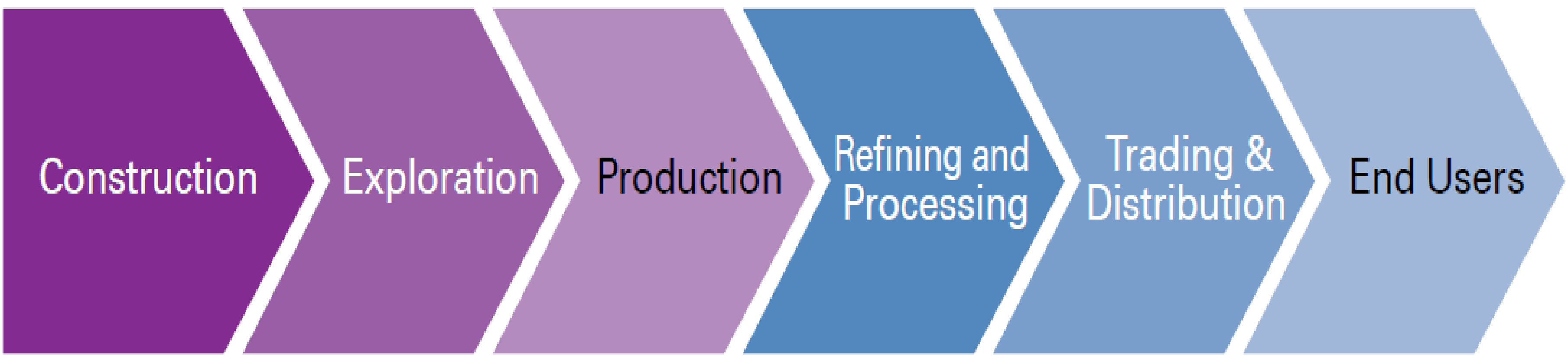
Impairment & Valuation considerations in Oil & Gas

By Ferdinand Okoth Othieno
July 2015

Background and overview



Construction and report of O & G Rigs, exploration and prospecting equipment

Used by end consumers and O & G reliant industries

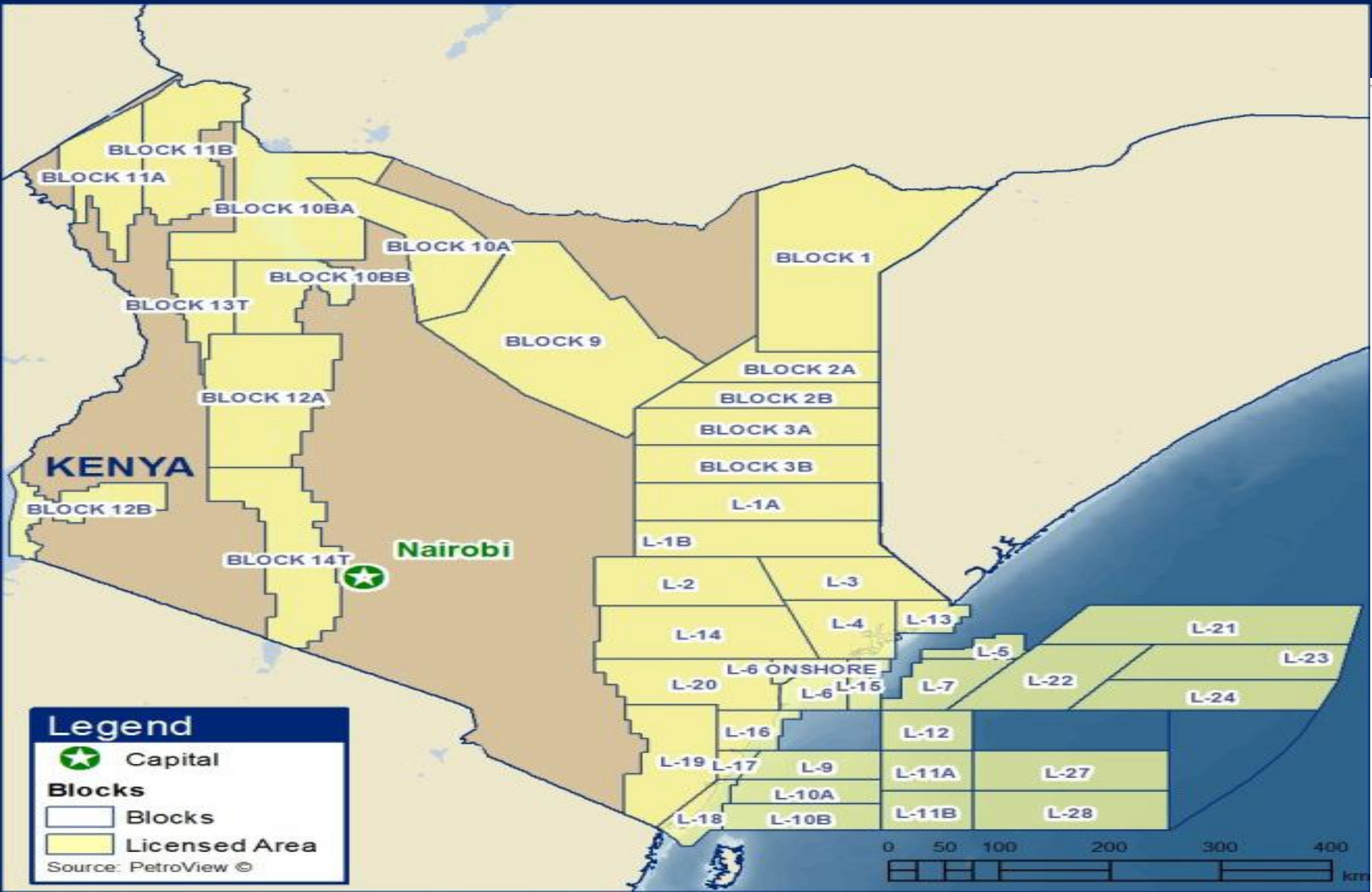
Activities related to the exploration of new oil reserves and extraction of crude oil and natural gas.

