

#### **ASX Announcement**

22 September 2011

#### Target's statement

As required by item 14 of section 633(1) of the *Corporations Act 2001 (Cth)*, a copy of the Target's Statement served today by Northern Energy Corporation Limited (ASX:NEC) on Arkdale Pty Limited (ABN 99 118 299 522) in response to its Bidder's Statement dated 29 August 2011 is attached.

On behalf of the board

JPh Maylin

Paul Marshall

**Company Secretary** 



# Your Independent Directors recommend that you ACCEPT the New Hope BidCo Offer in the absence of a superior proposal

## Target's Statement

In response to the offer by

Arkdale Pty Ltd ACN 118 299 522 (a wholly owned subsidiary of New Hope Corporation Limited ACN 010 653 844)

To acquire all of your ordinary shares in

Northern Energy Corporation Limited ACN 081 244 395

THIS DOCUMENT CONTAINS IMPORTANT INFORMATION AND REQUIRES YOUR IMMEDIATE ATTENTION. IF YOU ARE IN ANY DOUBT AS TO HOW TO DEAL WITH THIS DOCUMENT CONSULT YOUR STOCKBROKER, LEGAL OR FINANCIAL ADVISER.

Legal adviser



## Table of contents

Lette	r from the Independent Directors	3
What	should you do?	5
Why y	you should accept the New Hope BidCo Offer	6
Why y	you might reject the New Hope BidCo Offer	8
Frequ	ently asked questions about the New Hope BidCo Offer	10
1	Independent Directors' recommendation	13
2	Key terms of the New Hope BidCo Offer	14
3	Profile of Northern Energy	16
4	About New Hope BidCo and New Hope	23
5	Your choices as a Northern Energy Shareholder	24
6	Tax consequences	26
7	Directors' interests	28
8	Additional information	29
9	Approval of Target's Statement	31
10	Definitions and interpretation	32
Anne	xure A	35
	Independent Expert's Report	35

#### **Important Notices**

#### **Shareholder information**

To make a fully informed decision, read this Target's Statement. If you have any questions, please call Paul Marshall on 1800 838 609 (from inside Australia) (toll-free) or + 61 2 8256 3361 (from outside Australia) on weekdays between 9.00am and 5.00pm, or visit our website at www.northernenergy.com.au.

The Directors are committed to ensuring Shareholders are kept informed of developments. Important developments under the control of Northern Energy will be notified direct to Shareholders.

#### **About this document**

This document is a Target's Statement issued by Northern Energy under part 6.5 division 3 Corporations Act in response to a Bidder's Statement issued by New Hope BidCo.

If you are in any doubt as to how to deal with this document, consult your stockbroker or your legal, financial or other professional adviser as soon as possible.

A copy of this Target's Statement has been lodged with the Australian Securities and Investments Commission (**ASIC**) and sent to ASX. Neither ASIC nor ASX take any responsibility for the content of this Target's Statement.

#### **Defined terms**

A number of defined terms are used in this Target's Statement. These terms are explained in the definitions in section 10.

#### Forward looking statements

This Target's Statement contains forward looking statements. The forward looking statements in this Target's Statement reflect views held at the date of this Target's Statement.

You should be aware that such statements involve inherent risks and uncertainties. Actual events or results may differ materially from the events or results expressed or implied in any forward looking statement and those deviations are both normal and to be expected. None of Northern Energy, its officers or any person named in this Target's Statement with their consent or involved in the preparation of this Target's Statement makes any representation or warranty, as to the accuracy or likelihood of fulfilment of any forward looking statement. You should not place undue reliance on those statements.

#### **Privacy statement**

Northern Energy has collected your information from the register of Shareholders. The Corporations Act permits that information to be made available to certain persons, including New Hope BidCo. Your information may also be disclosed on a confidential basis to Northern Energy's related bodies corporate and external service providers and may be required to be disclosed to regulatory parties such as ASIC. You can contact us for details of information held by us about you.

## Letter from the Independent Directors

22 September 2011

Dear Shareholder

#### **Accept the New Hope BidCo Offer**

On 29 August 2011, Arkdale Pty Ltd (**New Hope BidCo**) announced an off-market takeover bid for all the Shares in Northern Energy Corporation Limited (**Northern Energy**).

By now, you should have received the Bidder's Statement from New Hope BidCo containing an offer to acquire all of your shares in Northern Energy for \$2.00 cash for each Northern Energy Share (**New Hope BidCo Offer**).

Mr Neale, Mr Millner, Mr Robinson, Mr Fairfull, Mr Williamson and Mr Grant are directors of Northern Energy and New Hope BidCo or New Hope Corporation Limited and, on that basis, have decided to absent themselves from any Northern Energy Board discussions or voting in relation to the Offer and will not make a recommendation in respect of the Offer.

As a result, Mr Geoffrey Lord, Mr Dian Zhou He and Mr Ian Johnston (**Independent Directors**) are the representatives of the board of Northern Energy who are able to make a recommendation in relation to the Offer.

Your Independent Directors recommend that you accept the New Hope BidCo Offer in the absence of a superior proposal.

In making the recommendation to accept, the Independent Directors have considered the view of an experienced independent expert, Deloitte, who has concluded that the Offer is fair and reasonable.

The Independent Directors also considered a number of other factors before confirming their recommendation, including the following:

- (a) the Offer consideration gives certainty of cash consideration to Northern Energy Shareholders and represents:
  - (i) a premium of 29.0% to the closing price of \$1.55 per Northern Energy Share on 26 August 2011, being the Trading Day before New Hope announced the Offer;
  - (ii) a premium of 32.6% to the 1 month VWAP of \$1.509 per Northern Energy Share up to and including 26 August 2011; and
  - (iii) a premium of 32.0% to the 3 month VWAP of \$1.515 per Northern Energy Share up to and including 26 August 2011;
- (b) your Northern Energy Shares are currently highly illiquid and there may be limited alternative opportunities to realise your investment at the Offer Price;
- (c) Northern Energy needs substantial development capital in the short and medium term. If you remain a shareholder in Northern Energy, you may be asked to participate in a capital raising to

- satisfy these funding requirements. If you did not participate, your shareholding would be diluted;
- (d) on 1 September 2011 New Hope announced that it had a relevant interest in 97.59% of Northern Energy Shares. Your Independent Directors therefore consider it extremely unlikely that a competing proposal will emerge. At the date of this Target's Statement, the Offer is the only takeover offer available to Northern Energy Shareholders; and
- (e) on 2 September 2011, New Hope BidCo lodged a supplementary bidder's statement with ASIC stating that it is now entitled to seek to compulsorily acquire the remaining shares that it does not own in Northern Energy. New Hope BidCo stated in its Bidder's Statement that it intends to exercise its compulsory acquisition rights. If your shares are compulsorily acquired, it will take longer for you to receive payment for your Northern Energy Shares than it will if you accept the Offer.

This Target's Statement sets out in more detail the reasons for your Independent Directors' recommendation.

If you have any questions about the New Hope BidCo Offer, please call Paul Marshall on 1800 838 609 (from inside Australia) (toll-free) or + 61 2 8256 3361 (from outside Australia) on weekdays between 9.00am and 5.00pm.

Yours sincerely

Ian Johnston

**Non-Executive Director** 

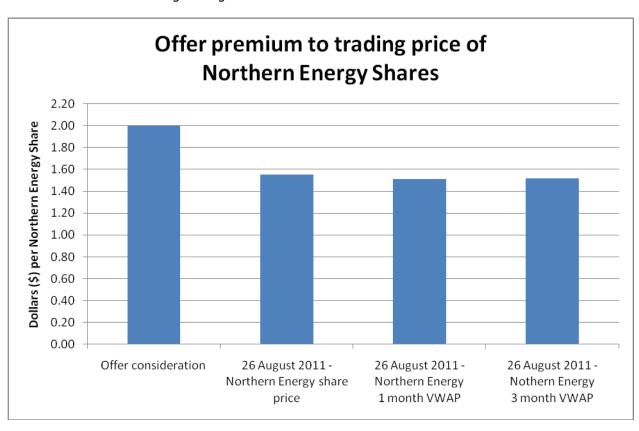
## What should you do?

- You should read this Target's Statement, which contains your Independent Directors' recommendation to accept the New Hope BidCo Offer in the absence of a superior proposal and their reasons for this recommendation.
- 2 To accept the New Hope BidCo Offer, complete the acceptance form in the Bidder's Statement and return it in the envelope provided.
- If you wish to reject the New Hope BidCo Offer, you should do nothing. However, New Hope BidCo intends to exercise its compulsory acquisition rights. If you chose to do nothing, your shares may be compulsorily acquired and it will take longer for you to receive payment for your shares than if you had accepted the Offer.
- If you have any questions, please call Paul Marshall on 1800 838 609 (from inside Australia) (toll-free) or + 61 2 8256 3361 (from outside Australia) on a weekday between 9.00am and 5.00pm.

## Why you should accept the New Hope BidCo Offer

#### Offer consideration represents a premium

- The New Hope BidCo Offer of \$2.00 cash per Northern Energy Share represents a premium to the trading price of Northern Energy Shares prior to the date that the Offer was announced.
- The New Hope BidCo Offer represents:
  - (a) a premium of 29.0% to the closing price of \$1.55 per Northern Energy Share on 26 August 2011, being the Trading Day before New Hope BidCo announced the Offer;
  - (b) a premium of 32.6% to the 1 month VWAP of \$1.509 per Northern Energy Share up to and including 26 August 2011; and
  - (c) a premium of 32.0% to the 3 month VWAP of \$1.515 per Northern Energy Share up to and including 26 August 2011.

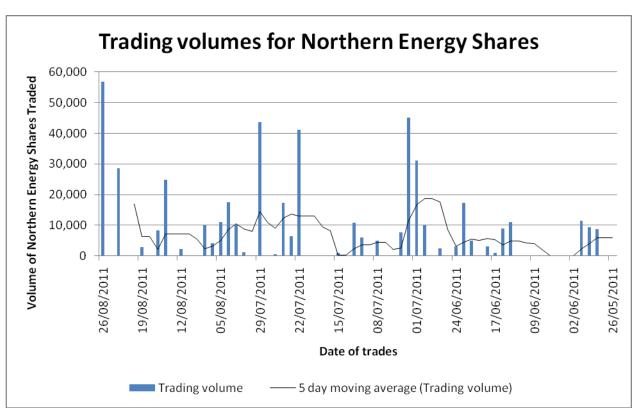


#### The Independent Expert considers the Offer fair and reasonable

- The Independent Expert has considered the Offer and concluded that it is fair and reasonable.
- The Independent Expert considers the New Hope Offer is fair and reasonable for the following reasons:
  - (a) the Offer is fair as the consideration offered by New Hope is within the range of the Independent Expert's estimate of the fair market value of a Northern Energy Share;
  - (b) the Offer is reasonable as New Hope has increased its interest in Northern Energy to at least 97.6% of the issued shares and is entitled to proceed to compulsorily acquire the remaining Northern Energy shares it does not already own; and
  - (c) given the current shareholding of New Hope in Northern Energy, an alternative offer for Northern Energy is improbable.
- Your Independent Directors consider that the Independent Expert's conclusion supports the Independent Directors' recommendation to accept the New Hope Offer.

#### Northern Energy Shares are currently highly illiquid

- In the 3 months prior to the Offer being announced, Northern Energy Shares have only traded on ASX for 36 out of 66 trading days. On the days that Northern Energy Shares have been traded on ASX, the average daily trading volume for Northern Energy Shares during that period has been less than 13,500 shares.
- Your Independent Directors consider that the liquidity of Northern Energy Shares will continue to reduce as Shareholders accept the Offer.



#### Potential dilution due to capital requirements

Northern Energy needs substantial development capital in the short and medium term. To meet
Northern Energy's action plans, approximately \$240 million will be required by the company over
the next 12 months including for capital expenditure, cash backed bank guarantees for
infrastructure access and general working capital. If you remain a shareholder in Northern
Energy, you may be asked to participate in a capital raising to satisfy these funding requirements.
If you did not participate, your shareholding would be diluted.

#### No superior proposal is likely

- On 1 September 2011 New Hope announced that it had a relevant interest in 97.59% of Northern Energy Shares. Your Independent Directors therefore consider it extremely unlikely that a competing proposal will emerge for your Northern Energy Shares.
- At the date of this Target's Statement, the Offer is the only takeover offer available to Northern Energy Shareholders.

#### New Hope BidCo intends to exercise its compulsory acquisition rights

- New Hope BidCo has a relevant interest in greater than 90% of Northern Energy Shares and has acquired over 75% of the securities which it offered to acquire under the Offer. This means that New Hope BidCo has satisfied the statutory requirements for it to exercise compulsory acquisition rights under section 661A Corporations Act in relation to your Northern Energy shares.
- New Hope BidCo has stated that it intends to exercise its compulsory acquisition rights to
  compulsorily acquire your Northern Energy Shares in which case you will be paid the same
  consideration as is payable by New Hope BidCo under the Offer, but at a later date than if you
  accept the Offer.

#### **Exposure to risks**

• If you choose not to accept the Offer and New Hope BidCo does not compulsorily acquire your Shares you will continue to have exposure to the risks associated with an investment in Northern Energy. The general and specific risks associated with an investment in Northern Energy are set out in sections 3.4 and 3.5 of this Target's Statement.

## Why you might reject the New Hope BidCo Offer

#### You will lose your right to object to compulsory acquisition

- When New Hope BidCo commences the compulsorily acquisition process to acquire all Northern Energy Shares which it has not acquired by the end of the Offer Period, a holder of Northern Energy Shares can apply to the Court for an order that their Northern Energy Shares not be compulsorily acquired. The Court may order that the relevant Northern Energy Shares not be acquired only if the Court is satisfied that the consideration offered is not fair value for the Northern Energy Shares.
- If you accept the Offer, you will lose your right to object to the compulsory acquisition of Northern Energy Shares by New Hope BidCo.

#### You will lose your right to sell your Northern Energy Shares to a third party

- If you accept the New Hope Bidco Offer, you will lose your right to sell your Northern Energy Shares to a third party investor and you may consider that you can obtain a higher price for your Northern Energy Shares by selling them to a third party. However, the Independent Directors consider it unlikely that third parties will be willing to acquire your Northern Energy Shares for greater than the Offer Price, given that New Hope BidCo has stated that it intends to compulsorily acquire all outstanding Northern Energy Shares and the acquisition will occur at the Offer Price.
- If New Hope BidCo attempts to compulsorily acquire the Northern Energy Shares which it does not own, ASX will suspend trading of Northern Energy Shares on ASX five business days after it receives a copy of the compulsory acquisition notice sent to shareholders. If this occurs, it will be difficult for you to trade your Shares.

## Frequently asked questions about the New Hope BidCo Offer

The process governing takeovers is complex. This section of the Target's Statement is designed to help you understand some of the issues relating to the New Hope BidCo Offer.

Question	Answ	Further Information			
Who is the Bidder?	Arkdale Corpor	Section 4			
How many Shares does New Hope hold in Northern Energy?	New H the dat interes represe issue.				
	Since the Bidder's Statement was issued, New Hope has increased its relevant interest in Northern Energy Shares to over 97% of the Northern Energy Shares on issue.				
What is the Offer?	New H Northe Northe	Section 2.2			
Is the Offer conditional?	No. Th	ne Offer has no conditions.	Section 2.4		
What choices do I have as	You ha	You have the following choices:			
a Northern Energy Shareholder?	(a)	accept the Offer by following the instructions in section 8.3 of New Hope BidCo's Bidder's Statement or section 5.1 of this Target's Statement;			
	(b)	sell your Northern Energy Shares on ASX at the prevailing market price (unless you have previously accepted the New Hope BidCo Offer and you have not validly withdrawn your acceptance); or			
	(c)	reject the Offer by doing nothing.			
What do the Directors recommend?	The Independent Directors recommend that you <b>accept</b> the New Hope BidCo Offer in the absence of a superior proposal. Other Directors of Northern Energy have declined to make a recommendation because they are also directors of New Hope BidCo or New Hope.		Section 1.1		
		asons for the recommendation of the Independent ors are set out in this Target's Statement.			
What is the conclusion of the Independent Expert?	fair an	dependent Expert has concluded that the Offer is dreasonable. The Independent Expert's report is as Annexure A to this Target's Statement.	Annexure A		

Question	estion Answer	
How do I do to accept the	You can accept the Offer by:	Section 5.1
Offer?	(a) if you hold your Northern Energy Shares in an Issuer Sponsored Holding – signing and returning the acceptance form in the Bidder's Statement; or	
	(b) if you hold your Northern Energy Shares in a CHESS Holding – either signing and returning the acceptance form in the Bidder's Statement or instructing your broker or other controlling participant to accept the Offer for you.	
How do I reject the Offer?	If you do not want to accept the New Hope BidCo Offer, you need not do anything.	Section 5.3
What are the consequences of accepting the Offer now?	If you accept the New Hope BidCo Offer you will not be able to sell your Northern Energy Shares on ASX or to any other bidder that may make a takeover offer, or deal with your Northern Energy Shares in any other way while the Offer remains open. You may only withdraw your acceptance if New Hope BidCo extends the Offer Period by more than one month.	Section 2.5
	If you accept the New Hope BidCo Offer and New Hope BidCo subsequently raises its Offer Price, you will receive the higher price.	
When do I have to decide?	If you want to follow your Independent Directors' recommendation and accept the New Hope BidCo Offer, you must do so before the end of the Offer Period. New Hope BidCo has stated that the Offer will remain open until 13 October 2011, unless extended or withdrawn.	Section 2.3
What happens if I do nothing?	You will remain a Northern Energy Shareholder unless New Hope BidCo exercises its rights to compulsorily acquire your Northern Energy Shares, which is its stated intention.	Sections 5.3 and 2.8
Can I be forced to sell my Northern Energy Shares?	You can be forced to sell your Northern Energy Shares where New Hope BidCo proceeds to compulsory acquisition of your Northern Energy Shares, which New Hope BidCo is entitled to do as it has satisfied the relevant statutory requirements to conduct a follow-on compulsory acquisition under section 661A Corporations Act.	Section 2.8
	New Hope intends to exercise its compulsory acquisition rights to compulsorily acquire your Northern Energy Shares. In this event, you will be paid the same consideration as is payable by New Hope BidCo under the Offer.	
What are the tax implications of accepting the New Hope BidCo Offer?	You may be liable for capital gains tax. Consult your financial or taxation adviser for individual advice.	Section 6
When does the Offer close?	The New Hope BidCo Offer will close at 7.00pm (Sydney time) on 13 October 2011 unless extended or withdrawn.	Section 2.3

Question	Answer	Further Information
Can New Hope BidCo vary the New Hope BidCo	Yes. New Hope BidCo can vary the New Hope BidCo Offer by extending the Offer Period or increasing the Offer Price.	Section 2.7
Offer?	However, New Hope BidCo has announced that the Offer is New Hope BidCo's 'Best and Final' offer. This means that it is unlikely that the Offer Price will be varied.	
What is a bidder's statement?	The documents sent to you by New Hope BidCo include a document called a bidder's statement. It contains information about the Offer.	
What is a target's statement?	This document is a target's statement. It contains information prepared by your Independent Directors to help you decide whether to accept the Offer.	
What if I have other questions about the Offer?	If you have any questions, please call Paul Marshall on 1800 838 609 (from inside Australia) (toll-free) or + 61 2 8256 3361 (from outside Australia), or visit Northern Energy's website at www.northernenergy.com.au.	
	Announcements made to ASX by Northern Energy and other information relating to the New Hope BidCo Offer can be obtained from Northern Energy's website at www.northernenergy.com.au.	

#### **1** Independent Directors' recommendation

#### 1.1 Independent Directors' recommendation

After taking into account the terms of the New Hope BidCo Offer (set out in the Bidder's Statement), the matters in this Target's Statement and the Independent Expert's Report, each Independent Director recommends that you accept the New Hope BidCo Offer.

The reasons for the Independent Directors' recommendation are set out in the section entitled 'Why you should accept the New Hope BidCo Offer'.

#### 1.2 Other Directors

Mr Neale, Mr Millner, Mr Robinson, Mr Fairfull, Mr Williamson and Mr Grant are directors of Northern Energy and New Hope BidCo or New Hope Corporation Limited and, on that basis, have not made a recommendation in relation to the Offer.

#### 1.3 Directors' acceptance of the New Hope BidCo Offer

At the date of this Target's Statement, to the best of the Independent Directors' knowledge, no Directors had a relevant interest in Northern Energy Shares.

#### 2 Key terms of the New Hope BidCo Offer

#### 2.1 History

On 29 August 2011, New Hope BidCo announced its intention to make an off-market takeover bid for all the ordinary Shares in Northern Energy which it did not already own and lodged its Bidder's Statement with ASIC and delivered a copy to Northern Energy.

The Bidder's Statement contains the New Hope BidCo Offer.

#### 2.2 Summary of the New Hope BidCo Offer

The New Hope BidCo Offer is to acquire all of your Northern Energy Shares and any rights attaching to the Shares for \$2.00 cash for each Northern Energy Share.

#### 2.3 Offer Period

The New Hope BidCo Offer will remain open for acceptance until 13 October 2011, unless extended or withdrawn under the Corporations Act.

#### 2.4 Conditions of the New Hope BidCo Offer

The New Hope BidCo Offer is not subject to any Conditions.

#### 2.5 Effect of acceptance

The effect of acceptance of the New Hope BidCo Offer is set out in section 8.5 of the Bidder's Statement. Read that section in full to understand the effect that acceptance will have on your ability to exercise the rights attaching to your Northern Energy Shares and the representations and warranties which you give by accepting the New Hope BidCo Offer. In particular, if you accept the New Hope BidCo Offer, you may forfeit the opportunity to benefit from any superior offer made by another bidder for your Northern Energy Shares, if that offer were to eventuate. If you accept the New Hope BidCo Offer you will not be able to sell your Northern Energy Shares on ASX.

#### 2.6 Payment of consideration

New Hope BidCo has set out in section 8.9 of the Bidder's Statement the timing of the payment of the consideration to holders of Northern Energy Shares who accept the New Hope BidCo Offer. In general terms, you will receive the consideration to which you are entitled under the New Hope BidCo Offer by the later of:

- (a) a date which is on or before the tenth Business Day after your valid acceptance is received; and
- (b) if you are required to supply New Hope BidCo with documents to enable New Hope BidCo to become the holder of your Northern Energy Shares, a date which is on or before the tenth Business Day after New Hope BidCo is given the documents.

#### 2.7 Changes to the New Hope BidCo Offer

New Hope BidCo can vary the New Hope BidCo Offer by:

(a) extending the Offer Period; or

(b) increasing the consideration offered under the New Hope BidCo Offer.

However, New Hope BidCo has announced that the Offer is New Hope BidCo's 'Best and Final' offer. This means that it is unlikely that the Offer Price will be varied.

If you accept the New Hope BidCo Offer and New Hope BidCo subsequently increases its Offer Price, you are entitled to receive the higher price.

#### 2.8 Compulsory acquisition

New Hope BidCo has indicated in section 7.1 of its Bidder's Statement that, if it is entitled to do so, it will proceed to compulsorily acquire all remaining Northern Energy Shares.

On 2 September 2011, New Hope BidCo lodged a supplementary bidder's statement which stated that it had a relevant interest in 97.5% of Northern Energy Shares on issue and that it was entitled to seek to compulsorily acquire the remaining Northern Energy Shares that it does not own.

New Hope Bidco has achieved a relevant interest in greater than 90% of Northern Energy Shares and has acquired greater than 75% (by number) of the Northern Energy Shares that it is offering to acquire under the Offer. Therefore New Hope Bidco intends to rely on the follow-on compulsory acquisition powers in section 661A of the Corporations Act to proceed to compulsorily acquire your Northern Energy Shares. When this occurs and you have not accepted the Offer, you will be paid the Offer consideration at the conclusion of the follow-on compulsory acquisition process, which may be up to 6 weeks after the Offer closes. If New Hope BidCo attempts to compulsorily acquire the Northern Energy Shares which it does not own, ASX will suspend trading of Northern Energy Shares on ASX five business days after it receives a copy of the compulsory acquisition notice sent to shareholders.

The consideration per Northern Energy Share payable to Northern Energy Shareholders whose Shares are compulsorily acquired is the same as that payable under the New Hope BidCo Offer.

Northern Energy Shareholders have statutory rights to challenge the compulsory acquisition, but a successful challenge will require the Shareholders to establish to the satisfaction of a court that the terms of the Offer do not represent 'fair value' for the Northern Energy Shares.

#### **3** Profile of Northern Energy

#### 3.1 Overview

Northern Energy Corporation Limited ABN 90 081 244 395 is an ASX-listed company (ASX Code: NEC) with coal projects in Queensland and New South Wales, Australia.

Northern Energy has interests in a portfolio of coking and thermal coal projects being progressed towards development. These projects represent a diversified suite of geographically spread resource development opportunities involving various coal types and mining methods.

Northern Energy's current portfolio includes:

- the Maryborough Hard Coking coal project (EPC923 and EPC1082), near Maryborough, Queensland;
- the Elimatta Thermal Coal project (EPC650, EPC1171 and EPC1205), located approximately 30km west of Wandoan, Queensland;
- the Yamala PCI / Thermal coal project (EPC927 and EPC1169), between Emerald and Blackwater, Queensland;
- the Ashford Hard Coking coal project (EL6234 and EL6428), north of Inverell, New South Wales;
- the Yetman project (EL6946 and EL6947), north west of Inverell, New South Wales;
- the Atholwood project (EL6526) in New South Wales; and
- the Five Mile project (EPC1158) in Queensland.

Northern Energy has established significant industry partnerships and has plans to grow and expand its relationships as it makes the transition from explorer to mine developer and coal producer.

Northern Energy has an interest in stage one of the Wiggins Island Coal Export Terminal (**WICET**). The development of WICET and the associated rail infrastructure is critical for Northern Energy's future supply to export markets. As part of the WICET project, Northern Energy has entered into an agreement with QR Network Pty Ltd (a wholly owned subsidiary of QR National Limited) for the expansion of rail system capacity to accommodate the requirements of WICET.

Northern Energy is well-positioned to take advantage of the in ground value of its resources to meet strong ongoing market demand for both thermal and hard coking coal.

As at the date of this Target's Statement, the Company has the JORC Resources and Reserves set out in the table below:

Reserves (Mt)					
Project	Proven	Probable	Total	Northern Energy Equity	
Elimatta	82	24	106	100%	
Maryborough		5.9	5.9	100%	

Resources (Mt)						
Project	Coal Type	Measured	Indicated	Inferred	Total Mt	Northern Energy Equity
Elimatta	Thermal	129	75	40	244	100%
Yamala	Thermal/PCI		40	180	220	83%
Maryborough	Hard Coking		9.5	73.5	83.0	100%
Ashford	Hard Coking			18	18	50%
Total		129	124.5	311.5	565	

#### Notes:

- the above tables represent a summary of Northern Energy's reserve and resources statement. For further details, please see Northern Energy's ASX announcements of 31 May 2006, 29 August 2008, 25 September 2008, 25 May 2009, 28 April 2010 and 30 July 2010.
- coal resources in the table are inclusive of the tabulated coal reserves in the table immediately above
- CHR Emerald Pty Limited, a wholly owned subsidiary of Sojitz, has the remaining 17% interest in Yamala. Sojitz also has the right to increase its interest in Yamala up to 49%, thereby decreasing Northern Energy's interest therein to 51%.

Exploration Targets <sup>1</sup>				
Project	Coal Type	Probable Mt	Northern Energy Equity	
Elimatta	Thermal	30 – 50	100%	
Yamala	Thermal/PCI	190 – 220	83%	
Maryborough	Hard Coking	105 – 137	100%	
Total		325 – 407		

<sup>&</sup>lt;sup>1</sup> Exploration Target – the potential quality and quantity of exploration targets shown above is conceptual in nature and there has been insufficient work done at present to define a Mineral Resource in this area under the JORC (2004) Code. The nature of an Exploration Target is such that is uncertain if further exploration will result in the determination of a Mineral Resource in this area. Further details of these exploration targets are contained in the Company's ASX Announcements of 29 August 2008, 25 September 2008 and 28 April 2010.

#### **Competent Persons Statement**

The estimates of coal resources and reserves presented above have been carried out in accordance with the JORC Code. Coal resources are reported inclusive of coal reserves.

The information in this document that relates to Mineral Resources at Maryborough is based on information compiled by Mr Lyon Barrett, who is a Member of the Australian Institute of Mining and Metallurgy and a qualified geologist (B.Sc. (Hons) Adelaide University, 1996). The information in this document that relates to Mineral Resources at Elimatta, Yamala and Ashford is based on information compiled by Mr Andrew McLaughlin, who is a Member of the Australian Institute of Mining and Metallurgy. Mr McLaughlin is a qualified geologist (B.Sc. (Hons) University of Newcastle, 1994) and is a former employee of Northern Energy.

Both Mr Barrett & Mr McLaughlin have sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Barrett & Mr

McLaughlin each consent to the inclusion in this document of the matters based on their information in the form and context in which it appears.

The information in this document that relates to proven and probable reserves at Elimatta is based on a mine plan, a mine schedule and costs prepared by The Minserve Group Pty Ltd. Mr Jeff Jamieson was responsible for the report's preparation and the reserve statement therein. He is both a Fellow of the Australian Institute of Mining and Metallurgy, and a Chartered Professional (Mining) and is a Competent Person as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves.'

Mr Jamieson consents to the inclusion in this document of the matters based on his information in the form and context in which it appears.

The estimates of Coal Reserves for the Maryborough (Colton) Mine Area as presented in this report have been prepared in accordance with the Guidelines of the "Australasian Code for the Reporting of Mineral Resources and Ore Reserves", prepared by the Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australasian Institute of Geoscientists and Minerals Council of Australia, December 2004.

The information in the document to which this statement is attached, that relates to the Maryborough (Colton Mine) Reserves, is based on information reviewed by Mr Fred Parker, who is a Member of the Australasian Institute of Mining and Metallurgy. Mr Parker is a full time employee of Runge Ltd.

Mr Parker has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking, to qualify as a Competent Person as defined in the 2004 Edition of the "Australasian Code for the Reporting of Mineral Resources and Ore Reserves".

Mr Parker consents to the inclusion in this document of the matters based on this information in the form and context in which it appears.

#### 3.2 Issued capital and bidder's voting power

As at the date of this Target's Statement, Northern Energy's issued capital consisted of 130,653,363 ordinary fully paid shares.

#### 3.3 Financial position of Northern Energy

The following tables set out Northern Energy's financial position for the 13 month period ended 31 July 2011. The financial information is based on unaudited management accounts which have not been approved by the Directors.

Within the knowledge of the Independent Directors', and other than disclosed in this Target's Statement, the financial position of Northern Energy has not materially changed since 31 July 2011.

Statement of comprehensive income – for the 13 month period ended 31 July 2011				
	Consolidated entity			
	13 months ended 31 July 2011	12 months ended 30 June 2010		
	\$	\$		
Revenue	1,466,907	605,700		
Other income	31,041	-		
Employee benefits expenses	(1,379,912)	(960,963)		
Depreciation and amortisation expenses	(38,394)	(43,470)		
Exploration expenditure written off	-	(68,712)		
Takeover defence costs	(4,752,711)	-		
Corporate and Administration	(711,725)	(596,163)		
Profit/(loss) before income tax	(5,384,794)	(1,063,606)		
Income tax expense				
Profit/(loss) after income tax expense	(5,384,794)	(1,063,606)		
Other comprehensive income				
Total comprehensive income for the year	(5,384,794)	(1,063,606)		
Total comprehensive income for the year attributable to owners of Northern Energy Corporation Limited	(5,384,794)	(1,063,606)		

Balance sheet – as at	31 July 2011	
	Consolidate	ed entity
	31 July 2011 30 June 2010	
	\$	\$
Current assets		
Cash and cash equivalents	3,967,136	23,067,873
Other receivables	2,242,668	571,106
Held to maturity investments	6,436,384	-
Other current assets	2,564,605	34,374
Total current assets	15,210,793	23,673,353
Non-current assets		
Other receivables	286,892	164,213
Held to maturity investments	3,819,038	8,993,848
Plant and equipment	63,417	54,792
Exploration expenditure	33,993,868	22,891,817
Financial assets	33,333,000	22,031,017
Total non-current assets	38,163,216	32,104,672
Total assets	53,374,009	55,778,026
	55/57 1/555	50,220,020
Current liabilities		
Trade and other payables	810,294	1,345,649
Short-term provisions	41,135	97,046
Total current liabilities	851,429	1,442,695
Total liabilities	851,429	1,442,695
Net assets	52,522,580	54,335,330
Equity		
Issued capital	83,845,510	79,836,066
Reserves	-	437,399
Accumulated losses	(31,322,929)	(25,938,135)
Total equity	52,522,580	54,335,330

If shareholders require further historical financial information, or wish to view Northern Energy's latest audited financial information, Northern Energy's financial report for the half year ended 31 December 2010 and financial report for the year ended 30 June 2010 are available on the ASX announcement platform.

#### 3.4 General risks of Northern Energy

#### **General Economic Conditions**

Changes in the general economic climate in which Northern Energy operates may adversely affect the financial performance of Northern Energy. Factors that may contribute to that economic climate include the general level of economic activity, interest rates, inflation, supply and demand, industrial disruption, and social unrest or war on a local or global scale. The price of commodities will also be of particular relevance to Northern Energy. These factors are beyond the control of Northern Energy, and it cannot, with any degree of certainty, predict how they will impact on the Company.

#### **Share Market Risk**

The market price of Shares can be expected to rise and fall in accordance with general market conditions and factors specifically affecting the Australian resources sector and mining and exploration companies in particular. The Shares carry no guarantee in respect of profitability, dividends, return on capital, or the price at which they may trade on ASX.

There are a number of factors (both national and international) that may affect the share market price and neither Northern Energy nor its Directors have control of those factors.

#### 3.5 Specific risks of Northern Energy

#### **Operational Risks**

The operations of Northern Energy may be disrupted by a variety of risks and hazards which are beyond the control of the Company, including geological conditions, environmental hazards, technical and equipment failures, flooding and extended interruptions due to inclement or hazardous weather or other physical conditions, unavailability of drilling equipment, unexpected shortages of consumables or parts and equipment, fire, explosions and other incidents beyond control of Northern Energy.

#### **Development and Exploration Projects**

The Company's projects are at various stages of exploration and development. The future value of the Company is dependent on the success of those projects and there can be no guarantee that the projects will be successfully developed into profitable coal mines.

Future developments are dependent on the grant of mining leases and appropriate approvals (including environmental approvals). Obtaining these approvals requires compliance with various regulations including as to native title, environmental and community impact.

#### **Resource and Reserve Estimates**

Resource and reserve estimates are quoted in accordance with the JORC Code. These are expressions of opinion based knowledge, experience and industry practice. It is the nature of these estimates that they may change over time as new information is obtained about projects, or as underlying assumptions change. They may also require adjustment where interpretation of data proves inaccurate. There is therefore a risk that resource and reserve estimates quoted in this document may change over time which may have an adverse effect on the Company's proposed operations and mining plans.

#### **Capital Requirements**

The Company requires capital to enable its projects to be brought into production. The Company's announcements of 30 July 2010 outline the Company's current expected capital requirement for the Elimatta and Maryborough projects, and potential sources of that capital. The capital estimates are estimates based on labour, material, construction and procurement costs at the date of those announcements. These costs may vary prior to final approval for each of the projects due to external economic influences, requirements placed upon the projects by approval conditions, availability of labour and detailed design changes.

Whilst the Company has opportunities that it intends to seek to pursue at the appropriate time, there can be no guarantee that the Company will be able to raise the necessary funding from the various sources, necessary to bring its projects into production in accordance with current plans, or if funding is available, that it is available on terms that do not render the project uneconomic.

#### **Mineral Resources Rent Tax**

The Federal Government has announced that it intends to introduce a Mineral Resource Rent Tax regime (MRRT) which will apply to entities involved in the mining of iron ore and coal in Australia. The MRRT is proposed to apply to the assessable profit based on the value of the resource extracted in all iron ore and coal projects. The final form of the MRRT may change and the extent to which the Company will be affected will depend upon the final legislative form of the MRRT and its application to any of the Company's projects that may be developed.

#### **Government Regulation - Strategic Cropping Land**

In August 2010, the Queensland Government released the "Protecting Queensland's strategic cropping land" policy framework. Under the policy, it is proposed that mineral resources in defined agricultural areas will not be developed where they permanently alienate the land. Precise definition of strategic cropping land and definitive maps identifying strategic cropping land have not yet been settled, although indicative maps have been published which do identify areas where strategic cropping land may exist. Based on the indicative maps, it would appear that the Company's Elimatta project (and potentially other projects) may, at least partially fall within the strategic cropping land zones. Where a development is proposed in an area that is mapped as strategic cropping land, it will not be permitted to proceed if it permanently prevents the land being used for cropping in the future.

#### **Coal price volatility**

The demand for, and price of, coal is highly dependent on a variety of factors, including international supply and demand, the price and availability of alternative fuels, actions taken by governments, and global economic and political developments. Coal prices have fluctuated in recent years and may continue to fluctuate significantly in the future.

Northern Energy has entered into an off-take agreement for 65% of the coal to be produced at Colton and proposes to negotiate other coal contracts in the future. If the price for coal sold by the Company were to fall below the costs of production and remain at such level for any sustained period, Northern Energy would experience losses and could have to curtail or suspend some or all of its proposed mining activities.

No assurance can be given that, if or when further coal contracts are negotiated, the price that Northern Energy receives for its coal under these contracts will not be lower than either current prevailing coal prices or the price under its existing contract.

#### Carbon

On 10 July 2011 the Federal Government announced the proposed fixed carbon price commencing on 1 July 2012 to operate for three years before transitioning to a cap and trade

emissions trading scheme. The final form of the legislation may change and the extent to which the Company will be affected will depend upon the final legislative form and its application to any of the Company's projects that may be developed.

#### 4 About New Hope BidCo and New Hope

New Hope listed on ASX in 2003 and is a thermal coal production company with interests in logistics and infrastructure operations in Australia.

New Hope has open cut mines at Acland on the Darling Downs, and at Rosewood near Ipswich and holds various exploration tenements in central Queensland and on the Darling Downs in southern Queensland New Hope's investments include a 100% shareholding in Queensland Bulk Handling, a common user coal export terminal at the Port of Brisbane, and significant land holdings around Ipswich and near its mining operations at Acland.

New Hope Bidco is a wholly owned subsidiary of New Hope. New Hope and New Hope Bidco are controlled by Washington H. Soul Pattinson and Company Limited (ASX: SOL).

The directors of New Hope BidCo are Robert Neale, Robert Millner, Peter Robinson and Kevin Standish. Their details are set out in section 2.4 of the Bidder's Statement.

Section 2 of the Bidder's Statement provides further background and information regarding New Hope and New Hope BidCo. Otherwise, for further information regarding New Hope, refer to its website at newhopecoal.com.au.

Section 4.3 and 4.4 of the Bidder's Statement contains a full description of New Hope's intentions regarding Northern Energy.

In summary, New Hope's intentions for Northern Energy following compulsory acquisition are to:

- remove Northern Energy from the official list of ASX;
- continue the timely development of coal projects owned by Northern Energy; and
- continue to operate the Northern Energy business in the manner in which it is currently conducted, pending the completion of a strategic review of the assets and operations.

#### 5 Your choices as a Northern Energy Shareholder

#### Your Independent Directors recommend that you accept the New Hope BidCo Offer.

As a Northern Energy Shareholder, you can respond to the New Hope BidCo Offer in three ways.

#### 5.1 Accept the Offer

To accept the New Hope BidCo Offer, follow the instructions in section 8.3 of the Bidder's Statement and on the acceptance form accompanying the Bidder's Statement.

Section 8.3 of New Hope BidCo's Bidder's Statement states that to accept the New Hope BidCo Offer you should:

- (a) **read** New Hope BidCo's Bidder's Statement in full;
- (b) **consider** the information given on New Hope BidCo and Northern Energy in the Bidder's Statement, including the risk factors set out in section 8.5 of the Bidder's Statement; and
- (c) **consult** your broker, financial or other professional adviser if you are in any doubt as to what action to take or how to accept the New Hope BidCo Offer.

If you have any queries about the New Hope BidCo Offer you may also call the shareholder information line set up by New Hope BidCo on 1800 838 609 (from inside Australia) (toll-free) or + 61 2 8256 3361 (from outside Australia).

The New Hope BidCo Offer may only be accepted for all of your Northern Energy Shares.

How you accept the New Hope BidCo Offer depends on whether your Northern Energy Shares are in an issuer sponsored holding or a CHESS holding.

