

Asset Values in the Energy and Natural Resources Sector

A True and Fair View

Presenters

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Asset Values and Impairment

- IAS 36: Impairment
- ASC 360: Fixed assets
- IFRS 13 and ASC 820 – Fair Value

Miller Energy Resources – A Cautionary Tale

- Purchase of Alaska Oil and Gas Assets for \$4.5 million;
- Booked as reserves of \$368 million and fixed assets \$110 million;
- Bargain purchase gain of \$277 million after tax in income statement.



Fair Value

“The price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.”

(IFRS 13.9 and ASC topic 820-10-20)



Miller Energy Resources

Fair Value is based on exit price not entry price.





Fair Value may not equal Entry Price

- A related party transaction;
- a transaction under duress or a forced transaction;
- the unit of account for the transaction price does not represent the unit of account for the asset or liability being measured; or
- the market for the transaction is different from the market for the asset or liability being measured.



Some of the Fundamentals for the Exit Price

- Identify the market place;
- Identify characteristics of market participants;
- Use of market participant assumptions;
- Highest and best use.



“An asset is impaired when its carrying amount exceeds its recoverable amount”



“Carrying amount

is the amount at which an asset is recognised after deducting any accumulated depreciation (amortisation) and accumulated impairment losses thereon”



Recoverable amount

Question to Participants





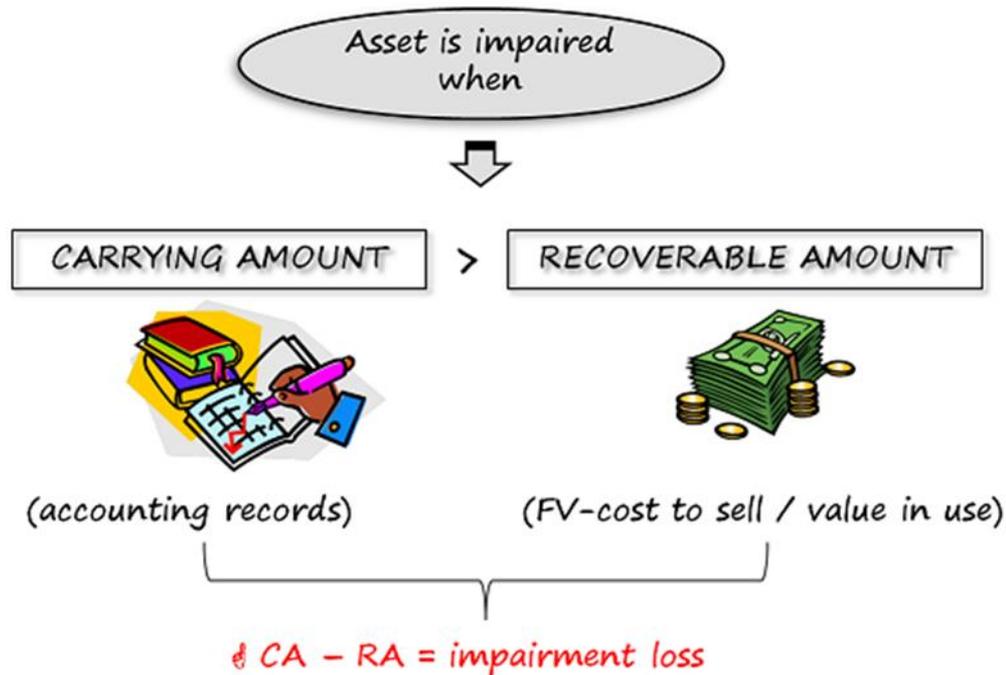
US GAAP – Two Stage Method





Recoverable Amount in IAS 36:

The higher of fair value less costs of disposal and value in use.





Indications of Impairment

- Market capitalisation;
- External Indicators;
- Internal indicators.

Value Link to Output

- Solar;



- On-shore wind;



- Off-shore wind.



Cairn Energy PLC

- Net assets at December 2017 \$2.4945 billion;
- Market Capitalisation in early 2018 – less than \$1.9 billion;
- Exploration/Producing Assets and Goodwill.



“This is an indication that some or all of these assets may be impaired.”
(Audit Report)

Cairn Energy PLC

- Oil Price assumed to be \$70 per barrel, increasing at 2% a year;
- Costs increasing at 2% a year;
- Post-tax discount rate 10%;
- Sensitivities run at \$60 and \$65, with no impairment.