Activities related to refining and processing of crude oil and gas into finished value add products. Subsequently, the trading and distribution of these products to end-users.

The Oil & Gas value chain

- **Upstream activities** comprise the exploration for and discovery of hydrocarbons; crude oil and natural gas plus the development of these hydrocarbon reserves and resources, and their subsequent extraction (production).
- **Midstream and downstream activities** in the oil and gas industry include the transportation of crude oil and gas, the refining of crude oil and the sales of the refined products. Capital investment includes refineries, liquefied natural gas (LNG) facilities, pipeline networks and retail stations.
- **Integrated oil and gas companies** may also have divisions that perform speculative trading of oil and gas.

Background and overview



Background and overview

- Accounting for oil and gas activities presents many difficulties.
  - Significant upfront investment,
  - Uncertainty over prospects; and
  - Long project lives
  - Developments e.g. emissions trading and energy price volatility
  - Regulatory issues – e.g. ERC

Background and overview…

- Hence accentuated reporting challenges faced by companies
- A variety of approaches being developed by companies, and a range of country-specific guidance for the sector.
- Given IFRS "principles" based approach, significant judgement & effort goes into applying IFRS principles – IAS 12, IAS 39 e.t.c.

IFRS in the Oil & Gas Value chain

Exploration & Production	Transportation & Refining	Retail & Distribution
• Exploration: Successful efforts vs. full cost method / IFRS 6 (E&E) • Joint working arrangements • Overlift and underlift • Impairment, CGUs • Revenues & taxation • Production sharing contracts & taxation • Component accounting • Decommissioning & restoration obligations	• Accounting for pipeline fills & cushion gas (underground storage) • Component accounting	• Impairment & CGUs

IFRS in the Oil & Gas Value chain

Upstream	Midstream & Downstream	Pervasive industry issues
• Reserves & resources • Depletion & depreciation of upstream assets • Exploration and evaluation • Development expenditure • Borrowing costs • Revenue recognition • Disclosure of reserves and resources • Production sharing agreements and concessions	• Product valuation issues • Revenue recognition issues • Emission trading schemes • Depreciation of downstream assets	• Business combinations • Joint ventures • Joint agreements • Decommissioning • Impairment • Royalty and income taxes • Currency issues • Leasing • Financial instruments