- (a) If you hold your Northern Energy Shares in an Issuer Sponsored Holding, you will need to complete, sign and return the acceptance form accompanying the Bidder's Statement in accordance with the instructions on that form. Deliver it or send it by post together with all other documents required by those instructions to the address indicated on the form so that they are received by New Hope BidCo's share registry before the end of the Offer Period. A reply paid envelope (for use within Australia only) was enclosed with the Bidder's Statement.
- (b) **If you hold your Northern Energy Shares in a CHESS Holding**, before the end of the Offer Period either:
  - (i) instruct your Controlling Participant (for example, your broker) to initiate acceptance of the New Hope BidCo Offer on your behalf under rule 14.14 ASX Settlement Operating Rules;
  - (ii) complete, sign and send the acceptance form accompanying the Bidder's Statement directly to your stockbroker or Controlling Participant; or
  - (iii) complete and sign the acceptance form accompanying the Bidder's Statement in accordance with the instructions on that acceptance form and deliver it or send it by post to the address indicated on the acceptance form, which authorises New Hope BidCo to instruct your Controlling Participant to initiate acceptance of the New Hope BidCo Offer on your behalf.

(c) **If you are a Broker or a Non-Broker Participant**, initiate acceptance of the New Hope BidCo Offer in accordance with the requirements of the ASX Settlement Operating Rules before the end of the Offer Period.

New Hope BidCo has stated that the Offer remains open until 13 October 2011. New Hope BidCo may choose to extend the Offer Period.

Your Independent Directors recommend that you accept the Offer in the absence of a superior proposal.

#### **5.2** Sell your Northern Energy Shares on market

During the Offer Period, you can still sell your Shares on market for cash, provided you have not already accepted the New Hope BidCo Offer for those Shares.

The latest price for Northern Energy Shares may be obtained from the ASX website www.asx.com.au.

If you sell your Shares on market, you:

- (a) will lose the ability to accept the New Hope BidCo Offer and any higher offer for your Shares (which may or may not eventuate);
- (b) will lose the opportunity to receive future returns from Northern Energy;
- (c) may be liable for capital gains tax on the sale (refer to section 6 for further details); and
- (d) may incur a brokerage charge.

#### 5.3 Reject the Offer and do not sell your Shares on market

The Independent Directors recommend that you accept the New Hope BidCo Offer in the absence of a superior proposal. However, if you wish to reject the New Hope BidCo Offer and do not wish to sell your Shares on market you should do nothing.

You should note that New Hope BidCo has acquired a relevant interest in greater than 90% of Northern Energy Shares and intends to exercise its compulsory acquisition rights to compulsorily acquire you shares (notwithstanding that you did not accept the New Hope BidCo Offer – see section 2.8 for further details).

If New Hope BidCo attempts to compulsorily acquire the Northern Energy Shares which it does not own, ASX will suspend trading of Northern Energy Shares on ASX five business days after it receives a copy of the compulsory acquisition notice sent to shareholders.

#### **6** Tax consequences

#### 6.1 Introduction

The following is a general summary of the potential Australian income tax consequences generally applicable to a Shareholder who disposes of Northern Energy Shares under the New Hope BidCo Offer. This summary is based on the law and practice in effect on the date of this Target's Statement.

The following summary is not intended to be an authoritative or complete statement of the tax law applicable to the specific circumstances of every Shareholder.

In particular the summary is only applicable to Shareholders that are Australian residents for income tax purposes and hold their Northern Energy Shares on capital account for income tax purposes. This summary does not apply to Shareholders that hold their Northern Energy Shares in the course of a business of trading or dealing in securities.

All Shareholders are advised to seek independent professional advice about their particular circumstances and non-resident Shareholders should seek their own advice on the Australian and foreign taxation consequences associated with any sale of Northern Energy Shares.

#### 6.2 CGT consequences on the disposal of Northern Energy Shares

A Shareholder that accepts the New Hope BidCo Offer and whose Shares are subsequently transferred to New Hope BidCo, is taken to have disposed of their Northern Energy Shares for Australian capital gains tax (**CGT**) purposes. Shareholders make a capital gain equal to the amount by which the New Hope BidCo Offer consideration exceeds the cost base that the Shareholder has for the Northern Energy Shares. Subject to the availability of the CGT discount (see below) and any losses available to be offset against the capital gain, this amount is included in the Shareholder's taxable income.

A Shareholder will alternatively make a capital loss equal to the amount by which the reduced cost base of the Northern Energy Shares exceeds the consideration. A capital loss may be used to offset a capital gain made in the same income year or be carried forward to offset a capital gain made in a future income year, subject to the satisfaction of certain loss recoupment tests applicable to companies and trusts.

The cost base of Northern Energy Shares would generally be equal to the amount the relevant Shareholder paid to acquire the Northern Energy Shares which includes certain incidental costs (such as brokerage) associated with the acquisition.

#### 6.3 Northern Energy Shares acquired before 21 September 1999

Any Shareholder who acquired their Northern Energy Shares before 11.45am (legal time in the Australian Capital Territory) on 21 September 1999 and held them for at least 12 months before the transfer to New Hope BidCo under the New Hope BidCo Offer may index the cost base of their Northern Energy Shares to take account of inflation between the calendar quarter in which the Northern Energy Shares were acquired and the calendar quarter ended 30 September 1999.

If a Shareholder who is an individual, the trustee of a trust or a complying superannuation entity chooses to index the cost base of their Northern Energy Shares, then the CGT discount will not be available to them (see below). Note that the cost base of Northern Energy Shares cannot be indexed in working out the amount of any capital loss.

#### 6.4 CGT discount

Any Shareholder who is an individual, the trustee of a trust or a complying superannuation entity may be entitled to claim the CGT discount in calculating any capital gain provided that:

- (a) the Northern Energy Shares were acquired at least 12 months before disposal to New Hope BidCo;
- (b) the Shareholder did not choose to index the cost base of their Northern Energy Shares (see above); and
- (c) the CGT discount is applied to the capital gain after any available capital losses are first offset against that capital gain.

A Shareholder who is an individual or the trustee of a trust may discount the capital gain by 50% and include 50% of the capital gain in the taxable income of that individual or trust.

A Shareholder that is a complying superannuation entity may discount the capital gain by  $33\frac{1}{3}\%$  and include  $66\frac{2}{3}\%$  of the capital gain in the taxable income of that complying superannuation entity.

The CGT discount is not available to a Shareholder that is a company.

#### 6.5 Obtain your own taxation advice

Do not rely on the comments or the statements contained in this Target's Statement or the Bidder's Statement as advice about your own affairs. The taxation laws are complex and there could be implications in addition to those generally described in this Target's Statement and the Bidder's Statement.

Accordingly, consult your own tax advisers for advice applicable to your individual needs and circumstances. To the extent permitted by law, Northern Energy does not accept any responsibility for tax implications for individual Shareholders.

Section 6 of the Bidder's Statement also sets out an overview of the Australian income tax and capital gains tax implications for Australian residents (for taxation purposes) and non-residents who accept the New Hope BidCo Offer.

#### **7** Directors' interests

#### 7.1 Directors' interests in Northern Energy Shares

At the date of this Target's Statement, to the best of the Independent Directors' knowledge, no Directors had relevant interests in Northern Energy Shares.

#### 7.2 Directors' recent dealings in Northern Energy Shares

As a nominee director of Xingang Resources (HK) Limited (**Xingang**), Mr Dian Zhou He and his alternate, Mr Jie You, have previously been disclosed as having an interest in the 16,315,000 Northern Energy Shares held by Xingang. On 29 August 2011, Xingang disposed of all of its Northern Energy Shares by selling those shares on ASX to New Hope BidCo.

Otherwise, to the best of the Independent Directors' knowledge, no Director has acquired or disposed of a relevant interest in any Northern Energy Shares in the four month period immediately preceding the date of this Target's Statement.

#### 7.3 Directors' interests in New Hope BidCo securities and New Hope securities

At the date of this Target's Statement, to the best of the Independent Directors' knowledge, no Director had a relevant interest in any securities of New Hope BidCo.

#### 7.4 Directors' recent dealings in New Hope BidCo securities and New Hope securities

No Director has, to the best of the Independent Directors' knowledge, in the four month period immediately preceding the date of this Target's Statement, acquired or disposed of a relevant interest in any securities in New Hope BidCo or New Hope.

#### **7.5** Benefits and agreements

Other than as set out in this section, as a result of the New Hope BidCo Offer no person has been or will be given any benefit (other than a benefit which can be given without member approval under the Corporations Act) in connection with the retirement of that person, or someone else, from the board of directors of Northern Energy or a related body corporate of Northern Energy.

To the best of the Independent Directors' knowledge, there are no agreements made between a Director and another person in connection with, or conditional upon, the outcome of the New Hope BidCo Offer, other than in the Director's capacity as a holder of Northern Energy Shares.

To the best of the Independent Directors' knowledge, no Director has an interest in any contract entered into by New Hope BidCo.

#### 8 Additional information

#### 8.1 Consents

McCullough Robertson has given and has not before the date of this Target's Statement withdrawn its consent to be named in this Target's Statement as Northern Energy's legal adviser in the form and context in which it is named.

Deloitte Corporate Finance Pty Ltd (**Deloitte**) has given and has not before the date of this Target's Statement withdrawn its consent to be named in this Target's Statement as Independent Expert in the form and context in which it is named.

Neither McCullough Robertson nor Deloitte:

- (a) has authorised or caused the issue of this Target's Statement; or
- (b) makes, purports to make, any statement in this Target's Statement nor is any statement in this Target's Statement based on any statement by any of those parties, other than as specified in this section.

Each of McCullough Robertson and Deloitte, to the maximum extent permitted by law, expressly disclaims and takes no responsibility for any part of this Target's Statement other than a reference to its name, and a statement included in this Target's Statement with the consent of that party as specified in this section.

#### 8.2 Publicly available information

This Target's Statement contains statements which are made in, or based on statements made in, documents lodged with ASIC or given to ASX by New Hope BidCo.

As permitted by ASIC class order 01/1543, the consent of New Hope BidCo is not required for the inclusion of those statements in this Target's Statement. Any Northern Energy Shareholder may obtain a copy of those documents free of charge during the Offer Period by contacting Paul Marshall on 1800 838 609 (from inside Australia) (toll-free) or + 61 2 8256 3361 (from outside Australia).

As permitted by ASIC class order 03/635, this Target's Statement may include or be accompanied by certain statements:

- (a) fairly representing a statement by an official person; or
- (b) from a public official document or published book, journal or comparable publication,

and the consent of the persons to whom those statements are attributed is not required to be included in this Target's Statement.

#### 8.3 No other material information

This Target's Statement is required to include all of the information that Northern Energy Shareholders and their professional advisers would reasonably require to make an informed assessment about whether to accept the New Hope BidCo Offer, but:

(a) only to the extent to which it is reasonable for Northern Energy Shareholders and their professional advisers to expect to find this information in this Target's Statement; and

(b) only if the information is known to any Director.

The Independent Directors of Northern Energy are of the opinion that the information that Northern Energy Shareholders and their professional advisers would reasonably require to make an informed assessment whether to accept the Offer is:

- (a) the Bidder's Statement (to the extent that the information is not inconsistent with or superseded by information in this Target's Statement);
- (c) Northern Energy's annual reports and releases to ASX, and documents lodged by Northern Energy with ASIC before the date of this Target's Statement; and
- (d) this Target's Statement.

### 9 Approval of Target's Statement

This Target's Statement has been approved by a resolution passed by the Independent Directors on 19 September 2011.

Dated 22 September 2011

Ian Johnston

**Non-Executive Director** 

## 10 Definitions and interpretation

#### 10.1 Definitions

In this Target's Statement:

Term	Definition
ASIC	means the Australian Securities and Investments Commission.
ASX	means ASX Limited ACN 008 624 691 or the securities exchange operated by it (as the case requires).
ASX Settlement	means ASX Settlement Pty Limited ABN 49 008 504 532, the body which administers the CHESS system in Australia.
ASX Settlement Operating Rules	means the settlement rules of ASX Settlement.
Bidder's Statement	means the bidder's statement dated 29 August 2011 served on Northern Energy about the off-market offer under section 633 Corporations Act and which contains the New Hope BidCo Offer.
Broker	means a person who is a share broker and a participant in CHESS.
CGT	means capital gains tax.
CHESS	means the Clearing House Electronic Subregister System, which provides for electronic share transfer in Australia.
CHESS Holding	means a holding of Northern Energy Shares on the CHESS subregister of Northern Energy.
Controlling Participant	means the Broker or Non-Broker Participant who is designated as the controlling participant for shares in a CHESS Holding under the ASX Settlement Operating Rules.
<b>Corporations Act</b>	means Corporations Act 2001 (Cth).
Directors	means the directors of Northern Energy Corporation Limited.
Independent Expert	means Deloitte Corporate Finance Pty Ltd.
Independent Expert's Report	means the report of the Independent Expert set out in Annexure A to this Target's Statement.
Issuer Sponsored Holding	means a holding of Northern Energy Shares on Northern Energy's issuer sponsored subregister.
New Hope	means New Hope Corporation Limited ACN 010 653 844.
New Hope BidCo	means Arkdale Pty Ltd ACN 118 299 522.
New Hope BidCo Offer or Offer	means the Offer by New Hope BidCo to acquire Northern Energy Shares, set out in section 2 of the Target's Statement.
Non-Broker Participant	means a non-broker participant under the ASX Settlement Operating Rules.
Northern Energy	means Northern Energy Corporation Limited ACN 081 244 395.
Offer Period	means the period during which the Offer will remain open for acceptance under section 8.2 of the Bidder's Statement.

Term	Definition		
Offer Price	means the consideration payable by New Hope BidCo under its Offer.		
Shareholder	means a holder of one or more Shares.		
Shares or Northern Energy Shares	means the fully paid ordinary shares in Northern Energy.		
Target's Statement	means this document, being Northern Energy's target's statement.		
VWAP	means volume weighted average price.		

#### 10.2 Interpretation

In this Target's Statement, unless the context otherwise requires:

- (a) headings are for convenience and do not affect the interpretation;
- (b) words or phrases defined in the Corporations Act have the same meaning in this Target's Statement;
- (c) a reference to a section is a reference to a section of this Target's Statement;
- (d) a singular word includes the plural and vice versa;
- (e) if a word or phrase is defined, its other grammatical forms have a corresponding meaning;
- (f) a reference to a person includes a corporation, trust, partnership, unincorporated body, government and local authority or agency, or other entity whether or not it comprises a separate legal entity;
- (g) a reference to legislation or to a provision of legislation (including subordinate legislation) is to that legislation as amended, re-enacted or replaced, and includes any subordinate legislation issued under it; and
- (h) a reference to '\$' or 'dollar' is to Australian currency.

## **Corporate Directory**

#### **Northern Energy Corporation Limited**

081 244 395

Address:

Level 5, 60 Edward St Brisbane QLD 4000

Telephone: +61 7 3303 0695 Facsimile: +61 7 3303 0601

www.northernenergy.com.au

#### **Directors**

Mr Robert Millner (Chairman)

Mr David Fairfull (Director)

Mr William Grant (Director)

Mr Robert Neale (Director)

Mr Peter Robinson (Director)

Mr David Williamson (Director)

Mr Dian Zhou He (Non Exec. Director)

Mr Geoff Lord (Non Exec. Director)

Mr Ian Johnston (Non Exec. Director)

Mr Jie You (Alternate Director)

#### **Share Registry**

Security Transfer Registrars Pty Ltd ACN 008 894 488

Address:

770 Canning Highway Applecross WA 6153

Telephone: +61 8 9315 2333 Facsimile: +61 8 9315 2233

www.securitytransfer.com.au

#### Lawyers

McCullough Robertson

Level 11, Central Plaza Two

66 Eagle Street

BRISBANE QLD 4000

Telephone: 3233 8888 Facsimile: 3229 9949

www.mccullough.com.au

## Annexure A

Independent Expert's Report

# Deloitte.

# **Northern Energy Corporation Limited**

**Independent expert's report and Financial Services Guide** 19 September 2011

# Deloitte.

## **Financial Services Guide**

What is a Financial Services Guide?

This Financial Services Guide (FSG) provides important information to assist you in deciding whether to use our services. This FSG includes details of how we are remunerated and deal with complaints.

Where you have engaged us, we act on your behalf when providing financial services. Where you have not engaged us, we act on behalf of our client when providing these financial services, and are required to give you an FSG because you have received a report or other financial services from us.

# What financial services are we licensed to provide?

We are authorised to provide general financial product advice or to arrange for another person to deal in financial products in relation to securities, interests in managed investment schemes and government debentures, stocks or bonds.

#### Our general financial product advice

Where we have issued a report, our report contains only general advice. This advice does not take into account your personal objectives, financial situation or needs. You should consider whether our advice is appropriate for you, having regard to your own personal objectives, financial situation or needs.

If our advice is provided to you in connection with the acquisition of a financial product you should read the relevant offer document carefully before making any decision about whether to acquire that product.

#### How are we and all employees remunerated?

We will receive a fee of approximately AUD 160,000 exclusive of GST in relation to the preparation of this report. This fee is based on time spent at our normal hourly rates and is not contingent upon the success or otherwise of the proposed transaction between Arkdale Pty Limited, a wholly-owned subsidiary of New Hope Corporation Limited, and Northern Energy Corporation Limited (the Takeover Offer).

Other than our fees, we, our directors and officers, any related bodies corporate, affiliates or associates and their directors and officers, do not receive any commissions or other benefits.

All employees receive a salary and while eligible for annual salary increases and bonuses based on overall performance they do not receive any commissions or other benefits as a result of the services provided to you. The remuneration paid to our directors reflects their individual contribution to the organisation and covers all aspects of performance.

We do not pay commissions or provide other benefits to anyone who refers prospective clients to us.

#### Associations and relationships

We are ultimately owned by the Deloitte member firm in Australia (Deloitte Touche Tohmatsu). Please see <a href="https://www.deloitte.com.au/about">www.deloitte.com.au/about</a> for a detailed description of the legal structure of Deloitte Touche Tohmatsu.

During the past two years, Deloitte Touche Tohmatsu has provided integration planning advice in respect of New Hope Corporation Limited's interest in Northern Energy Corporation Limited. This work was carried out by a separate team within Deloitte Touche Tohmatsu and does not affect the outcome of the Takeover Offer.

#### What should you do if you have a complaint?

If you have any concerns regarding our report or service, please contact us. Our complaint handling process is designed to respond to your concerns promptly and equitably. All complaints must be in writing to the address below.

If you are not satisfied with how we respond to your complaint, you may contact the Financial Ombudsman Service (FOS). FOS provides free advice and assistance to consumers to help them resolve complaints relating to the financial services industry. FOS' contact details are also set out below.

The Complaints Officer Financial Ombudsman Service

PO Box N250 Grosvenor Place Sydney NSW 1220 complaints@deloitte.com.au

Fax: +61 2 9255 8434

GPO Box 3 Melbourne VIC 3001 info@fos.org.au

www.fos.org.au Tel: 1300 780 808 Fax: +61 3 9613 6399

What compensation arrangements do we have? Deloitte Touche Tohmatsu holds professional indemnity insurance that covers the financial services provided by us. This insurance satisfies the compensation requirements of the Corporations Act 2001 (Cth).



Deloitte Corporate Finance Pty Limited A.B.N. 19 003 833 127 AFSL 241457

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Independent Directors Northern Energy Corporation Limited Level 5, 60 Edward Street Brisbane Qld 4000

19 September 2011

Dear Directors

#### Independent expert's report

#### Introduction

On 29 August 2011, Arkdale Pty Limited, a wholly owned subsidiary of New Hope Corporation Limited, (New Hope or the Bidder) announced an unconditional offer to acquire all of the shares in Northern Energy Corporation Limited (Northern Energy or the Company) that New Hope does not already own (the Takeover Offer). New Hope currently holds 97.6% of the ordinary shares in Northern Energy. The consideration offered by New Hope to holders of Northern Energy shares other than New Hope (Shareholders) under the Takeover Offer is Australian dollars (AUD) 2.00 per share.

The full details of the Takeover Offer are included in a Bidder's Statement which was issued by New Hope on 29 August 2011. An overview of the Takeover Offer is provided in Section 1.

Northern Energy is required to issue a Target's Statement in response to the Bidder's Statement, which will include the recommendation of the independent directors of Northern Energy (the Independent Directors) as to whether Shareholders should accept the Takeover Offer.

#### Purpose of the report

The Independent Directors have requested that Deloitte Corporate Finance Pty Limited (Deloitte) provide an independent expert's report advising whether, in our opinion, the Takeover Offer is fair and reasonable.

This independent expert's report is required pursuant to Section 640 of the Corporations Act 2001 (Cth) (Section 640) to assist Shareholders in their decision as to whether to accept or reject the Takeover Offer. We have prepared this report having regard to Section 640 and the relevant Australian Securities and Investments Commission (ASIC) Regulatory Guides.

This report is to be included in a Target's Statement to be sent to Shareholders and has been prepared for the exclusive purpose of assisting Shareholders in their consideration of the Takeover Offer. We are not responsible to you, or anyone else, whether for our negligence or otherwise, if the report is used by any other person for any other purpose.

#### **Basis of evaluation**

In order to assess whether the Takeover Offer is fair and reasonable we have:

- assessed whether the Takeover Offer is fair by estimating the fair market value of an ordinary share in Northern Energy on a control basis and comparing that value to the estimated fair market value of the consideration to be received by Shareholders pursuant to the Takeover Offer
- assessed the reasonableness of the Takeover Offer by considering other advantages and disadvantages of the Takeover Offer to Shareholders.

#### **Summary and conclusion**

In our opinion the Takeover Offer is fair and reasonable. In arriving at this opinion, we have had regard to the following factors:

#### The Takeover Offer is fair

Set out in the table below is a comparison of our assessment of the fair market value of a Northern Energy share with the consideration offered by New Hope.

Table 1: Evaluation of fairness<sup>1</sup>

	Low (AUD)	High (AUD)
Deloitte assessed value of a share in Northern Energy (Section 7)	1.60	2.20
Consideration offered	2.00	2.00

Source: Deloitte analysis

Note:

The consideration offered by New Hope is within the range of our estimate of the fair market value of a Northern Energy share.

ASIC Regulatory Guide 111.10 provides that 'an offer is fair if the value of the offer price or consideration is equal to or greater than the value of securities subject to the offer'. ASIC Regulatory Guide 111.62 provides that 'an expert should usually give a range of values' for the securities that are subject to the offer.

In relation to the Takeover Offer we consider that, if the value of the consideration offered by New Hope is either above or within the range of the value of a share in Northern Energy, the offer is fair. It is therefore our opinion that the Takeover Offer is fair.

<sup>1.</sup> All amounts stated in this report are in AUD unless otherwise stated and may be subject to rounding.

#### Valuation of a Northern Energy share

We have estimated the fair market value of a share in Northern Energy using the sum-of-the-parts methodology. We have valued the Maryborough and Elimatta development projects using the discounted cash flow method and our valuation of the exploration assets, which include Yamala, Ashford, and Yetman (refer to Section 3.3 for a schedule of exploration tenements), is based on an assessment of value provided by Behre Dolbear Australia Pty Limited (BDA), an independent technical expert. Our estimation of the fair market value of the development and exploration assets of Northern Energy, which is provided in Section 7.2.1 and 7.2.2 respectively, is summarised in the table below.

Table 2: Value of Northern Energy based on sum-of-the-parts method

<b>U</b> ,				
	Section	Unit	Low	High
Development assets	7.2.1	AUD million	160.0	240.0
Exploration assets	7.2.2	AUD million	46.1	46.1
Total enterprise value of Northern Energy		AUD million	206.1	286.1
Net debt	7.2.4	AUD million	4.1	4.1
Equity value (on a control basis)		AUD million	210.1	290.1
Number of shares on issue	3.6	'million	130.7	130.7
Value of a share in Northern Energy		AUD/share	1.61	2.22
Deloitte assessed value of a share in Northern Energy		AUD/share	1.60	2.20

Source: Deloitte analysis

We have selected a valuation range for a share in Northern Energy to be in the range of AUD 1.60 to AUD 2.20 based on the sum-of-the-parts method.

#### The Takeover Offer is reasonable

In accordance with ASIC Regulatory Guide 111 an offer is reasonable if it is fair. On this basis, in our opinion the Takeover Offer is reasonable. We have also considered the following factors in assessing the reasonableness of the Takeover Offer.

#### Advantage of the Takeover Offer

The likely advantage to Shareholders is:

Timely exit as New Hope will seek to compulsorily acquire the remaining shares

Subsequent to the announcement of the Takeover Offer, New Hope increased its interest in Northern Energy up to 97.6% of the issued shares and is now proceeding to compulsorily acquire the remaining Northern Energy shares it does not already own on terms consistent with the Takeover Offer. It will take longer for Shareholders to receive the consideration under compulsory acquisition than if they were to accept under the Takeover Offer (being ten days from acceptance of the Takeover Offer).

In addition, given the current shareholding of New Hope in Northern Energy, an alternative offer for Northern Energy is not probable.

#### Other matters

#### Tax implications

The Takeover Offer may crystallise taxation liabilities for individual Shareholders in respect of their investment in Northern Energy. Refer to section 6 of the Target's Statement for an overview of the taxation impacts of the Takeover Offer. The tax consequences of the Takeover Offer may vary depending on the particular circumstances of an individual Shareholder. Accordingly, Shareholders should consult their tax advisers in relation to their personal circumstances.

#### Conclusion on reasonableness

On balance, in our opinion, the advantages of the Takeover Offer outweigh the disadvantages.

#### **Opinion**

In our opinion, the Takeover Offer is fair and reasonable to Shareholders. An individual Shareholder's decision in relation to the Takeover Offer may be influenced by his or her particular circumstances. If in doubt the Shareholder's should consult an independent adviser, who should have regard to their individual circumstances.

This opinion should be read in conjunction with our detailed report which sets out our scope and findings.

Yours faithfully

DELOITTE CORPORATE FINANCE PTY LIMITED

Robin Polson

**Stephen Reid** 

Director

Director

Note: the figures in this report are subject to rounding.

## **Contents**

1	Terms of the Takeover Offer	7
1.1	Summary	7
1.2	New Hope's intentions	7
2	Scope of the report	8
2.1	Purpose of the report	8
2.2	Basis of evaluation	8
2.3	Limitations and reliance on information	10
3	Profile of Northern Energy	11
3.1	Company history	11
3.2	Legal structure	12
3.3	Major assets	12
3.4	Interest in WICET	16
3.5	Reserve and resources	17
3.6	Capital structure and major shareholders	18
3.7	Share price performance	18
3.8	Financial performance	20
3.9	Financial position	21
4	Profile of New Hope	22
5	Valuation methodology	23
5.1	Valuation methodologies	23
5.2	Selection of valuation methodologies	24
5.3	Appointment and role of the technical expert	25
6	Future cash flows	26
6.1	The Model	26
6.2	Revenue assumptions	27
6.3	Other revenue	30
6.4	Operating costs	30
6.5	Capital costs	31
6.6	Corporate assumptions	31
6.7	Economic assumptions	32
7	Valuation of Northern Energy	34
7.1	Introduction	34
7.2	The sum-of-the-parts method	34
7.3	Cross check: industry rules of thumb	40

## Appendices

Appendix 1: Glossary	45
Appendix 2: Australian coal mining industry	48
Appendix 3: Discount rate	62
Appendix 4: Comparable entities	74
Appendix 5: Comparable transactions	78
Appendix 6: Technical expert's report	84
Appendix 7: Sources of information	115
Appendix 8: Qualifications, declarations and consents	116

## 1 Terms of the Takeover Offer

## 1.1 Summary

On 29 August 2011, New Hope announced its intention to make an unconditional off market takeover offer to acquire all of the shares in Northern Energy which New Hope does not already own. Shareholders are offered consideration of AUD 2.00 cash per Northern Energy share. New Hope currently holds a 97.6% interest in Northern Energy.

## 1.2 New Hope's intentions

Refer to section 4.3 and 4.4 of the Bidder's Statement for a full description of New Hope's intentions regarding Northern Energy.

In summary, New Hope's intentions upon acquiring 90% or more of Northern Energy shares and more than 75% of the shares subject to the Takeover Offer are as follows:

- New Hope has announced that it intends to give notice to Shareholders to compulsorily acquire any outstanding Northern Energy shares in accordance with Section 661B of the Corporations Act
- following completion of the Takeover Offer, Northern Energy will become a wholly owned subsidiary of New
  Hope and New Hope will therefore procure the removal of Northern Energy from the official list of the Australian
  Securities Exchange (ASX). New Hope will continue with the timely development of the coal projects owned by
  Northern Energy and continue to operate the Northern Energy business in the manner in which it is currently
  conducted, pending the completion of an ongoing strategic review of the assets and the operations.

## 2 Scope of the report

## 2.1 Purpose of the report

Under Section 640 a Target's Statement given in response to a takeover offer must include, or be accompanied by, an independent expert's report if either the bidder's voting power in the target is 30% or more, or the bidder and target have one or more common directors. The independent expert's report is required for the purpose of providing shareholders of the target company with an objective and disinterested view as to whether the offer is fair and reasonable and to provide them with sufficient information to make an effective, informed decision as to whether to accept or reject the offer.

New Hope currently holds 97.6% of the voting power in Northern Energy and also has six directors in common with Northern Energy. An independent expert's report is therefore required under Section 640.

This report is to be included in a Target's Statement to be sent to Shareholders and has been prepared for the exclusive purpose of assisting Shareholders in their consideration of the Takeover Offer. We are not responsible to you, or anyone else, whether for our negligence or otherwise, if the report is used by any other person for any other purpose.

#### 2.2 Basis of evaluation

In our assessment as to whether the Takeover Offer is fair and reasonable, we have had regard to common market practice and to ASIC Regulatory Guide 111 regarding the content of expert's reports. The regulatory guide prescribes standards of best practice in the preparation of independent expert's reports pursuant to Section 640.

#### **ASIC Regulatory Guide 111**

This regulatory guide provides guidance in relation to the content of independent expert's reports prepared for transactions under Chapters 5, 6 and 6A of the Corporations Act, in relation to:

- takeover bids
- schemes of arrangement
- compulsory acquisitions or buy-outs
- acquisitions approved by security holders under item 7 of Section 611 of the Corporations Act 2001 (Cth) (Section 611)
- selective capital reductions
- related party transactions
- transactions with persons in a position of influence
- demergers and demutualisations of financial institutions
- buy-backs.

ASIC Regulatory Guide 111 refers to a 'control transaction' as being the acquisition (or increase) of a controlling stake in a company that could be achieved, for example, by way of a takeover offer, scheme of arrangement, approval of an issue of shares using item 7 of Section 611, a selective capital reduction or selective buy back under Chapter 2J.

In respect of control transactions, under ASIC Regulatory Guide 111 an offer is:

- fair, when the value of the consideration is equal to or greater than the value of the shares subject to the takeover offer. The comparison must be made assuming 100% ownership of the target company (i.e. including a control premium if appropriate)
- reasonable, if it is fair, or, despite not being fair, after considering other significant factors, shareholders should accept the takeover offer, in the absence of any higher bids before the close of the offer.

To assess whether the Takeover Offer is fair and reasonable to Shareholders, we have adopted the tests of whether the Takeover Offer is either fair and reasonable, not fair but reasonable, or neither fair nor reasonable, as set out in ASIC Regulatory Guide 111.

#### 2.2.1 Fairness

ASIC Regulatory Guide 111 defines an offer as being fair if the value of the offer price is equal to or greater than the value of the securities the subject of the offer. The comparison must be made assuming 100% ownership of the target company.

Accordingly, we have assessed whether the Takeover Offer is fair by comparing the value of the cash consideration to be received from New Hope with the value of a Northern Energy share. The Northern Energy shares have been valued at fair market value, which we have defined as the amount at which the shares would be expected to change hands between a knowledgeable willing buyer and a knowledgeable willing seller, neither of whom is under any compulsion to buy or sell. Special purchasers may be willing to pay higher prices to reduce or eliminate competition, to ensure a source of material supply or sales, or to achieve cost savings or other synergies arising on business combinations, which could only be enjoyed by the special purchaser. Our valuation of a Northern Energy share has not been premised on the existence of a special purchaser.

We have assessed the value of each Northern Energy share by estimating the current value of Northern Energy on a control basis and dividing this value by the number of shares on issue.

#### 2.2.2 Reasonableness

Under ASIC Regulatory Guide 111 an offer in respect of a control transaction is reasonable if either:

- the offer is fair
- despite not being fair, but considering other significant factors, shareholders should accept the offer in the absence
  of any higher bid before the close of the offer.

To assess the reasonableness of the Takeover Offer we considered the following significant factors in addition to determining whether the Takeover Offer is fair:

- the existing share holding of New Hope in Northern Energy
- the likely market price and liquidity of Northern Energy shares in the absence of the Takeover Offer
- carry forward tax losses, cash flows or other benefits available to New Hope upon achieving 100% ownership of Northern Energy
- the value to an alternative bidder and the likelihood of an alternative offer being made
- Northern Energy's current bargaining position
- alternative options available to Northern Energy and the likelihood of those options occurring
- other implications associated with Northern Energy shareholders rejecting the Takeover Offer.

#### 2.2.3 Individual circumstances

We have evaluated the Takeover Offer for Shareholders as a whole and have not considered the effect of the Takeover Offer on the particular circumstances of individual investors. Due to their particular circumstances, individual investors may place a different emphasis on various aspects of the Takeover Offer from the one adopted in this report. Accordingly, individuals may reach different conclusions to ours on whether the Takeover Offer is fair and reasonable. If in doubt investors should consult an independent adviser, who should have regard to their individual circumstances.

### 2.3 Limitations and reliance on information

The opinion of Deloitte is based on economic, market and other conditions prevailing at the date of this report. Such conditions can change significantly over relatively short periods of time. This report should be read in conjunction with the declarations outlined in Appendix 8.

This engagement has been conducted in accordance with professional standard APES 225 Valuation Services issued by the Accounting Professional and Ethical Standards Board Limited (APESB).

Our procedures and enquiries did not include verification work nor constitute an audit or a review engagement in accordance with standards issued by the Auditing and Assurance Standards Board (AUASB) or equivalent body and therefore the information used in undertaking our work may not be entirely reliable.

## 3 Profile of Northern Energy

Northern Energy is a coal development and exploration company with an interest in a portfolio of coking and thermal coal projects in Queensland and New South Wales (NSW), Australia. A description of the Australian coal mining industry is provided in Appendix 2.

Northern Energy, previously incorporated as Poltech International Limited (Poltech), is listed on the ASX with a market capitalisation of AUD 261.3 million as at 5 September 2011.

## 3.1 Company history

An overview of Northern Energy's company history is provided in Figure 1 below.

Figure 1: Company history of Northern Energy

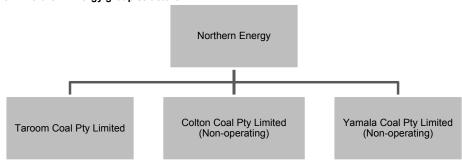
igure 1: C	Company history of Northern Energy
1998	<ul> <li>Poltech was admitted to the official list of the ASX on 30 July 1998. Poltech was predominantly involved in the development, manufacturing and marketing of digital traffic camera systems</li> </ul>
2003	<ul> <li>On 12 November 2003, Poltech requested that its securities be suspended from quotation, pending the finalisation of funding arrangements for the company</li> </ul>
2004	<ul> <li>Following the implementation of a deed of company arrangement on 6 July 2004 and a review of operations, Poltech resolved to pursue a business strategy in coal exploration and development in Queensland and NSW</li> </ul>
	<ul> <li>In November 2004, Poltech entered into both an asset purchase agreement to acquire a 50% interest in both the Ashford Coal Project (Ashford) and a share purchase agreement to acquire all of the issued share capital in Taroom Coal Limited, the holder of exploration permits for the Elimatta project (Elimatta)</li> </ul>
2005	<ul> <li>Poltech was relisted on the ASX at the end of February 2005 with a new name, Northern Energy Corporation Limited, after a capital and administrative restructuring process</li> </ul>
2006	<ul> <li>Northern Energy and Sojitz Corporation (Sojitz) signed a Memorandum of Understanding (MOU) in November 2006 to form a joint venture (JV) to advance the company's internally developed Emerald project in Queensland's Bowen Basin. Under the MOU, Sojitz can earn a 49% interest by funding a three-stage exploration and evaluation program to take the project through to completion of a bankable feasibility study for establishment of a mine on the tenement. The Emerald project has since been renamed the Yamala project</li> </ul>
2007	<ul> <li>On 9 March 2007, Northern Energy and Sojitz entered into a JV and management and marketing agreement to form an unincorporated JV covering exploration, development, mining and marketing activities in relation to the Yamala project</li> </ul>
2008	<ul> <li>On 26 November 2008, Wiggins Island Coal Export Terminal Pty Limited (WICET Pty Limited) announced that a group of 16 coal companies, including Northern Energy, had agreed to develop and own a new coal export terminal at Wiggins Island (WICET) near Gladstone, Queensland. The terminal is expected to be built in three stages with the first stage expected to deliver approximately 24 million tonnes (Mt) per annum (Mtpa) in export capacity (later revised to 27 Mtpa)</li> </ul>
2010	<ul> <li>On 22 April 2010, Northern Energy announced an agreement with a subsidiary of Chinese steel making group, Xinyang Iron and Steel Group Company Limited (Xinyang), for the sale of 65% of the coking coal production from Northern Energy's Maryborough project. Xinyang also agreed to invest AUD 23.0 million in Northern Energy through a capital raising of 16.3 million shares, providing it with a 12.7% interest in Northern Energy</li> </ul>
	<ul> <li>WICET Pty Limited announced the acceptance of capacity commitments totalling 25 Mt of export coal from eight companies, including Northern Energy for stage one of the WICET development</li> </ul>
	<ul> <li>On 8 October 2010, New Hope announced an off market takeover offer to acquire all of the outstanding Northern Energy shares it did not already own for AUD 1.50 per share. The offer valued the total equity of Northern Energy at AUD 193.0 million</li> </ul>
2011	<ul> <li>On 31 January 2011, Northern Energy received a revised offer from New Hope of AUD 1.75 per share. On 11 February 2011, New Hope increased the offer to AUD 1.85 per share. Following the takeover offer dated 8 October 2010 and subsequent revised offers, New Hope had acquired an 80.8% interest in Northern Energy</li> </ul>
,	On 29 August 2011, New Hope announced an unconditional off market takeover offer to acquire all of the remaining shares in Northern Energy it did not already own for AUD 2.00 per share.
	▼

Source: Northern Energy prospectus; Northern Energy annual report and ASX announcements; other publicly available information

## 3.2 Legal structure

Figure 2 below sets out a simplified group structure for Northern Energy.

Figure 2: Northern Energy group structure



Source: Northern Energy 2010 annual report

Colton Coal Pty Limited and Yamala Coal Pty Limited were incorporated recently and are currently non-operating shell companies. Taroom Coal Pty Limited holds the exploration permit for Elimatta.

## 3.3 Major assets

Northern Energy's current portfolio comprises tenements in the Maryborough, Surat and Bowen Basins, which are detailed below.

Table 3: Northern Energy projects

Project	Ownership interest	Basin	Type of coal	Type of mine	Date acquired
Maryborough	100%	Maryborough	Hard coking	Open pit	n/a <sup>4</sup>
Elimatta	100%	Surat	Thermal	Open pit	22-Feb-05
Yamala <sup>1, 2</sup>	83%	Bowen	Thermal/PCI3	Open pit / Underground	n/a⁴
Ashford	50%	Ashford Region	Hard coking	Open pit	22-Feb-05
Yetman	100%	Yetman Region	Oil shale	n/a	n/a <sup>4</sup>

Source: Northern Energy 2010 annual report and ASX announcements

#### Notes:

- 1. The Yamala project was formerly known as the Emerald project
- CHR Emerald Pty Limited, a wholly owned subsidiary of Sojitz, has the remaining 17% interest in Yamala. Sojitz also has the right to increase its interest in Yamala up to 49%, thereby decreasing Northern Energy's interest therein to 51%
- 3. PCI pulverised coal injection
- $4. \hspace{1.5cm} n/a-not \ applicable. \ Maryborough \ and \ Yamala \ and \ Yetman \ are \ internally \ developed \ projects \ of \ Northern \ Energy.$

The figure below outlines the location of Northern Energy's development and exploration projects.

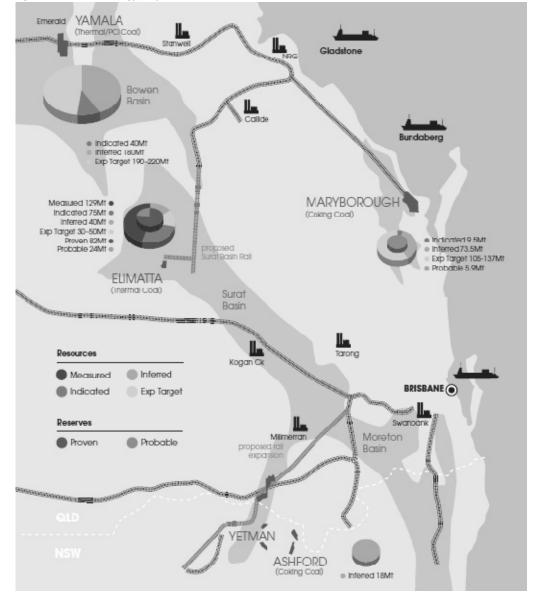


Figure 3: Northern Energy projects

Source: Northern Energy 2010 annual report

Details on each project are also provided in the independent technical expert's report provided in Appendix 6. An overview of each project is outlined in the following sections.

