Applying IFRS in Mining & Metals

IASB – proposed standard

Revised proposal for revenue from contracts with customers
Implications for the mining & metals sector
March 2012
Introduction

In general, we do not expect the latest revenue recognition Exposure Draft (ED), issued by the International Accounting Standards Board (IASB) and the Financial Accounting Standards Board (FASB) (collectively, the Boards), to fundamentally change the revenue recognition for many types of arrangements in the mining and metals sector. However, there are aspects of the proposed model that may impact certain arrangements, such as sales of gold bullion. For other types of arrangements such as take-or-pay arrangements, a thorough analysis of the proposed model will be required to determine the potential impact, as this may not be immediately apparent when reading through the ED. After considering the facts and circumstances of each arrangement in light of the specific requirements of the ED, in combination with the impact of the decisions an entity may make in relation to the practical expedients, entities could potentially determine that the way these contracts are currently accounted for and disclosed may change.

The ED is also unclear as to the effect of the revised proposals on some types of arrangements. This lack of clarity, combined with the fact that the arrangements in this sector can be diverse and complex, would require entities to assess the effect of these new proposals on their own arrangements to enable them to determine whether they will have any impact on the current accounting.

This publication is a mining and metals sector-specific supplement to the recently issued Applying IFRS: Revenue from Contracts with Customers – the revised (January 2012)1 (general publication). The general publication summarises the revenue recognition model proposed in the ED issued in November 2011 and highlights some issues for entities to consider in evaluating the impact of the ED and discusses some of the expected changes to current IFRS.

This supplement summarises the key aspects of the proposed model and highlights some potentially significant implications of the ED for the mining and metals sector. This includes determining what is in scope and the potential impact on sector-specific contracts and practices. The issues discussed in this supplement are intended to both provoke thought and assist entities in formulating ongoing feedback to the Boards. The discussions within this supplement represent preliminary thoughts; additional issues may be identified through continued analysis of the ED, or as elements of the ED change upon further deliberation by the Boards.

What you need to know

- The revised revenue recognition Exposure Draft issued by the IASB and the FASB in November 2011 is not expected to fundamentally change the way revenue is recognised for many mining and metals transactions.
- However, for some types of arrangements, the revenue recognition practices of some entities may change, e.g., for gold bullion sales.
- Also, for some types of arrangements in this sector it is not immediately apparent as to exactly how the proposed model will apply. Therefore a detailed analysis will be required to make such a determination, e.g., take-or-pay arrangements.
- The variety and complexity of arrangements in this sector, combined with the specific requirements of the proposed model including the newly added practical expedients, means entities will need to familiarise themselves with the ED so they are able to properly assess any potential impacts.

1 Available at ey.com/ifrs.
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Scope

Definition of revenue and a customer

Revenue is currently defined in IFRS\(^2\) as:

“Income arising in the course of an entity’s ordinary activities.”

This definition has been carried forward unchanged in the ED from current IFRS. The Boards noted in the Basis for Conclusions to the ED that they would not amend the existing definition of revenue as part of this project. Instead, they decided that this was a matter for their joint conceptual framework project.

The proposed revenue recognition guidance in the ED only applies to **revenue from contracts with customers**. That is, it only deals with a subset of an entity’s potential revenue-generating activities.

The ED defines a customer as:

“… a party that has contracted with an entity to obtain goods or services that are an output of the entity’s ordinary activities.”

Neither current IFRS nor the ED defines “ordinary activities”. The Boards indicated in the Basis for Conclusions to the ED that they were not going to clarify the meaning of “ordinary activities” because that notion was derived from existing revenue definitions, which as noted, were not being revisited as part of this project.

The ED then goes on to explain that for some contracts, while there may be payments between parties in return for what may appear to be goods or services of the entity, the counterparty might not be a customer. Instead, the counterparty may be a collaborator or partner that share in the risks and benefits of developing a product to be marketed. Contracts with collaborators or partners would not be in the scope of the proposed standard. However, no further guidance is provided to assist an entity in determining whether such collaborative arrangements would be in scope, i.e., when the collaborator or partner would be considered to be a customer.