IFRS 6 – Exploration for and evaluation of mineral resources

Scope

- Applies to exploration and evaluation expenditure
- Does not apply to expenditure incurred:
  - In activities that precede obtaining the legal right to explore (pre-exploration activities)
  - After the technical feasibility and commercial viability of extracting a mineral resource are demonstrable (e.g. development activities)

Recognition

- Determine which expenditure meets definition of E&E
  - Elect accounting policy to capitalise each type of cost as an E&E asset or to expense each type of E&E cost as incurred;
  - Policy should reflect extent to which E&E expenditure relates to a specific mineral resource

Change in accounting policies

- Change accounting policies if, and only if, the change makes the financial statements
  - More *relevant* for decision making and no less reliable; or
  - More *reliable* and no less relevant
- For example, change from full cost method to successful efforts
  - But not vice-versa

Measurement at recognition

Capitalised E&E costs are measured at cost

- **Cost may include**
  - Acquisition of rights to explore
  - Topographical, geological geochemical and geophysical studies
  - Exploratory drilling
  - Trenching
  - Sampling
  - Activities in relation to evaluating technical feasibility and commercial viability of extraction

- **Cost excludes**
  - Costs incurred prior to obtaining legal rights to explore (pre-exploration expenditure)
  - Costs once technical feasibility and commercial viability of extraction have been established (development expenditure)

Measurement at recognition…

- Administrative and other general overhead costs
  - Accounting policy choice of capitalising qualifying costs as an E&E asset or expensing
  - Costs must be “directly attributable” in order to qualify for capitalisation

- Licence acquisition costs
  - May recognise an exploration licence as E&E asset
  - Cost of licence may include directly attributable costs of acquisition

Classification and measurement after recognition

Classification

- According to nature:
  - Tangible assets; or
  - Intangible assets

Measurement after recognition

- Cost model
- Revaluation model (rare)

Impairment

- IFRS 6 requires E&E assets to be assessed for impairment in **two circumstances**.
  - When **facts and circumstances** suggest that the **carrying amount** of an E&E asset **may exceed** its **recoverable amount**.
  - When **E&E activities have been completed**, i.e. when the commercial viability and technical feasibility of that asset have been determined and prior to reclassification to development assets.

Indicators of impairment

- Right to explore
  - Has expired during the period
  - Will expire in the "near future"
  - Is not expected to be renewed
- Further exploration neither budgeted nor planned for
- Decision to discontinue activities in that area
- Indication that the carrying amount is unlikely to be recovered in full from a successful development or by sale

Impairment

- Generally apply IAS 36
- Some relief provided regarding the level at which impairment must be assessed
  - Combine one or more CGUs
  - But the level of assessment cannot be larger than an operating segment
  - Test for impairment only when facts and circumstances suggest that carrying amount exceeds recoverable amount – and not annually as for assets not yet available for use under IAS 36

Impairment

- Identification of CGUs in O&G
  - A CGU is the smallest identifiable group of assets that generates cash inflows that are largely independent from other (groups of) assets
  - Identification of CGUs may be based on licence, field or core areas
  - Identification may be complex where companies operate a number of areas or fields that have shared infrastructure and E&E assets

Impairment

- Identification of CGUs in O&G
  - An accounting policy is also needed for allocating E&E assets to CGUs when an impairment test is to be performed.
  - CGUs can be aggregated to form a group of units - Combine one or more CGUs
  - But the level of assessment cannot be larger than an operating segment

Impairment

- Goodwill impairment in O&G
  - Test goodwill (and intangible assets with indefinite useful lives) for impairment at least annually, irrespective of whether indicators of impairment exist.
  - Additional testing at interim reporting dates is required if impairment indicators are present;
  - Impairment losses related to goodwill cannot be reversed.