## 3.3.1 Maryborough

The Maryborough project, a multi thin seam open cut deposit within the Cretaceous Burrum Coal Measures, is located north of the town of Maryborough, approximately 262 kilometres (km) from Brisbane and comprises Exploration Permit for Coal (EPC) 923, EPC 1082, Mining Lease Application (MLA) 50273 and MLA 50274. The Maryborough project comprises the Colton mine, which is expected to produce a premium quality, hard coking coal.

A summary of the product coal quality at the proposed Colton mine is outlined in the table below.

Table 4: Quality of coal

Unit	Specification
Ro max %	0.97
%	30
%	7 – 9
%	0.7
%	1 – 2
#	8 – 9
	% % % %

Source: Maryborough Feasibility Report July 2010

#### Notes

- 1. Kcal/kg kilocalories per kilogram
- 2. Ro Max mean maximum reflectance.

Maryborough is the first of Northern Energy's projects scheduled to commence production and is to be developed over multiple stages. Northern Energy intends to initially develop the Colton mine within the greater Maryborough tenements using a multi seam open cut mining method by truck and excavator and a coal handling and preparation plant.<sup>1</sup>

The open cut mine is expected to initially produce 0.5 Mtpa hard coking coal for approximately 2.5 years, commencing in late 2013. From early calendar year (CY) 2016 (assuming completion of stage two of the WICET development by the end of CY 2015 or early CY 2016), saleable coal production from the Maryborough project will increase to up to approximately 2.0 Mtpa in line with Northern Energy's expected capacity allocation in stage two of the WICET development.

Saleable coal will initially be transported via rail to Barney Point Terminal (Barney Point) in Gladstone. Development of the second stage of the WICET development is expected to result in Northern Energy subsequently exporting coal through the WICET development under a take or pay agreement. Coal trains will be required to undertake one round trip per day in order to achieve the operation's export requirements.

In conjunction with estimates provided by BDA, Northern Energy is estimated to incur further capital expenditure of approximately AUD 300 million (in CY 2011 real terms) to develop the Colton mine, which includes construction of a coal handling and processing plant, a rail loop and other rail associated infrastructure and land acquisition costs (but excluding costs associated with securing capacity in stage two of the WICET development).

Whilst Northern Energy is not required to develop an Environmental Impact Statement (EIS) for the first stage of the Colton mine, it is required to submit an Environmental Management Plan (EMP) in order to progress the mine. Northern Energy has submitted an EMP to the Queensland Government Department of Environment and Resource Management (DERM). Northern Energy is in the process of responding to some ecological concerns raised by DERM in respect of the potential effect of coal mining on local creeks and the Mary River and expects to have a Mining License granted in October 2012. Northern Energy anticipates that any further expansion in the Maryborough area beyond the Colton mine will require a full EIS and separate mining approvals.

On 22 April 2010, Northern Energy announced an agreement with Xinyang for the sale of 65% of the life of mine coking coal produced by the Maryborough project. The coal will be purchased at a price set with reference to the prevailing benchmark price for Queensland hard coking coal adjusted for ash, sulphur and phosphorous content that is either above or below benchmark specifications.

Northern Energy will conduct further exploration and evaluation within the Maryborough project area during 2011 and 2012, with the main aim being to delineate further Australasian Joint Ore Reserves Committee (JORC) code-compliant Proved and Probable Reserves and to investigate future expansion opportunities.

<sup>&</sup>lt;sup>1</sup> BDA considers the coal handling plant will need to have capacity of around 700 to 750 tonnes per hour

#### 3.3.2 Elimatta

Elimatta, a proposed large scale, open cut thermal project, is located approximately 30 km west of the township of Wandoan in the Surat Basin and consists of EPC 650, EPC 1171, EPC 1205, MLA 50254, MLA 50270 and MLA 50271. Elimatta's resource is contained within five seams of the Juandah Coal Measures and is characterised as low ash, high volatile thermal coal.

A summary of the product coal quality at Elimatta is outlined in the table below.

Table 5: Quality of coal

	11-4	Consideration
	Unit	Specification
Specific energy (gross air dried basis)	Kcal/kg	6,320
Volatile matter	%	42
Ash	%	10
Total sulphur (maximum)	%	0.4
Inherent moisture	%	8

Source: Elimatta Project Feasibility study

A detailed life of mine plan has been developed for the deposit based on open cut mining, utilising an excavator and truck mining operation and a 1,200 tonnes per hour coal handling and preparation plant. Based on the life of mine plan, Elimatta will produce 7.5 Mtpa ROM coal on average, to yield 5.0 Mtpa saleable coal over a 28 year life of mine. Elimatta is expected to have low striping ratios in the first 10 years of production and an average ROM coal to plant yield of approximately 65% over life of mine.

Saleable coal from Elimatta is expected to be railed 420 km to Gladstone for export through stage two of the WICET development under a take or pay agreement. Northern Energy will use the proposed Surat Basin rail link, which will connect the Wandoan area with the Moura rail system (refer to Appendix 2). A 42 km rail spur is required to link Elimatta to the proposed Surat Basin rail link. Accordingly, Elimatta production, which is scheduled for either the second half of CY 2015 or early CY 2016, is dependent on construction of the proposed Surat Basin rail link and both stages of the WICET development.

The capital cost of the Elimatta mine is estimated at approximately AUD 620 million (in CY 2011 real terms) based on final feasibility studies completed in financial year (FY) 2010 for mining, wash plant and supporting infrastructure (but excluding costs associated with securing capacity in stage two of the WICET development). Northern Energy expects to finalise project design expenditure following commitments to the rail and port projects.

The Terms of Reference for the Elimatta EIS were settled in April 2010 and preparation of the EIS is currently progressing. It is expected that the EIS will be finalised in 2012. In addition, Northern Energy has submitted three MLAs for the mine operations at Elimatta, which are expected to be approved in late 2012.

The Elimatta project is currently subject to a number of infrastructure issues, including the following:

• Xstrata Coal Queensland Pty Limited received multiple objections from nine landholders and Friends of the Earth Australia in response to the company's MLAs for the Wandoan coal project<sup>2</sup>, which is located in close proximity to the Elimatta resource in the Surat Basin. The objections, which relate to the effects of mining, greenhouse gas emissions associated with the mining and subsequent burning of coal, road access to landholder properties and the potential effect on cattle and groundwater, are currently the subject of a hearing in the Queensland Land Court in Brisbane.

As a result of Xstrata Coal's role in the Surat Basin rail link, development of the proposed Wandoan Coal Project is critical for construction of the Surat Basin rail link to the Port of Gladstone and potential new port developments, including stage one and two of the WICET development, to proceed. The Elimatta project's viability is therefore largely dependent on Xstrata Coal's decision to proceed with the mine, which may be influenced by the outcome of the hearing surrounding the objections. The outcome of the hearing is expected to be known within the next few months

<sup>&</sup>lt;sup>2</sup> The Wandoan Coal Project is a joint venture between Xstrata Coal Queensland Pty Limited (Xstrata Coal) (75% ownership), ICRA (Itochu) Pty Limited (12.5%) and Sumisho Coal Australia Pty Limited (12.5%)

• Northern Energy is the applicant for three mining leases in the Surat Basin, which form part of the Elimatta project. As part of this application process, Northern Energy is in negotiations with gas explorers and producers in the area (who are similarly applying for petroleum leases over the same area) in order to agree a course of action in respect of their potentially overlapping rights. Agreement between the various parties is targeted for the end of 2011.

#### 3.3.3 Yamala

The Yamala project is located 6 km west of Comet in the Bowen Basin, adjacent to the Ensham mine owned by Ensham Resources Pty Limited and consists of EPC 927, EPC 1169 and Mining Development License Application (MDLA) 434. The Yamala project is expected to produce thermal coal and low ash PCI using a combination of open cut and underground mining techniques.

Yamala will operate under a JV arrangement with Sojitz. Sojitz acquired an initial 17% interest through the funding of an exploration and evaluation program and has the right to increase its interest to 30% upon funding a further AUD 2.3 million of exploration expenditure, of which approximately AUD 1.4 million is still to be incurred. On completion of its funding commitment, Sojitz has the option to further increase its interest in Yamala to 49% upon payment of AUD 6.7 million to Northern Energy. As part of the overall arrangement, Sojitz has marketing rights for the project.

Yamala's rail access is dependent on upgrades to the Blackwater rail system, however QR National Limited (QR National) plans to increase the Blackwater rail system capacity to meet stage one of the WICET development.

#### 3.3.4 Ashford

The Ashford project, a JV with Renison Consolidated Mines NL (Renison), is located 10 km north of the township of Ashford in northern NSW and consists of Exploration License (EL) 6234, EL 6428 and EL 6526. The Ashford resource consists of a hard coking coal with low ash and sulphur content.

Ashford does not yet have arrangements in place for transport of coal to port or port capacity, however the Federal Government has decided on the preferred route for a proposed inland railway, which will run to the west of Ashford. This proposed inland railway will bring heavy haul rail capacity closer to the Ashford project.

The JV partners continue to monitor potential transport infrastructure development in the area.

#### 3.3.5 Yetman and other assets

Yetman consists of EL 6946 and EL 6947 and covers 100 square km near the towns of Yetman and Wallangra in NSW. Yetman is a potential host for further Ashford-style deposits of coking coal and other high value material.

Preliminary work completed includes landholder access and liaison, geological studies, assessment of historical drilling in the region and outcrop mapping. The work to date has identified a number of sub-crops and float samples of oil shale and coaly carbonaceous shale which are considered encouraging for forward program planning.

Northern Energy also holds EL 6526 and EPC 1158 located at Atholwood in NSW and Five Mile in Queensland, respectively. Limited exploration work has been undertaken to date in relation to these tenements.

#### 3.4 Interest in WICET

Access to infrastructure and securing access to adequate rail and port capacity, much of which is yet to be built, is a key issue for Northern Energy. In particular Northern Energy's two key projects, Maryborough and Elimatta, rely on the WICET development proceeding. We have provided further details of the WICET development in Appendix 2.

The WICET development is a user-funded coal export terminal proposed to be built in two stages north of the existing RG Tanna coal terminal at Gladstone. Northern Energy originally sought 5.5 Mtpa export capacity as part of the stage one development. However, as projects in the Surat Basin (i.e. Elimatta) were not considered for allocation during stage one of the WICET development given infrastructure limitations, Northern Energy only received an initial allocation of 0.5 Mtpa for Maryborough.

Stage one of development of WICET is being progressed by an industry consortium consisting of the stage one capacity owners. At the time of lodgement of Northern Energy's half year financial report for the period ended 31 December 2010 (i.e. March 2011), WICET Pty Limited was seeking participation in a financing structure that was expected to consist of preferred equity, senior and subordinated debt from both external investors and stage one owners. Whilst finalisation of the financing and formal financial close for the project was planned for the second quarter of 2011, this has been delayed and is now expected to occur before QR National commences expansion of rail system capacity to support the terminal's initial requirement of 27 Mtpa in early 2012 (refer to Appendix 2 for further discussion).

As a stage one capacity owner, Northern Energy is obliged to acquire interests in the holding company of the entity responsible for constructing the WICET development. These interests may entitle Northern Energy to receive dividends, but any return thereon is not expected to occur prior to mechanical completion of stage one of the WICET development (expected at the end of CY 2014 or early CY 2015).

Based on allocated stage one tonnages, Northern Energy was required to provide bank guarantees of AUD 6.4 million and cash advances of AUD 1.5 million<sup>3</sup> to effectively underwrite its share of feasibility, engineering design and other costs associated with development of stage one. As a result of Northern Energy's underwriting status, it also has priority for stage two WICET allocations over some coal producers (and for which Northern Energy has lodged an expression of interest to meet its export requirements for Maryborough and Elimatta). Following financial close of stage one, interest on the feasibility study costs will be reimbursed to Northern Energy.

Following completion of stage one of WICET, Northern Energy will enter into a perpetual ten year take or pay agreement with the operator of the terminal, which will be renewed each year and which is likely to have limited rights of assignment.

#### 3.5 Reserve and resources

Current JORC code-compliant reserves and resources estimates for Northern Energy are set out in the table below.

Table 6: Coal reserves and resources of Northern Energy

		Resourc	es (Mt) <sup>1</sup>			Reserves (Mt)	
Project	Measured	Indicated	Inferred	Total	Proved _	Probable	Total
Maryborough	_	10	74	83	_	6	6
Elimatta	129	75	40	244	123	38	161 <sup>2</sup>
Yamala <sup>3</sup>	-	40	180	220	-	-	-
Ashford	-	-	18	18	-	-	-
Total	129	125	312	565	123	44	167

Source: Northern Energy 2010 annual report and investor presentation

#### Notes:

Notes

- 1. Resources are inclusive of Proved and Probable Reserves
- 2. Consists of marketable reserves of 106 Mt, based on a wash yield of 66%
- 3. Refers to Northern Energy's existing 83% interest in the Yamala project's resources.

<sup>&</sup>lt;sup>3</sup> based on Northern Energy's unaudited financial statements for the 13 month period ended 31 July 2011. Equivalent to the minimum terminal handling charges under the take or pay agreement for one year of port allocation of 0.5 Mtpa

## 3.6 Capital structure and major shareholders

As at the date of this report, Northern Energy's equity consisted of 130,653,363 fully paid ordinary shares. The following table lists the ordinary shareholders of Northern Energy as at the date of this report.

Table 7: Fully paid ordinary shareholders of Northern Energy

Fully paid ordinary shareholders	Number of shares	Percentage
Arkdale Pty Limited <sup>1</sup>	127,504,712	97.6%
Other shareholders	3,148,651	2.4%
Total shareholders	130,653,363	100.0%

Source: ASX announcements

Note:

Arkdale Pty Limited is a wholly-owned subsidiary of New Hope.

## 3.7 Share price performance

A summary of Northern Energy's recent share price performance is provided in Table 8 below.

Table 8: Northern Energy's quarterly share price information

Quarter end date	High (AUD)	Low (AUD)	Last Trade (AUD)	Volume ('000)	VWAP <sup>1</sup> (AUD)
30-Jun-09	0.50	0.33	0.34	10,371	0.34
30-Sep-09	0.90	0.33	0.86	32,924	0.55
31-Dec-09	1.43	0.81	1.29	31,878	1.09
31-Mar-10	1.46	1.06	1.25	16,805	1.26
30-Jun-10	1.74	0.98	1.04	22,429	1.42
30-Sep-10	1.21	0.87	0.95	16,843	1.01
31-Dec-10	1.74	0.95	1.71	41,067	1.55
31-Mar-11	2.01	1.62	1.67	103,072	1.83
30-Jun-11	1.74	1.50	1.51	896	1.55
6-Sept-11 <sup>2</sup>	2.01	1.40	2.00	22,506	1.99

Source: Thomson Reuters

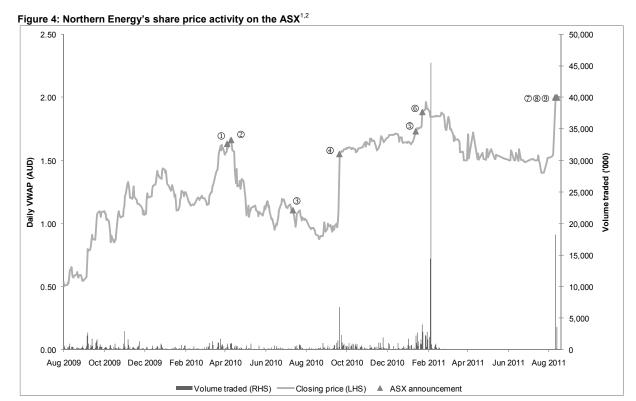
Notes:

1. VWAP – volume weighted average price

Relates to the period from 1 July 2011 to 6 September 2011.

In the twelve months prior to the announcement of the initial New Hope offer on 8 October 2010, approximately 3.0 million Northern Energy shares were traded on average each week. This equates to an average weekly trading volume of approximately 2.3% of the total shares on issue during this period. The volume of shares traded increased significantly during the period of the initial New Hope takeover offer with approximately 145 million shares traded in the period between October 2010 and February 2011. However, following this period, the volume of trading has decreased significantly with only 1.4 million total shares traded from 1 April 2011 to 28 August 2011, representing an average weekly trading volume of 0.27% of the total shares on issue during this period. In comparison, the average weekly trading volume of Northern Energy's free float was 0.78% (i.e. excluding the interests held by New Hope and Xinyang). On 29 August 2011, Xinyang sold its 16.3 million shares to New Hope at AUD 2.00 per share. Subsequent transfers on 30 August 2011 and 31 August 2011 took New Hope's interest in Northern Energy to 97.6% as at the date of this report.

Daily share price movements and trading volumes are presented graphically in the figure below. A summary of key movements is provided in Table 9.



Source: Thomson Reuters

Notes:

- 1. RHS right hand side
- LHS left hand side.

Table 9: Selected Northern Energy announcements

		<del></del>
Notes	Date	Description
1	22-Apr-10	Northern Energy announced an off take agreement for Maryborough with a subsidiary of Xinyang and issued 16.3 million shares at AUD 1.41 per share to Xinyang
2	28-Apr-10	Northern Energy announced resources at Maryborough had increased to 83 Mt from its previous level of 57 Mt
3	30-Jul-10	Northern Energy announced JORC code-compliant marketable reserves of 5.9 Mt at Maryborough
4	8-Oct-10	Northern Energy announced an unsolicited takeover offer from New Hope to acquire 100% of Northern Energy at AUD 1.50 per share
5	31-Jan-11	Northern Energy received a revised takeover offer of AUD 1.75 per share from New Hope, an increase of AUD 0.25 per share from the offer dated 8 October 2010
6	10-Feb-11	New Hope increased its takeover offer to AUD 1.85 per share, a further increase of AUD 0.10 per share
7	29-Aug-11	New Hope announced the Takeover Offer
8	31-Aug-11	Xinyang sold its 12.7% interest in Northern Energy at a price of AUD 2.00 per share
9	1-Sept-11	New Hope announced its total interest in Northern Energy had reached 97.6%

Source: Thomson Reuters and ASX

## 3.8 Financial performance

The audited income statements of Northern Energy for FY 2008, FY 2009, FY 2010 and the unaudited income statement for the 13 months ended 31 July 2011 are summarised in the table below.

Table 10: Financial performance

	FY 2008 Audited 12 months (AUD'000)	FY 2009 Audited 12 months (AUD'000)	FY 2010 Audited 12 months (AUD'000)	FY 2011 Unaudited 13 months <sup>1</sup> (AUD'000)
Revenue	464	408	606	1,499
Employment expenses	(995)	(588)	(961)	(1,380)
Administration expenses	(205)	(288)	(314)	(712)
Exploration cost	(3)	-	(69)	-
Other expenses	(121)	(100)	(283)	(4,753)
Depreciation and amortisation expenses	(41)	(45)	(44)	(38)
Finance costs	(3)	(2)	=	
Earnings before taxes	(905)	(614)	(1,064)	(5,385)
Income tax	-	-	-	-
Profit/(loss) from continuing operations after income tax expense	(905)	(614)	(1,064)	(5,385)

Source: Northern Energy FY 2009 and FY 2010 annual reports and the unaudited annual report for FY 2011

#### Note:

1. Northern Energy adjusted its 2011 financial year to end on 31 July 2011.

We note the following in relation to Northern Energy's financial performance:

- Northern Energy's projects are still in the exploration phase and therefore Northern Energy projects have no operating revenue to date. Northern Energy's principal current source of revenue is interest earned on cash reserves
- as a coal exploration and development company, Northern Energy capitalises the majority of its exploration expenditure
- reported losses reflect employee and administrative expenses, partially offset by interest income on monies on deposit
- other expenses in FY 2011 were incurred in relation to Northern Energy's defence of New Hope's takeover offer between October 2010 and February 2011.

## 3.9 Financial position

The audited statement of financial position of Northern Energy as at 30 June 2009 and 30 June 2010 and the unaudited statement of financial position of Northern Energy as at 31 July 2011 are summarised in the table below.

Table 11: Financial position

	30-Jun-2009 Audited (AUD'000)	30-Jun-2010 Audited (AUD'000)	31-Jul-2011 <sup>1</sup> Unaudited (AUD'000)
Cash and cash equivalents	4,218	23,068	3,967
Receivables	598	571	2,243
Held to maturity investments	-	-	6,436
Other current assets	32	34	2,565
Total current assets	4,848	23,673	15,211
Exploration expenditure	14,544	22,892	33,994
Plant and equipment	89	55	63
Held to maturity investments	4,253	8,994	3,819
Financial asset	1	1	1
Other receivable	152	164	287
Total non-current assets	19,049	32,105	38,163
Trade and other payables	620	1,346	810
Provisions	56	97	41
Total current liabilities	676	1,443	851
Net assets	23,221	54,335	52,523

Source: Northern Energy FY 2009 and FY 2010 annual reports and the unaudited annual report for FY 2011

Note:

1. Northern Energy adjusted its 2011 financial year to end on 31 July 2011.

We note the following in relation to Northern Energy's financial position:

- Northern Energy raised AUD 23.0 million via a share issue to a subsidiary of Xinyang at AUD 1.41 per share in May 2010, contributing to cash and cash equivalents of AUD 23.1 million as at 30 June 2010. As at 31 July 2011, cash and cash equivalents had decreased to approximately AUD 4.0 million, principally due to payments for exploration and evaluation (AUD 11.8 million) and takeover defence costs incurred during the year following New Hope's takeover offer on 8 October 2010
- current and non-current held to maturity investments relate to bank term deposits held as security in relation to bank guarantees provided for Northern Energy's participation in the WICET development. Term deposits classified as current relate to stage one of the development and those classified as non-current relate to stage two
- other current assets refer to prepaid amounts in respect of the interest to be acquired in the holding company of the entity responsible for construction of stage one of the WICET development (refer Section 3.4)
- exploration expenditure relates to capitalised costs incurred in acquiring and exploring Northern Energy's projects
- the financial asset relates to Northern Energy's shareholding in WICET Pty Limited.

## 4 Profile of New Hope

New Hope is an ASX listed energy company which was incorporated in 1972 and is based in Ipswich, Queensland.

New Hope operates three open cut coal mines, being the Jeebropilly and New Oakleigh mines located 23 km west of Ipswich and the New Acland mine located approximately 150 km west of Brisbane on the Darling Downs. New Hope focuses on niche marketing of its thermal coal and exports around 80% of saleable coal to Asia Pacific markets including Japan, Taiwan, Korea and Chile with the remainder being consumed by customers in south-east Queensland.

New Hope also holds various exploration tenements in central Queensland and on the Darling Downs in southern Queensland. New Hope's investments include a 100% shareholding in Queensland Bulk Handing, a common user coal export terminal at the Port of Brisbane, and a significant land holding around Ipswich and near its mining operations at Acland.

Current JORC code-compliant reserves and resources for New Hope are set out in the table below.

Table 12: Reserves and resources of New Hope

	Resources				Reserves			
Project	Measured	Indicated	Inferred	Total	Proved	Probable	Total	
Acland	410	435	10	855	303	189	492	
Jeebropilly	48	72	11	131	-	-	-	
Lenton	53	144	85	282	21	31	52	
Bee Creek	-	-	104	104	-	-	-	
Jandowae	-	119	38	157	-	-	-	
Total	511	770	248	1,529	324	220	544	

Source: New Hope

As at 22 August 2011, New Hope had 830,230,549 ordinary shares outstanding and a market capitalisation of AUD 4,101 million. Washington H. Soul Pattinson & Co. Limited, an Australian public investment company listed on the ASX, owns approximately 60% of New Hope.

## 5 Valuation methodology

## 5.1 Valuation methodologies

To estimate the fair market value of a share in Northern Energy we have considered common market practice and the valuation methodologies recommended by ASIC Regulatory Guide 111, which deals with the content of independent expert's reports. These are discussed below.

#### 5.1.1 Market based methods

Market based methods estimate a company's fair market value by considering the market price of transactions in its shares or the market value of comparable companies. Market based methods include:

- capitalisation of maintainable earnings
- analysis of a company's recent share trading history
- industry specific methods.

The capitalisation of maintainable earnings method estimates fair market value based on the company's future maintainable earnings and an appropriate earnings multiple. An appropriate earnings multiple is derived from market transactions involving comparable companies. The capitalisation of maintainable earnings method is appropriate where the company's earnings are relatively stable.

The most recent share trading history provides evidence of the fair market value of the shares in a company where they are publicly traded in an informed and liquid market.

Industry specific methods estimate market value using rules of thumb for a particular industry. Generally rules of thumb provide less persuasive evidence of the market value of a company than other valuation methods because they may not account for company specific factors.

#### 5.1.2 Discounted cash flow methods

Discounted cash flow methods estimate market value by discounting a company's future cash flows to a net present value. These methods are appropriate where a projection of future cash flows can be made with a reasonable degree of confidence. Discounted cash flow methods are commonly used to value early stage companies or projects with a finite life

#### 5.1.3 Asset based methods

Asset based methods estimate the market value of a company's shares based on the realisable value of its identifiable net assets. Asset based methods include:

- orderly realisation of assets method
- liquidation of assets method
- net assets on a going concern basis.

The orderly realisation of assets method estimates fair market value by determining the amount that would be distributed to shareholders, after payment of all liabilities including realisation costs and taxation charges that arise, assuming the company is wound up in an orderly manner.

The liquidation method is similar to the orderly realisation of assets method except the liquidation method assumes the assets are sold in a shorter time frame. Since wind up or liquidation of the company may not be contemplated, these methods in their strictest form may not necessarily be appropriate. The net assets on a going concern basis method estimates the market values of the net assets of a company but does not take account of realisation costs.

These asset based methods ignore the possibility that the company's value could exceed the realisable value of its assets as they ignore the value of intangible assets such as customer lists, management, supply arrangements and goodwill. Asset based methods are appropriate when companies are not profitable, a significant proportion of a company's assets are liquid, or for asset holding companies.

## 5.2 Selection of valuation methodologies

We have applied a sum-of-the-parts methodology to value Northern Energy. This method estimates the fair market value of a company by summing the values of the assets and liabilities of the company. We have estimated the value of Northern Energy's assets and liabilities as follows:

- the Maryborough and Elimatta coal development projects have been valued using the discounted cash flow methodology. We have engaged BDA to assess the technical assumptions contained in the financial model, prepared by the management of Northern Energy, in relation to the Maryborough and Elimatta development assets. We have selected the discounted cash flow method to value the these projects due to the following factors:
  - o the current stage of planning for the development of the Maryborough and Elimatta development projects
  - o management has prepared long term cash flow projections for the development projects
  - these assets have a finite life and thus it is not appropriate to use a capitalisation of maintainable earnings approach
  - o significant capital expenditure will be required for the development projects.

To provide additional evidence of the fair market value of Maryborough and Elimatta, we have considered the reserve and resource multiples implied by our valuation of Maryborough and Elimatta compared with the reserve and resource multiples observed for comparable listed companies and comparable transactions, respectively

- BDA has been engaged to assess the fair market value of Northern Energy's other exploration assets which include Yamala, Ashford, and Yetman (refer to Section 3.3 for a schedule of exploration tenements). The exploration assets, including Yamala, Ashford and Yetman have been valued based on a number of valuation methodologies having regard to:
  - o the planned future expenditure in respect of exploration permits
  - values implied by farm out agreements
  - historical expenditure on the permits
  - resource multiples observed for comparable transactions involving companies or projects at a broadly similar stage of development
- surplus assets (if any) based on the book value of any surplus assets or liabilities
- cash and debt position current balance of cash and interest bearing liabilities
- consideration of applicable premiums and discounts.

To provide additional evidence of the fair market value of a share in Northern Energy, we have considered the reserve and resource multiples implied by our valuation of Northern Energy compared with the reserve and resource multiples observed for comparable listed companies and comparable transactions, respectively.

## 5.3 Appointment and role of the technical expert

BDA, an independent mining expert, was engaged to prepare a report providing a technical assessment of certain key assumptions underpinning the financial model for Northern Energy's development projects.

The management of Northern Energy prepared a financial model (the Model) to estimate the future cash flows of the development projects. BDA reviewed and/or provided input on the formulation of the following assumptions adopted in the Model:

- levels of reserves and resources and producing profiles (including production profiles for potential expansion cases)
- operating expenditure, including rehabilitation and abandonment costs
- · capital expenditure
- other relevant assumptions.

BDA was also engaged to provide an assessment of the exploration projects held by Northern Energy, including Yamala, Ashford and Yetman.

BDA prepared its technical review having regard to the code for Technical Assessment and Valuation of Minerals and Petroleum Assets and Securities for Independent Expert Reports (the VALMIN code). The scope of BDA's work was controlled by Deloitte. A copy of BDA's report is provided in Appendix 6.

### 6 Future cash flows

### 6.1 The Model

Northern Energy management prepared the Model which estimates the future cash flows to be generated by the Maryborough and Elimatta development projects. The Model includes projections of real, after-tax cash flows in AUD for each project over the life of mine on a calendar year basis<sup>4</sup>.

The Model was prepared based on:

- the latest reserve and resource statements, which are certified in accordance with the JORC code
- the feasibility studies completed for the development projects, which include estimates of each asset's production profile, operating costs and capital expenditure costs over each project's life of mine
- access to road, rail and port infrastructure, consistent with the terms Northern Energy management is currently
  negotiating with infrastructure operators and owners.

The analysis we have undertaken in respect of the Model includes:

- engaging a technical expert, BDA, to review and/or provide the technical assumptions underlying the Model
- holding discussions with the management of Northern Energy concerning the preparation of the projections in the Model and its views regarding the assumptions on which the projections are based
- limited analytical procedures regarding the mathematical accuracy of the Model (our work did not constitute an audit or review of the projections in accordance with the AUASB standards).

Deloitte engaged BDA to prepare a report providing a technical review of certain assumptions (reserves, resources, expected life of mine, ROM coal to plant yields, production volumes, coal operating expenditure and capital expenditure) underpinning the future cash flows of each development project. BDA visited the Maryborough project site, conducted extensive topographical research of the Elimatta project and the other tenements held by Northern Energy, held discussions with the management of Northern Energy and reviewed data, reports and other information that is either publicly available or made available by Northern Energy.

We made adjustments to the cash flow projections in the Model where considered appropriate. These adjustments include, but are not limited to, life of mine, capital expenditure, pricing, foreign exchange rates, inflation and taxation assumptions. We have adjusted the cash flows in the Model to be projected on a nominal basis, after applying our inflation assumptions.

We valued the Maryborough and Elimatta projects of Northern Energy based on the technical assumptions reviewed and/or provided by BDA and our assessment of coal prices, foreign exchange rates, inflation and the discount rate applicable to the future cash flows associated with these assets. We also adjusted operating costs in the long term in order to ensure that they are consistent with our coal pricing assumptions.

Our work did not constitute an audit or review of the projections in accordance with the AUASB standards and accordingly we do not express any opinion as to the reliability of the projections or the reasonableness of the underlying assumptions.

Since projections relate to the future, they may be affected by unforeseen events and they depend, in part, on the effectiveness of management's actions in implementing the plans on which the projections are based. Accordingly, actual results are likely to be different from those projected because events and circumstances frequently do not occur as expected, and those differences may be material.

The key assumptions underpinning our analysis are described in the following sections.

**Deloitte**: Northern Energy Corporation Limited - Independent expert's report

<sup>&</sup>lt;sup>4</sup> we have adjusted the cash flows in the Model to be projected on a nominal basis, after applying our inflation assumptions.

## **6.2** Revenue assumptions

Revenue is a function of saleable production volumes and commodity prices. Where projected volumes are contracted, the Model projects revenue as a function of the contracted volumes at their contracted prices.

#### Saleable production volumes

#### Maryborough

The figure below outlines the projected saleable hard coking coal production volumes from the Maryborough project until mid-2032 when, based on advice from BDA, open cut operations at the Maryborough project can be expected to cease.

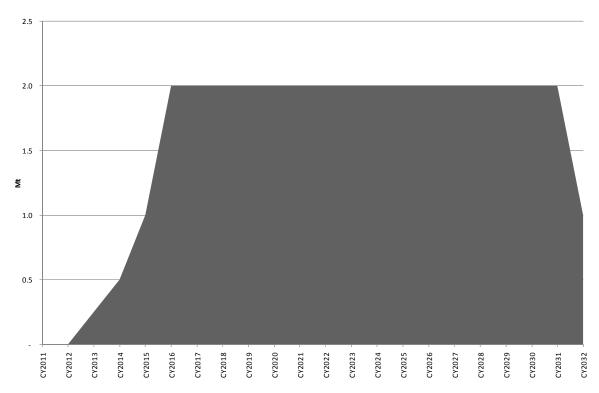


Figure 5: Projected saleable hard coking coal production of the Maryborough project

Source: Model; BDA

We note the following in relation to the projected saleable production volumes:

- saleable coal production is based on a ROM coal to plant yield of 50% over the life of mine
- we have assumed, based on advice from BDA, that projected volumes will include mining all Probable Reserves
  (i.e. 5.9 Mt) and all remaining Indicated resources (i.e. 3.6 Mt) and 61 Mt of Inferred resources of Maryborough.
  This results in approximately 70 Mt of total ROM coal production, or 35 Mt of total saleable coal production, over
  a life of mine of 20 years
- ROM coal production is expected to commence in CY 2012 at 0.5 Mtpa, with all projected saleable coal volumes railed to Barney Point for export. Additional saleable production of 0.5 Mt is assumed from CY 2015, with these additional volumes projected to be railed to WICET for export in line with the expected completion of the stage one terminal expansion from late CY 2014 or early CY 2015. Saleable coal production is expected to ramp up to 2.0 Mt from CY 2016, in line with completion of the stage two terminal expansion, which is expected to occur a year after completion of the stage one expansion

 annual saleable production volumes take account of coal handling and preparation and infrastructure capacity constraints.

Maryborough's total production over the period covered by the projections is expected to be exported, 65% of which will be sold to Xinyang under the agreement entered into in 2010 (refer to Section 3.3.1).

BDA is of the opinion that only approximately 70 Mt of current reserves and resources will reasonably be extracted by Northern Energy. In BDA's opinion, Northern Energy will have limited ability to access resources in certain catchment areas given the specific characteristics of the tenement.

#### Elimatta

The figure below outlines the projected saleable thermal coal production volumes from the Elimatta project until late 2035 when, based on advice from BDA, open cut operations at the Elimatta project can be expected to cease.

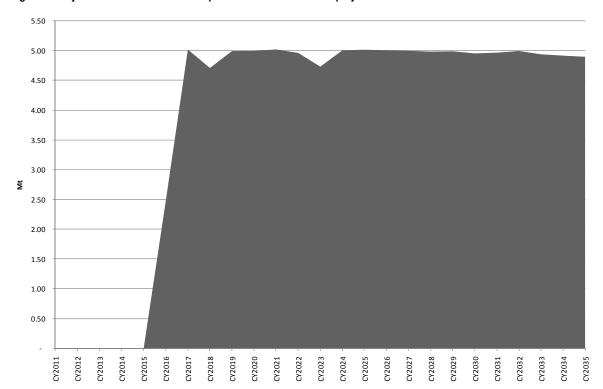


Figure 6: Projected saleable thermal coal production of the Elimatta project

Source: Model; BDA

We note the following in relation to projected saleable production volumes:

- saleable coal production is based on a ROM coal to plant yield in the range of 65% to 70% over the life of mine
- we have assumed, based on advice from BDA, that projected volumes will be based on mining all marketable
  reserves and Measured resources (i.e. 129 Mt) and 19 Mt of Indicated resources of Elimatta. This results in
  approximately 148 Mt of total ROM coal production, or 98 Mt of total saleable coal production, over a life of mine
  of 20 years
- saleable coal production is expected to commence in CY 2016, in line with completion of stage two of the WICET development in late CY 2015 or early CY 2016
- annual saleable production volumes take account of coal handling and preparation and infrastructure capacity constraints.

Total production over the period covered by the projections is expected to be exported.

Whilst Elimatta has approximately 96 Mt of Indicated and Inferred resources which are not included in the Model, BDA is of the opinion that Elimatta's life of mine is limited to 20 years, given the specific characteristics of the tenement.

#### Coal pricing assumptions

All the coal produced by the Maryborough and Elimatta projects is expected to be exported to overseas markets. Long term coal supply contract price negotiations with Japanese electricity utilities and steel mills set the benchmark level for other thermal coal and coking coal price settlements in Asia.

We have had regard to the following in selecting appropriate pricing assumptions for export thermal coal and hard coking coal:

- recent broker forecasts for Australian thermal coal and hard coking coal
- the margins above cash costs implied by the broker forecasts for Australian thermal coal and hard coking coal
- recent price settlements achieved by Australian coal producers with particular regard to the terms and duration of these settlements<sup>5</sup>
- historical export contract prices into the Asia Pacific market, as set out in Appendix 2
- the estimated average discount to benchmark prices to be realised by Northern Energy for Maryborough's hard coking coal and Elimatta's thermal coal having regard to the expected quality of the coal produced by these assets and discussions held with Northern Energy management and BDA. We note that 65% of Maryborough's coal will be purchased at a price set with reference to an appropriate Queensland reference coal mine price<sup>6</sup> adjusted for quality and energy content that is either above or below benchmark specifications
- other publicly available price estimates and commentary including, but not limited to, industry research and announcements released by comparable companies.

Based on our analysis, we have adopted real export pricing assumptions as set out in the table below.

Table 13: Selected export pricing assumptions (in real CY 2011 terms)<sup>1</sup>

USD <sup>1</sup> per tonne	2013	2014	2015	Long term
Hard coking coal Export thermal coal	200	170	155	145 85

Source: Deloitte analysis

#### Notes:

 Hard coking coal and export thermal coal prices have been selected from the expected commencement of production at the Maryborough and Elimatta projects

USD – United States dollars.

The selected pricing assumptions refer to price expectations for coal of standard quality. The Model applies quality and energy content discounts to these prices, where appropriate, to account for the specific qualities of the coal produced by the Maryborough and Elimatta projects.

It should be noted that our valuation is highly sensitive to changes in the export coal price projections. Coal prices are subject to volatility resulting from factors such as perceived shortages and leading economic indicators.

<sup>&</sup>lt;sup>5</sup> we note that coal producers are increasingly negotiating coking coal prices on a quarterly basis to take advantage of the premium of spot prices over annual benchmark prices
<sup>6</sup> the central Queensland reference mine has coal of a similar quality to that of the Maryborough project. Northern Energy

<sup>&</sup>lt;sup>6</sup> the central Queensland reference mine has coal of a similar quality to that of the Maryborough project. Northern Energy management noted that this reference mine's coal can be sold at anywhere between a premium to a discount to the Queensland hard coking coal price. In estimating the price at which Maryborough's hard coking coal will be sold, we have adopted the assumption that Maryborough's hard coking coal will be sold at a 2% to 3% discount to our selected hard coking coal prices

#### 6.3 Other revenue

As a result of Northern Energy's participation in the WICET development, it may receive future revenues from the holding company of the entity responsible for construction of WICET after mechanical completion of the terminal. This revenue, together with the cash flows associated with securing port capacity in stage two of the WICET development have been included in the projected cash flows of Northern Energy.

## 6.4 Operating costs

The Model includes projections of operating costs in real terms, which are summarised as follows:

- overburden removal costs for open cut mining operations are projected on a fixed cost per ROM tonne
- processing costs, including mining, coal handling and preparation and site administration costs, are projected on a fixed cost per ROM tonne
- transport costs, including freight and port charges and demurrage costs, are projected on a fixed cost per ROM tonne
- other operating costs include management and marketing fees payable to the mine operators and contractors, rehabilitation costs and levies.

Levies primarily relate to a voluntary contribution to the Coal 21 Fund, which was established by the Australian Coal Association, to provide funding for on-going research into low emission technologies for the power generation industry.

The operating costs on a free on board (FOB) per tonnage basis are as follows:

- the FOB cost per tonne for the Maryborough project is in the range of AUD 105 per tonne to AUD 129 per tonne, with an average of AUD 116 per tonne over life of mine and an average of AUD 112 per tonne after the first seven years of production
- the FOB cost per tonne for the Elimatta project is in the range of AUD 66 per tonne to AUD 106 per tonne, with an average of AUD 76 per tonne over life of mine.

Other costs included in the Model in respect of the Maryborough and Elimatta projects include:

- state government royalty payments, which are calculated based on a royalty rate applied to revenue earned net of demurrage costs, port charges and levies. The royalty rate for open cut mines in Queensland is 7.0% if average net revenue per tonne is less than AUD 100 and 10% if average net revenue per tonne is greater than AUD 100
- marketing fees incurred in identifying customers and procuring the sale of coal produced.