The Basis for Conclusions explain that while the Boards were asked by some respondents to clarify whether parties to common types of arrangements in their industries would meet the definition of a customer, the Boards decided that it would not be feasible to develop application guidance that would apply uniformly to various industries. This was because the terms and conditions of a specific arrangement may affect whether the parties have a supplier-customer relationship or some other relationship, e.g., collaborator or partner. Instead, the parties to the arrangement would have to consider all facts and circumstances to determine if they are in scope of the revenue recognition ED or not.

How we see it

There are many complex contracts in the mining and metals sector and some diversity currently exists in how these are accounted for. The decision not to revisit the definitions of “revenue” or “ordinary activities”, while proposing a model that only deals with a subset of an entity’s total revenue generating activities, does not assist in resolving the uncertainty as to what constitutes an entity’s ordinary activities and, hence, represents revenue from contracts with customers.

Determining who the customer is and, therefore what contracts are in scope, will require an assessment of the individual facts and circumstances. The absence of specific guidance on what are considered an entity’s ordinary activities and therefore who may be customers of an entity, may lead to diverse interpretations.

Generally, if a contract was not previously considered to be a contract with a customer, we do not believe this ED will change such a conclusion. However, in some cases, what constitutes a customer contract may not be clear. Therefore, some contracts (e.g., production sharing contracts, royalty agreements) may need to be evaluated to determine if they represent contracts with customers.

It is our understanding that should a contract or arrangement not fall within the scope of this ED, it does not necessarily preclude the potential inflows arising from such contracts from being described as part of total revenue.

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Other scope exemptions

The ED states that if a contract is partially within the scope of the proposed revenue recognition standard and partially within the scope of another standard, entities would first apply the separation and measurement requirements of the other standard (e.g., accounting for an embedded lease or an embedded derivative). Once the contract elements were separated, the proposed revenue recognition guidance would be applied only to the revenue elements.

Production sharing contracts/arrangements (PSCs)

While PSCs are more commonly found in the oil and gas sector, similar arrangements also exist in the mining and metals sector and can be referred to as PSCs or Contracts of Work (for simplicity, herein referred to as PSCs).

A PSC is a contract between some form of national government entity of the host country and the contracting enterprise (the mining company) to carry out minerals exploration, development and production activities, or any combination of the three, in accordance with the specified terms of the contract. The mining company generally will be responsible for extracting the government entity’s share of production from the mine and is typically responsible for 100% of exploration costs and some or all of development and production costs.

Current practice

Currently, there is no specific guidance within IFRS governing the accounting for PSCs and consequently, accounting approaches have evolved over time. These contracts are generally considered to be more akin to working interest relationships than pure services contracts. This is because the mining company is assuming risks associated with performing mining activities and is receiving a share (and often a greater share) of future production as specified in the contract.

Under current IFRS, revenue is recognised only once the mining company receives its share of the extracted minerals under the PSC and sells those volumes to third party customers, as opposed to being recognised as a fee for services rendered to the national government entity.

Potential impact of the new proposal

In determining whether the contract between the government entity and the mining company is within the scope of the ED, an entity must look to the definition of a customer and what constitutes “ordinary activities”, as discussed above. If an entity was to decide that the government entity was a customer, then the contractual arrangement would be in the scope of this proposed standard and an analysis of the impact of the proposed requirements would be necessary. However, we expect that for most PSCs, the relationship between the mining company and the government entity would probably not represent a customer relationship relating to the provision of services.
Sale of gold bullion

When mining and metals entities sell gold bullion, there is generally a period of time (usually a matter of days) from when the bullion leaves the mine site with the security shipper until the gold is credited to the metal account of the customer. In the intervening period, the gold bullion is sent to the refinery where it is refined, out turned, credited to the entity’s metal account and, then finally, transferred or credited to the customer’s metal account.

Current practice

It is common practice for revenue to be recognised on such gold bullion sales when the bullion leaves the mine site with the security shipper.

Potential impact of the new proposal

Under the proposed model, revenue is recognised only when the identified performance obligation is satisfied by transferring the promised good or service to the customer. A good or service is transferred when the customer obtains control of that good or service. Control is defined in the ED as:

“... the ability to direct the use of and obtain substantially all of the remaining benefits from the asset.”