Pre-exploration expenditure

- Pre-exploration (e.g. pre-licence) costs are excluded from scope of IFRS 6
  - Accounting policy for pre-exploration expenditure determined in accordance with the hierarchy
  - Generally expensed as incurred
    - May be some exceptions, e.g., purchase of seismic data from a third party

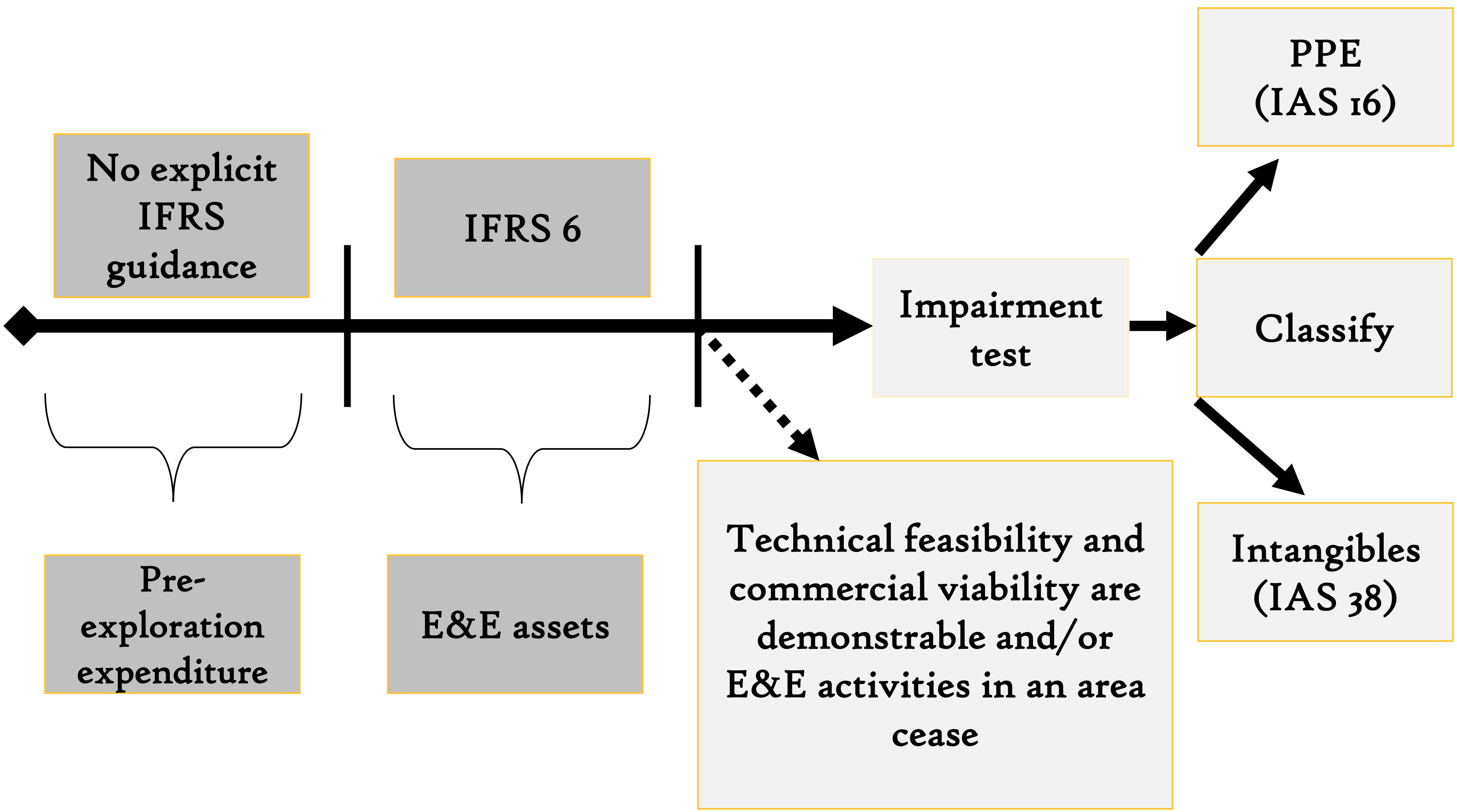
Development expenditure

- Outside the scope of IFRS 6
  - Costs that are incurred after the technical feasibility and commercial viability of extracting a mineral resource are demonstrable
  - Often referred to as “development”
  - Accounted for in accordance with IAS 16 and IAS 38