Where appropriate, we have converted operating costs from real terms to nominal terms using our selected inflation assumptions (refer to Section 6.7). We have also adjusted operating costs in the long term in order to ensure that they are consistent with our coal pricing assumptions.

## 6.5 Capital costs

#### Maryborough project

The Model incorporates capital costs of approximately AUD 320 million (in CY 2011 real terms) over the projection period, including costs associated with securing capacity in stage two of the WICET development. We note that the projected capital costs are based on contractor mining operations and therefore do not include costs associated with mining equipment (however, operating costs include a contractor's margin and ownership costs). The projected capital costs are mainly associated with the following:

- exploration, land acquisition and other costs (including a contingency allowance) in order to develop the Colton mine from CY 2011 to CY 2014
- construction of the coal handling and processing plant from CY 2011 to CY 2015
- construction of the rail spur and other rail infrastructure in CY 2011 and CY 2012
- securing Maryborough's port capacity in stage two of the WICET development in CY 2012
- other capital costs associated with power connections, roads and water and waste management.

The Model also includes an allowance for ongoing maintenance capital expenditure and land rehabilitation costs.

#### Elimatta project

The Model incorporates capital costs of approximately AUD 700 million (in real terms) over the projection period, including costs associated with securing capacity in stage two of the WICET development. We note that the projected capital costs are based on contractor mining operations and therefore do not include costs associated with mining equipment (however, operating costs include a contractor's margin and ownership costs). The projected capital costs are mainly associated with the following:

- land acquisition costs in CY 2012
- construction of the coal handling and processing plant from CY 2013 to CY 2016
- construction of rail and road infrastructure in CY 2013 and CY 2014
- construction of material handling infrastructure and design and construction management costs from CY 2013 to CY 2020
- securing Elimatta's port capacity in stage two of the WICET development in CY 2012
- other capital costs associated with power connections, roads and water and waste management.

The Model also includes an allowance for ongoing maintenance capital expenditure and land rehabilitation costs.

## **6.6 Corporate assumptions**

Based on discussions with Northern Energy management and BDA, we have adopted the following corporate overhead assumptions in our assessment of value for Northern Energy as a whole (in CY 2011 real terms):

- AUD 7 million per annum in corporate overheads (excluding insurance) from CY 2011
- approximately AUD 1.4 million per annum in insurance costs in respect of the Maryborough project (payable from when production commences in CY 2015)
- AUD 2.4 million in insurance costs per annum in respect of the Elimatta project (payable from when production commences in CY 2016).

## 6.7 Economic assumptions

#### **Inflation**

The future cash flows in the Model are presented in CY 2011 real terms. We have therefore adopted inflation rate assumptions to apply to projected real cash flows to convert them into nominal cash flows, based on the currency the particular cash flow is denominated in. We note that Northern Energy's cash flows are denominated in either USD or AUD.

In selecting inflation rate assumptions for Australia and the US, we have considered the following:

- the monetary policy adopted by the Reserve Bank of Australia to maintain inflation within a target range of 2.0% to 3.0%
- the US Federal Reserve's long term inflation rate target of approximately 2.0%
- forecasts prepared by economic analysts and other publicly available information including broker consensus.

Based on our analysis, we have selected the following inflation rate assumptions (on a calendar year basis).

Table 14: Selected inflation rate assumptions (calendar year basis)

	2012	2013	2014	2015	Long term
US	2.2%	2.3%	2.4%	2.5%	2.5%
Australia	2.8%	2.8%	2.7%	2.6%	2.5%

Source: Deloitte analysis

#### Foreign exchange rate

To convert the USD denominated revenue in the Model to AUD, we have had regard to the following:

- historical and current AUD to USD exchange rates
- the AUD to USD exchange rate forward curve
- forecasts prepared by economic analysts and other publicly available information including broker consensus.

We have adopted the following foreign exchange rate assumptions (on a calendar year basis):

Table 15: Selected exchange rate assumptions (calendar year basis)

	2011	2012	2013	2014	2015	Long term
Deloitte selected (AUD to USD)	1.06	1.04	0.99	0.94	0.90	0.80

Source: Deloitte analysis

### 6.7.1 Mineral Resource Rent Tax / potential carbon tax implications

We have not included any impact of the Mineral Resource Rent Tax (MRRT) and a potential carbon tax (refer to Appendix 2) on the projected cash flows of the Maryborough and Elimatta projects due to the uncertainty surrounding the proposed legislation being enacted and the limited information available on how these taxes will be calculated. However, having regard to the limited information released by the Commonwealth Government, we have considered at a high level the indicative potential impact of the proposed taxes on the projected cash flows of the Maryborough and Elimatta projects. Based on this indicative analysis, the MRRT and the potential carbon tax, in their current draft form, are not likely to have any material impact on the cash flows of Northern Energy.

However, we note that implementation of these proposed taxes remains subject to consultation, final drafting and introduction to Parliament as legislation. Accordingly, the MRRT and the potential carbon tax may not ultimately be implemented or may be implemented in a different form.

### 6.7.2 Other assumptions

In addition to the above assumptions, the Model assumes the following:

- a corporate tax rate of 30%, with taxable income offset by current tax losses
- working capital calculated as receivables less payables.

# 7 Valuation of Northern Energy

# 7.1 Introduction

Deloitte has estimated the fair market value of Northern Energy using the sum-of-the-parts method which estimates the market value of a company by valuing each asset of the company. The value of each asset may be determined using different valuation methods.

To value Northern Energy using the sum-of-the-parts method requires an estimate of the following:

- the value of the development projects of Northern Energy, consisting of the Maryborough and Elimatta projects
- the value of the exploration assets of Northern Energy
- net surplus assets (if any) based on the current balance of any surplus assets or liabilities
- current net debt or net cash position.

This analysis is set out in Section 7.2.1 to Section 7.2.4.

In addition, we also had regard to the resource multiple implied by our valuation of the development assets of Northern Energy compared with the resource multiples observed for comparable transactions and comparable listed companies. This analysis is set out in Section 7.3.

# 7.2 The sum-of-the-parts method

# 7.2.1 Development assets of Northern Energy

The value of Northern Energy's development assets has been estimated using the discounted cash flow method, which estimates the fair market value of an asset by discounting its future cash flows to their net present value. To value the development assets using the discounted cash flow method requires the determination of the following:

- future cash flows
- an appropriate discount rate to be applied to the future cash flows
- an estimate of the terminal value (if any).

Our consideration of each of these factors is presented below.

#### **Future cash flows**

The future cash flows are described in Section 6.

#### Discount rate

The discount rate used to equate the future cash flows to a present value reflects the risk adjusted rate of return demanded by a hypothetical investor. We have selected nominal after tax discount rates in the range of 13.0% to 14.0% and 14.0% to 15.0% to discount the future cash flows of the Maryborough and Elimatta projects to their present value, respectively.

In selecting this discount rate range we considered the following:

- the required rates of return for comparable listed Australian and international coal mining and exploration companies
- the debt to equity ratios of comparable listed Australian and international coal mining and exploration companies
- specific risks associated with the development of the Maryborough and Elimatta projects
- the specific business and financing risks of Northern Energy
- Northern Energy's current cost of debt and level of financial gearing.

A detailed consideration of these matters is provided in Appendix 3.

#### Terminal value

In estimating production over the life of mine for the Maryborough and Elimatta projects, the Model incorporates the following:

- Maryborough's projected volumes are based on mining all Probable Reserves, all remaining Indicated resources and 61 Mt of total Inferred resources of 74 Mt. Therefore, approximately 13 Mt of Inferred resources are not included in the Model
- Elimatta's projected volumes are based on mining all marketable reserves, all remaining Measured resources and 19 Mt of total Indicated and Inferred resources of 115 Mt. Therefore, approximately 96 Mt of Inferred resources are not included in the Model.

The extent to which these resources can be converted into reserves depends on the outcomes of future exploration and drilling, further analysis of the geology of the deposits, the availability of downstream infrastructure and future coal prices.

However, as discussed in Section 6.2, BDA is of the opinion that only approximately 70 Mt of Maryborough's total resources of 83 Mt can reasonably be extracted by Northern Energy. BDA also considers that Elimatta's life of mine will be limited to 20 years. This is consistent with management's view of the development projects.

Having regard to the above, we have not incorporated a terminal value in our assessment of value of Northern Energy's development projects.

#### The discounted cash flow value

The value of the Maryborough and the Elimatta projects derived under the discounted cash flow methodology is highly sensitive to the discount rate, coal price and foreign exchange rate assumptions selected. We have performed sensitivity analysis by applying:

- a discount rate range in the range of 12.0% to 15.0% and 13.0% to 16.0% to the future cash flows of the Maryborough project and Elimatta project, respectively
- +/- USD 5.0 per tonne and USD 10.0 per tonne to the selected long term export coal prices for each coal product
- a long term exchange rate in the range of USD 0.77 to USD 0.83 to AUD 1.00.

In the following table we set out the fair market value of the Maryborough project derived using the discounted cash flow method based on the above long term coal price, exchange rate and discount rate assumptions.

Table 16: Discounted cash flow valuation of the Maryborough project (AUD million)

		Discount rate					
Maryborough project	15.0%	14.0%	13.0%	12.0%			
Long term coal price (real per tonne)							
+ USD 10.0	196	231	271	317			
+ USD 5.0	161	194	230	272			
Selected long term export prices	127	156	189	226			
- USD 5.0	93	119	148	181			
- USD 10.0	58	81	107	136			
Long term exchange rate assumption							
AUD 1.00 to USD 0.77	167	199	236	278			
AUD 1.00 to USD 0.80	127	156	189	226			
AUD 1.00 to USD 0.83	90	116	145	178			

Source: Deloitte analysis

Note

<sup>1.</sup> Selected long term export prices based on the figures set out in Table 13.

The value of the Maryborough project is extremely sensitive to the selected long term coal prices and foreign exchange rate assumptions adopted. This is largely the result of the timing of production of the Maryborough project. As Maryborough is only projected to commence full production from CY 2016 onwards (in line with expected completion of stage two of the WICET development), the majority of its revenues are projected based on the relevant long term coal price and foreign exchange rate assumptions.

Based on the above analysis, we have selected a fair market value of the Maryborough project to be in the range of AUD 160 million to AUD 190 million.

In the following table we set out the fair market value of the Elimatta project derived using the discounted cash flow method based on the above long term coal price, exchange rate and discount rate assumptions.

Table 17: Discounted cash flow valuation of the Elimatta project (AUD million)

		Discour	nt rate	
Elimatta project	16.0%	15.0%	14.0%	13.0%
Long term coal price (real per tonne)				
+ USD 10.0	(12)	30	79	135
+ USD 5.0	(86)	(52)	(12)	35
Selected long term export prices	(162)	(135)	(103)	(66)
- USD 5.0	(237)	(218)	(195)	(167)
- USD 10.0	(314)	(302)	(288)	(270)
Long term exchange rate assumption				
AUD 1.00 to USD 0.77	(112)	(80)	(43)	1
AUD 1.00 to USD 0.80	(162)	(135)	(103)	(66)
AUD 1.00 to USD 0.83	(208)	(185)	(159)	(128)

Source: Deloitte analysis

Note:

The value of the Elimatta project is extremely sensitive to the selected long term coal prices and foreign exchange rate assumptions adopted. This is largely a result of the timing of production of the Elimatta project. As Elimatta is only projected to commence full production from CY 2016 onwards (in line with expected completion of stage two of the WICET development), the majority of its revenues are projected based on the relevant long term coal price and foreign exchange rate assumptions. In addition, given the stage of development of the asset, we have applied a range of discount rates that reflect the level of return a potential investor would require to invest in the Elimatta project as a result of the perceived risk associated with its ability to generate the projected future cash flows.

Based on our selected long term coal thermal coal price and foreign exchange rate assumptions, the Elimatta project may not currently be economically feasible. This is the result of the following:

- Elimatta's operating costs are relatively high due to the high transport costs Northern Energy is likely to incur as a result of Elimatta's distance from WICET
- Northern Energy is projected to incur approximately AUD 70 million (in CY 2011 real terms) in capital costs, including costs associated with securing capacity in stage two of the WICET development, which was not envisaged in the Elimatta feasibility study
- as a result of the timing of production, the majority of revenues are projected based on the relevant long term coal
  price and foreign exchange rate assumptions.

<sup>1.</sup> Selected long term export prices based on the figures set out in Table 13.

As a result, in estimating the value of the Elimatta project, we have had regard to the following:

• to the extent a hypothetical potential purchaser's view on long term thermal coal prices and foreign exchange rates differs, the value of the Elimatta project could be more than zero. The following table shows the sensitivity of the value of the Elimatta project to the long term thermal coal price and the long term foreign exchange rate:

Table 18: Discounted cash flow valuation of the Elimatta project (AUD million)

	Long ter	m exchange rate (AUD	to USD)
Elimatta project	0.77	0.80	0.83
Long term coal price (real per tonne)			
+ USD 10.0	118	55	(5)
+ USD 5.0	29	(32)	(88)
Selected long term export prices (USD 85)	(61)	(119)	(172)
- USD 5.0	(152)	(206)	(257)
- USD 10.0	(243)	(295)	(345)

Source: Deloitte analysis

#### Note

At a long term thermal coal price of USD 95 and our preferred long term foreign exchange rate assumption of AUD 1.00 to USD 0.80, the value of Elimatta derived under the discounted cash flow analysis is approximately AUD 55 million, whilst at a long term coal price of USD 95 and a long term foreign exchange rate assumption of AUD 1.00 to USD 0.77, the value of Elimatta derived under the discounted cash flow analysis is approximately AUD 118 million

- to the extent the Elimatta project transitions from a development stage asset to a producing asset, the level of
  perceived risk associated with its projected cash flows may decrease, resulting in an increase in value
  commensurate with the increased probability of monetising its resource base
- the Elimatta project is enclosed by the various EPCs and MLs owned by Xstrata Coal in relation to its Wandoan thermal coal deposit, which Xstrata Coal plans to commercialise subject to receiving a mining lease at completion of the hearing currently being held in the Queensland Land Court in Brisbane. As a result, a potential purchaser may view the Elimatta project as having strategic value for Xstrata Coal and potentially the other joint venture partners to the project (ICRA (Itochu) Pty Limited and Sumisho Coal Australia Pty Limited).

Having regard to the above, we have selected a value in the range of nil to AUD 50 million for the Elimatta project.

Refers to the midpoint of the value of the Elimatta project derived under our preferred long term coal price assumption (i.e. USD 85 per tonne) and foreign exchange rate assumption.

# 7.2.2 Exploration assets of Northern Energy

Deloitte engaged BDA to provide an assessment of the value of the exploration assets of Northern Energy. A brief discussion of BDA's approach to the valuation of exploration assets is set out in Section 5.3. On the basis that Sojitz will farm-in to increase its interest in Yamala from 17% to 49%, we have incorporated the expected proceeds of AUD 8.1 million (in CY 2011 real terms) to be received by Northern Energy in the value of its exploration assets.

The estimated value of the exploration assets of Northern Energy is set out in the table below.

Table 19: BDA's valuation of the exploration assets of Northern Energy

Table 101 22710 Taladalon of the exploration decore				
	% interest	Low (AUD million)	High (AUD million)	Most likely value (AUD million)
Yamala	51% <sup>1</sup>	40.0	60.0	50.0
Ashford	50%	13.0	17.0	15.0
Yetman and other assets	100%	5.0	5.0	5.0
Total value of the exploration assets of Northern Energy (100% basis)		58.0	82.0	70.0
Proceeds from Sojitz farm-in to Yamala		8.05	8.05	8.05
Total value of the exploration assets of Northern Energy (actual interest) <sup>1</sup>		40.0	52.2	46.1

Source: BDA

Note:

# 7.2.3 Surplus assets

Management has advised that there are no assets which do not contribute to the operations of Northern Energy and we have not identified any material surplus assets during the course of our work. Consequently, no value has been placed on surplus assets.

# 7.2.4 Net cash position

The net cash position of Northern Energy as at 31 July 2011 is set out in the following table and consists of cash and cash equivalents held and refundable amounts contributed to the stage one WICET development. These amounts are refundable at financial close of stage one of the WICET development, which is expected to occur in CY 2012.

Table 20: Net cash

	AUD million
Cash and cash equivalents	4.0
Refundable prepaid stage one WICET development costs	0.1
Net cash position	4.1

Source: Deloitte analysis

<sup>1.</sup> Assumes Sojitz will farm-in to increase its interest in Yamala from 17% to 49%.

# 7.2.5 Valuation: sum-of-the-parts method

The value of Northern Energy using the sum-of-the-parts method is summarised below.

Table 21: Value of Northern Energy based on sum-of-the-parts method

Table 21: Value of Northern Energy based on sun				
-	Section	Unit	Low	High
Development assets	7.2.1	AUD million	160.0	240.0
Exploration assets <sup>1</sup>	7.2.2	AUD million	46.1	46.1
Total enterprise value of Northern Energy			206.1	286.1
Net cash position	7.2.4	AUD million	4.1	4.1
Equity value (on a control basis)		AUD million	210.1	290.1
Number of shares on issue	3.6	'million	130.7	130.7
Value of a share in Northern Energy		AUD/share	1.61	2.22
Deloitte assessed value of a share in Northern Energy		AUD/share	1.60	2.20

Source: Deloitte analysis

Note:

We have selected a valuation range for a share in Northern Energy to be in the range of AUD 1.60 to AUD 2.20 based on the sum-of-the-parts method.

<sup>1.</sup> Based on BDA's most likely value as set out in Section 7.2.2.

# 7.3 Cross check: industry rules of thumb

We have cross checked the value of Northern Energy to the reserve and resource multiples implied by our valuation of Northern Energy.

We note that reserve and resource multiples are only intended to provide a high level cross check for our valuation of Northern Energy. The share trading reserve multiples (enterprise value to resources) observed for the selected comparable companies and resource multiples implied by comparable transactions may vary significantly due to various factors including different cost structures, different geotechnical/geomechanical issues, different stages of development, different ratios of reserves to total resources plus reserves and different mine lives.

The following table sets out the reserve and resource multiples implied by our selected valuation range of Northern Energy.

Table 22: Resource multiple implied by Deloitte enterprise valuation of Northern Energy

Tubic 22. Resource multiple implied by Belonce enterprise		The same and the s		
	Section	Unit	Low	High
Enterprise value of Northern Energy (on a control basis)	7.2.5	AUD million	206.1	286.1
Reserves <sup>1</sup>	3.5	Mt	167	167
Reserve multiple (on a control basis)		AUD per tonne	1.2	1.7
Resources <sup>2</sup>	3.5	Mt	254	254
Resource multiple (on a control basis)		AUD per tonne	0.8	1.1

Source: Deloitte analysis

## Notes:

1. Consists of Proved and Probable Reserves

2. Consists of Measured and Indicated Resources and is inclusive of Proved and Probable Reserves.

The following table sets out the reserve multiple implied by our valuation and the share trading reserve multiples (enterprise value, implied by the current company share price, to Proved and Probable Reserves) observed for Australian comparable companies (refer to Appendix 4 for further details on the comparable companies).

Table 23: Comparable share trading multiples - market trading

Table 23. Comparable share trauling in	aidpies – iliair	or adding				
		Enterprise	Total	Total	EV	EV
		Value	reserves	resource	reserve	Resource
Entity	Domicile	(AUD million) <sup>1</sup>	(Mt) <sup>2</sup>	s (Mt) <sup>3,4</sup>	multiple AUD/tonne	multiple AUD/tonne
N 41 = 5		0404	40= 0	0740	4.4=	
Northern Energy⁵	Australia	246.1	167.0	254.0	1.47	0.97
Australian entities						
Coal producing companies						
Coal & Allied Industries Limited	Australia	10,561	1,008	3,539	10.5	3.0
Macarthur Coal Limited	Australia	4,498	259	2,318	17.4	1.9
Whitehaven Coal Limited	Australia	2,739	480	1,771	5.7	1.5
New Hope Corporation Limited	Australia	2,339	544	1,529	4.3	1.5
Gloucester Coal Limited	Australia	1,422	123	340	11.6	4.2
Average					9.9	2.4
Coal developing companies						
Aston Resources Limited	Australia	2,406	321	609	7.5	4.0
Cockatoo Coal Limited	Australia	390	47	1,260	8.2	0.3
Bandanna Energy Limited	Australia	351	147	1,534	2.4	0.2
Carabella Resources Limited	Australia	194	-	95	n/a	2.0
NuCoal Resources NL	Australia	124	-	505	n/a	0.2
Metrocoal Limited	Australia	74	-	1,188	n/a	0.1
Stanmore Coal Limited	Australia	56	117	328	0.5	0.2
Average					6.0	1.3
Average – Australian entities 6					8.4	1.9
Median – Australian entities <sup>6</sup>					7.9	1.7
International entities						
Entities with domestic and export sale	s					
Yanzhou Coal Mining Co Limited	China	19,706		2,522		7.8
Peabody Energy Corporation	US	13,423		9,013		1.5
Alpha Natural Resources Incorporated	US	8,941		10,024		1.8
Adaro Energy Tbk PT	Indonesia	7,072		3,444		2.1
Bumi Resources Tbk PT	Indonesia	6,154		5,100		0.6
Patriot Coal Corporation	US	1,459		1,842		0.8
Entities with export sales						
Consol Energy, Incorporated	US	12,806		4,400		2.9
Arch Coal, Incorporated	US	8,095		4,445		1.8

Entity	Domicile	Enterprise  Value  (AUD million) <sup>1</sup>	Total reserves (Mt) <sup>2</sup>	Total resource s (Mt) <sup>3,4</sup>	EV reserve multiple AUD/tonne	EV Resource multiple AUD/tonne
Average – international entities <sup>7</sup> Median – international entities <sup>7</sup> Average – overall <sup>8</sup>					8.4	1.6 1.8 1.8
Median – overall <sup>8</sup>					7.9	1.8

Source: Thomson Reuters, ASX and company announcements

#### Notes:

- 1. Enterprise values converted to AUD as at 14 September 2011
- 2. Total reserves consist of Proved and Probable Reserves
- 3. Total resources consist of Measured and Indicated Resources and are inclusive of reserves
- 4. Resources for some international comparables consist of marketable reserves
- 5. Enterprise value, implied reserve multiple and implied resource multiple based on midpoint of Deloitte valuation of Northern Energy
- 6. Enterprise value, resource multiple and reserve multiple of Northern Energy based on midpoint of Deloitte enterprise valuation of Northern Energy
- 7. Excludes Nucoal Resources Limited and Stanmore Coal Limited as these companies are considered to be illiquid
- 8. Excludes Yanzhou Coal Mining Company Limited which is considered an outlier
- 9. Excludes Nucoal Resources Limited, Stanmore Coal Limited and Yanzhou Coal Mining Company Limited.

As outlined in the table above, the reserve multiple implied by our valuation of Northern Energy (on a control basis) is lower than the average share trading reserve multiples for all comparable companies identified, which are on a minority interest basis. We note the following in relation to the above:

- Maryborough and Elimatta are projected to commence operations in CY 2013 and CY 2016 respectively. Both
  projects are subject to significant development risk, particularly in relation to capital expenditure funding and port
  terminal infrastructure requirements. As a result, we consider trading multiples for coal developing companies in
  Australia, which are at a similar stage of development and subject to the same risks as Northern Energy, to have
  operations most comparable to Northern Energy.
  - The average share trading reserve multiple for the coal developing companies in Australia (excluding Stanmore Coal Limited and NuCoal Resource NL) is AUD 1.3 per tonne on a minority interest basis
- many of the above companies have considerably larger operations compared to the operations of the development
  assets of Northern Energy. In general, larger companies have higher multiples than smaller companies. The average
  resource multiple of the comparable companies with enterprise values below AUD 1 billion is AUD 0.7 per tonne
  (excluding Stanmore Coal Limited and NuCoal Resource NL, which we consider illiquid).

We note that implied resource multiple range for Northern Energy of AUD 0.8 per tonne to AUD 1.1 per tonne is below the average of Australian developing coal companies, but within the range of multiples observed for companies of a similar enterprise value.

As discussed in 7.2.1, the value of the Elimatta project under the discounted cash flow analysis is highly sensitive to the long term thermal coal price and foreign exchange rate assumptions adopted. Based on our preferred assumptions, the Elimatta project may not currently be economically feasible. Having regard to our selected valuation range for the Elimatta project, Northern Energy's projected capital expenditure and the nature and stage of its other development and exploration operations, we consider the share trading reserve multiples broadly support our valuation of Northern Energy.

The following chart sets out the resource multiples implied by comparable transactions which have occurred since 2007 (refer to Appendix 5 for further details on the comparable transactions). We note that the resource multiples of the comparable transactions which involve the acquisition of a controlling interest could include premiums for such controlling interests. The resource multiples implied by our valuation of Northern Energy are based on a control value.

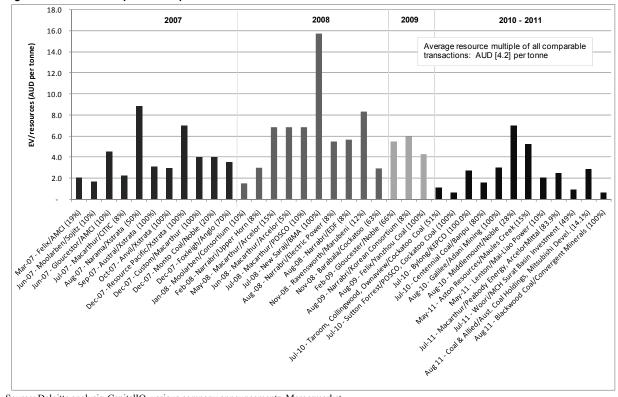


Figure 7: Resource multiples of comparable transactions 1,2,3

 $Source: Deloitte\ analysis, Capital IQ, various\ company\ announcements, Mergermarket$ 

#### Notes:

1. EV – enterprise value

- 2. Includes Measured and Indicated Resources and is inclusive of Proved and Probable Reserves
- 3. We note that the resource multiple implied by the New Saraji/BMA transaction may reflect the future potential of the deposit. As at the transaction date in July 2008, New Saraji had Measured and Indicated Resources of 156 Mt and Inferred Resources of 534 Mt. In BHP's FY2009 annual report, the resources at the New Saraji deposit (renamed Saraji East) comprised 209 Mt for Measured and Indicated Resources and 950 Mt for Inferred Resources.

We note that the overall average resource multiples implied by the comparable transactions of AUD 4.2 per tonne is higher than the resource multiple range implied by our valuation of Northern Energy (on a control basis) of AUD 0.8 per tonne to AUD 1.1 per tonne. We note that resource multiples implied by more recent transactions are lower than the average over the entire period observed from 2007. Of the transactions occurring in 2010 and 2011, seven of them consisted of control transactions.<sup>7</sup> The average resource multiple for these transactions was AUD 1.4 per tonne.

We note that the range of resource multiples implied by our valuation of Northern Energy is lower than the resource multiples observed for the recent transactions occurring in 2010 and 2011 involving control transactions. However, having regard to our selected valuation range for the Elimatta project and the nature and stage of Northern Energy's other development and exploration projects, we consider the transaction reserve multiples broadly support our valuation of Northern Energy.

<sup>&</sup>lt;sup>7</sup> The Middlemount/Noble transaction represented the acquisition of 28% interest in the Middlemount Mine project (i.e. a minority interest), whilst the Aston Resources/Maules Creek Corporation transaction involved the acquisition of a 15% interest in the Maules Creek coal project

Based on the above and given the limitations of this analysis, we consider the resource multiples implied by share trading of comparable companies and the comparable transactions broadly support our valuation of Northern Energy.	

# **Appendix 1: Glossary**

Reference	Definition
ABARES	Australian Bureau of Agricultural and Resource Economics and Sciences
AFSL	Australian Financial Services Licence
AGSM	Australian Graduate School of Management
AMEX	American Stock Exchange
APESB	Accounting Professional and Ethical Standards Board Limited
Ashford	Ashford Coal Project
ASIC	Australian Securities and Investments Commission
ASX	Australian Securities Exchange Limited
ATO	Australian Taxation Office
AUASB	Auditing and Assurance Standards Board
AUD	Australian dollars
β	Beta
Bandanna	Bandanna Energy Limited
Barney Point	Barney Point Terminal
BBSY	Bank Bill Swap Bid Rate
BDA	Behre Dolbear Australia Pty Limited
BMA	BHP Billiton Mitsubishi Alliance
bps	Basis points
CAPM	Capital Asset Pricing model
Carabella	Carabella Resources Limited
CFR	Cost and freight
Cockatoo	Cockatoo Coal Limited
CY	Calendar year
Deloitte	Deloitte Corporate Finance Pty Limited
Deloitte Touche Tohmatsu	Deloitte member firm in Australia
DERM	Queensland Government Department of Environment and Resource Management
EBIT	Earnings before interest and tax
EBITDA	Earnings before interest, tax, depreciation and amortisation
EIS	Environmental Impact Statement
EL	Exploration License
Elimatta	the Elimatta project
EMP	Environmental Management Plan
EMRP	Equity Market Risk Premium
EPC	Exploration Permit for Coal
ETS	Emissions Trading Scheme
EV	Enterprise value
FICS	Financial Industry Complaints Service
FOB	Free on board
FOS	Financial Ombudsman Service

Reference	Definition
FSG	Financial Services Guide
FY	Financial year
GST	Goods and services tax
IBIS	IBIS World Pty Ltd
ICAA	Institute of Chartered Accountants in Australia
Independent Directors	Directors of Northern Energy who are not also directors of New Hope
JFY	Japanese financial year
JORC	Australasian Joint Ore Reserves Committee
JV	Joint Venture
Kcal/kg	Kilocalories per kilogram
Kd	Cost of debt capital
K <sub>e</sub>	Cost of equity capital
Km	kilometre
LNG	Liquefied Natural Gas
LV	Low volatile
Maryborough	The Maryborough project
MC	Metallurgical coal
MDLA	Mining Development Lease Application
Metrocoal	Metrocoal Limited
MLA	Mining Lease Application
Model, the	Model prepared by Northern Energy which estimates the future cash flows to be generated by the Maryborough and Elimatta development projects
MOU	Memorandum of Understanding
MRRT	Mineral Resources Rent Tax
MSCI	Morgan Stanley Capital International World Index
Mt	Million tonnes
Mtpa	Million tonnes per annum
NAB	National Australia Bank Limited
NASDAQ	National Association of Securities Dealers Automated Quotation System
New Hope	New Hope Corporation Limited
Northern Energy	Northern Energy Corporation Limited
NPAT	Net profit after tax
NSW	New South Wales
NYSE	New York Stock Exchange
PCI	Pulverised coal injection
PDS	Product Disclosure Statement
Poltech	Poltech International Limited
QR National	QR National Limited
Renison	Renison Consolidated Mines NL
Rf	Risk free rate of return
$R_m$	Expected return on the market portfolio
Ro Max	Mean maximum reflectance

Reference	Definition
ROM	Run of mine
Section 611	Section 611 of the Corporations Act (Cth) 2001
Section 640	Section 640 of the Corporations Act (Cth) 2001
Shareholders	Holders of Northern Energy shares other than New Hope
SHCC	Semi-hard coking coal
Sojitz	Sojitz Corporation
SSCC	Semi-soft coking coal
Takeover Offer	New Hope's offer to acquire all of the outstanding shares in Northern Energy it does not
	already own
TC	Thermal coal
US	United States of America
USD	United States dollars
VALMIN code, the	Technical Assessment and Valuation of Minerals and Petroleum Assets and Securities for
	Independent Expert Reports
VWAP	Volume weighted average price
WACC	Weighted average cost of capital
WICET	Wiggins Island Coal Export Terminal
Xinyang	Xinyang Iron and Steel Group Company Limited
Xstrata	Xstrata Plc
Xstrata Coal	Xstrata Coal Queensland Pty Limited

# **Appendix 2: Australian coal mining industry**

Coal is Australia's largest commodity export, generating approximately AUD 36 billion of revenue for the country in FY 2010<sup>8</sup>. Australia produces both thermal coal and metallurgical (or coking) coal, which includes hard coking coal, semi-hard coking coal (SHCC), semi-soft coking coal (SSCC) and low volatile (LV) pulverised injection coal (PCI).

The principal activities of Northern Energy are the exploration for and the development of thermal and coking coal in NSW and Queensland. In addition Northern Energy's exploration asset, Yamala, located in Queensland has PCI resources.

# Overview

Coal is a fossil fuel composed primarily of carbon and hydrogen, formed through the natural application of high temperatures and pressure to biological matter over extended periods of time. Coal is mined by both open cut and underground mining methods.

Open cut mining involves using a dragline, truck/shovel fleet or a combination of these methods to remove waste rock (overburden). The uncovered coal is then recovered using excavators, trucks and/or a dragline.

Underground mines in Australia predominantly use the longwall method of mining, which involves underground roadways being cut into the coal seam to expose blocks of coal that can be up to several hundred metres wide and several kilometres long. Hydraulic roof supports then allow an automated shearer and conveyor to cut coal from the face (width) of the block. As a cut is made, the supports move forward and the roof is allowed to collapse behind the supports. Under consistent mining conditions the longwall method can recover over 75% of the coal within the area of mining.

Another commonly used underground mining technique is the bord and pillar method, which is carried out over a horizontal plane leaving pillars of unmined material as support for the mining development. These unmined pillars may subsequently be removed in a second phase of the mining process.

Coal is classified as either thermal coal or coking coal depending on its chemical and physical properties. Thermal coal and coking coal have different uses and therefore are subject to different supply and demand considerations. However a degree of substitution can occur between SSCC and thermal coal.

The majority of world coal production is consumed in the country in which it is produced. While exports represent a relatively small amount of total world coal production, more than three quarters of Australia's total coal production is exported. Australia's contribution to the global export market for thermal and coking coal is discussed in the following sections. Over 90% of the world's imported thermal and coking coal is represented by seaborne trade and the costs associated with ocean freight represent a significant portion of the cost of delivering this coal to the end user.

Demand for thermal and coking coal from developing economies in Asia has increased considerably in the last few years. However, increases in exported volumes from Australia have been restricted by the capacity of rail systems and coal loading terminals (coal supply chain) both in Queensland and NSW. In addition, adverse weather conditions in recent years have also affected the production of coal. The infrastructure limitations are currently being addressed through the expansion of both coal loading terminals and rail systems.

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Page 48

<sup>&</sup>lt;sup>8</sup> Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES)

# Coal resources in Australia

Australia is rich in coal with Proved Reserves<sup>9</sup> of approximately 76.4 billion tonnes as at 31 December 2010<sup>10</sup>. More than three quarters of Australia's coal production is exported, with NSW and Queensland accounting for approximately 97% of Australia's saleable output of black coal for FY 2010<sup>11</sup>. The location of coal resources in Queensland and NSW are illustrated in the figures below.

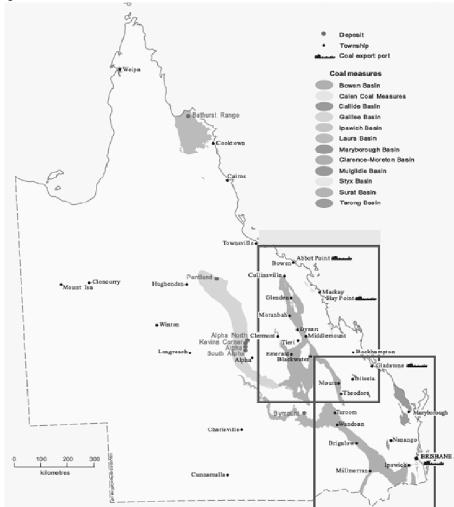


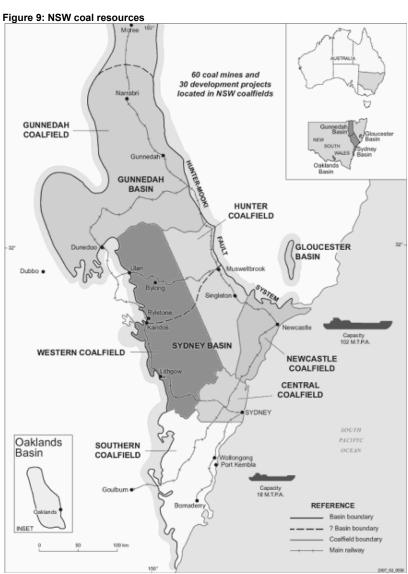
Figure 8: Queensland coal resources

Source: Australian Coal Association

Detailed maps in respect of the boxed areas in the figure above are located at the Australian Coal Association's website.

<sup>&</sup>lt;sup>9</sup> Proved Reserves are generally taken to be those quantities that geological and engineering information indicates with reasonable certainty can be recovered in the future from known deposits under existing economic and operating conditions <sup>10</sup> BP statistical review of world energy, June 2010

<sup>&</sup>lt;sup>11</sup> ABARES



Source: Department of Primary Industries, NSW Government

# Thermal coal

Thermal coal is primarily used as an energy source for coal fired power plants, which generate approximately 40% of the world's electricity output. Thermal coal is also used in cement manufacturing and other major energy intensive industries which use heat and/or steam in their production processes. As a result, thermal coal is generally sold at prices which reflect its energy content.

A wide range of thermal coals are available from Australian coal producers with coal characteristics varying from mine to mine. Australian export thermal coal typically has high energy content, moderate ash levels and is generally low in contaminants such as sulphur and other heavy metals that reduce the value of the coal.

#### Demand

The key drivers of demand for Australian thermal coal are world energy demand, the competitiveness of coal relative to alternative sources of energy in the production of electricity and the accessibility and competitiveness of thermal coal suppliers to the key export markets of the Asia Pacific region. The most important driver of global thermal coal demand is economic growth in Asia, which is expected to continue to support a sustained increase in the demand for electricity.

Demand for thermal coal has increased significantly in recent years as growth in the Chinese and Indian economies increased their energy needs, a growing share of which is required to be met by imports. There has also been increased demand for thermal coal by some European countries following a decline in domestic coal production in Europe. In particular, Germany and the United Kingdom, which were once net coal exporters, now rely on imported coal, while France ceased domestic coal production from 2004. Japan and the European Union are the largest importers of thermal coal.

The International Energy Agency forecasts the continued dominance of coal and other fossil fuels in the energy mix and a rising share of the energy mix of emerging economies in global energy consumption. The majority of this growth in Asia is expected to come from Japan, South Korea, India, Taiwan and China. Demand for imports in Europe is expected to remain relatively stable due to low population growth, carbon trading regulations (introduced in 2006) and competition from alternative sources of energy such as natural gas and nuclear power generation.

# Supply

Approximately 90% of the world's imported thermal coal is represented by seaborne trade. Although Indonesia is currently the world's largest exporter of thermal coal, Australia is projected to become the leader after its rail and port infrastructure investments are completed. Other major regions that export thermal coal include the Russian Federation, Colombia and South Africa. The figure below shows the breakdown of the global seaborne thermal coal trade.

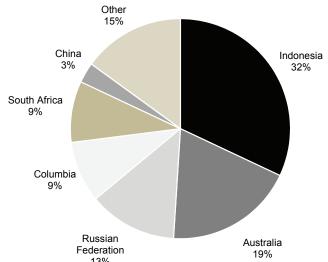


Figure 10: Global seaborne thermal coal trade

Source: Energy in Australia 2011, ABARES

A number of factors affected the global thermal coal export market in 2009, 2010 and 2011 to date:

• although market conditions improved in late 2009, oversupply existed for the duration of the year due to significantly reduced worldwide demand at the end of 2008 as a result of the global financial crisis. This prompted many mines in coal exporting countries to lower production levels and/or close down high cost mines.

High import demand from China in 2009 helped offset the decline in demand from the rest of the world. The demand from China was driven by high domestic prices relative to the landed price of imports and high electricity demand as a result of high temperatures across Asia<sup>12</sup>. In addition, the bottlenecks in China's transportation infrastructure also forced the country's traders to buy coal overseas. This import demand from China and a modest increase in demand from Japan following the country's recovery from the global financial crisis continued in 2010

<sup>&</sup>lt;sup>12</sup> The high domestic prices in China were precipitated by the closure of many mines in China for safety reasons and as part of the central government's policy of consolidating the mining industry

- significant investment in new coastal-based coal-fired electricity generation infrastructure in India in 2010 is
  expected to increase the country's demand for imported thermal coal. Recent estimates suggest the country will
  import 20% more coal in 2011 compared to 2010, despite rising thermal coal prices<sup>13</sup>
- European demand for thermal coal has recently recovered from the 2009 and early 2010 demand lows, following the restocking of utilities towards the end of 2010, and this recovery is expected to continue in 2011
- supply constraints as a result of port congestion in NSW and Queensland was reduced and the first stage of a major port expansion project at the Port of Newcastle was completed during 2010. However, Queensland was subject to severe flooding due to heavy rainfall across the north of the state in late 2010 and early 2011. This directly impacted coal mining operations in Queensland, forcing a number of operators to halt production. In addition, rail corridors between the coal mines and ports were damaged and were operating below capacity. According to ABARES, Australian metallurgical exports fell by approximately 32% in the March quarter 2011 compared with the previous quarter, and by 23% compared with the corresponding quarter in 2010<sup>14</sup>
- continued flat coal production, and therefore supply, from South Africa, as the result of domestic infrastructure and power supply issues. In addition, South Africa also experienced unusually high rainfall in January 2011, which affected the delivery of coal shipments to Europe. Indonesia and Colombia have also experienced heavy rains, which reduced coal output towards the end of 2010
- a large earthquake off the coast of Japan in January 2011, resulting in Japan's power utility, Tohoku Electric Power, declaring force majeure on short-term thermal coal shipments because of extensive port damage. Four coal power stations in eastern Japan, with a total capacity of around 6 gigawatts, were damaged by a tsunami caused by this earthquake, three of which remain closed. As at 21 June 2011, only one of the damaged thermal power stations has partially resumed receiving coal shipments. The effect of the tsunami is expected to result in a decline in thermal coal consumption in eastern Japan in 2011. This is expected to be offset by an expected increase in consumption in western Japan<sup>15</sup>.