Control would also include the ability to prevent other entities from directing the use of and obtaining the benefit from an asset. For contracts where the performance obligation is satisfied at a point in time (as opposed to being satisfied over time) the ED provides some indicators of when control has passed. In applying these indicators, at the point the gold bullion leaves the mine site:

- The entity does not have a present right to payment
- Title generally has not passed to customer
- The customer does not have physical possession of the asset
- The customer does not have the significant risks and rewards of ownership

Therefore, the customer would not have the ability to direct the use, nor receive the benefit from, the gold bullion.

Instead, it is likely that these criteria will usually only be satisfied once the gold is actually credited to the customer’s metal account.

How we see it

The changes to the model appear to provide greater clarity about when revenue should be recognised. However, as it is unlikely that control will be deemed to transfer to the customer prior to the gold bullion being credited to the customer’s metal account, we expect that the recognition of revenue for some gold bullion producers is likely to be deferred under the proposed model.

Provisionally priced sales

Sales contracts for certain commodities (e.g., copper) often include provisional pricing at the time of shipment of the metal concentrate, with final pricing based on the average market price for a particular future period. This type of arrangement is particularly common when an entity produces a mineral concentrate that is sold to a smelter or refiner that produces the fully refined metal that is then sold into the market.
The final sales price is often:

- Based on the average market prices during a subsequent period (the “quotational period”)
- The price on a fixed date after delivery
- The amount subsequently realised by the smelter or refiner, net of tolling charges

**Current practice**

Price adjustment features in non-cancellable contracts that are based on quoted market prices for a date subsequent to the date of shipment or delivery (e.g., the spot price three weeks after shipment, or the average spot price for the month of shipment), are generally considered to be embedded derivatives that require separation from the host contract under IAS 39 *Financial Instruments: Recognition and Measurement*. This is because the forward price at which the contract is to be ultimately settled is not closely related to the spot price. In such instances, the host contract is the non-financial contract for the sale of the mineral concentrate at a future date, while the embedded derivative is the exposure to the price movements from the date of sale to the end of the quotational period.

If the contract is cancellable without penalty before delivery of the mineral concentrate, at the point of entering into the contract, the price adjustment feature does not meet the definition of an embedded derivative. This is because no contractual obligation is considered to exist until delivery occurs.

If the contract is not cancellable, from the point of entering into the contract there will be a contractual obligation, until delivery of the mineral concentrate, where the price adjustment feature will be considered to be closely related to the host commodity contract, and therefore, this embedded derivative will not need to be recorded separately. Separation will only be required once the mineral concentrate is delivered. When the embedded derivative is separated from the host contract, the host contract will normally meet the revenue recognition criteria in IAS 18 *Revenue* – in particular, the requirement that revenue can be measured reliably – at the date that the mineral concentrate is delivered, which is often when it passes the ship's rail.

Any changes in the fair value of the embedded derivative should be recognised in profit or loss for the period. In relation to any subsequent fair value movements, IAS 39 does not specify exactly where these should be presented in profit or loss. Consequently, this led to divergent practices for presenting fair value gains or losses in profit or loss. Some sector participants present these movements as adjustments to revenue, while others present them as part of derivative/other gains and losses.

**Potential impact of the new proposal**

The scoping section of the ED states that if a contract is partially within scope of the proposed revenue recognition standard and partially in the scope of another standard, entities would first apply the separation and measurement requirements.

Given these provisional pricing features are considered to represent embedded derivatives within the scope of IAS 39, entities would be required to continue to separate these at the point of delivery (i.e., when they come into existence) and recognise and measure them in accordance with IAS 39. Hence, they would not be within the scope of the proposed revenue recognition standard.

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3 The potential implications arising from IFRS 9 and the change in accounting for financial instruments with embedded derivatives have not been discussed in this supplement.
Royalty income

Entities in the mining and metals sector sometimes sell part of their interests in a mine or area. The transaction may involve an upfront payment and/or a requirement for the acquiring entity to pay a royalty amount over a period of time, e.g., based upon a fixed dollar amount per volume of product extracted from the area. Alternatively, the acquiring entity may pay a net profit interest, that is, a percentage of the net profit (calculated using an agreed formula) generated by the interest sold.

Current practice

Under current IFRS, accounting for mineral rights and mineral reserves is scoped out of a number of standards including IAS 16 Property, Plant and Equipment, IAS 38 Intangible Assets and IAS 18. Consequently, diverse treatments have emerged in accounting for such transactions. Revenue from royalties is generally recognised on an accruals basis when the right to receive payment is established, in accordance with the substance of the relevant agreement.