Reclassification of E&E assets

- When E&E activities in an area cease, an entity
  - Must stop capitalising E&E costs for that area
  - Test for impairment
  - Reclassify E&E assets (after impairment) if the area will be developed, in accordance with IAS 16 or IAS 38

Reclassification of E&E assets…



Successful effort, full cost & valuation considerations

FASB, SEC, FRC

Definitions

- Successful effort versus full cost
  - Successful-efforts method- capitalize costs related to the successful identification & expense costs related to unsuccessful exploration efforts (i.e., drill efforts that result in a dry hole).
  - Full-cost method allows companies to capitalize nearly all costs related to the exploration and location of new O&G reserves regardless of whether their efforts were successful.

Successful efforts method

- Timing of impairment assessment
  - Proved properties - tested for recoverability whenever events or changes in circumstances indicate that the asset group's carrying amount may not be recoverable
  - Assess unproved properties periodically (i.e., at least annually) to determine whether they have been impaired

Successful efforts method

- Measuring the impairment loss
  - Cash flow recoverability test – compare undiscounted cash flows with carrying value; CA > CFs === Impairment;
  - If the asset group fails the cash flow recoverability test, the company will perform a fair value assessment;
  - Compare the asset group's fair value with its carrying amount.
  - An impairment loss would be recorded and measured as the amount by which the asset group's carrying amount exceeds its fair value.

Successful efforts method

- Level of testing impairment
  - Proved properties must be grouped at the lowest level for which there are identifiable cash flows that are largely independent of the cash flows of other groups of assets. IFRS CGU
  - Unproved properties should be assessed on a property-by-property basis or, if acquisition costs are not significant, by an appropriate grouping

Successful efforts method

- Recognition of impairment loss
  - For proved assets - The loss should be allocated to the long-lived assets of the group on a pro rata basis;
  - Allocation to an individual asset should not reduce the asset's CA to less than its FV if that FV is determinable without undue cost and effort.
  - For unproved properties, an impairment loss should be recognized by providing a valuation allowance.
  - Under the successful-efforts method, companies are prohibited from reversing write-downs.

Full cost method

- Timing of impairment test
  - A full-cost ceiling test must be performed on proved properties each reporting period.
  - Unproved properties must be assessed periodically (at least annually) for inclusion in the full-cost pool, subject to amortization.

Full cost method

- Measurement of impairment loss
  - Write-down the full-cost asset pool when net unamortized cost less related deferred income taxes exceeds:
    - The discounted cash flows from proved properties;
    - The cost of unproved properties not included in the costs being amortized; and
    - The cost of unproved properties included in the costs being amortized.
  - The write-down would be reduced by the income tax effects related to the difference between the book basis and the tax basis of the properties involved.

Full cost method

- Level of impairment testing
  - Companies that apply the full-cost method generally establish cost centers on a country-by-country basis and assess impairment at the cost-center level.

- Recognition of impairment loss
  - Reduce the carrying value of the full-cost asset pool and record the excess above the ceiling as a charge to expense in continuing operations.
  - Like the successful-efforts method, the full-cost method precludes companies from reversing write-downs

A note on valuation of O&G assets

- Generally three methods
  1. Income approach – DCF or earnings; measurement is based on the value indicated by current market expectations about those future amounts
  2. Market approach – CoCos & CoTrans.
  3. Asset approach – replacement cost estimate

A comment on the utilities sub-sector

Fuel sourcing	Generation	Trading	Transmission & Distribution	Retail
• Sourcing & supply contracts • Valuations • Hedge accounting	• Components approach • Impairment	• Contracts • Fair value • Own use	• Regulatory assets • Accounting for networks • Cushion inventory	• Connection fees

Share your views

Contact details

Presenter's contact details

Ferdinand Okoth Othieno, CPA

Transaction Advisor, Centerprise

Lecturer, Strathmore University

fokoth@gmail.com

+254 721 722 872