Australia's thermal coal exports from FY 2005 to FY 2010 are summarised in the following table:

Table 24: Australian thermal coal exports

	2005	2006	2007	2008	2009	2010
Volume (Mt)	106.40	110.82	111.62	115.07	136.36	134.97
Value (AUD million)	6,336	7,206	6,758	8,365	17,885	11,884
Implied price (AUD per tonne)	59.55	65.02	60.54	72.70	131.16	88.05
				•		

Source: ABARES

Australia will be well placed to compete for expanding demand forecast in the Asia Pacific region given its proximity to Asia and the continuing resolution of infrastructure constraints. The relatively low cost and high security of supply of Australian thermal coal is expected to continue to make it an attractive fuel source.

15 ibid

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<sup>&</sup>lt;sup>13</sup> Financial Times, 2 February 2011

<sup>&</sup>lt;sup>14</sup> ABARES, Australian Commodities, June quarter 2011

# **Coking coal**

Hard coking coal is essential for the production of a strong coke which is used primarily in the steel making process. Coal that would otherwise be a thermal coal is washed harder (to a lower ash) to produce SSCC<sup>16</sup>. SSCC is generally washed to achieve the coking properties required in the steel making process. SSCC is often blended with hard coking coal or SHCC to reduce the overall cost of coal for steel production. SSCC can also be used as a substitute for thermal coal. PCI is crushed into fine powder and injected into blast furnaces as a replacement for coke in steel making. Ultra LV coal is essentially low volatile coal that has been subjected to accelerated heating during its geological formation. It is suitable for use in the sintering process to produce sintered feed for blast furnaces.

Australian coking coals, particularly hard coking coal and SSCC, are known for their high quality coking characteristics and are generally low in contaminants such as sulphur and phosphorous. There has been a trend towards using PCI in steel making as a partial substitute for coking coal in recent years. The stimulus behind this has been the spread between PCI and hard coking coal prices.

## Demand

Global demand for steel is the ultimate driver of demand for coking coal, as approximately 90% of coking coal produced worldwide is used in steel production. There is currently no viable substitute for hard coking coal in the production of steel. The demand for steel is also the key driver for PCI coal demand. In particular, low volatile PCI coal has been proven to be a more efficient substitute for hard coking coal than SSCC due to its higher energy and carbon content.

An important issue in the coking coal market is the relative demand for the different types of coal. Hard coking coal tends to be less plentiful and has inherent properties that allow producers to demand a premium relative to PCI and SSCC. However, it is expected that the current shortage of hard coking coal and its relatively high price will further enhance the appeal of, and strengthen the demand for, low volatile PCI coal.

Global steel demand has increased substantially in recent years due mainly to the urbanisation and industrialisation of China and, to a lesser degree, India. Significant steel production growth is forecast in China, India, Brazil and South Korea, with potential increases in steel production in the Russian Federation. United States of America (US), European and Japanese demand is projected to remain relatively flat due to expected low gross domestic product growth, ageing populations, mature steel industries and increasing regulations on carbon emissions. Japan is currently the largest importer of coking coal.

# Supply

Over 90% of the world's imported coking coal is represented by seaborne trade. Australia is not a significant producer or consumer of steel however it is the largest exporter of coking coal in the world, contributing nearly 64% of the world export market in FY2010. The volume of coking coal exported from Australia in recent times has been restricted by infrastructure constraints and heavy rainfall (most recently resulting in severe flooding in Queensland), which has impacted operations.

<sup>&</sup>lt;sup>16</sup> Coking coals are graded according to vitrinite reflectance, moisture content, volatile content, plasticity and ash content. Coking coal is best if it has a very narrow range of volatility and plasticity. This is measured by the Free Swelling Index (FSI) test. HCC has an FSI in the range seven to nine; SHCC has an FSI in the range of five to six and SSCC in the range of one to three

The figure below shows the breakdown of the global seaborne coking coal trade.

Russian Federation 8%

Canada 9%

US 16%

Australia 64%

Figure 11: Global seaborne coking coal trade

Source: Energy in Australia 2011, ABARES

Australia's proximity to Asian markets relative to the other major producers provides it with a significant competitive advantage for the export of coking coal to Asian customers.

Australia's coking coal exports from FY2005 to FY2010 are summarised in the following table:

Table 25: Australian coking coal exports

	2005	2006_	2007	2008_	2009	2010
Volume (Mt)	124.92	120.48	131.97	136.92	125.24	157.26
Value (AUD million)	10,758	17,003	15,039	16,038	36,813	24,526
Implied price (AUD per tonne)	86.12	141.13	113.96	117.14	293.94	155.95

Source: ABARES

# **Pricing**

Coal has traditionally been sold as a cost-plus commodity, with prices falling above or below the marginal cost of production for high cost producers. In addition to underlying supply and demand drivers of price, product coal is also priced according to the specific characteristics of the coal. Thermal coal prices are dependent on the energy content of the coal, with the benchmark price set for coal with a calorific value of 6,700 per kilogram (gross air dried) and adjustments made pro rata depending on the specific energy and ash specifications of the coal. Coking coal prices are dependent on the coking characteristics of the coal.

The international coal market can be divided between the Atlantic and Asia Pacific market regions, where significantly different market forces influence coal prices. The Atlantic and Asia Pacific market regions are discussed in the following sections.

# Atlantic market

The Atlantic market is highly competitive with numerous coal suppliers across a large number of supplier countries. In addition, thermal coal competes against established gas, hydroelectric and nuclear power sectors in this region.

# Asia Pacific market

The Asia Pacific market is characterised by a lack of natural resources, resulting in a high dependence on imported fuels and raw materials and reliance on trading partners for energy supply. Asian customers have traditionally been prepared to maintain an annual reference price<sup>17</sup> to ensure security of supply. In addition, Asian market participants continue to invest in overseas coal projects. Asian customers have historically contracted the majority of their tonnage requirements and supplemented this with limited purchases on the spot market.

In the Asia Pacific market, coal is predominantly purchased and sold pursuant to term contracts, with volumes and prices renegotiated each year on a quarterly basis. The contracts generally specify factors such as coal quality, tonnages, cargo sizes, delivery arrangements and prices agreed quarterly between the purchaser and the supplier in respect of coking coal, however thermal coal is still priced annually in most instances. The effect of strong demand and supply limitations for thermal, hard coking coal and SSCC in the Asia Pacific market has placed upward pressure on prices in recent years.

# Price settlements in the Asia Pacific market

Japan has historically been the world's largest coal importer and coal price settlements between Japanese steel mills and Australian coal mines tend to represent overall market conditions within the coal industry, with prices becoming market reference prices for the Asia Pacific region. Prices were historically set on an annual basis during negotiations that generally take place in advance of the Japanese financial year (JFY). Xstrata plc (Xstrata) generally sets the benchmark price for thermal coal due to its relative market dominance, while the BHP Billiton Mitsubishi Alliance (BMA) tends to lead price setting for hard coking coal.

SSCC prices have historically been set at a premium of 11% to 14% over the thermal coal price, which reflects the higher relative costs of production and the higher energy content of SSCC. However, in the 2008-09 JFY, coal producers successfully negotiated higher SSCC prices with reference to hard coking coal prices. PCI coal and SSCC have traditionally been priced on a comparable basis. PCI coal has recently been priced higher than SSCC, as steel mills begin to recognise PCI coal as a viable and cost-efficient substitute for hard coking coal. In addition, various mining companies have been seeking more flexible short term contracts for hard coking coal (and iron ore) due to the increasing premium of spot prices over annual benchmark prices.

Despite the existence of one-year sales contracts, where coal prices have been subject to price decreases in the short term, producers have traditionally experienced difficulties in realising contracted prices due to customers declining shipments. The shift to quarterly pricing for coking coal has improved pricing outcomes for producers as they have been able to better exploit short term price increases.

The following sets out a summary of coal price settlements during 2011:

- 3 February 2011 Xstrata and Rio Tinto Limited reportedly secured higher SSCC prices for the quarter ending March 2011 due to a shortage of hard coking coal caused by the flooding in Queensland. Rio Tinto Limited reportedly settled pricing at USD 180 per tonne FOB (which represents 80% of the hard coking coal 'headline' price of USD 225 per tonne FOB) and a contingent deal that its June 2011 quarter pricing is also at 80% of the hard coking coal benchmark for that quarter. Similarly, Xstrata reportedly settled at USD 182.50 per tonne FOB for the March 2011 quarter, with a contingent deal that its price for the following two quarters will be at 77% of the hard coking coal benchmark
- 4 March 2011 Anglo American plc reportedly secured a price of USD 330 per tonne for hard coking coal with Nippon Steel Corporation and JFE Holdings for the June 2011 quarter, according to Platts
- 31 March 2011 Xstrata and Chugoku Electric Power agreed a thermal coal contract price of USD 129.85 per tonne for JFY2012, which was 33% higher than last year's contracted price of USD 97.75 per tonne. The JFY2012 contracted price was approximately USD 9 per tonne higher than the spot price, reflecting ongoing tight supply after the flooding in Queensland and the expectation that demand may increase over the coming months to replace lost nuclear power capacity in Japan after the country's logistical issues are resolved
- 4 April 2011 following price negotiations with the majority of customers for its Curragh mine in the Bowen Basin, Queensland, Wesfarmers Limited announced it had secured June 2011 quarterly prices approximately 53%

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<sup>&</sup>lt;sup>17</sup> Annual reference price consistent with the JFY which commences on 1 April

higher for Curragh metallurgical coal (hard coking coal, SHCC and PCI) compared to prices for the January to March 2011 quarter. Wesfarmers Limited secured a weighted average FOB contract price for hard coking coal of approximately USD 328 per tonne

- 4 April 2011 Rio Tinto Limited reportedly settled its June 2011 quarter hard coking coal price at USD 330 per tonne and SSCC at USD 264 per tonne, according to research by Macquarie Bank
- 26 July 2011 Xstrata has agreed to sell thermal coal to Tokyo Electric Power (TEPCO) at USD127.50 per tonne
  cost and freight (CFR) from October 2011, according to National Australia Bank (NAB)
- 26 July 2011 Anglo American Plc agreed to sell hard coking coal to Asian steelmakers for USD315 per metric tonne for the September quarter, according to NAB.

#### Infrastructure

As Australia exports the majority of its coal production, access to rail and port infrastructure is critical for producers in the coal industry. Since 2005 there has been insufficient capacity in the coal loading terminals and rail systems to match demand, resulting in large queues of ships forming at coal loading terminals, which attract significant demurrage costs for miners. These infrastructure constraints have contributed to coal prices reaching historically high levels in recent years.

The following sections outline the key rail network and coal loading terminals expected to support the Maryborough and Elimatta operations of Northern Energy in Queensland. We have not considered the infrastructure expected to support Northern Energy's other assets, due to the early stage nature of these projects.

# Queensland overview

Coal produced in Queensland is transported by rail with QR National, the primary coal haulage operator in the state. The Queensland State Government privatised QR National through an initial public offering in late 2010. QR National owns the coal, rail freight and infrastructure assets, which were previously part of Queensland Rail. Pacific National Pty Limited (Pacific National), a wholly-owned subsidiary of Asciano Limited, also operates in Queensland. Pacific National announced on 24 August 2011 that it had secured three new contracts in Queensland during FY2011, which is expected to lift tonnes under contract by 6.3 Mt from January 2012, a further 10.9 Mt in FY2013 and 4.4 Mt in FY2014.

The interconnected rail system is divided into five rail systems (Newlands, Goonyella, Moura, Blackwater and Western). QR National's extensive rail network links Queensland's coal mines to six coal export terminals at four ports (Gladstone, Hay Point, Abbot Point and Brisbane) as well as to domestic coal users.

Widespread and unseasonal rainfall across Queensland in December 2010 and January 2011 adversely affected coal hauled in Queensland in the first half of the 2011 calendar year as the rail systems were affected by widespread flooding. As a result, QR National reported a 37 Mt decline in coal haulage volumes in FY2011. QR National has since reopened the Blackwater line and all other systems in the Central Queensland coal network.

In addition, Cyclone Yasi, a low pressure Category 5 cyclone which passed through Queensland in early February 2011, temporarily affected the Newlands and Goonyella coal rail networks and freight train services along the east coast and also those along the north-west coast to Mount Isa.

The following figure provides an overview of the rail and port infrastructure in Queensland.

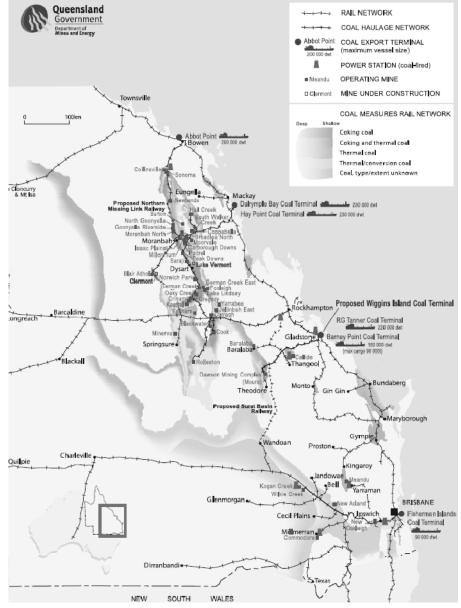


Figure 12: Overview of the rail and port infrastructure in Queensland

Source: QR National

As set out in Section 3.3, Northern Energy is expected to utilise several rail links to transport coal to export terminals on the coast of Queensland. Coal produced from Maryborough is initially expected to be hauled along the North Coast Line and exported from Barney Point Terminal at Gladstone. Subsequent to the development of stage one of the WICET development at Gladstone, coal from the Colton mine will no longer be transported to Barney Pont Terminal. Coal produced from Elimatta will be transported to WICET stage two via the proposed Surat Basin rail link. We have provided a description of these rail and port systems relevant to Northern Energy's projects below.

# North Coast Line rail system

The North Coast Line system is the principal freight and passenger line within the Queensland rail network, running the length of coastal Queensland between Brisbane and Cairns, a distance of 1,680 km. QR National is expected to allocate one train for the transport of coal for stage one of the Maryborough project to Barney Point and subsequently to the WICET development.

# Surat Basin rail link

Coal is expected to be transported from Elimatta using the proposed Surat Basin rail link. Also known as the "Southern Missing Link", the project will connect the Surat Basin coal fields to the WICET development. The 214 km rail network will support in the region of 22 to 24 diesel powered train movements per day with provisions for electrification in the future. In order to accommodate the rail network, a corridor of approximately 60 metres wide is expected to be acquired from affected landowners<sup>18</sup>.

The proposed Surat Basin rail link is outlined in the figure below.



Figure 13: Proposed Surat Basin rail link

Source: Surat Basin Rail website

Deloitte: Northern Energy Corporation Limited - Independent expert's report

<sup>&</sup>lt;sup>18</sup> Surat Basin Rail website

The Surat Basin rail system is being developed under a JV arrangement, comprising:

- ATEC (Dawson Valley Railway) Pty Limited
- Xstrata Coal Surat Basin Rail Pty Limited
- QR Surat Basin Rail Pty Limited.

In December 2010, approval for the Surat Basin rail link was received from the Coordinator General following evaluation of its economic impact statement<sup>19</sup>. Construction is scheduled to commence in the first quarter of 2012, with coal haulage expected to commence in 2014.

# **Barney Point**

Barney Point is located near the RG Tanna port in Gladstone. The port is owned and operated by the Gladstone Ports Corporation, and has an annual throughput of 8.0 Mtpa. Barney Point has one receival station with a stockpile capacity of 400,000 tonnes.

#### WICET

In October 2008, WICET Holdings Pty Limited was granted preferred proponent status to develop WICET in Gladstone. The project involves the funding and construction of a new coal export facility which will be situated west of the existing RG Tanna Coal Terminal in Gladstone harbour. The terminal will be located at Golding Point on the fringe of the Gladstone State Development Area. While coal companies will be the owners of the facility, the terminal will be operated by the Gladstone Ports Corporation on behalf of the consortium of 16 industry participants, including the following eight stage one owners:

- Northern Energy
- Wesfarmers Curragh Pty Limited
- Yancoal Australia Limited
- Xstrata Coal Queensland Pty Limited
- Aquila Resources Limited
- Bandanna Energy Limited
- Caledon Resources Limited
- Cockatoo Coal Limited.

Stage one is expected to commence operations in 2015 with a capacity of 27 Mtpa, and once all three stages are completed, the WICET development will have a total export capacity of 80 Mtpa<sup>20</sup>. The terminal will be operated by, and situated on land leased from the Gladstone Ports Corporation Limited, and is expected to cost approximately AUD 4 billion to construct. Access to the terminal is expected to be based on long-term 'take or pay' throughput contracts, operating on a 'cost pass-through' basis to recover external finance and operating costs.

Expressions of interest for an allocation in WICET's stage two expansion closed in August 2010, with the expansion expected to receive coal shipments from the end of 2015 or early 2016. The Surat Basin rail link is expected to be developed in parallel to the WICET stage one development.

On 5 September 2011, the eight stage one WICET owners reached agreement with a wholly owned subsidiary of QR National on the terms for an expansion of rail system capacity to support the terminal's initial requirement of 27 Mtpa. According to QR National, construction of the expansion program is expected to commence in early 2012, with first railings expected in mid-2014 ahead of completion in March 2015. Total costs associated with expansion of the rail capacity are estimated by QR National at approximately AUD 900 million<sup>21</sup>.

<sup>21</sup> QR National ASX announcement, 5 September 2011

Deloitte: Northern Energy Corporation Limited - Independent expert's report

<sup>19</sup> Surat Basin Rail media release "Surat Basin Rail secures environmental approval"

<sup>&</sup>lt;sup>20</sup> Wiggins Island Coal Export Terminal Pty Ltd website

# Climate Change Plan

On 11 July 2011, the Australian Government announced its Climate Change Plan, a carbon tax and emissions trading scheme, which is aimed at reducing greenhouse gas emissions to enable Australia to meet future emission targets.

The Climate Change Plan is intended to form part of a framework for meeting Australia's target to reduce emissions to 25% below 2000 levels by 2020 under the proposed international agreement to restrain atmospheric concentrations of greenhouse gases to 450 parts per million.

The Government has released preliminary information in regards to the structure of the Climate Change Plan, whereby a fixed carbon tax per tonne will apply from 1 July 2012 for three years, before moving into a "cap-and-trade" Emissions Trading Scheme (ETS) with flexible pricing. The scheme will only begin on agreement being reached with a majority in both houses of Parliament and legislation being passed later this year.

The proposed scheme will include stationary, energy, transport, industrial processes, fugitive emissions and emissions from non-legacy wastes.

The following sections set out the preliminary structure of the carbon tax and ETS.

#### Carbon tax

A fixed price scheme (carbon tax) will operate from 1 July 2012 to 30 June 2015. The initial price will be AUD 23 per permit (one permit equals one tonne) from 1 July 2012, increasing by 2.5% in real terms for subsequent years.

#### **ETS**

From 1 July 2015, the carbon tax will transition to an ETS or a cap-and-trade scheme. From 1 July 2015 to 30 June 2018, the price will not be fully flexible, that is, there will be a price ceiling, which will be set at AUD 20 above the expected international price for permits for that year and will rise 5% in real terms each year, and a price floor, which will be AUD 15 per tonne, rising 4% per annum in real terms. From 1 July 2018, the scheme is expected to transition to a fully flexible emissions trading scheme.

#### **Government assistance**

The Australian Government proposes to provide a range of assistance measures to industries that are expected to be heavily affected by a carbon price. The majority of assistance will be provided as free permits, thus reducing the cost to such industries of meeting their compliance obligations under the scheme. The main features of the plan are:

- the most emissions-intensive trade exposed industries (those with at least 2,000 tonnes per million Australian dollars of revenue or at least 6,000 tonnes per million Australian dollars value added) will receive 94.5% of their permits free of charge
- those industries that are less exposed (1,000 tonnes to 1,999 tonnes per million Australian dollars of revenue or 3,000 to 5,999 tonnes per million Australian dollars value added) will receive 66% permits free-of-charge
- liquefied natural gas (LNG) projects will be eligible for free permits at an effective rate of 50%
- new entrants into an emissions-intensive trade-exposed industry will receive the same assistance as existing entities
- the allocation of free permits will be based on historical emissions data of eligible entities
- the assistance rates will be reduced by 1.3% a year
- apart from the annual reduction, there will be no changes to this assistance for the first five years and any negative change for industry must be provided with at least three years notice.

# **MRRT**

The Australian Government has announced proposed changes to the tax legislation for iron ore and coal resource projects, which are yet to be fully enacted. Under the current proposed draft legislation, existing and new Australian coal and iron ore projects will be subject to a MRRT commencing on 1 July 2012. Under the Minerals Resource Rent Tax Bill 2011 and its explanatory memorandum issued on 10 June 2011, the proposed tax has the following key characteristics:

- the tax is levied at a rate of 30% of the MRRT profit less an extraction allowance of 25% of the tax liability to focus the tax on the value of the resource instead of the value added through mining expertise
- MRRT profit is assessed after deducting operating costs and capital costs from revenue and after credits for state royalties are paid
- unutilised royalties and losses can be carried forward and are uplifted at a 7% premium to the long term Government bond rate
- carry forward losses can be transferred to other projects
- all interests in coal and iron ore tenements that existed on 1 May 2010 will be given the benefit of a starting base.
   The starting base provides a partial tax shield against MRRT liability by recognising the value of investments made up until that date. Taxpayers entitled to a starting base may make an irrevocable election to use market value or book value as the method for determining the value of the assets that make up the starting base
- companies with MRRT assessable profits under AUD 50 million per annum will be excluded.

# **Appendix 3: Discount rate**

The discount rate used to equate the future cash flows to their present value reflects the risk adjusted rate of return demanded by a hypothetical investor for the asset or business being valued.

Selecting an appropriate discount rate is a matter of judgement having regard to relevant available market pricing data and the risks and circumstances specific to the asset or business being valued.

Whilst the discount rate is in practice normally estimated based on a fundamental ground up analysis using one of the available models for estimating the cost of capital (such as the Capital Asset Pricing Model (CAPM)), market participants often use less precise methods for determining the cost of capital such as hurdle rates or target internal rates of return and often do not distinguish between investment type or region or vary over economic cycles.

For ungeared cash flows, discount rates are determined based on the cost of an entity's debt and equity weighted by the proportion of debt and equity used. This is commonly referred to as the weighted average cost of capital (WACC).

The WACC can be derived using the following formula:

$$WACC = \left(\frac{E}{V} * K_e\right) + \left(\frac{D}{V} * K_d (1 - t_c)\right)$$

The components of the formula are:

 $K_e$  = cost of equity capital

 $K_d$  = cost of debt

 $t_c$  = corporate tax rate

E/V = proportion of enterprise funded by equity
D/V = proportion of enterprise funded by debt

The adjustment of  $K_d$  by (1-  $t_c$ ) reflects the tax deductibility of interest payments on debt funding. The corporate tax rate has been assumed to be 30%, in line with the Australian corporate tax rate.

#### Cost of equity capital (K<sub>e</sub>)

The cost of equity, K<sub>e</sub>, is the rate of return that investors require to make an equity investment in a firm.

We have used the CAPM to estimate the  $K_{\epsilon}$  for Northern Energy. The CAPM calculates the minimum rate of return that the company must earn on the equity-financed portion of its capital to leave the market price of its shares unchanged. The CAPM is the most widely accepted and used methodology for determining the cost of equity capital.

The cost of equity capital under CAPM is determined using the following formula:

$$K_e = R_f + \beta (R_m - R_f) + a$$

The components of the formula are:

 $K_e$  = required return on equity

 $R_f$  = the risk free rate of return

 $R_{\rm m}$  = the expected return on the market portfolio

 $\beta$  = beta, the systematic risk of a stock

 $\alpha$  = specific company risk premium

Each of the components in the above equation is discussed below.

## Risk free rate (R<sub>f</sub>)

The risk free rate compensates the investor for the time value of money and the expected inflation rate over the investment period. The frequently adopted proxy for the risk free rate is the long-term government bond rate.

Since there is no zero-coupon government bond issued by the Australian Government, we have utilised the zero coupon bond yield calculated by Thomson Reuters, which excludes the coupon payments from the 10-year Australian Government bond. In determining  $R_f$  we have taken the 5-day average of the zero coupon 10-year Australian Government bond yield for the period of 8 September 2011 to 14 September 2011 as shown in the table below.

Table 26: Five-day average of the 10-year zero-coupon Australian Government bond yield as at 19 August 2011

	Yield
08 September 2011	4.42%
09 September 2011	4.43%
12 September 2011	4.28%
13 September 2011	4.29%
14 September 2011	4.26%
Five day average as at 14 September 2011	4.33%

Source: Thomson Reuters

The 10-year Government bond rate is a widely used and accepted benchmark for the risk free rate in Australia. This rate represents a nominal rate and thus includes inflation.

# **Equity market risk premium (EMRP)**

The EMRP  $(R_m - R_f)$  represents the risk associated with holding a market portfolio of investments, that is, the excess return a shareholder can expect to receive for the uncertainty of investing in equities as opposed to investing in a risk free alternative. The size of the EMRP is dictated by the risk aversion of investors – the lower (higher) an investor's risk aversion, the smaller (larger) the equity risk premium.

The EMRP is not readily observable in the market and therefore represents an estimate based on available data. There are generally two main approaches used to estimate the EMRP, the historical approach and the prospective approach, neither of which is theoretically more correct or without limitations. The former approach relies on historical share market returns relative to the returns on a risk free security; the latter is a forward looking approach which derives an estimated EMRP based on current share market values and assumptions regarding future dividends and growth.

In evaluating the EMRP, we have considered both the historically observed and prospective estimates of EMRP.

#### Historical approach

The historical approach is applied by comparing the historical returns on equities against the returns on risk free assets such as Government bonds, or in some cases, Treasury bills. The historical EMRP has the benefit of being capable of estimation from reliable data; however, it is possible that historical returns achieved on stocks were different from those that were expected by investors when making investment decisions in the past and thus the use of historical market returns to estimate the EMRP would be inappropriate.

It is also likely that the EMRP is not constant over time as investors' perceptions of the relative riskiness of investing in equities change. Investor perceptions will be influenced by several factors such as current economic conditions, inflation, interest rates and market trends. The historical risk premium assumes the EMRP is unaffected by any variation in these factors in the short to medium term.

Historical estimates are sensitive to the following:

- the time period chosen for measuring the average
- the use of arithmetic or geometric averaging for historical data
- selection of an appropriate benchmark risk free rate
- the impact of franking tax credits
- exclusion or inclusion of extreme observations.

The EMRP is highly sensitive to the different choices associated with the measurement period, risk free rate and averaging approach used and as a result estimates of the EMRP can vary substantially.

We have considered the most recent studies undertaken by the Securities Industry Research Centre of Asia-Pacific Limited, Morningstar Inc (Morningstar), ABN AMRO/London Business School and Aswath Damodaran (Damodaran). These studies generally calculate the EMRP to be in the range of 5% to 8%.

#### Prospective approach

The prospective approach is a forward looking approach that is current, market driven and does not rely on historical information. It attempts to estimate a forward looking premium based on either surveys or an implied premium approach.

The survey approach is based on investors, managers and academics providing their long term expectations of equity returns. Survey evidence suggests that the EMRP is generally expected to be in the range of 6% to 8%.

The implied approach is based on either expected future cash flows or observed bond default spreads and therefore changes over time as share prices, earnings, inflation and interest rates change. The implied premium may be calculated from the market's total capitalisation and the level of expected future earnings and growth.

### Selected EMRP

We have considered both the historically observed EMRP and the prospective approaches as a guideline in determining the appropriate EMRP to use in this report. Australian studies on the historical risk premium approach generally indicate that the EMRP would be in the range of 5% to 8%.

In recent years it has been common market practice in Australia in expert's reports and regulatory decisions to adopt an EMRP of 6%.

Having considered the various approaches and their limitations, we consider an EMRP of 6.0% to be appropriate.

#### Beta estimate (β)

#### Description

The beta coefficient measures the systematic risk or non-diversifiable risk of a company in comparison to the market as a whole. Systematic risk, as separate from specific risk as discussed below, measures the extent to which the return on the business or investment is correlated to market returns. A beta of 1.0 indicates that an equity investor can expect to earn the market return (i.e. the risk free rate plus the EMRP) from this investment (assuming no specific risks). A beta of greater than one indicates greater market related risk than average (and therefore higher required returns), while a beta of less than one indicates less risk than average (and therefore lower required returns).

Betas will primarily be affected by three factors which include:

- the degree of operating leverage employed by the firm in that companies with a relatively high fixed cost base will be more exposed to economic cycles and therefore have higher systematic risk compared to those with a more variable cost base
- the degree of financial leverage employed by a firm in that as additional debt is employed by a firm, equity
  investors will demand a higher return to compensate for the increased systematic risk associated with higher levels
  of debt

correlation of revenues and cash flows to economic cycles, in that companies that are more exposed to economic
cycles (such as retailers), will generally have higher levels of systematic risk (i.e. higher betas) relative to
companies that are less exposed to economic cycles (such as regulated utilities).

The betas of various Australian industries listed on the ASX are reproduced below and provide an example of the relative industry betas for a developed market.

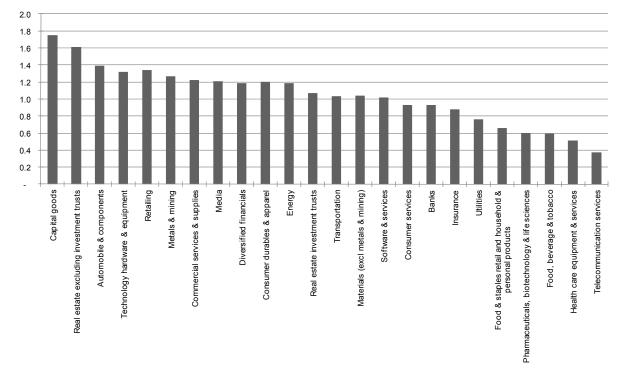


Figure 14: Betas for various industries (as at 31 July 2011)

Source: Securities Industry Research Centre of Asia-Pacific Limited

The differences are related to the business risks associated with the industry. For example, the above diagram indicates transportation companies are more correlated to overall market returns with a beta close to 1.0 whereas telecommunications and other infrastructure companies (in particularly those that are regulated) typically have betas lower than 1.0.

The geared or equity beta can be estimated by regressing the returns of the business or investment against the returns of an index representing the market portfolio, over a reasonable time period. However, there are a number of issues that arise in measuring historical betas that can result in differences, sometimes significant, in the betas observed depending on the time period utilised, the benchmark index and the source of the beta estimate. For unlisted companies it is often preferable to have regard to sector averages or a pool of comparable companies rather than any single company's beta estimate due to the above measurement difficulties.

## Market evidence

In estimating an appropriate beta for Northern Energy we have considered the betas of listed companies that have operating assets that are comparable to Northern Energy. These betas, which are presented below, have been calculated based on weekly returns, over a two year period, compared to a relevant domestic index and the Morgan Stanley Capital International World Index (MSCI Index).

Table 27: Analysis of betas for listed companies with comparable operations to Northern Energy

				Domest	Domestic index	MSCI	MSCI Index
		Enterprise value¹	Debt to enterprise	2 years weekly Levered Unl	weekly Unlevered	2 years Levered	2 years weekly ed Unlevered
Company	Domicile	(AUD million)	value <sup>2</sup>	beta	beta³	beta	beta³
Australian companies							
Coal producing companies							
Coal & Allied Industries Limited	Australia	10,561	(1)%	0.7	0.7	9.0	9.0
Macarthur Coal Limited <sup>4</sup>	Australia	4,498	%(2)	4.1	4:1	1.1	1.1
Whitehaven Coal Limited	Australia	2,739	(1)%	1.3	1.3	1.3	1.3
New Hope Corporation Limited	Australia	2,339	%(08)	1.0	1.0	8.0	8.0
Gloucester Coal Limited	Australia	1,422	%(9)	8.0	8.0	0.7	9.0
Average – coal producing companies				1.0	1.0	6:0	6.0
Coal develorment companies							
Aston Resources Limited	Australia	2,406	5%	1.	6:0	0.8	0.7
Bandanna Energy Limited <sup>4</sup>	Australia	351	(25)%	2.4	2.4	2.3	2.3
Cockatoo Coal Limited <sup>4</sup>	Australia	390	%(6)	1.6	1.6	1.2	1.2
Carabella Resources Limited <sup>5</sup>	Australia	194	(15)%	2.0	2.0	2.0	2.0
NuCoal Resources NL	Australia	124	(3)%	1.0	6.0	0.8	8.0
Metrocoal Limited	Australia	74	(1)%	6.0	6.0	6:0	6:0
Stanmore Coal Limited	Australia	26	(33)%	2.2	2.2	1.8	1.8
Average – coal development companies <sup>6</sup>				1.6	1.6	4:	4.1
Average – Australian coal companies <sup>6</sup>				1.3	1.3	12	1.2
Median – Australian coal companies <sup>6</sup>				4.1	1.4	<del>1.</del>	7:

ISCI Index	ears weekly	Unlevered	beta
MSCI	2 years	Levered	beta
lic index	2 years weekly	Unlevered	beta
Domestic	2 years	Levered	beta
	Debt to	enterprise	value
	Enterprise	value	(AUD million)
			Domicile
			mpany
			ပိ

# International companies

Coal companies with domestic and export sales		1	ò		;	•	
Yanzhou Coal Mining Co Limited	China	19,706	%8	1.5	4.1	1.3	1.2
Peabody Energy Corporation	SN	13,423	10%	1.9	1.7	1.8	1.6
Bumi Resources Tbk PT	Indonesia	8,941	78%	2.3	2.2	2.1	2.0
Adaro Energy Tbk PT	Indonesia	7,072	%0	1.1	1.1	8.0	8.0
Alpha Natural Resources, Incorporated	SN	6,154	%0	1.1	1.0	8.0	0.8
Patriot Coal Corporation	SN	1,459	13%	3.0	2.8	2.7	2.5
Cosl companies with export sales							
Consol Energy, Incorporated	SN	12.806	27%	<del>1</del> .8	<u>7.</u>	1.7	1.5
Arch Coal, Incorporated	SN	8,095	%09	2.3	1.7	2.2	1.6
Average - international coal companies				1.9	1.7	1.7	1.5
Median - international coal companies				1.8	9.1	1.6	7.5
Average – overall <sup>6</sup>				1.6	5.1	4.	1.3
Median – overall°				<del>.</del> 5.	4.	1.3	1.2

Source: Thomson Reuters and Deloitte analysis

Notes:

Enterprise value as at 14 September 2011. Enterprise values have been converted to AUD using the relevant exchange rate as at 14 September 2011

Refers to average two year debt to enterprise value ratio

Levered betas have been unlevered using the entity's average two year gearing

The observed betas for these companies may be affected by recent takeover speculation/activity

Carabella Resources was listed on the ASX in December 2010

The average calculation of the coal developing companies and the Australian and overall average and median calculations exclude NuCoal Resources NL and Stanmore Coal Limited as these companies are considered 2 6 4 6 9

Descriptions for each of the above companies are provided in Appendix 4.

The observed beta is a function of the underlying risk of the cash flows of the company, together with the capital structure and tax position of that company. This is described as the levered beta.

The capital structure and tax position of the entities in the table above may not be the same as those of Northern Energy. The levered beta is often adjusted for the effect of the capital structure and tax position. This adjusted beta is referred to as the unlevered beta. The unlevered beta is a reflection of the underlying risk of the pre-financing cash flows of the entity.

# Selected beta (β)

- In selecting an appropriate beta for Northern Energy we have considered the following: coal assets have varying risk
  profiles depending on the maturity of the asset and the stage of their development. Northern Energy's development
  projects, Maryborough and Elimatta, are expected to commence production in 2013 and 2015, respectively.
  Accordingly, we have placed more reliance on comparable companies that are in the development phase, with
  production anticipated to commence within the next two to three years. We have also included Australian and
  international coal producing companies as a point of reference
- Northern Energy's development projects are located in Queensland's Maryborough and Surat Basin's, respectively. Accordingly, we have placed more reliance on comparable development companies that operate primarily in Queensland's Maryborough and Surat Basins which are subject to similar port and rail infrastructure constraints
- Maryborough is projected to produce predominantly hard coking coal, while Elimatta is projected to produce
  predominately thermal coal. The majority of Australian comparable coal development companies have only thermal
  coal projects. Thermal coal producers achieve lower margins than coking coal producers due to the lower sales prices
  achieved for thermal coal
- we consider it preferable to have regard to sector averages or a pool of comparable companies rather than any single
  company's beta estimate due to the inherent difficulties in measuring the beta of the underlying coal project being
  valued. In addition, we note current debt to equity levels of are below historical levels due to the strong earnings
  generated by high coal prices achieved in the past two years
- none of the Australian coal development companies available as comparable companies have exploration and development assets located in the Maryborough Basin (refer to Appendix 4). We do not consider Bandanna Energy Limited (Bandanna) and Metrocoal Limited (Metrocoal) to be directly comparable as their coal projects are predominantly underground thermal coal, however both companies operate in Queensland and are subject to similar infrastructure constraints. Furthermore, whilst Stanmore Coal Limited is comparable, its share trading is considered illiquid
- we consider the operations of Cockatoo Coal Limited (Cockatoo) and Carabella Resources Limited (Carabella) to be the most comparable to Northern Energy based on the following:
  - Occkatoo has thermal coal and PCI coal projects at a similar level of development located in the Surat and Bowen Basins. Whilst Cockatoo does produce a small amount of coal at its Baralaba Mine<sup>22</sup>, the majority of its coal projects are currently in development phase and include a number of coal projects with potential open cut mines producing mostly thermal and SHCC. The unlevered beta for Cockatoo, based on the domestic index and the MSCI Index, is 1.6 and 1.2, respectively
  - Carabella has coking coal projects at a similar level of development to Maryborough in the Bowen Basin, with production anticipated to commence in the second half of 2013. The unlevered beta for Carabella, based on the domestic index and the MSCI Index, is 2.0 and 2.0, respectively. Carabella listed in December 2010
  - Cockatoo and Northern Energy anticipate exporting saleable product through the yet to be constructed WICET.

**Deloitte**: Northern Energy Corporation Limited – Independent expert's report

<sup>&</sup>lt;sup>22</sup> Cockatoo's Baralaba Mine produced 181,082 tonnes of coal for FY 2011, per the quarterly activities report for 20 June 2011.

- the average unlevered beta for comparable Australian coal development companies, based on the ASX 200 Index and the MSCI Index, is 1.5 and 1.4, respectively, whilst the average unlevered beta for comparable Australian coal producing companies, based on the ASX 200 Index and the MSCI Index, is 1.0 and 0.9, respectively
- assuming an unlevered beta in the range of 1.4 to 1.5, a corporate tax rate of 30% and the debt to equity mix of Northern Energy of 25% debt and 75% equity gives a relevered beta of 1.5 to 1.6
- this relevered beta is in line with the levered betas observed for Northern Energy and the companies that are comparable to it.

On this basis we have selected a levered beta of 1.5 to 1.6 for Northern Energy.

#### Specific company risk premium (α)

The specific company risk premium adjusts the cost of equity for company specific factors, including unsystematic risk factors such as:

- company size (which we discuss in detail below)
- depth and quality of management
- reliance on one key individual or a few key members of management
- reliance on key customers
- reliance on key suppliers
- product diversity (limits on potential customers)
- geographic diversity
- labour relations, quality of personnel (union/non-union)
- capital structure, amount of leverage
- existence of contingent liabilities.

The CAPM assumes, amongst other things, that rational investors seek to hold efficient portfolios, that is, portfolios that are fully diversified. One of the major conclusions of the CAPM is that investors do not have regard to specific company risks (often referred to as unsystematic risk).

There are several empirical studies that demonstrate that the investment market does not ignore specific company risks. In particular, studies show that:

- on average, smaller companies have higher rates of return than larger companies (often referred to as the size premium)
- on average, early stage companies have higher rates of return than mature companies.

These are discussed separately below.