For arrangements where the future royalty stream is solely dependent on future production — such that should there be no future production, no royalty income will be received, it is the view of some that the right to receive the royalty is dependent upon future production, such amounts should only be recognised once the production has actually occurred and not when the interest in the mine is sold. Therefore, the associated inflows i.e., the royalty income, are often only recognised when the related mineral is extracted. Such receipts are then disclosed as revenue or other income.

The alternate view is that the sale of the mining interest creates a contractual right to receive these royalty payments, and therefore these royalty payments and hence the related receivable, should be recognised at fair value at the date of disposal and included in the calculation of the gain or loss on sale. Further divergence then exists as to how subsequent movements in this receivable are recognised in profit or loss, i.e., as revenue or as other gains/losses.

In other instances, where the entity is entitled to receive a certain (minimum) amount of cash regardless of the level of production, it is considered that this establishes a contractual right to receive cash at the point when the disposal transaction occurs. Therefore, an entity recognises a receivable and the associated income when the arrangement is entered into and will form part of the gain/loss on sale of the mineral interest.

Potential impact of the new proposal

Contracts with customers

As outlined above, the ED only deals with contracts with customers, and unlike current IFRS, it does not scope out revenue from the extraction of minerals. Therefore, regardless of the type of product being sold, if the counterparty to the contract is determined to be a customer, then the contract would be in scope of this ED. We expect that given the common types of royalty arrangements in the mining and metals sector, that such a conclusion may be uncommon.

If these arrangements are in scope, some of the same challenges outlined in more detail in the take-or-pay section below, may arise. For example, these challenges would include identifying the performance obligations, determining the transaction price (which may be more complicated when there is variable consideration that is dependent upon actions by the customer, i.e., the future extraction of minerals), and the requirement to remeasure and reallocate the transaction price when and if it changes.

On the subject of royalties, the new ED contains specific requirements that apply to licences of intellectual property in which the customer agrees to pay an additional amount of consideration that varies based on the customer’s subsequent sales of a good or service (i.e., a sales-based royalty). In this situation, an entity cannot be reasonably assured to be entitled to the additional consideration until the certainty is resolved. This means that the entity cannot recognise revenue from such a royalty arrangement until the customer’s subsequent sales occur.
While this type of IP-related royalty arrangements may appear similar to some types of royalty arrangements in the mining and metals sector, we understand that at this stage, the view is that these requirements can only be applied to licences of intellectual property and they do not apply to the accounting for other royalty arrangements.

**Sales of non-financial items**

In addition to changing the accounting for contracts with customers, it is proposed that the existing requirements for the recognition and measurement of a gain or loss on the transfer of some non-financial assets that are not the output of an entity’s ordinary operations (e.g., property, plant and equipment in the scope of IAS 16), would be amended to be consistent with the proposed requirements within this ED.

Specifically, these changes would require an entity to:

- Determine the date of disposal and, therefore the date of derecognition based upon when the purchaser obtains control of the asset and the criteria for assessing when control has passed will be that set out in the revenue recognition ED
- Measure the consideration to be included in the calculation of the gain or loss arising from disposal by using the requirements within the revenue recognition ED for determining the transaction price, including those that state that this consideration is not to exceed the amount to which the entity is reasonably assured to be entitled, i.e., the provisions relating to constraint on revenue recognition would apply (refer to Section 6.3 of our general publication for further information on requirements relating to the constraint of revenue)
- Recognise any subsequent changes to the estimated amount of consideration that is reasonably assured as a gain or loss in profit or loss in the period of the change

While mineral rights and mineral reserves (and, hence, the associated capitalised costs) are outside the scope of both IAS 16 and IAS 38, in selecting an accounting policy to account for the disposal of these assets, in practice, most entities look to the principles of these two standards. Therefore, these requirements are likely to be applied to arrangements in which an entity sells all (or part) of its mining properties where some of the consideration comprises a royalty-based component.

**How we see it**

IAS 18 specifically applies to royalty income. While the proposed revenue recognition guidance no longer makes reference to royalties *per se*, should such payments arise in a contract with a customer, they would be in the scope of this ED (although we expect this to be uncommon). However as noted earlier in this supplement, it may not always be clear whether a counterparty is a customer, so judgement will be required.

