND 1,876 and the book value per share 2013 of VND 18,362, the price estimated by these two methods would be VND 16,611 and VND 22,282 per share respectively.

Evaluation result

Method	Price	Weight	Weighted average
FCFE	10,549	35%	3,692
FCFF	17,790	35%	6,226
P/E	16,840	15%	2,526
P/B	22,282	15%	3,342
Price		100%	15,787

Evaluation in details:

Discounted cash flow methods

WACC	Estimation
Required return of debt (Rd)	7.08%
Tax (T) (*)	25%
Free-risk rate (yield of 10 year treasury bond)	7.63%
Beta (x)	0.84
Risk premium	15.75%
Required return of equity (Re)	14.44%
WACC	13.3%

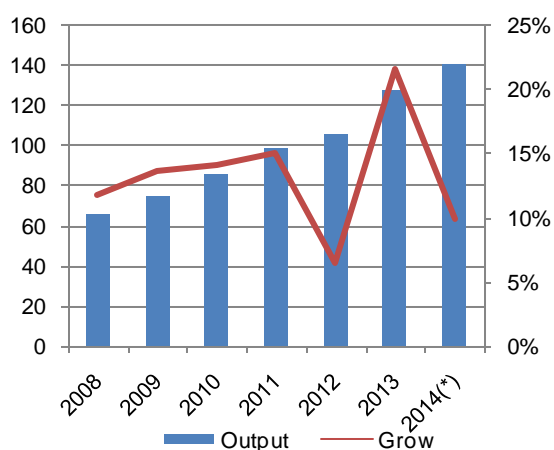
A summary of FCFF valuation

FCFF (VND bn)	2014F	2015F	2016F	2017F	2018F	2019F
FCFF	7.04	(64.49)	(27.71)	(23.23)	(19.82)	61.69
Duration of projection	6					
WACC	13.30%	13.30%	13.30%	13.30%	13.30%	13.30%
Present value of cash flow	6.20	-50.07	-18.96	-14.01	-10.53	28.88
Total present value (6 years)	-58.48					
Firm's value	147					
(+) Cash and cash equivalents	122					
(-) Borrowings	40					
Value of owner's equity	230					
Minority interests	0					
Parent company's value	230					
Average outstanding shares (million)	12,8655					
Share price	17,790					

APPENDIX

AN OVER VIEW OF VIETNAM'S ELECTRICITY INDUSTRY

National electricity output growth, 2008-14* (annual guidance)



Retail electricity prices, 2010-2013

Date	Price	% change
1/3/2011	1,242	15.28%
20/11/2011	1,284	5%
1/7/2012	1,369	5%
22/12/2012	1,437	5%
1/8/2013	1,508	5%

Outlook in 2014

The competitive generation market keeps growing in its scale: As scheduled, there will be 12 additional power plants chosen by Ministry of Industry and Trade to participate into the market in 2014, including: Nam Chien, Song Bung 5, and Quang Ninh II Thermal power plant, ect... From 2014 to 2016, EVN will endorse several policies to enhance the fair competition, transparency, and thus efficiency of the market, so as to promote its development into the competitive wholesale market.

Sale output is expected to increase by 10%: In the 2014 guidance, EVN will generate and buy a total of 140.4bn kWh, up by 10% from the last year's level.

A high possibility of a rise in retail prices in 2014: According to Decision 2165 by the Prime Minister at 11th Nov 2013, the range of retail electricity price during 2013-2015 was from 1,347 to 1,835 VND/kWh (the growth rate of 21.6%- equivalent to 10%/year). In addition, the Decision 69 issued on 19th Nov 2013 on the mechanism adjusting electricity prices, EVN will be mandated to alter the retail price at the average rate up to 7% rather than 5%. In order to recognize profit in 2014, EVN is aiming at raising the retail price to about 1,533.09 VND/kWh (a minimum rise of 34 VND/kWh).

The prices of coal and fuel are expected to increase: In the annual meeting in 2013, the general director of Vietnam National Coal Mineral Industry Group (VINACOMIN) affirmed that the coal price could be adjusted in line with market mechanism in 2014. In 2013, even though the coal price had been up by 60%, it accounts for only 80% of its production cost in 2013 and this cost will be raised in 2014. Thus, the coal price sold to electricity industry will be raised further to keep pace with its production cost. However, the specific schedule has to be approved by the Ministry of Industry and Trade in order to avoid any significant effect on inflation.

Commentary: The coal price will keep rising, leading to a proportional rise in electricity production cost. However, the competitive generation market somehow has exerted positive influences, limiting inappropriate raises in the cost of production. Thus, those generators (thermal and hydro) with relatively material –effective production will benefit more from the mechanism of the competitive market.

Interpretation of recommendation

This assessment aims to determine the share's value representing the corporate valuation, in order to find each share's potential value and provide the useful information to investors during the 12-month investment.

The rate of 18% is calculated as the sum of the interest rate of 12 month Government bond and risk premium for Vietnamese securities market.

Recommendation	Interpretation
12 Month	
BUY	The target price is higher than the market price by more than 18%
ADD	The target price is higher than the market price by from 7% to 18%
FOLLOW	The target price is deviated from the market price by from -7% to 7%
REDUCE	The target price is lower than the market price by from -7% to -18%
SELL	The target price is higher than the market price by under -18%

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