#### Size premium

The following table summarises the returns for different size categories from 1926 to 2008 for companies on the New York Stock Exchange (NYSE), the American Stock Exchange (AMEX) and the National Association of Securities Dealers Automated Quotation System (NASDAQ).

Table 28: Evidence of size premium

		Summary statistic	s of annual returns
Decile	Market capitalisation of largest company in group <sup>2</sup> (USD million)	Arithmetic mean return <sup>3</sup> (%)	Size premium (return in excess of CAPM) <sup>1</sup> (%)
Largest (1st decile)	314,623	10.92	(0.38)
Large (2nd decile)	15,080	12.92	0.81
Mid-cap (3rd – 5th decile)	6,794	13.87	1.20
Low-cap (6th – 8th decile)	1,776	15.38	1.98
Micro-cap (9th - 10th decile)	478	18.37	4.07
Smallest (10th decile) <sup>4</sup>	236	20.97	6.36

Source: Market Results for Stocks, Bonds, Bills, and Inflation 2011 Valuation Yearbook, Ibbotson SBBI

#### Notes:

- 1. Size premium was calculated as the difference between the actual return and the return calculated using the CAPM
- Market capitalisation was calculated as at 30 September 2010
- 3. Ibbotson use the 20 year US Treasury coupon bond yield in determining the risk free rate
- 4. Ibbotson provide a further breakdown of the 10th decile, noting that the size premium for the upper half of the 10th decile (decile 10a) was 4.55%, whereas the size premium for the lower half of the 10th decile (decile 10b) was 10.06%. However care must be taken in considering decile 10b due to the volatility of companies in this segment of the market.

Having regard to the current market capitalisation of Northern Energy and the market capitalisation of the Australian comparable companies considered when selecting the appropriate beta for Northern Energy, we do not consider a size premium is required.

# Early stage companies

Generally, investors in early stage companies/projects often require higher rates of return than investors in mature companies/projects. Venture capitalists are a common source of equity capital for early stage investments. The Australian Venture Capital Guide provides the following indicative guidelines for their required rate of return.

Table 29: Venture capital required rates of return

Methodology	Required rate of return
Starting a new business	30% to 40%
Expanding a business, MBOs or MBIs	20% to 30%

Source: Australian Private Equity and Venture Capital Guide 2010

These rates of return are significantly higher than those required for mature listed companies. The reason that the discount rate required for an early stage company is different to that required for a mature company is because the relationship between business risks, finance risks and the cost of equity changes as a company progresses from an early stage company to a mature company. The relationship between business risk, finance risk and cost of equity is illustrated in the following figure.

Figure 15: Business risks, finance risks and cost of equity

Phase	Funding requirements	Business risk	Finance risk	Cost of equity
Pre-build	Low/Zero	High	High (but low debt)	High
Build	Peak	- 1	High	High
Consolidation		۲ ۲		Medium
Stabilise	Low	Low	Low	Low

Source: Adapted from The Valuation of Businesses, Shares and Other Equity, 3rd edition, W Lonergan

#### Selection of specific company risk premium

We have applied a specific company risk premium to the Maryborough and Elimatta development projects as follows:

#### Maryborough

We have applied a specific company risk premium to the Maryborough development project to account for development risk which results in greater uncertainty over the timing and magnitude of future cash flows for the Maryborough development project. In determining an appropriate specific risk premium to apply to the Maryborough development project, we have had regard to the following:

- there is uncertainty in respect to Northern Energy's ability to secure excess capacity at either the Barney Point or the RG Tanna terminal prior to completion of stage one of the WICET development in late 2013. To the extent that Northern Energy cannot secure port capacity in Gladstone, production will be delayed until stage one of the terminal is completed
- the ability of Maryborough to achieve positive cash flows is dependent on the timing of completion of stage one and two of the WICET development. To the extent either or both of these stages are delayed, Maryborough's ability to transition from a development stage asset to a producing asset is likely to be directly affected. In addition, there is significant uncertainty in respect of the potential capital contribution required by Northern Energy to facilitate securing stage two capacity at WICET
- the Maryborough project is located within close proximity of the township of Aldershot and it is expected that the
  township's residents are likely to lodge complaints with state government representatives in respect of the potential
  detrimental effect of mining on the environment and noise and air pollution, amongst other issues. Maryborough may
  be delayed and additional costs incurred to the extent these complaints arise
- notwithstanding BDA's assessment of the operating assumptions underpinning the future cash flows of Maryborough, there remains significant uncertainties as to Northern Energy's ability to achieve the cash cost assumptions assumed in the Model prepared by management. We note that Maryborough has not entered into any key port contracts to date. As a result, it is likely that Maryborough's actual costs incurred over the projection period will be different to that projected and the difference may be material.

On this basis, we have selected a specific company risk premium of 2.5% to apply to the cash flows associated with the Maryborough development project

#### Elimatta

We have applied a specific company risk premium to the Elimatta development project to account for development risk which results in greater uncertainty over the timing and magnitude of future cash flows for the Elimatta development project. In determining an appropriate specific risk premium to apply to the Elimatta project, we have had regard to the following:

- the ability of Elimatta to achieve positive cash flows is dependent on the timing of stage two of the WICET development. To the extent stage two of the terminal is delayed, Elimatta's ability to transition from a development stage asset to a producing asset is likely to be directly affected
- notwithstanding BDA's assessment of the operating assumptions underpinning the future cash flows of Elimatta, there remains significant uncertainty as to Northern Energy's ability to achieved the cash cost assumptions assumed in the Model prepared by management. We note that Elimatta has not entered into any key infrastructure contracts to date and is yet to come to agreement on co-development issues with other gas explorers and producers in the area. As a result, it is likely that Elimatta's actual costs incurred over the projection period will be different to that projected, and the difference may be material
- furthermore, Elimatta is at an early stage of development, therefore there is likely to be greater potential for variation in capital, revenue and operating costs relative to Northern Energy's current estimates.

On this basis, we have selected a specific company risk premium of 3.5% to apply to the cash flows associated with the Elimatta development project

# **Dividend imputation**

Dividends paid by Australian corporations may be franked, unfranked, or partly franked. A franked dividend is one that is paid out of company profits which have borne tax at the company rate, currently 30%. Where the shareholder is an Australian resident individual or complying superannuation fund, it will generally be entitled to a tax credit (called an imputation credit) in respect of the tax paid by the company on the profits out of which the dividend was paid. If the recipient of the dividend is another company, the dividend will give rise to a credit in that company's franking account thereby increasing the potential of the company to pay a franked dividend at a later stage.

We have not adjusted the cost of capital or the projected cash flows for the impact of dividend imputation due to the diverse views as to the value of imputation credits and the appropriate method that should be employed to calculate this value. Determining the value of franking credits requires an understanding of shareholders' personal tax profiles to determine the ability of shareholders to use franking credits to offset personal income. Furthermore, the observed EMRP already includes the value that shareholders ascribe to franking credits in the market as a whole. In our view, the evidence relating to the value that the market ascribes to imputation credits is inconclusive.

# **Conclusion on cost of equity**

Based on the above factors we arrive at a cost of equity,  $K_e$ , as follows:

Table 30:  $K_e$  applied to valuation of Northern Energy

	Marybor	ough	Elimatta		
Input	Low	High	Low	High	
Risk free rate (%)	4.33	4.33	4.33	4.33	
EMRP (%)	6.00	6.00	6.00	6.00	
Beta	1.50	1.60	1.50	1.60	
Specific company risk premium (%)	2.50	2.50	3.50	3.50	
K <sub>e</sub> – calculated (%)	15.83	16.43	16.83	17.43	

Source: Deloitte analysis

# Cost of debt capital (Kd)

We have selected a pre-tax cost of debt of 8.00% for Northern Energy as we consider a margin of approximately 340 basis points above the current risk free rate to be reasonable based on the rates currently payable by companies with comparable risk profiles to Northern Energy.

In addition, we note that Northern Energy is currently incurring an interest rate of 340 basis points over the 180 day Bank Bill Swap Bid Rate (BBSY) on loans from New Hope.

# Debt and equity mix

Current gearing levels of coal mining companies have been distorted compared to long-term trends due to the very strong cash flows generated as a consequence of the recent high commodity prices.

We have adopted an target debt to enterprise value (gearing) ratio of 25.00% for Northern Energy.

# **Calculation of WACC**

Based on the above, we have assessed the nominal post-tax WACC for Northern Energy to be:

Table 31: WACC applied to valuation of Northern Energy

	Maryborou	ıgh	Elimatta		
	Low	High	Low	High	
Cost of equity capital (%)	15.83	16.43	16.83	17.43	
Cost of debt capital (%)	8.00	8.00	8.00	8.00	
Debt to enterprise value ratio (%)	25.00	25.00	25.00	25.00	
Tax rate (%)	30.00	30.00	30.00	30.00	
Nominal, post-tax WACC (%)	13.27	13.72	14.02	14.47	
Selected WACC	13.00	14.00	14.00	15.00	

Source: Deloitte analysis

# **Appendix 4: Comparable entities**

The following table provides analysis of the share trading multiples of Australian companies with comparable activities to Northern Energy.

Table 32: Comparable share trading multiples - market trading

rabio 52: Comparable chare trading in						
		Enterprise	Total	Total	EV	EV
		value	reserves	resources	reserve	resource
Entity	Domicile	(AUD million) <sup>1</sup>	(Mt) <sup>2</sup>	(Mt) <sup>3,4</sup>	multiple AUD/tonne	multiple AUD/tonne
,		(102	(,	()	7.02.100	7.02/10/11/0
Australian entities						
Coal producing companies						
Coal & Allied Industries Limited	Australia	10,561	1,008	3,539	10.5	3.0
Macarthur Coal Limited	Australia	4,498	259	2,318	17.4	1.9
Whitehaven Coal Limited	Australia	2,739	480	1,771	5.7	1.5
New Hope Corporation Limited	Australia	2,339	544	1,529	4.3	1.5
Gloucester Coal Limited	Australia	1,422	123	340	11.6	4.2
Average	Additalia	1,722	120	040	9.9	2.4
Coal developing companies						
Aston Resources Limited	Australia	2,406	321	609	7.5	4.0
Cockatoo Coal Limited	Australia	390	47	1,260	8.2	0.3
Bandanna Energy Limited	Australia	351	147	1,534	2.4	0.3
Carabella Resources Limited	Australia	194	-	95	n/a	2.0
NuCoal Resources NL	Australia	124	_	505	n/a	0.2
Metrocoal Limited	Australia	74	_	1,188	n/a	0.1
Stanmore Coal Limited	Australia	56	117	328	0.5	0.2
Average	Additalia	00	117	020	6.0	1.3
Average – Australian entities <sup>6</sup>					8.4	1.9
Median – Australian entities					7.9	1.7
International entities						
international entitles						
Entities with domestic and export sale	s					
Yanzhou Coal Mining Co Limited	China	19,706		2,522		7.8
Peabody Energy Corporation	US	13,423		9,013		1.5
Alpha Natural Resources Incorporated	US	8,941		10,024		1.8
Adaro Energy Tbk PT	Indonesia	7,072		3,444		2.1
Bumi Resources Tbk PT	Indonesia	6,154		5,100		0.6
Patriot Coal Corporation	US	1,459		1,842		0.8
Entities with export sales						
Consol Energy, Incorporated	US	12,806		4,400		2.9
Arch Coal, Incorporated	US	8,095		4,445		1.8
	30	3,000		1,440		1.0

Entity	Domicile	Enterprise value (AUD million) <sup>1</sup>	Total reserves (Mt) <sup>2</sup>	Total resources (Mt) <sup>3,4</sup>	EV reserve multiple AUD/tonne	EV resource multiple AUD/tonne
Average – international entities <sup>7</sup> Median – international entities <sup>7</sup>						1.6 1.8
Average – overall <sup>8</sup> Median – overall <sup>8</sup>					8.4 7.9	1.8 1.8

Source: Thomson Reuters, ASX and company announcements

#### Notes:

- 1. Enterprise values converted to AUD as at 14 September 2011
- 2. Total reserves consist of Proved and Probable Reserves
- 3. Total resources consist of Measured and Indicated Resources and are inclusive of reserves
- 4. Resources for some international comparables consist of marketable reserves
- 5. Excludes Nucoal Resources Limited and Stanmore Coal Limited as these companies are considered to be illiquid
- 6. Excludes Yanzhou Coal Mining Company Limited which is considered an outlier
- 7. Excludes Nucoal Resources Limited, Stanmore Coal Limited and Yanzhou Coal Mining Company Limited.

We provide the descriptions for each of the above comparables as follows:

# Australian coal producing companies

# Coal & Allied Industries Limited

Coal & Allied Industries Limited operates underground coal mines and open cut mines in NSW. The company's producing assets include the Mount Thorley Warkworth mines, the Hunter Valley operations and the Bengalla mine. In addition, Coal & Allied Industries Limited also owns several development and exploration projects in NSW. The company produces thermal coal, coking coal and PCI coal and exports to international markets (Japan, Asia and Europe) and supplies the domestic market.

# Macarthur Coal Limited

Macarthur Coal Limited is a coal mining, production and exploration company operating in Australia. The company's projects include the Coppabella coal mine, the Moorvale project in the Bowen Basin of Central Queensland and the Middlemount Mine project, which has recently commenced production.

#### Whitehaven Coal Limited

Whitehaven Coal Limited is a coal production company operating in the Gunnedah region of NSW. The company's producing assets include the Canyon, Tarrawonga and Rocglen open cut mines near Boggabri, the Sunnyside mine near Gunnedah and the Werris Creek mine north of Quirindi. Whitehaven Coal Limited is currently developing its Narrabri North thermal coal JV project. The company sells coking coal, PCI and thermal coal to the global steel, power generation and metallurgical industries.

# New Hope Corporation Limited

New Hope Corporation Limited is a thermal coal producing company based in Ipswich, Queensland. The company operates three coal mines located at Acland (150 km west of Brisbane) and New Oakleigh (23 km west of Ipswich), and owns the Queensland Bulk Handling Pty Limited export coal terminal at the Port of Brisbane. New Hope Corporation Limited also owns various coal exploration tenements in South East and Central Queensland. The company sells coal to a number of countries in the Asia-Pacific region and to the Australian domestic market.

# Gloucester Coal Limited

Gloucester Coal Limited is an Australian based company engaged in the production and marketing of coking and thermal coal from the Stratford Mine comprising the Bowens Road North pit, Roseville pits and co-disposal and from the

Weismantel pit at the Duralie Mine. Gloucester Coal Limited also owns an approximate 50% interest in the Middlemount Mine project.

# Australian coal development companies

#### Aston Resources Limited

Aston Resources Limited engages in the exploration and development of coal projects in Australia. It owns interests in the Maules Creek project located in the Gunnedah Basin of NSW. The company explores for metallurgical coal and thermal coal. Aston Resources Limited is based in Brisbane, Queensland.

# Bandanna Energy Limited

Bandanna Energy Limited is primarily engaged in the exploration for coal in its Bowen basin operated tenements, including the Arcturus, Dingo West, Springsure Creek and Arcadia project areas. It also owns oil and gas exploration interests in the Cooper basin in South Australia and Queensland, and various mineral exploration licences, primarily for shale oil in Queensland.

#### Cockatoo Coal Limited

Cockatoo Coal Limited explores for and mines coal in Queensland. The company's key assets include the Baralaba mine in the Bowen basin and the Woori coal project (for which Cockatoo recently completed pre-feasibility stage). Whilst Cockatoo does produce a small amount of coal at its Baralaba Mine, the majority of its coal projects are currently in development phase and include a number of coal projects with potential open cut mines producing mostly thermal and SHCC. In addition the company manages a number of coal exploration rights in the Bowen Basin and the Surat Basin, both in Queensland.

#### Carabella Resources Limited

Carabella Resources Limited is engaged in the exploration and development of coking and thermal coal projects in Australia. Its tenement portfolio comprises seven exploration permits for coal, including two granted and five at the application stage covering a total exploration area of approximately 3,606 km² in the Bowen, Mulgildie, Clarence-Moreton and Eromanga basins in Queensland.

# Nucoal Resources NL

Nucoal Resources NL is engaged in the exploration and production of coal in Australia. It owns the Doyles Creek coal project located in the Hunter Valley in NSW. Nucoal Resources NL also owns 49% of Dellworth Pty Limited, with rights to acquire the remaining 51%, and has a management agreement under which it is responsible for developing the two exploration licences owned by Dellworth Pty Limited.

#### Metrocoal Limited

Metrocoal Limited engages in holding and exploring coal tenements. It holds coal exploration tenements covering approximately 4,000 km² in the Surat basin in south east Queensland. The company is based in East Brisbane, Queensland. Metrocoal Limited is a subsidiary of Metallica Minerals Limited.

# Stanmore Coal Limited

Stanmore Coal Limited is an Australia-based coal exploration company. The company is focused on the identification and development of export thermal, coking and PCI coal deposits within the prime coal bearing regions of eastern Australia. It holds 100% interests in seven coal project areas covering 1,080 km² of the Bowen and Surat Basins with the potential to host significant deposits of coking, PCI and thermal coal. Other key Bowen Basin projects include New Cambria, which is targeting low volatile PCI coal, Emerald, which is targeting between 220 Mt and 290 Mt of low ash export thermal plus an additional semi soft coal target, and the Belview and Kerlong projects, which are both targeting prime underground coking and PCI coal.

# **International entities**

# Yanzhou Coal Mining Company Limited

Yanzhou Coal Mining Company Limited operates underground mines and coal preparation plants in China and Australia (following the acquisition of Felix Resources Limited in August 2009). The company's coal production is sold in domestic

and international markets. The company also provides railway transportation services and is engaged in coal-fired electricity generation.

# Peabody Energy Corporation

Peabody Energy Corporation mines and markets coal in the US and Australia and has a minority interest in Venezuela's largest mine. The company owns ten operations in Australia through its wholly owned subsidiary Peabody Pacific Pty Limited. Peabody Energy Corporation produces low-sulphur coal, primarily for use by electric utilities. The company also trades coal and emission allowances.

#### Bumi Resources Thk PT

Bumi Resources Tbk PT operates several coal mines throughout Africa, the Middle East and Indonesia, producing predominantly thermal coal. The company is the largest thermal coal producer in Indonesia, accounting for approximately a third of Indonesia's total coal production and is one of the largest thermal coal exporters in the world.

# Adaro Energy PT

Adaro Energy PT is currently Indonesia's second largest thermal coal producer, operates the largest single coal mine in Indonesia and is a significant supplier to the global seaborne thermal coal market. Adaro Energy PT and its subsidiaries currently deal in coal mining and trade, coal infrastructure and logistics and mining contractor services.

# Alpha Natural Resources, Incorporated

Alpha Natural Resources, Incorporated extracts, processes and sells thermal and metallurgical coal. The company operates from more than 60 surface and underground mines and owns 14 coal preparation plants in the northern and central Appalachian regions in the US. The company sells its coal to electric generators, steel and other industrial producers.

# Patriot Coal Corporation

Patriot Coal Corporation is a producer and marketer of thermal and coking coal in the eastern US, with 14 current mining operations in the Appalachia region and the Illinois Basin in the Rocky Mountains. The company exports and supplies domestic electric utilities, industrial users and metallurgical coal customers and has approximately 1.9 billion tonnes of Proven and Probable Reserves.

# CONSOL Energy, Incorporated

CONSOL Energy Incorporated produces high-bituminous coal and coal bed methane. The company operates 18 active mining complexes across six states in the US. The company sells its coal primarily to the electric power generators in the US. The majority of the company's mines are underground operations using longwall mining systems.

# Arch Coal, Incorporated

Arch Coal, Incorporated is engaged in the production and sale of thermal and metallurgical coal from its 19 open cut and underground mines to power plants, steel mills and industrial facilities in the US. The company owns or controls approximately 360,000 acres of land in West Virginia, Wyoming, Illinois, Utah, Kentucky, New Mexico and Colorado in the US.

# Appendix 5: Comparable transactions

Below are the details of comparable market transactions, listed by target company.

Table 33: Comparable mergers and acquisition multiples in Australia

lable 33: Compar	lable 33: Comparable mergers and acquisition muitiples in Australia	Istralia						
Announcement			Deal value		%	Type	Operating	EV/
date	Target company/project	Bidding company	(AUD million) <sup>1</sup>	Coal type	acquired	of mine	mine?	resources <sup>2</sup>
Control transactions	ıns							
04-Aug-10	Linc Energy Limited / Galilee	Adani Mining Pty Limited	1,500	TC	100.0	0/0	Š	3.0
05-Jul-10	Anglo American plc / Taroom, Collingwood and Ownaview	Cockatoo Coal Limited	106	10	51.0	0/0	<u>8</u>	1.1
05-Jul-10	Anglo American plc / Bylong	Korea Electric Power Corporation (KEPCO)	403	TC	100.0	9/0	N O	2.7
05-Jul-10	Anglo American plc / Sutton Forest	POSCO Company Limited (POSCO)	72	70	100.0	9/0	o N	9.0
05-Jul-10	Centennial Coal Company Limited	Banpu Public Company Limited	2,504	TC, Coking	80.1	U/G & O/C	Yes	1.5
13-Aug-09	Felix Resources Limited	Yanzhou Coal Mining Company Limited	3,539	TC, PCI, SSCC	100.0	U/G & OC	Yes	4.3
27-Feb-09	Gloucester	Noble	383	TC, Coking	0.99	0/C	Yes	5.5
26-Nov-08	Peabody Energy Corporation / Baralaba mine	Cockatoo Coal Limited	52	TC, PCI	62.5	O/C	Yes	2.9
17-Jul-08	New Hope Corporation Limited / New Saraji project	ВМА	2,450	MC	100.0	9/0	<u>8</u>	15.7
21-Dec-07	POSCO and Itochu JV / Foxleigh coal mine	Anglo American plc	712	PCI	70.0	0/0	Yes	3.5
10-Dec-07	Custom Mining Pty Limited	Macarthur	275	PCI, Coking	100.0	O/C	<u>8</u>	4.0
05-Dec-07	Resource Pacific Holdings Limited	Xstrata plc	1,082	SSC, TC	100.0	D/O	Yes	7.0
17-Sep-07	Austral Coal Limited / Tahmoor mine	Xstrata plc	257	HCC	100.0	D/O	Yes	3.1
17-Sep-07	Centennial Coal Company Limited / Anvil Hill project	Xstrata plc	425	TC	100.0	0/0	S S	2.9
Average								1.4
Median								3.1
Minority interest transactions	ransactions							
19-May-11	Lenton Coal Project	Mai-Liai Power Corporation	280	SHCC, PCI, TC	10.0	U/G & O/C	8 N	2.1
6-May-11	Aston Resources/Maules Creek	ITOCHU Corporation	245	SSCC, PCI	15.0	0/0	8 N	5.2
04-Aug-10	Noble / Middlemount Mine project	Gloucester	231	SHCC, PCI	27.5	0/0	8 N	6.9
06-Aug-09	Whitehaven / Narrabri coal project	Korean Consortium	136	TC	7.5	9/N	<sub>S</sub>	0.9
19-Nov-08	Resource Pacific Holdings Pty Limited / Ravensworth underground mine	Marubeni Corporation	188	SSCC	12.0	9/0	Yes	8.3

Deloitte: Northern Energy Corporation Limited - Independent expert's report

Announcement			Deal value		%	Type	Operating	EV/
date	Target company/project	Bidding company	(AUD million) <sup>1</sup>	Coal type	acquired	of mine	mine?	resources <sup>2</sup>
01-Aug-08	Whitehaven / Narrabri coal project	Electric Power Development Company Limited	125	TC	7.5	9/0	8	5.5
01-Aug-08	Whitehaven / Narrabri coal project	EDF Trading	129	TC	7.5	D/O	<u>8</u>	5.7
01-Jul-08	Macarthur	POSCO	424	HCC, SHCC, PCI, TC	10.0	0/0	Yes	6.9
30-Jun-08	Macarthur	ArcelorMittal NV	212	HCC, SHCC, PCI, TC	5.0	0/0	Yes	6.9
21-May-08	Macarthur	ArcelorMittal NV	631	HCC, SHCC, PCI, TC	14.9	0/0	Yes	6.9
27-Feb-08	Whitehaven / Narrabri coal project	Upper Hom Investment Limited	89	75	7.5	n/G	<sub>S</sub>	3.0
02-Jan-08	Felix Resources Limited / Moolarben coal	Consortium of companies	06	TC	10.0	U/G & O/C	N <sub>o</sub>	1.5
10-Dec-07	Monto Coal 2 Pty Ltd	Noble	48.5	70	19.6	0/0	N <sub>o</sub>	4.0
07-Aug-07	lluka Resources Limited / Narama mine	Xstrata plc	54	TC	20.0	0/0	Yes	8.8
02-Jul-07	Macarthur	CITIC Resources Australia Pty Limited	113	PCI, TC	8.4	0/0	Yes	2.2
27-Jun-07	Gloucester	American Metals & Coal International (AMCI)	40	Coking, TC	10.0	0/0	Yes	4.5
07-Jun-07	Felix Resources Limited / Moolarben coal project	Sojitz	06	TC	10.0	D/G	0 N	1.7
21-Mar-07	Felix Resources Limited	AMCI	188	MC, TC	19.2	D//O	Yes	2.0
Average Median							5.5	5.5 5.5
Overall average Overall median								4.6 4.0

Source: Mergermarket, Capital IQ, ASX announcements, Deloitte analysis

Notes:

Deal value converted to AUD on announcement date of the transaction

EV/resources = enterprise value/resources, where resources are based on Measured and Indicated Resources and are inclusive of Proved and Probable Reserves for the mine/project/company TC – thermal coal, HCC – hard coking coal, MC – metallurgical coal

UG – underground, OC – open cut.

We provide the descriptions for each of the above transactions as follows:

#### **Control transactions**

# Linc Energy Limited (Galilee) / Adani Mining Pty Limited

Linc Energy Limited sold its non-core coal tenement in the Galilee Basin to Adani Mining Pty Limited for AUD 500 million in cash and an AUD 2 per tonne royalty (indexed for inflation) for the first twenty years of coal production. This transaction provided shareholders with a net present value of approximately AUD 1.5 billion.

# Anglo American plc (Taroom, Collingwood and Ownaview) / Cockatoo Coal Limited

Anglo American plc sold its interests in the undeveloped coal assets, Taroom, Collingwood and Ownaview, to Cockatoo Coal Limited for cash proceeds of approximately AUD 106 million. The assets comprise Anglo American plc's share in three open cut coal deposits in Queensland, all of which are 51% held by Anglo American plc and 49% by Mitsui & Company Limited. As part of the transaction, Cockatoo Coal Limited was issued a call option by KEPCO to transfer ownership of the 51% interest in the Ownaview asset to KEPCO for a 30% interest in the Bylong asset, which was acquired by KEPCO from Anglo American plc alongside Cockatoo Coal Limited's transaction.

# Anglo American plc (Bylong) / KEPCO

Anglo American plc sold the Bylong asset to KEPCO for cash proceeds of approximately AUD 403 million. The Bylong asset is an underground coal deposit in the Sydney Basin, NSW, with 150 Mt of Indicated Resources.

# Anglo American plc (Sutton Forest) / POSCO

Anglo American plc sold the Sutton Forest asset (also an underground coal deposit in the Sydney Basin, NSW) to POSCO for implied consideration of approximately AUD 72 million. Cockatoo Coal Limited later issued AUD 21.5 million shares to POSCO to acquire 30% of the asset.

# Centennial Coal Company Limited / Banpu Public Company Limited

Banpu Public Company Limited, the listed Thai coal focused energy group, acquired the 80.1% it does not already own in Centennial Coal Company Limited with an offer of AUD 6.20 per share in cash. The deal valued the entire share capital of Centennial Coal Company Limited at approximately AUD 2.5 billion.

# Felix Resources Limited / Yanzhou Coal Mining Company Limited

Yanzhou Coal Mining Company Limited, the dual listed Chinese coal mining group, merged with Felix Resources Limited, an Australian coal producer. The transaction was conducted via a scheme of arrangement with an offer of AUD 16.95 per Felix Resources Limited share in cash. The deal valued the entire share capital of Felix Resources Limited at AUD 3.5 billion.

# Gloucester / Noble

Noble increased its interest in Gloucester to an 87.7% stake (from 21.7% interest prior to the transaction) pursuant to a takeover offer of AUD 7.00 per share plus approximately AUD 6 million to option holders. At the time of the transaction Gloucester had 102 Mt of Measured and Indicated Resources.

#### Peabody Energy Corporation (Barabala mine) / Cockatoo Coal Limited

Peabody Energy Corporation sold its 62.5% interest in the Baralaba mine, located in the Bowen Basin of Queensland, for AUD 52 million to Cockatoo Coal Limited. The Baralaba mine has been operational since July 2005 and produces both PCI and thermal coal. The Baralaba mine has synergistic value to Cockatoo Coal Limited as it is located adjacent to existing exploration tenements.

# New Hope Corporation Limited (New Saraji project) / BMA

BMA, a JV between BHP and Mitsubishi Corporation, acquired the New Saraji coal project from New Hope Corporation Limited for AUD 2.45 billion in cash. The New Saraji coal project contains a large high quality metallurgical coal Measured and Indicated Resource, which was estimated to be 156.3 Mt at the time of the transaction. The project is located in the Bowen Basin in central Queensland.

# POSCO and ITOCHU JV (Foxleigh coal mine JV) / Anglo American plc

Anglo Coal Australia, a subsidiary of Anglo American plc, acquired a 70% interest in the Foxleigh coal mine JV in Queensland for AUD 712 million from the POSCO and ITOCHU JV. At the time of the transaction, Foxleigh was producing 2.5 Mtpa of PCI coal for the steelmaking industry and had Measured and Indicated Resources of 290 Mt.

# Custom Mining Pty Limited / Macarthur

Macarthur acquired Custom Mining Pty Limited in January 2008 for a total consideration of AUD 275 million. The interest of Custom Mining Limited included 70% of the Middlemount Mine project and a farm-in agreement for up to 70% of the Dingo West prospect. Custom Mining Pty Limited had total Measured and Indicated Resources of 68.4 Mt.

# Resource Pacific Holding Limited / Xstrata plc

Titan Holdings Finance Pty Limited, a subsidiary of Xstrata plc, acquired Resource Pacific Holdings Limited for AUD 3.20 per share. Resource Pacific Holdings Limited's Measured and Indicated Resources are made up of six coal seams totalling 153.2 Mt.

# Centennial Coal Company Limited (Austral Coal Limited) / Xstrata plc

Centennial Coal Company Limited accepted an offer from Helios Australia Pty Limited (a subsidiary of Xstrata plc), with respect to Centennial Coal Company Limited's interest in Austral Coal Limited for a total consideration of AUD 557 million in October 2007. At the time of the transaction, Austral Coal Limited had Measured and Indicated Resources of 227.1 Mt.

# Centennial Coal Company Limited (Anvil Hill project) / Xstrata plc

Centennial Coal Company Limited sold its Anvil Hill project to Xstrata plc in October 2007 for AUD 425 million cash. At the time of the sale, the Anvil Hill Project had 146.6 Mt of Measured and Indicated Resources.

# **Minority interest transactions**

# New Hope (Lenton coal project) / Mai-Liai Power Corporation

Mai-Liai Power Corporation paid New Hope Corporation Limited total consideration of AUD 58 million for a 10% interest in the Lenton coal project. The Lenton coal project had 282 Mt of Measured, Indicated and Inferred Resources at the time of the transaction.

# Aston Resources (Maules Creek) / ITOCHU Corporation

ITOCHU Corporation paid Aston Resources Limited total consideration of AUD 245 million for a 15% interest in the Maules Creek project. The Maules Creek coal project is located in the Gunnedah Basin and is within close proximity of the main railway line servicing the coal terminals at the Port of Newcastle. The Maules Creek coal project has a detailed 20 year mine plan and is expected to commence production in the second half of 2012, with saleable production exceeding 10Mtpa from 2014.

# Noble (Middlemount Mine project) / Gloucester

Gloucester paid Noble total consideration of AUD 398.7 million for Noble's 27.52% interest in the Middlemount Mine project (AUD 230.7 million) and the Middlemount Mine project royalty on 30 September 2010 (AUD 168 million). AUD 100 million of the total purchase price was funded by the issue of shares to Noble on 30 September 2010. Included in the purchase price was the right to acquire a further 2.48% interest in the project from Macarthur for a further AUD 8 million and an option to acquire a further 20% interest from Macarthur for an exercise price of approximately AUD 100 million.

# Whitehaven (Narrabri coal project) / Korean Consortium

A Korean consortium consisting of Daewoo International Corporation and Kores Company Limited acquired a 7.5% stake in the Narrabri coal project from Whitehaven for AUD 136 million. The Narrabri coal project had 303.3 Mt of Measured and Indicated Resources at the time of the transaction. The Narrabri coal project is located in NSW and construction of the mine commenced in January 2008. At the time of the transaction, production was expected to commence in the second half of 2009.

# Resource Pacific Holdings Pty Limited / Marubeni Corporation

Marubeni Corporation increased its shareholding in Resource Pacific Holdings Pty Limited, a subsidiary of Xstrata, from 10.24% to 22.22% in November 2008. As a result, Marubeni Corporation acquired an 11.98% interest in the company for Japanese Yen 13 billion. The resources of Resource Pacific Holding Pty Limited at the time of the transaction were 189 Mt.

# Whitehaven (Narrabri coal project) / Electric Power Development Company Limited

On 1 August 2008, Whitehaven accepted an offer from Electric Power Development Company Limited to acquire 7.5% of the Narrabri coal project for AUD 125 million. The Narrabi coal project had 303.3 Mt of Measured and Indicated Resources at the time of the transaction.

# Whitehaven (Narrabri coal project) / EDF Trading

On 1 August 2008, Whitehaven accepted an offer from EDF Trading to acquire 7.5% of the Narrabri coal project for AUD 129 million. The Narrabri coal project had 303.3 Mt of Measured and Indicated Resources at the time of the transaction. EDF Trading is a wholly owned subsidiary of the EDF Group, one of Europe's largest utility companies.

#### Macarthur / POSCO

POSCO became a substantial shareholder of Macarthur in July 2008 when it acquired a 10% interest, or 21.2 million shares, in Macarthur at AUD 20.0 per share. POSCO is one of the world's largest steel producers and has a long term customer relationship with Macarthur. At the time of the transaction, Macarthur's Measured and Indicated Resources were estimated to be 618.1 Mt.

#### Macarthur / ArcelorMittal NV

ArcelorMittal NV, the world's largest steel making company, acquired a 14.9% interest in Macarthur Coal in May 2008, by purchasing 31.6 million ordinary shares in Macarthur at AUD 20.0 per share. ArcelorMittal NV acquired a further 5% interest in Macarthur in June 2008, for the same price of AUD 20.0 per share, or a deal value of AUD 212.2 million. At the time of the transactions, Macarthur's Measured and Indicated Resources were estimated to be 618.1 Mt.

# Whitehaven (Narrabri coal project) / Upper Horn Investments Limited

Whitehaven Coal Limited signed an agreement with Upper Horn Investments Limited, a wholly owned subsidiary of China's Guangdong Yudean Group Company Limited, to sell the company a 7.5% stake in the Narrabi coal project for AUD 67.5 million. The Narrabi coal project had Measured and Indicated Resources of 303.3 Mt.

# Felix Resources Limited (Moolarben coal project) / Consortium of companies

A consortium of companies, consisting of KEPCO and four of its generator subsidiaries, Kosep, Komipo, Kowep and Kospo plus Korea Resource Corporation and Hanwha Corporation Limited signed an agreement with Felix Resources Limited in January 2008 to purchase a 10% equity shareholding in the Moolarben coal project. The consortium paid Felix Resources Limited AUD 90 million plus 10% of development costs. At the time of the transaction the Moolarben coal project had planning approval for up to 10 Mtpa of saleable production and 595.8 Mt of Measured and Indicated Resources.

# Monto Coal 2 Pty Limited / Noble

Paway Limited, the Australia based investment holding company with interests in coal mining and a wholly subsidiary of Noble, acquired a 19.61% stake in Monto Coal 2 Pty Limited, the Australia based coal mining company, from Macarthur for consideration of AUD 48.5 million. Monto Coal 2 Pty Limited has a 51% interest in the Monto Coal JV, which owns the Monto coal project.

# Iluka Resources Limited (Narama mine) / Xstrata plc

Iluka Resources Limited divested a 50% non-operating interest in the Narama thermal coal mine, located in the Hunter Valley, to Xstrata plc in January 2008. The sale consideration was approximately AUD 54.4 million. The Narama thermal coal mine had approximately 12.3 Mt of Measured and Indicated Resources at the time of the transaction.

# Macarthur / CITIC Resources Australia Pty Limited

CITIC Resources Australia Pty Limited increased its shareholding in Macarthur from 11.62% to 19.99% in July 2007, for total purchase consideration of approximately AUD 112.9 million from the Talbot Group. At the time of the announcement, Macarthur had Measured and Indicated Resources of 579.2 Mt.

#### Gloucester / AMCI

In June 2007, AMCI acquired a 10% interest in Gloucester on-market for approximately AUD 40.2 million. At the time of the acquisition, Gloucester had 91 Mt of Measured and Indicated Resources.

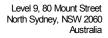
# Felix Resources Limited (Moolarben coal project) / Sojitz Corporation

Sojitz Corporation acquired a 10% stake in the Moolarben coal project from Felix Resources Limited for AUD 90 million, plus its pro-rata share of the capital cost to develop the Moolarben mine. At the time of the transaction, the Moolarben coal project had Measured and Indicated Resources of 532 Mt.

#### Felix Resources Limited / AMCI

AMCI acquired the interest of Resources Management and Mining Pty Limited in Felix Resources Limited, which represented 19.2% of the company in May 2007. At the time of the transaction, Felix Resources Limited had 524.4 Mt of Measured and Indicated Resources.

# **Appendix 6: Technical expert's report**





# **Minerals Industry Consultants**

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ABN 62 065 713 724

19th September 2011

Mr Shane Stephan Acting Chief Executive Officer Northern Energy Corporation Limited Level 5 60 Edward Street BRISBANE QLD 4000 Mr Robin Polson Director - Corporate Finance/Valuations Deloitte Corporate Finance Pty Limited 123 Eagle Street BRISBANE QLD 4000

Dear Sirs,

# REPORT FOR DELOITTE CORPORATE FINANCE PTY LIMITED INDEPENDENT TECHNICAL REVIEW OF NORTHERN ENERGY CORPORATION COAL DEVELOPMENT ASSETS, QLD AND NEC EXPLORATION ASSETS, QLD & NSW

#### 1.0 BACKGROUND

#### 1.1 Introduction

Northern Energy Corporation ("NEC") has appointed Behre Dolbear Australia Pty Limited ("BDA") as the Technical Specialist, as defined by the 2005 "Code for the Technical Assessment and Valuation of Mineral and Petroleum Assets and Securities for Independent Expert Reports" (the "Valmin Code") as adopted by the AusIMM, to provide technical advice to Deloitte Corporate Finance Pty Limited ("Deloitte"). NEC has commissioned Deloitte to provide an independent expert's report ("IER") to the NEC Independent Directors (the "directors") and the NEC minority shareholders (the "shareholders"), advising whether the New Hope Corporation Limited ("New Hope") offer to purchase the shares in NEC not owned by New Hope is fair and reasonable.

An IER is required to assist the NEC directors and shareholders in their decision regarding the Proposed Transaction, as it constitutes an acquisition of a substantial asset from a related party and is required pursuant to the Corporations Act 2001, ASX Listing Rules or at the discretion of NEC's directors in relation to the Proposed Transaction. Deloitte has requested BDA to review the NEC assets and to prepare an Independent Technical Expert's Review as part of the IER.

As the Technical Specialist, BDA has prepared an independent technical assessment of the NEC proposed developments (collectively, the "NEC Development Assets") and valuation of the NEC coal exploration tenements (collectively, the "NEC Exploration Assets") in Queensland and New South Wales ("NSW") (see Figure 1) and as set out in more detail following. BDA has provided its findings in the form of a report (the Independent Technical Expert's Report) summarising the key findings, including an opinion as to the fair market value of the NEC Exploration Assets. This report sets out the conclusions that BDA has reached in the assessment of the NEC Development Assets and the NEC Exploration Assets. It is understood that the BDA report will be referred to in the Deloitte assessment and reproduced as an appendix to the IER.

Denver New York Toronto London Guadalajara Santiago Sydney

The NEC Development Assets comprise the following coal projects located in Queensland:

- The Colton Coking Coal Project (EPC923, EPC1082, MLA50273, and MLA50274), located 20km north of the city of Maryborough, in Queensland.
- The Elimatta Thermal Coal Project (EPC650, EPC1171, EPC1205, MLA50254, MLA50270, and MLA50271), located 30km west of the township of Wandoan, in Queensland.
- Yamala PCl/Thermal Coal Project (EPC927, EPC1169, and MDLA434) located 6km west of the township of Comet, in Queensland.