Likewise, royalty arrangements included as part of an asset sales transaction would be caught through the consequential amendments to IAS 16 and IAS 38.

Given that most royalty arrangements in these situations tend to be variable in nature, applying the proposed requirements of the ED may have significant practical implications on the accounting for such arrangements. For example, having to try and estimate the future transaction price and where appropriate, to consider whether the provisions relating to the constraint on revenue recognition would impact the amount and timing of the recognition of such amounts in profit or loss.
Royalty payments

Mining and metals entities frequently enter royalty arrangements with owners of mineral rights. These are often payable upon the extraction and/or sale of mineral ore. The royalty payments may be based on a specified rate per unit of the commodity, e.g., tonne or ounce, or the entity may be obliged to dispose of all of the relevant production and pay over a specified proportion of the aggregate proceeds of sale, often after deduction of certain extraction costs.

In other arrangements, the royalty holder may have more of a direct interest in the underlying production and may make mineral extraction and sale arrangements independently. This can be seen in some royalty agreements in the US.

The issue, from a revenue recognition perspective, is whether revenue should be presented gross or net of these royalty payments.

Current practice

The accounting treatment for government and other royalties payable is diverse. Sometimes, all invoiced quantities are included in revenue, and royalty payments are charged either as a cost of sales or as a tax. In other cases, they are excluded from both the value of reported revenue and cost of sales/taxes on the basis that the entity has no legal right to the royalty product.

Potential impact of the new proposal

While the ED and associated guidance do discuss some of the issues impacting gross versus net presentation, they do not directly address the treatment of royalty payments.

That said, the ED requires revenue to be recognised at the “transaction price” and the transaction price is defined as “the amount of consideration to which an entity expects to be entitled in exchange for transferring promised goods or services to a customer, excluding amounts collected on behalf of third parties (for example, sales taxes).”

Other than this, there is no additional guidance provided. Consequently, the ED does not clarify whether a royalty is a cost of production or an income tax, and therefore revenue should be recognised gross; or whether a royalty is considered an amount collected on behalf of another party (which is usually the government, but could be another type of party) and, hence, would be excluded from revenue.

How we see it

It is unclear from the revenue recognition ED whether revenue should be recognised gross or net of these royalty payments as the proposals do not currently provide guidance which could be used to assist an entity in determining whether these royalties are amounts considered to be “collected on behalf of a third party”. Without further guidance, divergence is likely to continue, in that similar arrangements may be accounted for differently.

In our view, where royalties are payable in kind, revenue should be presented net of these amounts as the entity would never have received any inflow of economic benefits in relation to such volumes. However, where an entity is required to sell the product in the market and remit the net proceeds (after deduction of certain costs incurred) to the royalty holder, the entity may be considered to be exposed to the risks and rewards of ownership to such an extent that it is appropriate to present revenue on a gross basis and include the royalty payment within cost of sales.

Inventory exchanges with the same counterparty

From time to time, entities in the mining and metals sector may exchange inventory with other entities in the same line of business which are often referred to as "loans/borrows". This can occur with commodities such as uranium, coal or certain concentrates, where suppliers exchange or swap inventories in various locations to supplement current production, to facilitate more efficient management of capacity and to help achieve lower transportation costs.

Current practice

Currently, IAS 18 states that when goods or services are exchanged or swapped for goods or services that are of a similar nature and value, the exchange is not regarded as a transaction that generates revenue.

Determining whether such exchanges or swaps are within scope requires a degree of judgement, in particular:

- When the inventories exchanged are not identical (e.g., swaps of slightly different oil products, possibly with an adjustment for the difference in quality)
- Or
- There is some past practice of settling net in cash.
Potential impact of the new proposal

The scope of the ED specifically excludes non-monetary exchanges between entities in the same line of business to facilitate sales to customers or to potential customers, other than the parties to the exchange (e.g., an exchange of oil to fulfil demand on a timely basis in a specified location).

While such parties could technically meet the definition of a customer, the Boards decided to exclude these exchanges from the scope of the ED. They considered that recognising these as revenue-generating transactions would gross up revenues and expenses and make it difficult for financial statements users to assess an entity’s performance and gross margins. Also, in some situations, the counterparty to such an arrangement was believed to be acting as a supplier rather than a customer.