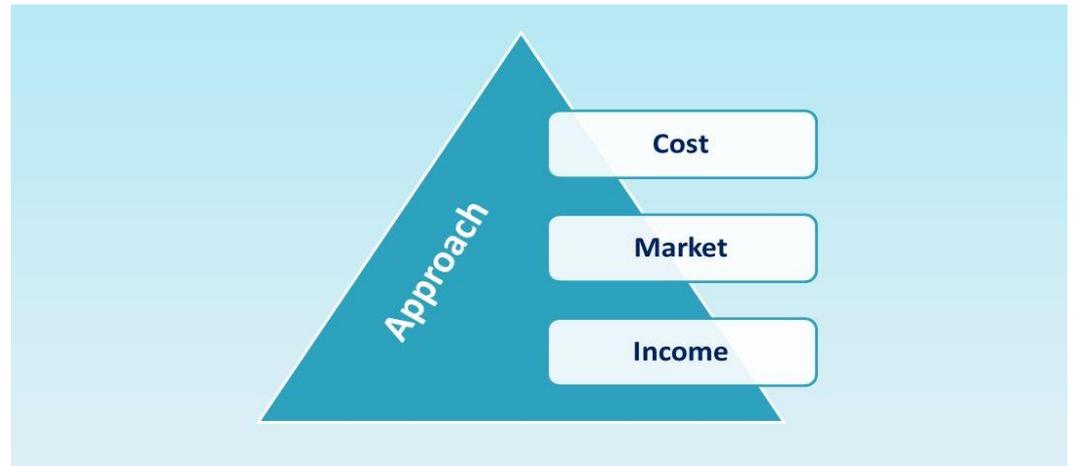


IAS 36 Paragraph 53A:

“Fair value differs from value in use.”

Fair Value – IFRS 13

- Cost approach;
- Market approach;
- Income approach.



Value in Use

- Future cash flows;
- Variations in those cash flows;
- Risk free rate;
- Price for taking the risk implicit in the asset;
- Illiquidity.





Value in Use

- Enterprise level;
- Use a pre-tax discount rate;
- Projections normally not more than five years.



Conventional Discounted Cash Flow

$$\textit{Present value} = \frac{CF1}{(1 + Ko)^1} + \frac{CF2}{(1 + Ko)^2} + \frac{CF3}{(1 + Ko)^3} + \dots \frac{TV}{(1 + Ko)^n}$$



$$TV = \frac{CF4(1 + g)}{(Ko - g)}$$

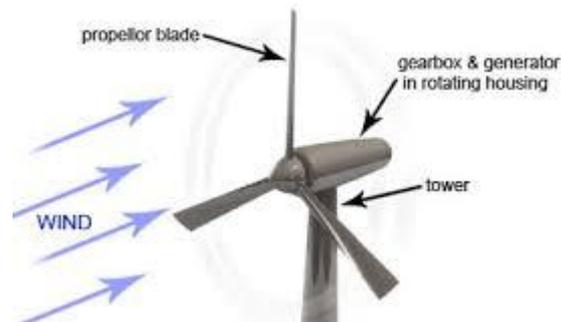
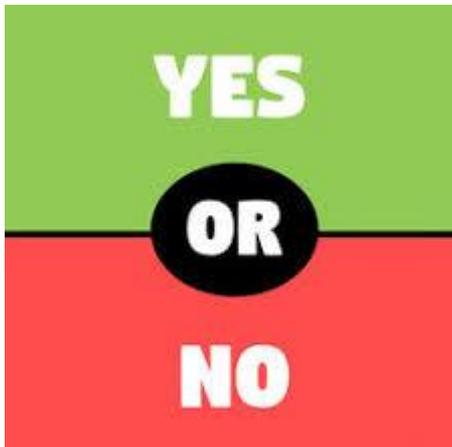
Wind Power

- Useful life – 20 years or 25 years?
- Component replacement;
- Loss of Efficiency.





Is differential depreciation applied in practice to energy assets (such as gear boxes in wind turbines)?





Dealing with Reducing Efficiencies

- Extend the discrete projection period with no Terminal Value Calculation;
- Reduce the rate of growth of cash flows at a constant rate;
- Use the increasing annuity formula.



Formula for Increasing Annuity

$$\text{Present value} = \frac{CF1 \times \left(1 - \left(\frac{(1+g)}{1+K_0}\right)^{25}\right)}{K_0 - g}$$



Ventus VCT PLC

“The technology behind wind farms is now demonstrably robust and, as deployment of onshore wind increases in scale, wind farm operators have begun to explore the possibility of extending turbine life to 25 to 30 years.

At present, the Company assumes an operational life of 25 years, in line with other market participants given the design life of the turbines, albeit with a reduced annual generation assumption for the last five years of operational life.”





Decommissioning Costs/Asset Retirement Obligations

Capitalise net present value and recognise provision

IAS 37/IFRIC 1 and ASC 410

Discount Rate?



InterOil Corporation and Mulacek [2016 YKCA 14]

Stock price \$31.70

Exxon Mobil offer \$45