The NEC Exploration Assets comprise the following tenements in Queensland and NSW:

- 50% of the Ashford Coking Coal Project (EL6234 and EL6428) located 50km north of the town of Inverell, NSW
- 100% of the Yetman exploration licenses EL6946 and EL 6947 located near the towns of Yetman and Wallangra in NSW in NSW, west of Ashford (Yetman Project)
- EPC1158 Five Mile in Queensland
- EL6526 Atholwood in NSW

With respect to estimates of resources and reserves, BDA has conducted its review in recognition of the requirements of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, prepared by the Joint Ore Reserve Committee of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia (JORC) - Effective December 2004 ("the JORC Code"). BDA has neither undertaken an audit of the NEC Exploration Assets data nor has it re-estimated the resources and reserves, but has reviewed the resource and reserve estimates prepared by NEC and/or their consultants.

This report has been prepared in accordance with the relevant requirements under the Listing Rules of the ASX and the practice notes and policy statements issued by the Australian Securities and Investment Commission ("ASIC") as they apply to the preparation of independent expert reports and valuations. It contains forecasts and projections based on information provided by NEC and its consultants.

BDA's assessment of the projected production schedules and capital and operating costs are based on technical reviews of project data. However, these forecasts and projections cannot be assured and factors both within and beyond the control of NEC could cause the actual results to be materially different from the assessments and projections contained in this report.

#### 1.2 BDA Capability and Independence

This report has been prepared as advisory information to Deloitte by the signatories, whose qualifications and experience are summarised in Annexure A to this report. The review of Mineral Resources and Ore Reserves estimates and methodology has been conducted by Competent Persons, as defined under the JORC Code. Each of the Competent Persons listed in Annexure A has consented to the presentation of the findings in the form and context in which it is presented in this report. BDA provides a range of technical advisory services to the mineral resource industry, to mining operators, investors and financiers. The principal areas of activity include the management and preparation of technical due diligence studies and "fatal flaw" and project analyses. The company is well established in the areas of operational management review/technical audit and project valuation and evaluation, commonly for third party financing arrangements and our clients include banks, financial institutions and mining companies. The parent company, Behre Dolbear and Company Inc., has operated continuously as a mineral industry consultancy since 1911 and has offices or agencies in Beijing, Denver, Guadalajara, Hong Kong, London, New York, Santiago, Toronto, Ulaan Bataar and Vancouver, and as well as Sydney. Internationally, Behre Dolbear has worldwide coal experience spanning a broad spectrum of exploration, management, resource and reserve analysis, metallurgical studies, surface and underground mine design, technical due diligence, operations optimization and total project feasibility.

BDA has independently assessed the NEC development projects and exploration prospects on the basis of both specific information provided by NEC and individual experience in relation to the estimation of resources and reserves, life of mine plans, production and productivity estimates, operating and capital cost projections, coal quality assessments, manpower estimates, environmental requirements and compliance, workforce and community issues and Health, Safety and Environmental standards and compliance.

A draft copy of relevant sections of this report has been provided to NEC for review of the accuracy of the data used and for the correction of any material errors of fact, omissions of relevant information, or inclusion of incorrect or unreasonable assumptions that have been relied upon in this Report.

#### 1.3 Scope of Work/Materiality/Limitations and Exclusions

BDA has reviewed the NEC Development Assets and the Exploration Assets in accordance with the Scope of Work provided and the limitations and exclusions specified and set out in Annexure B to this Report.

# 1.4 Methodology of Assessment

# 1.4.1 NEC Development Projects - Colton and Elimatta Projects

BDA has reviewed the feasibility studies on the Colton and Elimatta projects and considers that the NEC management team, including its external consultants, is experienced and capable, with a demonstrated capacity to develop and operate the proposed mines. BDA has conducted a site visit to the Colton Project at Maryborough, but has not conducted a site visit specific to this review to the Elimatta project. However, BDA has previously been on the Elimatta site for purposes unrelated to the present matter under consideration.

BDA has been provided with a financial model of the proposed NEC Operations that incorporate feasibility study projected cost data but BDA notes that, as a routine matter, where forecasts were provided, the plans, projections and budgets that have been used will inevitably be subject to revision. The Colton and Elimatta projects are not in operation, but there are development plans for both projects which BDA assesses as being between prefeasibility and feasibility study level. Planning for both of these projects is currently at a preliminary stage, with several key issues still to be resolved at each site. The BDA brief excludes commentary on commodity prices, exchange rates or economic viability and the review has been confined to assessing the technical issues relating to the project. BDA reserves the right to change its opinions on the coal mining operations expressed in this report should any of the fundamental information provided by NEC be significantly or materially revised.

The assumptions adopted in the financial model, and their accuracy and reliability, are largely the subject of this Report. The parameters considered include annual mining rates for both the proposed open cut operations, washery yields and product coal quality, materials handling and logistics, product transport, operating and capital costs. BDA did not consider financial issues such as loan funding aspects, cashflows, profit and loss, balance sheet, non-cash items and the valuation of the operating mines and defined projects. BDA has examined the exploration assets around the two mines and considers them fully valued as significant resources within the tenements are included within the life of mine ("LOM") plan.

Thus the BDA review has focussed on the technical inputs to the financial model and has sought to validate the raw data from the feasibility studies that drives the financial model for the NEC Development Assets. It specifically excludes review of commodity price and exchange rate forecasts. In particular, the BDA review covered the following areas:

- Operations: BDA has conducted a site visit to Colton, but not the other NEC project areas, but has held detailed discussions with head office and site management personnel.
- Resources and Reserves: BDA conducted check calculations of the resource and reserve
  estimates and satisfied itself that the statements were JORC compliant. The JORC-defined tonnages
  were checked against the sales tonnages in the financial models.
- Feasibility Study Life of Mine Plans: BDA checked the life of mine production tonnages and yields in the feasibility studies against the resource base and the financial model inputs.
- Environmental Approvals: BDA reviewed the status of the environmental, statutory and regulatory licensing and compliance requirements.

- Capital and Operating Cost Estimates: BDA checked the basis of annual and life of mine operating and capital cost estimates in feasibility studies.
- Key Potential Risk Issues: BDA has reviewed the NEC feasibility studies from the
  perspective of material potential issues that could jeopardise the projected cash flows or the product
  tonnages and has provided comment on the potential risk areas where discounts may need to be
  applied.

All material revisions that BDA considers should be applied in the financial models have been provided to Deloitte for incorporation in the valuation.

#### 1.4.2 NEC Exploration Assets

The NEC Exploration Assets comprise early stage exploration projects. BDA has conducted a site visit to the Maryborough Project, but has not conducted site visits specific to this review to the other assets. However, BDA personnel have previously been on each of the other sites for purposes unrelated to the present matter under consideration and have reviewed the exploration results and drill-hole information, as well as the stratigraphic and structural interpretations made by the NEC technical staff and advisors.

# 1.5 Inherent Mining Risks

When compared with many industrial and commercial operations, coal mining carries a relatively higher risk, conducted in an environment where not all events are predictable. Each coal deposit is unique. The nature of the coal deposit, the occurrence and quality of the coal, and its behaviour during mining and processing can never be wholly predicted. Estimations of the tonnes, quality and characteristics of a coal deposit are not precise calculations but are based on interpretation and on samples from drilling which, even at close drill hole spacing, provides a very small sample of the whole coal deposit. Reconciliations of past production and reserves can confirm the reasonableness of past estimates, but cannot categorically confirm the accuracy of future predictions.

An experienced management team can identify the known risks and adopt measures to mitigate the potential for interruptions consequent to such risks. However, the extent of knowledge is limited and there is always the possibility that unexpected or unpredicted events may occur, to the extent that it is considered not possible to remove all risks or to state categorically that events that may have a material impact on the operation will not occur. Detailed planning and experienced management should mitigate the risks to a reasonable extent.

#### 2.0 SUMMARY OVERVIEW – NEC DEVELOPMENT & EXPLORATION ASSETS

# 2.1 Summary

NEC's current portfolio covers tenements in the Maryborough, Surat and Bowen Basins and includes:

- 100% of the Maryborough project (including the proposed Colton hard-coking coal mine) near Maryborough, Queensland (Maryborough Project)
- 100% of the Elimatta thermal coal project (Elimatta Project) located approximately 30km west of Wandoan, Queensland
- 83% of the Yamala thermal/pulverised coal injection (PCI) coal project (Yamala Project) between Emerald and Blackwater, Queensland (subject to the farm-in agreement with Sojitz Corporation)
- 50% of the Ashford hard coking-coal project (Ashford Project) north of Inverell, NSW
- 100% of the Yetman exploration licenses in NSW, west of Ashford (Yetman Project), plus tenements EL6526 Atholwood in NSW and EPC1158 Five Mile in Queensland

# 2.1.1 Summary Valuation – NEC Assets

BDA has reviewed each of the projects listed and has provided advice to Deloitte, as specified in the Scope of Work (see Annexure B to this report). In the case of the proposed development projects (Maryborough, Elimatta and Yamala), BDA has reviewed the technical inputs to the financial model for each project and has made recommendations in relation to those matters.

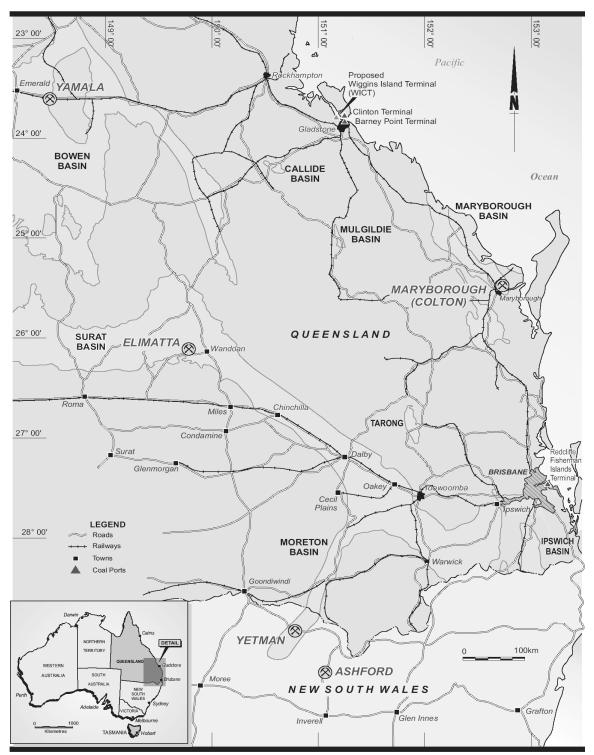
In the case of the Exploration Assets (the Ashford and Yetman exploration tenements), even though their value is not material (<10%) to the valuation of the NEC assets, BDA has reviewed the limited information available and has arrived at a value. Based on comparable transactions within the industry and using the "Yardstick" approach, BDA has estimated a "most likely" combined value of the tenements to be A\$10M, within the range of \$7-13M.

# 2.2 Description of Assets

The projects that have been assessed as part of this assignment comprise two advanced planed but not approved open cut mines, and two exploration areas, which are summarised in Table 2.1, and the location shown in Figure 1.

Table 2.1
Mining Operations and Exploration Areas

Mine/Project/Area	Status	Method
Maryborough/Colton	Feasibility study	Open cut
Elimatta	Feasibility study	Open cut
Yamala	Conceptual study	Open cut and Underground
Ashford	Conceptual study	Open cut and Underground
Yetman	Early stage exploration	NA



**Northern Energy Corporation** 

Figure 1

# PROJECTS LOCATION PLAN

BDA - 0142 - 01 - Sept. 2011

Behre Dolbear Australia Pty Ltd

# 2.3 Summary of Resources and Reserves

#### Resources

NEC's JORC-compliant resource estimate is shown in Table 2.2.

Table 2.2
NEC Coal Resources

Mine/Project	NEC Equity	Measured (Mt adb)	Indicated (Mt adb)	Inferred (Mt adb)	Total (Mt adb)	Coal Type
Elimatta	100%	129	75	40	244	Thermal
Maryborough	100%	0	9.5	74	83	Hard coking
Yamala	83%	0	40	180	220	Thermal/PCI
Ashford	50%	0	0	18	18	Hard coking
Yetman	100%	0	0	0	0	Coking
TOTAL		129	125	312	565	

#### Reserves

Table 2.3 shows the JORC Reserves for the NEC resources:

Table 2.3
NEC Coal Reserves

Mine/Project	Proven ROM (Mt ar)	Probable ROM (Mt ar)	Total ROM (Mt ar)	Wash Yield %	Marketable Reserves (Mt ar)	Product Ash at 16% TM
Elimatta	123	38	161	66	106	8.0
Maryborough	0	5.9	5.9	na	na	na
Yamala	0	0	0	na	na	na
Ashford	0	0	0	na	na	na
TOTAL	123	44	167		106	8.0

# 2.4 Saleable Coal Projections

NEC has provided forecasts of saleable coal tonnages for the three projects considered to be approaching development, with Maryborough-Colton being scheduled to be first, with initial production projected for late 2012, building up to 2Mtpa by 2016. Elimatta was scheduled to commence production in 2015, ramping up rapidly to 5Mtpa by 2017. Yamala is planned to commence in 2016, ramping up to +2Mtpa by 2020. BDA considers that, while the initial proposed timetable is possible, it is relatively aggressive in light of milestones that need to be achieved and that a delay of at least 12 months on the projected start dates is reasonably likely.

From the valuation financial model, the production forecast (inclusive of 12 month delays to commissioning of stage one and two of the WICET development to the projected start dates of Maryborough-Colton and Elimatta) is set out in summary in Table 2.4.

Table 2.4
NEC Annual Saleable Coal Production (Mt) Forecast (FY basis)

Mine	Unit	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total 20 yrs
Elimatta		0	0	0	0	0.0	2.5	5.0	4.7	5.0	5.0	5.0	5.0	98
Maryborough/Colton		0	0	0.3	0.5	1.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	35
Yamala		0	0	0	0	0.0	0.2	0.7	1.1	1.5	2.1	2.3	2.4	106
TOTAL		0	0	0.3	0.5	1.0	4.7	7.7	7.8	8.5	9.1	9.3	9.4	239

#### 2.5 Operating Costs

BDA has reviewed the forecast operating costs and compared the forecasts with typical industry historical mining costs. BDA has concluded that these forecasts are reasonable and appropriately reflect the early stage of planning and development, and the productivity risks associated with these mining methods.

# 2.6 Capital Costs

NEC has provided development and sustaining capital cost estimates for the Colton, Elimatta and Yamala mine projects. BDA has reviewed the estimates and considers that for Elimatta and Yamala, the estimates are realistic, while for Colton, BDA has recommended that higher development capital costs be used.

#### 2.7 Risks

BDA has reviewed the potential risks for the NEC projects and considers that, in the short to medium term, the principal risk to projected cash flows would be the delays in the planned developments, production and sales, due to approval delays, equipment delivery and installation delays, and time to achieve operational productivities.

Other than the foregoing identified risks, BDA considers the inherent risks associated with mining have been adequately addressed in the life of mine planning and there is no evidence of any additional material risks to the projects.

# 2.8 Sensitivity Analysis

Resource and reserve tonnes, yields, washery throughput, capital and operating costs are all estimates, and in practice will be subject to variations when compared with the projections in the LOM Plan and the financial model. It is appropriate therefore that in the valuation, some consideration is given to the impact of the more sensitive parameters.

BDA has examined the potential risks and possible operational variations to the various open cut and underground operations and has provided a guide to test the range of valuations that may be derived.

BDA has commented in the report on risk areas where appropriate, as summarised in Table 2.5.

Table 2.5
PROJECT SENSITIVITY STUDIES RECOMMENDATION

Item	Range	Comment
Production levels Operating costs	±15% ±10%	Moderate risk of not achieving forecast.  Moderate risk of not achieving forecast operating costs.
Yield	±7.5%	Forecast coal preparation plant ("CPP") yields may be affected by factors such as  • sales mix changes  • mining dilution and losses  • seam variability  • mining sequencing and scheduling
Capital costs	±15%	Prefeasibility study level cost estimates
Start ups	+1 year	Potential for delays to start-up caused either by <ul><li>approvals delay</li><li>project or funding delay</li></ul>
Product Quality	±150 kcal/kg (adb)	Test sensitivity to lower or higher than forecast product coal quality (energy)
Resources	±10%	JORC Resource reports.

# 3.0 MARYBOROUGH / COLTON PROJECT

# 3.1 Background

The Colton Project is a brownfields hard coking coal project 20km north of the city of Maryborough, Queensland, approximately 262km north of Brisbane. BDA visited the site as part of this review.

The coal resource area is accessible by road with the Bruce Highway to the west, the Maryborough Hervey Bay Highway to the southeast, and the Torbanlea Pialba Road to the north. The North Coast Railway line, operated by Queensland Rail ("QR"), is located immediately to the west of the area.

The Project is planned to initially mine up to approximately 1.0Mtpa ROM coal by open cut to produce an average 0.5Mtpa coking coal product for export from an estimated 5.0Mt coking coal reserve of Burrum Coal Measures in the Maryborough Basin. The initial project production life is anticipated to be 8–10 years. As additional port capacity becomes available, production is planned to increase to 2 Mtpa of product.

The nature of the coal seams at Colton is challenging in terms of resource estimation and it is considered unlikely that the full extent of the Inferred resources would be recoverable by mining. As a consequence, BDA has recommended that, while the Indicated resources should largely be recoverable by mining, limited recovery of resources should be modelled from the Colton project.

Unlike Yamala and Elimatta, access to infrastructure is immediate in that the Gladstone Port Authority has indicated that capacity of 0.5Mtpa at the Barney's Point terminal is available.

# 3.2 Ownership and Tenements

The coal resource area is contained within granted tenements EPC923 and EPC1082, which are located near the township of Maryborough in Southeast Queensland, approximately 255km north of Brisbane.

NEC has applied for the grant of Mining Lease Applications ("MLA") 50273 and MLA50274 which lie within EPC923 and EPC1082 and are located approximately 11km north of Maryborough and around 15km southwest of Hervey Bay.

The land under or adjacent to the project site is owned by the State of Queensland or Queensland Rail. Consequently, land access for the Project is not anticipated to be an issue.

# 3.3 Geology

#### 3.3.1 Geological Setting

The Maryborough tenements, comprising EPC923 and EPC1082, are located about 15km southwest of Hervey Bay in Queensland, Australia. The small town of Torbanlea is located about 6km north-west of the tenements.

The area covered by these EPCs is within the Cretaceous Burrum Coal Measures, which historically were hand-mined as small underground collieries. These old mines are located along the sub-cropping east and west flanks of the Burrum Syncline, a horse-shoe shaped structure plunging south-east. The strata dip at about 15<sup>0</sup> from both flanks towards the central synclinal axis.

Northern Energy has implemented an exploration program of drillholes along the southern edges of the sub-crop strike, both east and west sides with the aim of delineating JORC-compliant resources.

# 3.3.2 Coal Seams

The Burrum Coal Measures contain multiple seams demonstrated to be split and coalesced over relatively short distances, and of variable thicknesses. Northern Energy drillholes have been geophysically logged and attempts at seam correlation, collated with historical drillhole data, are on-going. It is apparent, however, that this task is not simple, as consistent geological horizons are not evident N-S along strike.

Northern Energy has defined coal resource to a depth of 150m with a view to developing a series of open cut mining operations.

#### 3.3.3 Coal Qualities

Salva Resources (2010) have reported a range of coal qualities across the seams correlated to date. Raw coal ranges from ash 15.6-26.4%, CSN 6.6-7.2, S 0.9-1.8%, SE 25.0-29.3 MJ/kg.

Coal washed at RD1.40 ranges from ash 7.0-8.5%, CSN 8.3-8.5, S 0.9-1.8% at yields of 65-72%.

#### 3.4 Coal Resource

Salva Resources (2010) have reported a JORC-compliant Indicated Resource of 9.5Mt and an Inferred Resource of 73.5Mt. Both of these estimates are to a depth of 150m and exclude coal seams of less than 0.1m thickness. BDA has examined the methodology of these estimates and is satisfied that they are within JORC guidelines for Resource estimates.

It is noted that seam correlation is problematic towards the south of the deposit, so linear strip ratios vary considerably along strike, suggesting areas of increased mining costs.

#### 3.5 Mine Planning

A Mining Lease application has been submitted for the Colton mine area, supported by an Environmental Management Plan.

The Colton resource is characterised by a large number of thin seams. A multi seam open cut mining method is planned, to be conducted by truck and shovel, the costs and productivity of which will vary depending on seam presentation. Production of premium quality, hard-coking coal is envisaged at an initial rate of 0.5Mtpa.

The current exploration programme is targeting reserves to support the establishment of a second mining pit to expand future production levels up to 2Mtpa of marketable coal, although this would require an additional full EIS to be completed prior to development.

NEC has developed a provisional mine layout and plan for the Colton Mine. The production plan (inclusive of delays to the projected start date of production) is shown in the table below.

Table 3.1
Colton Forecast Annual ROM and Saleable Coal Production (FY basis)

Maryborough	Unit	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total 20 yrs
ROM Production	Mt	0	0	0.5	1.0	2.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	70.0
Yield	%			50%	50%	50%	50%	50%	50%	50%	50%	50%	50%	50%
Saleable Coal	Mt	0	0	0.3	0.5	1.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	35.0

The initial mine plan for the Maryborough deposit will produce 500,000tpa using a small excavator and truck fleet supplemented by scrapers. The scrapers will remove and stockpile topsoil and the upper 10m of weathered overburden. A 250-tonne class excavator will be used for overburden removal and coal will be mined using predominantly a 120-tonne class excavator. This equipment selection is appropriate for the small scale operation recovering multiple seams at a moderate dip of 10° to 15°.

As the mine is scaled up from 0.5 Mtpa of product to up to 2Mtpa, potential may exist to use larger, more cost effective equipment for overburden stripping. A fleet of 140 tonne trucks has been selected to be compatible with all loading machines including the front end loaders selected for the CHPP and train loading activities.

#### 3.6 Coal Washing and Handling

Washability data from the five LD cores from the three main seams in the Colton Mine area form the basis of CHPP simulation and design work. CHPP design is based on the use of a standard dense media cyclone circuit for processing the coarse fraction (+1 mm) and a spiral circuit for the fines fraction (-1mm +0.125mm). The high non coal content of the -0.125mm fraction precludes the use of flotation cells to

recover ultra-fine coal from this fraction. Belt filter presses will be used to dewater the fine tailings for disposal in the mine spoil.

The predicted yields in the model for future operations at 50% are low by Australian coal industry levels and BDA considers that even these levels may not be achieved. The projected low yield is in part due to the thin seam and multi seam type of deposit and BDA considers that the multiple ply configuration of the measures, combined with a high water table and steep floors is likely to make coal horizon and floor definition uncertain; it would not be unusual, under these conditions, to see coal yields as low as 40%, due to incurring significant additional dilution as a result of extremely difficult mining conditions. Achieving this yield will require close management attention and a high degree of grade control drilling and analysis.

#### 3.7 Forecast costs

Cost estimates in the valuation model are based on contractor mining operations, and as such capital cost estimates do not include the mining equipment, but operating costs include a contractor's margin and ownership costs. BDA notes that, in order to produce 2Mtpa, the coal handling and preparation plant ("CHPP") will need to have an annual run-of-mine ("ROM") coal treatment capacity of the order of 4.5-5Mtpa, or around 700-750 tonnes per hour ("tph").

The NEC forecast start-up capital of \$149M is low for the size of the mine and the likely CHPP feed capacity that will be required. BDA has recommended using a higher capex estimate in the valuation model

The NEC forecast operating costs at \$112 per tonne FOB (excluding Royalty) is considered reasonable for this type and scale of operation, provided that the strip ratio does not become excessive.

#### 3.8 Infrastructure Capacity

#### 3.8.1 Rail to Port

Rail capacity, via the Queensland Rail north coast line, is being secured to transport mine output to the Port of Gladstone. Rail contracts are currently in negotiation for the haulage of coal to port and are likely to be finalised in the near future.

#### 3.8.2 Shiploading Capacity

Coal product shipments are projected to commence in late 2012 or 2013 through the Barney Point coal terminal at Gladstone, although this agreement is currently in draft form. The Maryborough Project is also a participant in Stage 1 of WICET and has secured 0.5Mtpa of coal export capacity subject to signing a take-or-pay contract. NEC has also expressed an interest in a further 2.5Mtpa of export coal capacity designated from the Maryborough Project for Stage 2 of the WICET development.

# 3.9 Statutory Approvals

The initial Stage 1 development approval is dependent on being granted approval for the Environmental Management Plan ("EMP") and granting of Mining Leases. Applications for Mining Leases and an Environmental Authority ("EA") were lodged at the beginning of 2010.

The application for an Environmental Authority for the Stage 1 (0.5Mtpa) development has been assessed as a Non-code Compliant Level 1 mining project and consequently an Environmental Impact Statement (EIS) is not required as the Stage 1 development approval. An Environmental Management Plan was submitted to the Department of Environment and Resource Management ("DERM") on 13 August 2010 as part of the application for an EA for a Non Code Compliant Level 1 mining project for Mining Leases ML50273 and ML50274. DERM has currently "stopped the clock" on the EMP assessment, and they have requested additional information from the proponent in relation to water management, specifically the proposed water release to the Mary River, and also regarding the proposed tailings and coarse reject waste material, acid mine drainage assessment and rehabilitation strategy. NEC plans to submit this additional information to DERM shortly. NEC's current timing estimate for project development approval is mid to late 2012.

The Commonwealth Government has advised NEC that the proposed Colton Coal Mine Stage 1 development (ie. 0.5Mtpa) is not a controlled activity as defined by the Environmental Protection and

Biodiversity Conservation Act ("EPBC Act"). Consequently, the project does not require further assessment and approval under the Commonwealth EPBC Act.

Once approval is achieved for the initial 0.5Mtpa development, NEC plans to commence the process for obtaining further approval to increase production to 2Mtpa. This additional approval is likely to trigger the requirement for an EIS. Baseline environmental studies are already underway to generate several seasons of baseline information. This expansion approval is required within 3 to 4 years of mine start up to ensure adequate space for spoil dumps and water storage facilities.

#### 3.10 Environmental Issues

Land under or adjacent to the project site is owned by the State of Queensland or Queensland Rail. Access to the project site is not anticipated to be an issue, although some compensation arrangements or property purchases may have to be negotiated with a small number of nearby residences.

Ecological surveys have been carried out across the site over a number of seasons and have found no known flora or fauna species of conservation significance. The proposed mine is 4-5km from the township of Aldershot. Management plans will be implemented to mitigate any potential detrimental impacts from the Colton operation to the residents of Aldershot. Groundwater resources appear to be present at reasonably shallow depths. There are no known users of the groundwater in areas surrounding the immediate Project site. Blasting and vibration are not expected to be significant issues, although there may be a requirement to ensure suitable blast designs when blasting at the point closest to the township of Aldershot.

A conceptual Mine Closure and Rehabilitation Plan is detailed in the EMP. There is the potential for waste rock material to be acid forming. Geochemical characterisation testing of this material will usually indicate the likelihood of this occurring and enable mitigation strategies to be implemented to avoid such a risk.

From the approvals information provided by NEC, BDA is of the opinion that all the necessary development approval and licensing requirements under planning legislation have been obtained or are in the process of being obtained. Based on the environmental risks identified with operating the proposed open cut coal mine in the Maryborough district and the mitigating measures proposed for the project, as detailed in the EMP, the risks appear acceptable, provided that appropriate environmental protection plans are implemented.

#### 3.11 Coal Marketability

The indicative coal quality for the Maryborough project is shown in Table 3.2.

Table 3.2
Specifications of Coals Planned by NEC

Item	Coking Coal
Inherent Moisture (% ad)	1%-2%
Ash Content (% ad)	7%-9%
Volatile Matter (% ad)	30%
Fixed Carbon (% ad)	60%
Total Sulphur (% ad)	0.7%
Gray-King Coke Type	G9-G10
Vitrinite Reflectance (R <sub>0</sub> Max%)	0.97
Crucible Swell Number ("CSN")	8-9
Maximum Fluidity (dd/min)	>2,000

Hard coking coal with these specifications should readily find a market. NEC has an off-take for a portion of the planned output.

#### 4.0 ELIMATTA PROJECT (100% NEC)

#### 4.1 Introduction

The Elimatta Project is located about 15km west of Wandoan in the Surat Basin, Queensland, Australia. It is a large resource of low ash, high volatile thermal coal and lies within and is enclosed by the various EPCs and Mining Leases belonging to the Xstrata Wandoan thermal coal deposit. BDA has previously visited the project and is familiar with the area, but did not visit for this review.

The tenement was acquired as part of the Taroom Coal Pty Ltd purchase. At present, coal extracted from the Surat Basin is limited as there is no effective infrastructure. The Southern Missing Link rail project and upgraded capacity at the Gladstone Port through the creation of the Wiggins Island terminal are expected to remove this impediment.

NEC has undertaken an exploration program on the Elimatta thermal coal project area located in the Surat Basin, Queensland. This program has enabled the completion of a JORC compliant Resource Statement. In addition, mining planning and cost modeling studies have enabled the completion of a JORC compliant Reserve Statement.

The development of the project is dependent on the provision of rail facilities via the Surat Basin Rail link, and port infrastructure via the Wiggins Island Coal Export terminal ("WICET"). NEC has elected to include the Elimatta Project in WICET Stage 2 with an application for an allocation of 5Mtpa. This will result in the project being developed no earlier than the end of 2014.

An Environmental Impact Statement (EIS) is currently being prepared, and a Mining Lease application and Environmental Authority application have been lodged for approval.

#### 4.2 Tenements

The Elimatta coal resource is located on Exploration Permits (Coal) ("EPC") 650, 1171 and 1205 which lie approximately 35km west of the town of Wandoan, Queensland. The EPC was granted in March 1998 and is due to expire in March 2013. The tenements are held by Taroom Coal Pty Limited which is a wholly owned subsidiary of NEC. EPC's are able to be renewed and are able to be granted for a period of up to five years.

Mining Lease applications ("MLAs") have been submitted by NEC and are awaiting approval by the Queensland Department of Mines and Energy ("DME"). The coal processing plant and associated infrastructure are to be located on MLA50270, whilst MLA50271 is for a transport corridor approximately 3km long which connects MLAs 50270 and 50254. The Elimatta tenements are close to tenements held by Xstrata Coal Queensland Pty Ltd.

# 4.3 Geology

# 4.3.1 Geological Setting

The area covered by this EPC is within the Jurassic Juandah Coal Measures (Injune Creek Group) of the Surat Basin, so seam thicknesses and qualities are well established. The main seam groups are named as UG, Y, A, B and C following an old Brigalow Mines nomenclature. Seam thicknesses range from 0.5-3.5m.

Northern Energy has implemented an exploration program of drillholes across the EPC with the aim of delineating JORC-compliant resources.

Northern Energy reported in September 2008 that a modelled structure across the EPC containing three (3) faults trending NW-SE had been completed. These faults have throws ranging from 10-30m and primarily affect the sub-crop limits. A graben block in the central portion of the EPC has been modelled.

#### 4.3.2 Coal Seams

Following the Brigalow Mines nomenclature, the uppermost UG seam ranges in thickness from 1.2-2.2m; the Y seam 0.5-2.0m; the A seam 1.0-3.0m; the B seam 1.8-2.9m; the C seam 2.5-3.5m.

Correlation of seams across the EPC is well established, including the horizon disruptions caused by the faulting. Seam depths are from 20m to 50m below surface.

# 4.3.3 Coal Quality

NEC (2008) has reported a range of raw coal qualities averaged across the correlated seams.

Ash has been estimated at 17.9-29.7%, SE 19.6-23.9 MJ/kg, S 0.3%, HGI 38-42. Washed coal ranges are ash 8.0-9.4%, SE 26.5-27.4MJ/kg, S 0.3-0.4%, HGI 31-33. Yields for these qualities range from 55-67%, with the UG seam showing the lowest yield and the B seam the highest.

#### 4.4 Resources and Reserves

NEC (2008) has reported a JORC-compliant Measured Resource of 129Mt, an Indicated Resource of 75Mt and an Inferred Resource of 40Mt. These estimates are to a depth of 50m. The report broke out tonnage on a linear strip ratio grouped as <3:1, <5:1, <7:1 and <10:1, with the bulk of the Resource between 5 and 10:1

BDA has examined the methodology of these estimates and is satisfied that they are within JORC guidelines for Resource estimates.

**Resource Category** Seam Measured Indicated **Inferred** Total (Mt) (Mt) (Mt) (Mt) UG 11 20 5 36 15 15 5 35 Y 5 Α 55 20 80 В 48 20 10 78 C 0 0 20 20 Total 129 75 40 244

Table 4.1 Elimatta Resources

An estimate of reserves undertaken by the Minserve Group in May 2009 is shown in the table below:

Table 4.2 Elimatta Reserves

Seam	Reserve	Category			
	Proved	Probable	Total	Marketable	Product Ash
	(Mt)	(Mt)	(Mt)	(Mt)	(%)
Total	122	38	161	106	8.0

# 4.5 Mine Planning

Final feasibility studies for mining, wash plant and supporting infrastructure were completed in FY10. A detailed life of mine plan has been developed for the deposit based on open cut mining, utilising an excavator and truck mining operation and a 1,200 tonnes per hour (tph) coal handling and preparation plant. A nominal 5Mtpa of product coal is expected to be produced over a 29 year mine life, with particularly low stripping ratios envisaged in the first 10 years of production. The start-up capital cost of the mine is currently forecast at \$620 million, including both on-site and off-site facilities and infrastructure.

Mining plans are based on commencing mining operations in areas of low strip ratio and progressing to areas of higher strip ratio. Horse Creek and the public road running through the deposit will be relocated to allow coal reserves to be accessed. The relocated creek will be kept within the mining lease. The road will be relocated off lease to location to be agreed with local authorities.

Project development is constrained pending construction of the proposed Surat Basin Railway ("SBR"), the development of a rail spur of some 37km in length to access the SBR, the Moura rail line upgrade, and success in securing Stage 2 port export capacity at WICET. NEC has applied for 5Mtpa of capacity at WICET designated from the Elimatta Project and is awaiting a decision. Based on current development plans for this infrastructure (including delays to the projected start date of production), NEC management expects first shipments from the Elimatta Project in 2016.

Table 4.3
Elimatta Project Forecast Annual ROM and Saleable Coal Production (FY basis)

Elimatta Coal	Unit	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Total 20 years
ROM Prodn Yield	Mt %	0	0	0	0	0	3.6 69	7.2 70	7.0 67	7.7 65	7.4 67	7.2 70	7.4 67	148 66
Saleable	Mt	0	0	0	0	0	2.5	5.0	4.7	5.0	5.0	5.0	5.0	98

# 4.6 Coal Washing and Handling

A coal handling and preparation plant (CHPP) operating at 1,200tph on a continuous seven day schedule is planned to process 8Mtpa of raw coal to produce 5Mtpa of product coal

#### 4.7 Forecast costs

Cost estimates in the valuation model are based on contractor mining operations, and as such capital cost estimates do not include the mining equipment, but operating costs include a contractor's margin and ownership costs.

The NEC forecast start-up capital of \$618M is reasonable for the planned scale of the mine. The NEC forecast operating costs at \$80 to \$90 per tonne FOB (excluding Royalty) is considered reasonable and within the unit cost range of comparable operations or planned projects, albeit probably at the high end of the range.

# 4.8 Infrastructure Capacity

# 4.8.1 Rail to Port

Project development requires construction of:

- the proposed Surat Basin Railway ("SBR"),
- the development of a rail spur of some 37km in length to access the SBR.
- the Moura rail line upgrade, and
- securing Stage 2 port export capacity at WICET.

NEC has applied for 5Mtpa of capacity at WICET designated from the Elimatta Project and is awaiting a decision. Based on current development plans for this infrastructure, NEC management expects first shipments from the Elimatta Project in 2015, in line with the commissioning of WICET Stage 2.

The SBR involves the construction and operation of a 210km rail line connecting the Western rail system (near Wandoan) to the Moura rail system (near Banana). The Surat Basin Rail Joint Venture is an unincorporated joint venture between the Australian Transport and Energy Corridor, Queensland Rail and Xstrata Coal, that is developing the SBR.

Current plans are to build a multi-user, open access single line track (with eight passing loops) to facilitate the export of coal from the Port of Gladstone. The line will be capable of moving 42Mtpa of coal, using trains of up to 2.5km in length. Expressions of interest for use of the SBR were sought in January 2010. Financial close is planned to fall in the second half of 2011 or 2012. Based on a construction timeframe of 32 months, commissioning is expected to commence between mid-2014 and early 2015.

The estimated costs of the project are in excess of \$1 billion. Development of the SBR is being programmed to coincide with completion of Stage 2 of WICET, which to date has received indicative

tonnage capacity requests from a number of coal companies planning to utilise the rail line, the largest of these being Xstrata Coal in connection with its Wandoan project.

The Moura system capacity is currently 17Mtpa and requires a significant upgrade in order to meet increased future tonnage, primarily from the SBR. Planning for the upgrade of the Banana to Wooderson track is well progressed with a study completed during 2010. The study identified and costed the individual projects (including track duplication, passing loops and improved logistical support) required to provide up to 71Mtpa of additional capacity across this line. These upgrades will be required in order to meet capacity for the proposed SBR tonnage, in addition to extra demand from the Moura region itself. In addition to Northern Energy, several other participants with interests in the region, including Xstrata Coal are seeking the Moura system upgrade. Work on the Moura system is expected to commence in 2011, with the additional rail capacity expected to be available two years later.

# 4.8.2 Shiploading Capacity

NEC has entered into an agreement process with Gladstone Ports Authority for access to 0.5Mtpa via Barney Point Coal Terminal. Separately, NEC has a 0.5Mtpa allocation for WICET Stage 1 and anticipates that financial close for WICET Stage 1 will occur soon, with a further 3 years required for construction. The allocation for WICET Stage 1 will be used by the Maryborough Project. Importantly, all Surat Basin coal projects have been excluded from WICET Stage 1.

NEC has made application for an allocation of 7.5Mtpa in WICET Stage 2, which is scheduled to be committed to in Quarter 4 2011 – six months following completion of Stage 1. Northern Energy will need to underwrite the feasibility study for this stage, provide appropriate bank guarantees when required, and enter into a firm capacity deed at the end of 2011. Some 5Mtpa of the potential allocation is earmarked for Elimatta, with the remainder targeted for an expanded Colton operation.

# 4.9 Coal Marketability

The indicative coal quality for the Elimatta project is shown in Table 4.4.

Table 4.4
Ellimatta: Specifications of Product Coal

Item	Coking Coal
Inherent Moisture (% ad)	8%
Ash Content (% ad)	10%
Volatile Matter (% ad)	42%
Total Sulphur (% ad)	0.4%
SE (gross air dried basis)	6,320 kcal/kg
SE (gross as received)	5,900 kcal/kg
Hardgrove Grindability Index (HGI)	34
Ash fusion (Red, initial def)	$1370^{0}$ C
Ash fusion (Red, flow)	1450°C

Source: NEC

This type of coal will present some marketing challenges. While the energy is lower than the standard "Newcastle" specification thermal coal (6,322kcal/kg, gross as received), the low ash should be attractive to buyers. The low HGI will limit the potential markets for this coal and is likely to result in a permanent price discount below the energy adjusted price.

# 5.0 YAMALA PROJECT (83% NEC)

#### 5.1 Introduction

The Yamala Project is located in the Bowen Basin, adjacent to the Ensham mine about 6km west of the small town of Comet, between Emerald and Blackwater in the Bowen Basin in Central Queensland. BDA has previously visited the project and is familiar with the area, but did not visit for this review.

NEC entered into a joint venture with Sojitz to explore and develop the Yamala coal deposit. Sojitz are a Japanese commodity trading house with a large presence in the Australian coal industry.

The project is operated in a joint venture (JV) arrangement with Sojitz Corporation ("Sojitz"), which gained its initial 17% interest through the funding of an exploration and evaluation programme. Sojitz has the ability to raise its stake to 30% upon funding a further \$2.3 million of exploration expenditure, of which approximately \$1.4 million remains to be spent. On completion of its funding commitment, Sojitz has the option to increase its interest in Yamala to 49% upon payment of \$6.65 million to Northern Energy. As a part of the overall arrangements, Sojitz also gained marketing rights for the project.

A JORC compliant Resource Statement has been completed.

Conceptual level mine planning and cost modeling studies have been developed based on the use of continuous miners in a small bord and pillar operation producing in the order of 0.75Mtpa product, combined with a small open cut operation producing 1.0Mtpa product.

#### 5.2 Tenements

The Project tenements consist of EPC 927 and EPC 1169. Both these tenements are held by Taroom Coal, which is a subsidiary of NEC (87%) and CHR Emerald, which is a subsidiary of Sojitz (13%).

The principal holder of the tenements is Yamala Coal Pty Ltd. EPC 927 was granted 28 April 2005 for a period of five years. A renewal application for a further five years was lodged 1 February 2010 and EPC 927 was subsequently granted for a further five years and expires 27 April 2015. EPC 1169 was granted 22 April 2008 for a period of three years and expires 21 April 2011. A renewal application has been lodged for EPC 1169.

# 5.3 Geology

#### 5.3.1 Geological Setting

The area covered by these EPCs is within the Late Permian Rangal Coal Measures, historically mined across the Central Bowen Basin with both open cut and underground methods. The overburden cover over the Rangal seams in these EPCs is generally 50-350m of Mesozoic Rewan Formation (western portion of the area) and some unconsolidated Cainozoic top cover. The strata dip about 5<sup>0</sup> W-N-W off the eastern flanking Comet shelf.

Northern Energy has implemented an exploration program of drillholes, aeromagnetic and surface seismic surveys across the EPCs with the aim of delineating JORC-compliant resources. The aeromagnetic survey identified an area of shallow Tertiary basalt in the south-west area of the EPCs.

#### 5.3.2 Coal Seams

The Rangal Coal Measures contain a well-known suite of seams, descending from the Aries Seam through the Castor, Pollux and Orion. Seam splitting is well documented and both the Aries 1 (A1) and Aries 2 (A2) have been identified within the EPCs. The Aries 2 seam is the principal target seam.

The uppermost A1 seam is reported as about 0.3m thick. The A2 seam is reported as ranging between 1.5-2.2m thick, with a mean thickness of 1.8m. The Castor, Pollux and Orion seams appear to be poorly developed within the area.

Northern Energy has geophysically logged the exploration holes across the area so seam correlation is reliable.

#### **5.3.3** Geological Structure

The strata within the EPC's dip about 5<sup>0</sup> WNW off the eastern flanking Comet shelf. Both the drilling results and the surface seismic survey identified regional NNW and associated NE faulting sets, with throws up to five times the A2 seam thickness. The fault spacing appears to be semi-regular with flatter, relatively undisturbed blocks of coal between them.

# 5.3.4 Coal Quality

NEC (2008) has reported a range of raw and washed coal qualities for the A2 seam, averaged across the available drillhole data.

Raw ash is estimated at 11.9%, SE 27.3 MJ/kg, TS 0.59%, while at F1.50, the ash is estimated at 8.4% and the mean yield is 84%. These results suggest an export thermal coal is the most probable mining product and would place this deposit within the accepted normal quality range of the Rangal coals.

#### 5.4 Resources

NEC (2008) has reported a JORC-compliant Indicated Resource for the A2 seam of 40Mt and an Inferred Resource of 180Mt. These estimates are to a depth of 300m (with the deeper resource in the west portion of EPC1169 undefined with minimal data available). The report breaks out tonnage on a depth of cover basis grouped as <100m, 100-200m, and 200-300m, with the bulk of both Indicated and Inferred Resource between 40-200m.

BDA has examined the methodology of these estimates and is satisfied that they are within JORC guidelines for Resource estimates.

Northern Energy considers that the A2 seam offers possible mining with open cut methods for the shallower A2 seam areas in the eastern section (which would then include the thinner A1 seam) and underground mining in the central-west section for the A2 seam, although the mining blocks would be bounded by larger-scale regional faulting.

# 5.5 Mine Planning

Development of the Yamala Project is less advanced than the Maryborough and Elimatta projects, reflecting NEC's financial and management constraints. Nonetheless, the project contains coal resources of 220Mt and coal quality is split between the higher value low ash PCI coal (55%) and thermal coal (45%). A number of mining studies for the project have been completed, however due to inherent faulting in the coal seams, mining conditions are complicated and further drilling of the resources is required to facilitate development of mine plans. Based on early drilling, initial plans are for dual open cut and underground mine with production of up to 2.4Mtpa of export coal.

A mining study was carried out in 2008 by GPPH. This concluded that there was the potential for a 12 year open cut at 2Mtpa ROM and for a 20 year 1Mtpa underground bord and pillar mine.

# 5.6 Coal Washing and Handling

AB Mylec completed an initial washability study and concluded that Aries II Seam can be processed in either

- a single stage to produce a low ash (10%) export quality thermal coal with average energy of 6,058 kcal/kg (gar at 13.5% moisture) or,
- a two stage process to produce a low ash PCI and moderate ash (15%) export thermal coal.

#### 5.7 Forecast costs

Cost estimates in the valuation model are based on contractor mining operations, and as such capital cost estimates do not include the mining equipment, but operating costs include a contractor's margin and ownership costs.

The NEC forecast start-up capital of \$390M is reasonable for the size of the mine. The NEC forecast operating costs at \$60 per tonne FOB (excluding Royalty) is considered reasonable and comparable with unit costs at similar operations.

# 5.8 Infrastructure Capacity

#### 5.8.1 Rail to Port

Access to rail capacity is limited until completion of the upgrades to the Blackwater rail system, including fully duplicating existing rail lines. Current plans are in place to increase Blackwater rail capacity to meet Stage 1 of the WICET development, with the system progressively expanded in response to WICET project demand.

# 5.8.2 Shiploading Capacity

NEC intends to obtain an allocation of 7.0Mtpa in WICET Stage 2, which is scheduled to be committed to six months following financial close of Stage 1. Northern Energy will need to underwrite the feasibility study for this stage, provide appropriate bank guarantees when required, and enter into a firm capacity commitment deed at financial close.

The allocation of 7.0Mtpa in WICET Stage 2 will supplement the 0.5Mtpa in WICET Stage 1, enabling 5Mtpa to be allocated to Elimatta Project and 2Mtpa to be allocated to Maryborough Project. Port allocation for the Yamala Project will be in WICET Stage 3 or one of the other port developments currently under consideration in Queensland.

# 5.9 Coal Marketability

The indicative coal quality for the Yamala project is shown in Table 5.1.

Table 5.1
Specifications of Coals Planned by NEC

Item	Coking Coal	Thermal
	607	50/
Inherent Moisture (% ad)	6%	5%
Ash Content (% ad)	7%	13%
Volatile Matter (% ad)	32%	28%
Total Sulphur (% ad)	0.5%	0.5%
Hardgrove Grindability Index (HGI)	51	51
SE (gross air dried basis) kcal/kg	7,000	6,500

It is planned to market these products as PCI coal for blast furnace use and as thermal coal.

# 6.0 ASHFORD PROJECT (50% NEC)

#### 6.1 Introduction

The Ashford Project is an equal JV with Renison Consolidated Mines and is located 10km north of the township of Ashford in northern NSW. A systematic assessment of the exploration tenements held in the region conducted by the JV did not result in any increase in the previously reported resource. As a result, NEC is considering a development based on the 18Mt inferred resource of hard-coking coal previously outlined, possibly in conjunction with other deposits identified by third parties in the region.

# 6.2 Tenements

The Project tenements currently consist of Exploration Leases ("EL") 6428 and EL 6234. EL 6428 (585ha) was granted 7 June 2005 and a renewal application has been lodged. EL 6234 (800ha) was granted 19 April 2004 and a renewal application has been lodged. The tenement holder is Renison Coal Pty Ltd.

#### 6.3 Geology and Geological Setting

Regionally the Ashford coal measures are expressed as a 10km wide by 80km long north-south orientated basin extending from the Queensland border south to Inverell. The coal measures unconformably overlie a metamorphosed, deformed Carboniferous age rock strata. To the west a leucogranite intrudes the Carboniferous sequence and a low angle thrust fault displaces it over the Permian coal measures.

The Ashford Seam is the principal seam within the Ashford Project area and occurs 10m to 30m above the Carboniferous unconformity interface. The Ashford Seam thickness varies from less than 3m to 20m with a thickness greater than 9m for about 3km of strike length. The Bonshaw Seam, a 2m thick, low quality seam, occurs approximately 30m above the Ashford Seam.

#### 6.4 Resources

Based on recent drilling and reinterpretation of the Severn fault, it is presently estimated that the Ashford deposit is underlain by an Inferred resource of 18Mt. There has been very limited work done on the possible development of the Ashford deposit, in that it is of small scale and relatively isolated from the infrastructure that would be required to deliver it to the potential customers.

#### 6.5 Mine Planning and Processing

No mine plans have been prepared at this stage, although BDA is aware that some conceptual studies have been initiated. Similarly, with respect to processing, some limited test-work has been completed but as far as BDA is aware, NEC has no current design for the treatment of the coal in this deposit.

#### 6.6 Infrastructure Capacity

Transport and port infrastructure capacity for Ashford remain the key issues to be addressed. A rail link into Brisbane from the Ashford region or improved access to Newcastle would enhance the prospects for the development of this project. The Federal Government has decided on a preferred route for the proposed inland railway, which is planned to run to the west of Ashford. This project would bring heavy haul rail capacity much closer to the Ashford Project and thus increase the prospects for a viable development of the existing resource.

# 7.0 YETMAN PROJECT (NEC 100%)

#### 7.1 Introduction

The Yetman Project contains two Exploration Licences ("EL") 6946 and EL 6947 located near the towns of Yetman and Wallangra in NSW. Preliminary work carried out in the area includes landholder access and liaison, geographical studies, assessment of historical drilling in the region and outcrop mapping. An initial drilling programme intersected high volatile thermal coal at relatively shallow depths providing encouragement for the discovery of additional coal deposits. The Yetman Project is considered to be a potential host for Ashford-style deposits of coking coal and other high value material. BDA understands that little site work has been completed to date and that no resources have been estimated at this stage.

# 8.0 VALUATION OF EXPLORATION PROPERTIES

# 8.1 Valuation Methodologies

BDA has been requested to estimate the value of the NEC Exploration Assets to provide Deloitte with a guide as to their value. BDA has examined the properties and has considered the valuation methods that would be most appropriate, given the level of exploration to date, the extent and degree of definition of any identified resources and the stage of development of each. BDA has explained the methodologies available under the Valmin Code for the Technical Assessment and Valuation of Mineral Assets and Securities for Independent Expert Reports as adopted by the Australasian Institute of Mining and Metallurgy in 1995 and as amended and updated in 2005 (the "Valmin Code") and has then discussed each of the projects in terms of their status and valuation.

#### Effective Date

The effective date for the valuation is 15 September 2011.

#### **Standards and Procedures**

This report has been prepared in keeping with the Valmin Code. Resource and reserve estimation procedures and categorisations have been reviewed in terms of the JORC Code, December 2004.

# Valuation Principles

As a general principle, the fair market value of a property as stated in the Valmin Code (Definition 43) is the amount a willing buyer would pay a willing seller in an arm's length transaction, wherein each party acted knowledgeably, prudently and without compulsion.

#### Valuation Methods

There is no single method of valuation which is appropriate for all situations. Rather, there are several valuation methods, each of which has some merit and is more or less applicable depending on the circumstances. The following are appropriate items to be considered:

- discounted cash flow
- amount an alternative acquirer might be willing to offer
- the amount which could be distributed in an orderly realisation of assets
- the most recent quoted price of listed securities
- the current market price of the asset, securities or company.

The discounted cash flow or net present value method is generally regarded as the most appropriate primary valuation tool for operating mines or mining projects close to development. Valuing properties at an earlier stage of exploration where ore reserves, mining and processing methods, and capital and operating costs, are yet to be fully defined, involves the application of alternative methods. The methods generally applied to exploration properties are the related transaction or real estate method, the value indicated by alternative offers or by joint venture terms, and the past expenditure method. Rules of thumb or yardstick values based on certain industry ratios can be used for both mining and exploration properties. Under appropriate circumstances values indicated by stock market valuation should be taken into account as should any previous independent valuations of the property.

The valuation methods considered are briefly described below.

#### Net Present Value (NPV) Method

If a project is in operation, under development, or at a final feasibility study stage and reserves, mining and processing recoveries, and capital and operating costs are well defined, it is generally accepted that the NPV of the project cash flows is a primary component of any valuation study. This does not imply that the fair market value of the project necessarily is the NPV, but rather that the value should bear some defined relationship to the NPV.

If a project is at the feasibility study stage (as opposed to an existing operation), some additional weight has to be given to the risks related to uncertainties in costs and operational performance, risks related to the

ability to achieve the necessary finance for the project and sometimes a lower degree of confidence in the reserves and recoveries when compared with existing operations. In an ongoing operation many of these items are relatively well defined.

The NPV method provides a technical value as defined by the Valmin Code (Definition 36). The fair market value could be determined to be at a discount or a premium to the NPV due to other market or risk factors. BDA considers the NPV or DCF method is not an appropriate method for valuing the NEC exploration properties, as there are insufficient technical details to derive reliable projections.

In certain circumstances, the NPV method can be applied to the valuation of exploration properties, where those properties are adjacent to an existing or planned mining operation, and there is a reasonable likelihood that mineralisation delineated within the exploration properties could provide a future source of feed to the existing plant. In purchasing such a property, a willing and knowledgeable buyer would be mindful of the opportunity of exploiting mineralisation which may otherwise not be viable and would pay a higher price where this potential was considered high.

#### **Alternative Valuation Methods**

#### Related Transactions

Recent comparable transactions can be relevant to the valuation of projects and tenements. While it is acknowledged that it can be difficult to determine to what extent the properties and transactions are indeed comparable, unless the transactions involve the specific parties, projects or tenements under review, this method can provide a useful benchmark for valuation purposes. The timing of such transactions must be considered as there can be substantial change in value with time.

BDA has considered whether any comparable relevant transactions have taken place in recent years which can be used as a basis for estimation of value of the mining assets assessed herein.

# Alternative Offers and Joint Venture Terms

If discussions have been held with other parties and offers have been made on the project or tenements under review, then these values are certainly relevant and worthy of consideration. Similarly, joint venture terms where one party pays to acquire an interest in a project, or spends exploration funds in order to earn an interest, may provide an indication of value.

# Rules of Thumb or Yardsticks

Certain industry ratios are commonly applied to coal mining projects to derive an approximate indication of value. The most commonly used ratios are dollars per tonne of coal in resources, dollars per tonne of coal in reserves and resources, or dollars per tonne of annual production. The ratios used commonly cover a substantial range which is generally attributed to the 'quality' of the coal, the infrastructure to reach markets and the status of the tonnes estimates. Low cost of production tonnes are clearly worth more than high cost tonnes. Where a project has substantial future potential not yet reflected in the quoted resources or reserves, a ratio towards the high end of the range may be justified.

#### Past Expenditure

Past expenditure, or the amount spent on exploration of a tenement is commonly used as a guide in determining the value of exploration tenements, and 'deemed expenditure' is frequently the basis of joint venture agreements. The assumption is that well directed exploration has added value to the property. This is not always the case and exploration can also downgrade a property and therefore a 'prospectivity enhancement multiplier' ("PEM"), which commonly ranges from 0.5-3.0, is applied to the effective expenditure. The selection of the appropriate multiplier is a matter of experience and judgement. To eliminate some of the subjectivity with respect to this method, BDA applies a scale of PEM ranges as follows to the exploration expenditure:

- PEM 0.5 0.9 Previous exploration indicates the area has limited potential
- PEM 1.0 1.4 The existing (historical and/or current) data consists of pre-drilling exploration and the results are sufficiently encouraging to warrant further exploration.
- PEM 1.5 1.9 The prospect contains one or more defined significant targets warranting additional exploration.
- PEM 2.0 2.4 The prospect has one or more targets with significant drill hole intersections.

- PEM 2.5 2.9 Exploration is well advanced and infill drilling is required to define a resource.
- PEM 3.0 A resource has been defined but a (recent) pre-feasibility study has not yet been completed.

BDA has considered whether past expenditure on the various tenements and projects provides a useful guide to value, but concludes that the projects are at a preliminary stage and the PEM would not be appropriate.

# **Prospectivity**

Over-riding any mechanical or technical valuation method for exploration ground must be recognition of prospectivity and potential, which is the fundamental value in relation to exploration properties.

#### Market Valuation

On the fundamental definition of value, as being the amount a knowledgeable and willing buyer would pay a knowledgeable and willing seller in an arm's length transaction, it is clear that due consideration has to be given to market capitalisation. In the case of a one project company or a company with one major asset, the market capitalisation gives some guide to the value that the market places on that asset at that point in time, although certain sectors may trade at premiums or discounts to net assets, reflecting a view of future risk or earnings potential. Commonly however a company has several projects at various stages of development, together with a range of assets and liabilities, and in such cases it is difficult to define the value of individual projects in terms of the share price and market capitalisation.

#### Other Expert Valuations

Where other independent experts or analysts have made recent valuations of the same or comparable properties these opinions clearly need to be reviewed and to be taken into consideration. The only other recent assessment of the NEC Exploration Assets of which we are aware is the Lonergan Edwards valuation prepared for the Target's Statement to NEC shareholders in November 2010.

#### Special Circumstances

Special circumstances of relevance to mining projects or properties can have a significant impact on value and modify valuations which might otherwise apply. Examples could be:

*environmental risks* – factors that can result in a project being subject to extensive opposition, delays and possibly refusal of development approvals

indigenous peoples/land rights issues - projects in areas subject to claims from indigenous peoples can experience prolonged delays, extended negotiations or veto

*country issues* – projects that are located in areas that are perceived to have a high sovereign risk can be significantly impacted in terms of the cost of development and projected operating costs

**technical** - issues peculiar to an area or an orebody, such as geotechnical or hydrological conditions, or metallurgical difficulties, could affect a project's economics.

# Comparable Transactions - assessed "in-ground" value

The status of the exploration projects, the extent of drilling and sampling, the estimation and quantification of resources and the availability of suitable regional infrastructure associated with project development all have a bearing on the assessed value, as does the type of coal identified. As may be seen in Table 8.1, which lists a series of reasonably recent coal transactions, a value of \$0.02-\$0.10/t may be used for Inferred high ash domestic thermal coal resources, whereas Measured and Indicated resources and those ready for scoping study analysis would carry a higher value in the range of \$0.10-\$0.60/t. However, for higher value coals, such as low-ash PCI and export thermal coals, the values may range up to significantly higher values (see Table 8.1, following) and a range of \$0.40-1.80/t (depending on Measured, Indicated or Inferred status) may be regarded as reasonable. In the case of high value coals, such as low-ash hard coking coal, prices up to \$2.50/t may be considered reasonable. These values would normally be applied to the assumed mining recoverable proportion of the resources, so the figures are much lower when averaged over the entire resource estimate.

These yardstick valuation ranges are based on coal prices existing at September 2011, which are substantially higher than the prices when many of the previous valuations were prepared. Coal pricing now places a higher notional value on some of these deposits, possibly by a factor of up to 2 to 3 times some of

the previous assessments. However, if the purchaser had a view that coal prices will return to the low prices that prevailed up until 5 years ago, these deposits may be valued at a lower level.

Table 8.1 following sets out a selection of coal transactions within the past three years that demonstrates the wide range of values that have been paid when assessed on the \$/t of resource basis. Range is \$0.03 to \$2.43 per tonne, with overall average at \$0.60 per tonne, and average for PCI and thermal deposits \$1.35 and for thermal deposits \$0.30 per tonne.

Table 8.1
Coal Transactions and Value \$/Resource Tonne

Project	Measured and Indicated Resources	Inferred Resources	Total Resources	Coal Type	\$/t M+I+I Resource
	Mt	Mt	Mt		
Maules Creek	400	NA	400	PCI & Thermal	1.20
Anvil Hill	190	330	520	Thermal	0.87
Moolarben	450	250	700	Thermal	2.43
Macarthur	885	239	1,124	PCI & Thermal	1.04
Vickery	300	NA	300	PCI & Thermal	0.11
Felix	765	610	1,375	PCI & Thermal	2.57
Narrabri	303	135	438	PCI & Thermal	0.26
Dingo	300	NA	300	PCI & Thermal	0.04
Alpha	-	4,355	4,355	Thermal	0.03
Yamala	87	343	430	Thermal	0.04
Minyango	75	30	105	Thermal	0.40
Wonbindi	24	10	34	PCI & Thermal	0.11
Belvedere	645	2,155	2,700	Thermal	0.10
Athena	32	468	500	Thermal	0.02
Taroom-Collingwood	191	244	435	Thermal	0.48

Sources – AFR January 2010, MCC August 2009, Deloitte July 2009, Press reports 2008/09/10/11

# **8.2** Valuation of NEC Exploration Assets

BDA has assessed the NEC Exploration Assets, being the Yamala, Ashford and Yetman projects, and for valuation, has considered both the JV terms and the Yardstick Method for Yamala, being regarded as the most appropriate valuation methods. For the Ashford project, BDA has considered both the Alternate Offers and the Yardstick Methods, whereas for the Yetman project, BDA considered that the Yardstick Method appeared the only appropriate method, due to the low level of exploration activity and uncertain nature of the resources. BDA did not visit any of the sites on this occasion, but has done so in the past for different purposes than the current matter and is familiar with the areas and the status of exploration.

In the cases of each of the NEC Exploration Assets, from the options available under the Valmin Code, BDA has valued either the stated resources or the considered potential for delineating resources. We have considered, and have inquired of NEC, whether any particular factors may apply to the projects and prospects under review. It is noted that reasonably detailed conceptual studies have been completed on the Yamala project, scoping studies have conducted a preliminary assessment of Ashford, but very little information has been provided on the Yetman project.

# 8.2.1 Yamala

With regard to Yamala, the stated resources are 40Mt Indicated and 180Mt Inferred, with only around 10Mt sufficiently shallow to allow open cut operations. Deloitte has instructed BDA to value this property as an exploration asset, on the basis that that Deloitte is not prepared to value this project under the preliminary studies conducted to date and the conceptual cash flows prepared. Using the JV Terms Method, BDA notes that the terms of the JV agreement with Sojitz allow the acquisition of a 19% interest (to take Sojitz's total interest to 49%) for \$6.65M; this implies a value of \$35M for 100%. However, these terms were agreed when prices were lower, and a somewhat higher valuation in the current market is considered reasonable.

Using the Yardstick Method on Yamala, BDA considers that, of the Indicated resources, it would be reasonable to assume that 25% are recovered by open cut and a further 70% of the balance are recovered by underground (bord and pillar), whereas with the Inferred resources, it was considered reasonable to assume that 35% may be recovered by underground methods. Given that the product mix is estimated at 55% PCI and 45% thermal, BDA would apply a risk-weighted composite price of \$1.10/t to the recoverable Indicated resources and \$0.30/t to the recoverable Inferred resources (\$34.1M + \$16.2M), giving a combined median value of \$50M, in the range of \$40-60M.

#### 8.2.2. Ashford

With regard to Ashford, BDA notes that the deposit has an Inferred resource of 18Mt of coking quality coal, based on limited drilling. NEC has provided advice that, in early 2011, NEC received a conditional and prescriptive offer, subject to a suite of conditions precedent, for the Ashford project. BDA has been unable to determine the reliability of the offer, but considers that the terms proposed were unlikely to be fully satisfied under the proposed progressive payment approach. However, under the Alternative Offers Method, BDA considers that this offer would notionally imply a certain value for the NEC 50% share of Ashford.

Using the Yardstick method for valuation of Ashford, and considering that the coal quality is forecast as export low ash hard coking coal, BDA considers that 20% of the resources may be recoverable by open cut and a further 40% of the balance are assumed recoverable by underground (bord and pillar). Based on forecast quality, the mining recoverable resources may have a value of around \$1.60/t of recoverable resource, in the range of \$1.40-1.80/t of resource. This would value the project at A\$15M, in the range of A\$13-17M.

#### 8.2.3 Yetman and Other Licenses

In the absence of any exploration or coal quality data, but recognising that the Yetman licenses EL6946 and EL6947, and the Atholwood EL6526 in NSW, and the Five Mile EPC1158 license in Queensland, have some potential for the presence of coal resources, BDA has collectively ascribed a nominal \$5M value to the projects.

# 8.2.4 Valuation of NEC Exploration Assets

BDA concludes that the value of the NEC Exploration Assets can be summarised as follows in Table 8.2.

Table 8.2
Coal Transactions and Value \$/Resource Tonne

Project	M+I* Resources Mt	Inferred Resources Mt	Total Mt	Value A\$M 100%	NEC Interest %	NEC Value A\$M	Value Range NEC A\$M	\$/t M+I+I**
Yamala	40	180	220	50	51	25.5	20.4-30.6	0.23
Ashford	-	18	18	15	50	7.5	6.5-8.5	0.83
Yetman	-	-	-	5	100	5.0	1- 7	NA
Total	40	198	238	70		37.0	29.9-46.1	0.29

Measured & Indicated \*\* Measured + Indicated + Inferred

Thus, based on the foregoing analysis, the NEC interests in the Exploration Assets are valued at \$29.9-46.1M, with a most likely value of \$37M.

Yours faithfully

BEHRE DOLBEAR AUSTRALIA PTY LIMITED

John S McIntyre Managing Director

# ANNEXURE A: QUALIFICATIONS AND EXPERIENCE

This report has been prepared by Behre Dolbear Australia Pty Ltd, a subsidiary of Behre Dolbear & Company Inc. Behre Dolbear has offices in Denver, New York, Toronto, Guadalajara, Santiago, Sydney, Vancouver and London. The parent company was founded in 1911 and is the oldest continuously operating mineral industry consulting firm in North America. The firm specialises in mineral evaluations, due diligence assessments, independent expert reports and strategic planning as well as technical geological, mining and process consulting.

BDA has undertaken site visits and has reviewed the technical and engineering data. The principal consultants engaged in the review are as follows:

- Mr John McIntyre (BE (Min) Hon., FAusIMM, MMICA) is the Managing Director of BDA. He is a qualified mining engineer, with over 35 years, experience in engineering, operations and management of mines and mining projects, in Australia, New Zealand, South east Asia and Africa. His principal fields of expertise include technical audit, project feasibility and development, mine and project evaluation, operating experience in open pit and underground mining of base and precious metals, management review and operations optimisation. He has been a professional consultant for 20 years and has held several senior management positions. He has overviewed, edited and coordinated the BDA team and reporting.
- **Dr Rob Yeates** (BE (Min) Hon., PhD (Mining), MBA, FAusIMM, MMICA) is a Senior Associate of BDA. He is a qualified mining engineer, with over 35 years, experience in engineering, operations and management of mines and mining projects, primarily in Australia and New Zealand. His principal fields of expertise include technical audit, project feasibility and development, mine and project evaluation, operating experience in the open pit and underground mining of coal, coal haulage and transport, ship-loading, management review and operations optimisation. He has held senior management positions, including Managing Director and General Manager of Oakbridge Coal. He has review the mining and processing aspects of the operation, the capital and operating costs, and provided opinion on the rail and port facilities. He is currently also CEO for NCIG's Newcastle port development project.
- Ian Poppitt (DipTech. (Geology), M.App.Sc. (Geology), MAusIMM) is a Senior Associate of BDA and a qualified coal geologist, with over 40 years' experience in coal mine geology and exploration in Australia. His principal fields of expertise include technical audit, resource and reserve estimation and assessment, operating experience in the underground mining of coal and resource evaluation. He is a Qualified Person under AusIMM definitions and is familiar with the latest coal resource and reserve terminology under the JORC Code. Ian has visited the Maryborough site and prepared the assessment of geology, reserves and resources estimates for the coal operations.
- Mr Adrian Brett (BSc (Hon) Geology, MSc Geotech, M.Envir.Law, MAusIMM) is a Senior Associate of BDA with more than 30 years of experience in environmental and geo-science, including the fields of environmental planning and impact assessment, site contamination assessments, environmental audit, environmental law and policy analysis and the development of environmental guidelines and training manuals. He has worked in an advisory capacity with several United Nations and Australian government agencies. He has completed assignments in Australia, Indonesia, Thailand, the Philippines, Africa and South America. He has reviewed the environmental aspects of the project and the environmental conditions and licensing conditions.
- **Peter Ingham** (B.Sc. (Min), M.Sc., DIC, GDipAppFin (Sec Inst), CEng, FAusIMM, MIMMM)) is General Manager Mining of BDA and is a graduate mining engineer with more than 25 years in the mining industry in Europe, Africa, Australia and Asia. He has experience in operations management, mining contract management, strategic planning, project assessment and acquisition, cost estimation and operational audits. He has assisted in the report preparation.

#### ANNEXURE B: SCOPE OF WORK

Deloitte has defined the scope of the services and has requested that BDA provides the following to assist Deloitte with the preparation of the IER:

Whilst Behre Dolbear will be engaged by Northern Energy, the scope of the BDA work will be controlled by Deloitte and will be limited to the matters set out in this letter. Deloitte may make reference to the BDA technical report throughout the Deloitte IER and include a summary of the BDA findings as an Appendix to the Deloitte IER. Deloitte will take care to quote or cite your report appropriately.

Deloitte notes that for the purpose of the Deloitte valuation advice, fair market value is defined as the amount at which assets or liabilities would change hands between a knowledgeable willing buyer and a knowledgeable willing seller, neither being under a compulsion to buy or sell.

Northern Energy is to engage Behre Dolbear to provide the following scope of work to assist Deloitte with the preparation of its IER (the Services):

- brief technical overview of the development and exploration assets in which Northern Energy has an interest in, including:
  - approvals and licenses to explore/develop the assets
  - geology and exploration including reserve and resource estimates
  - coal quality and market specifications
  - progress and status of exploration and development projects
  - operating and transport arrangements.
- identifying and verifying the following technical assumptions contained in the financial model prepared by Northern Energy (the Model) in relation to Northern Energy's development assets, being the Maryborough (Colton) development project and Elimatta development project:
  - quantum of reserves and resources and production profiles
  - expected life of mine, recovery rates, yields and production volumes
  - operating costs estimates
  - transport costs estimates (freight, demurrage, etc.)
  - the quantum and timing of capital cost estimates
  - rehabilitation and closure costs
  - any other technical assumptions considered relevant.
- views on:
  - potential mineralisation outside of what is considered reserves (as reflected in the Model), including expected conversion rates to reserves and possible development profile (timing and capital cost)
  - alternative technical assumptions, where considered appropriate
- estimate the value of Northern Energy's development and exploration assets, including:
  - Elimatta
  - Yamala (including implications of Sojitz farm in agreement)
  - Ashford
  - Yetman
  - other Northern Energy tenements.

The Services exclude any work in relation to marketing, coal price and exchange rate assumptions adopted in the Model; financial and/or corporate taxation analysis; and discount rates.

The discounted cash flow analysis of the development assets will be based on the financial model provided by Northern Energy. Accordingly, Deloitte will seek BDA input and advice on the appropriateness of the assumptions used in the model (as outlined above). Where an assumption is considered unreasonable, Deloitte will require BDA assistance in making necessary change to the assumption in the financial model. In addition, Deloitte will be required to conduct ongoing discussions with BDA throughout the project in relation to any changes that may occur to the Model.

# ANNEXURE B

Report to Deloitte – Donaldson Coal and Monash Exploration Behre Dolbear Australia Pty Limited March 2010 Page 28

Deloitte requests that BDA prepare a brief report summarising the findings, including BDA opinion as to the fair market value of the Northern Energy's exploration assets (including Elimatta). The brief BDA report will be included as an Appendix to the Deloitte independent expert's report. Deloitte requires the BDA work and report to comply with the VALMIN code (the code for the technical assessment and valuation of mineral and petroleum assets and securities for independent expert reports).

Deloitte requires that BDA include Deloitte in all correspondence and discussions with Northern Energy Corporation over the period that BDA provides the services.

# **Contents**

1.0	BACKGROUND	1
1.1	INTRODUCTION	
1.2	BDA CAPABILITY AND INDEPENDENCE	
1.3	SCOPE OF WORK/MATERIALITY/LIMITATIONS AND EXCLUSIONS	3
1.4	METHODOLOGY OF ASSESSMENT	3
1.4.	1 NEC Development Projects - Colton and Elimatta Projects	3
	2 NEC Exploration Assets	
	INHERENT MINING RISKS	
2.0	OVERVIEW - NEC DEVELOPMENT & EXPLORATION ASSETS	5
2.1	SUMMARY	
2.2	DESCRIPTION OF ASSETS	5
2.3	SUMMARY OF RESOURCES AND RESERVES	
2.4	SALEABLE COAL PROJECTIONS	
2.5	OPERATING COSTS	
2.6	CAPITAL COSTS.	
2.7	Risks	
2.8	SENSITIVITY ANALYSIS	
2.0		
3.0	MARYBOROUGH / COLTON PROJECT	q
3.2	OWNERSHIP AND TENEMENTS	
3.3	GEOLOGY	
3.3.		
3.3.2		
3.3.		
3.4	~	
3.5	MINE PLANNING	
	COAL WASHING AND HANDLING	
3.6		
3.7	FORECAST COSTS	
	INFRASTRUCTURE CAPACITY	
	l Rail to Port	
3.8.2	1 6 1 7	
3.9	~	
	ENVIRONMENTAL ISSUES	
3.11	COAL MARKETABILITY	12
4.0	ELIMATTA PROJECT (100% NEC)	
4.1	INTRODUCTION	
4.2	TENEMENTS	
	GEOLOGY	
4.3.		
4.3.2		
4.3	$\boldsymbol{z}$	
4.4	RESOURCES AND RESERVES	
4.5	MINE PLANNING.	
4.6	COAL WASHING AND HANDLING	15
4.7	FORECAST COSTS	
4.8	INFRASTRUCTURE CAPACITY	15
4.8.	l Rail to Port	15
4.8.2	2 Shiploading Capacity	16
4.9	COAL MARKETABILITY	16

# Report to Deloitte – Donaldson Coal and Monash Exploration Behre Dolbear Australia Pty Limited

5.0	YAMALA PROJECT (83% NEC)	17
5.1	INTRODUCTION	
5.2	TENEMENTS	17
5.3	GEOLOGY	
5.3.		
5.3.		
5.3.		
5.3.	· · · · · · · · · · · · · · · · · · ·	
5.4		
5.5	MINE PLANNING	
5.6	COAL WASHING AND HANDLING	
5.7	FORECAST COSTS	
5.8	INFRASTRUCTURE CAPACITY	
5.8.		
5.8.		
6.0	ASHFORD PROJECT (50% NEC)	20
6.1	INTRODUCTION	
6.2	TENEMENTS	20
6.3	GEOLOGY AND GEOLOGICAL SETTING	
6.4	RESOURCES	
6.5	MINE PLANNING AND PROCESSING	
6.6	INFRASTRUCTURE CAPACITY	20
7.0	YETMAN PROJECT (NEC 100%)	20
7.1	INTRODUCTION	
8.0	VALUATION OF EXPLORATION PROPERTIES	21
8.1	VALUATION METHODOLOGIES	
8.2	VALUATION OF NEC EXPLORATION ASSETS	
ANNE	XURE A: QUALIFICATIONS AND EXPERIENCE	26
ANNE	XURE B: SCOPE OF WORK	27
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# **Appendix 7: Sources of information**

In preparing this report we have had access to the following principal sources of information:

- draft Target's Statement prepared by Northern Energy
- the Bidder's Statement prepared by New Hope dated 29 August 2011
- audited financial statements and annual report for Northern Energy for the year ending 30 June 2010
- draft unaudited financial statements for Northern Energy for the year ending 31 July 2011
- financial model prepared by the management of Northern Energy
- other internal management information provided by Northern Energy, including the information provided in the data room
- independent technical review of the development and exploration assets of Northern Energy prepared by BDA
- fiscal effects of "revised offer" Carbon Pollution Reduction Scheme November 2009 prepared by Frontier Economics
- the Policy Transition Group's report to the Australian Government in relation to the Mineral Resource Rent Tax (published December 2010)
- various publicly available media releases relating to the Mineral Resource Rent Tax
- various publicly available media releases relating to the Carbon Pollution Reduction Scheme and the Climate Change Plan
- annual reports for comparable companies
- company websites for Northern Energy, New Hope and comparable companies
- publicly available information on comparable companies and market transactions published by ASIC, Thomson research, Capital IQ, Thomson Reuters, SDC Platinum and Mergermarket
- IBIS company and industry reports
- other publicly available information, media releases and brokers reports on Northern Energy, New Hope, comparable companies and the coal mining industry.

In addition, we have had discussions and correspondence with certain directors and executives, including Shane Stephan, Acting Chief Executive Officer of Northern Energy, in relation to the above information and to current operations and prospects.

# **Appendix 8: Qualifications, declarations and consents**

The report has been prepared at the request of the Independent Directors of Northern Energy and is to be included in the Target's Statement to be given to shareholders for approval of the Takeover Offer in accordance with Section 640. Accordingly, it has been prepared only for the benefit of the Independent Directors and those persons entitled to receive the Target's Statement in their assessment of the Takeover Offer outlined in the report and should not be used for any other purpose. We are not responsible to you, or anyone else, whether for our negligence or otherwise, if the report is used by any other person for any other purpose. Further, recipients of this report should be aware that it has been prepared without taking account of their individual objectives, financial situation or needs. Accordingly, each recipient should consider these factors before acting on the Takeover Offer. This engagement has been conducted in accordance with professional standard APES 225 Valuation Services issued by the APESB.

The report represents solely the expression by Deloitte of its opinion as to whether the Takeover Offer is fair and reasonable in relation to Section 640. Deloitte consents to this report being included in the Target's Statement.

Statements and opinions contained in this report are given in good faith but, in the preparation of this report, Deloitte has relied upon the completeness of the information provided by Northern Energy and its officers, employees, agents or advisors which Deloitte believes, on reasonable grounds, to be reliable, complete and not misleading. Deloitte does not imply, nor should it be construed, that it has carried out any form of audit or verification on the information and records supplied to us. Drafts of our report were issued to Northern Energy management for confirmation of factual accuracy.

In recognition that Deloitte may rely on information provided by Northern Energy and its officers, employees, agents or advisors, Northern Energy has agreed that it will not make any claim against Deloitte to recover any loss or damage which Northern Energy may suffer as a result of that reliance and that it will indemnify Deloitte against any liability that arises out of either Deloitte's reliance on the information provided by Northern Energy and its officers, employees, agents or advisors or the failure by Northern Energy and its officers, employees, agents or advisors to provide Deloitte with any material information relating to the Takeover Offer.

Deloitte also relies on the valuation report prepared by Behre Dolbear Australia Pty Limited. Deloitte has received consent from BDA for reliance in the preparation of this report.

To the extent that this report refers to prospective financial information we have considered the prospective financial information and the basis of the underlying assumptions. The procedures involved in Deloitte's consideration of this information consisted of enquiries of Northern Energy personnel and analytical procedures applied to the financial data. These procedures and enquiries did not include verification work nor constitute an audit or a review engagement in accordance with standards issued by the AUASB or equivalent body and therefore the information used in undertaking our work may not be entirely reliable.

In relation to the prospective financial information, actual results may be different from the prospective financial information of Northern Energy referred to in this report since anticipated events frequently do not occur as expected and the variation may be material. The achievement of the prospective financial information is dependent on the outcome of the assumptions. Accordingly, we express no opinion as to whether the prospective financial information will be achieved.

Deloitte holds the appropriate Australian Financial Services licence to issue this report and is owned by the Australian Partnership Deloitte Touche Tohmatsu. The employees of Deloitte principally involved in the preparation of this report were Robin Polson, Director, B.Com, Grad. Dip. App. Fin. Inv., Stephen Reid, Director, M. App. Fin. Inv., B.Ec, F Fin, CA, Nicole Vignaroli, M App. Fin. Inv., B.Bus (B&F), BA, F Fin, Alexandra White, CA, BCom, David Wessels, B.Compt, B.Com (Hons), CTA, CA (SA) and Max Tynan, CA, B.Com, B.Econ. Robin and Stephen are Directors of Deloitte. Each have many years experience in the provision of corporate financial advice, including specific advice on valuations, mergers and acquisitions, as well as the preparation of expert reports.

### Consent to being named in disclosure document

Deloitte Corporate Finance Pty Limited (ACN 003 833 127) of 123 Eagle Street, Brisbane, QLD 4000 acknowledges that:

- Northern Energy proposes to issue a disclosure document in respect of the Takeover Offer between Northern Energy and the holders of Northern Energy shares (the Target's Statement)
- the Target's Statement will be issued in hard copy and be available in electronic format
- it has previously received a copy of the draft Target's Statement (draft Target's Statement) for review
- it is named in the Target's Statement as the 'independent expert' and the Target's Statement includes its independent expert's report in Annexure A of the Target Statement.

On the basis that the Target's Statement is consistent in all material respects with the draft Target's Statement received, Deloitte Corporate Finance Pty Limited consents to it being named in the Target's Statement in the form and context in which it is so named, to the inclusion of its independent expert's report in Annexure A of the Target's Statement and to all references to its independent expert's report in the form and context in which they are included, whether the Target's Statement is issued in hard copy or electronic format or both.

Deloitte Corporate Finance Pty Limited has not authorised or caused the issue of the Target's Statement and takes no responsibility for any part of the Target's Statement, other than any references to its name and the independent expert's report as included in Annexure A.

#### About Deloitte

In Australia, Deloitte has 12 offices and over 4,500 people and provides audit, tax, consulting, and financial advisory services to public and private clients across the country. Known as an employer of choice for innovative human resources programs, we are committed to helping our clients and our people excel. Deloitte's professionals are dedicated to strengthening corporate responsibility, building public trust, and making a positive impact in their communities.

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