In addition, any swap arrangements that are considered derivatives would also be scoped out of the revenue recognition requirements and would instead continue to be accounted for under IAS 39.

How we see it

It is our understanding that the Boards did not expect the treatment of inventory exchanges to change as a result of the proposed new model. However, in our view, this has not been made clear in the wording of the ED.

The change in the wording from goods or services that are “similar in nature and value”, to exchanges between entities in the “same line of business”, means that it is unclear whether some transactions that are currently treated as exchanges of dissimilar goods and hence, revenue generating, may now not be considered to be revenue generating because the entities are in the same line of business.

Also, while the scoping section of the ED makes it clear that inventory exchanges do not result in revenue generation, it does not provide guidance on how the transactions between the two parties should be accounted for and no other specific guidance exists within IFRS (as compared to US GAAP4). Given the lack of clarity, the current divergence in accounting may continue.

However, for the party who is receiving or borrowing the product, when they sell that product to an external customer, such a transaction would be in the scope of the proposed standard.

Take-or-pay arrangements

A take-or-pay contract is a supply agreement between a customer and a supplier in which the price is set for a specified minimum quantity of a particular good or service and the price is payable irrespective of whether the good or service is taken up by the customer.

While take-or-pay arrangements are more commonly used in other sectors, such as the oil and gas and power and utilities sectors and may involve the supply of gas, pipeline capacity or electricity (as examples), they can also be found in the mining and metals sector, e.g., coal. These arrangements can be long-term in nature and can contain terms and conditions with varying degrees of complexity, e.g., fixed or stepped volume, simple fixed pricing, stepped pricing or variable pricing.

In addition, for payments made in relation to volumes not taken, i.e., where the customer does not take the minimum quantities specified, the terms may vary. Some take-or-pay arrangements include a clause that allows the customer to “make-up” the volumes not taken, at a later date. The ability to make-up the unused volumes means that consideration has been received in advance by the producer for product that has not yet been delivered. Alternatively, the arrangement may contain a “use it or lose it” clause, where the customer cannot make-up the unused volumes in the future. In such a situation, this payment would be more akin to a type of penalty payment.

Current practice

Under current IFRS, revenue is recognised as follows:

a) **Volumes taken**: revenue is recognised when the volumes of the product concerned, e.g., coal, are actually delivered and they are measured at the amount invoiced to the customer based upon applicable price at that time, e.g., market price or fixed price (as specified in the contract)

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4 ASC 845 Nonmonetary Transactions.
b) Volumes not taken, but paid for:

i) **No entitlement to make-up volumes:** revenue is recognised when the payment is due from the customer, which is often at the end of the stated take-or-pay period, e.g., every 12 months

ii) **Customer is entitled to make-up volumes:** the amount paid by the customer is recognised as deferred/unearned revenue, and is recognised as revenue either when the payment is applied to future deliveries or the right to apply the payment to such deliveries expires unused. Interest is generally not accrued on such amounts

**Potential impact of the new proposal**

Given the length and complexity of these long-term take-or-pay arrangements, in conjunction with the addition of some new practical expedients to the current ED, it may be difficult to determine exactly what impact the requirements of the proposed new model will have on the financial statements.

Given this, below, we summarise the key aspects of the model, including the new practical expedients that will be of most relevance in determining the impact of the ED on these types of arrangements. We then consider how these may be interpreted and applied specifically to take-or-pay arrangements.

**Step 1: Identifying the contract**

The first step in the proposed model is to identify the contract. The ED states that a contract is an agreement that creates enforceable rights and obligations and that a contract does not exist (for the purposes of the standard) if each party to the contract has the right to independently terminate, i.e., without approval from the other party/parties, a contract under which none of the parties have performed its obligations without compensating the other party/parties.

In relation to take-or-pay arrangements, the “contract” would generally be the minimum amount specified, as this is generally the only enforceable part of the arrangement. There may also be options for the entity to acquire additional volumes over and above the minimum. However, any amounts greater than the minimum would likely be considered a separate contract that needs to be accounted for at the time the customer exercises this option, as this is when it would become enforceable.

Nevertheless, there may be instances when such an option provides a material right to the customer that it would not receive without entering into that contract. The ED notes that such a right would be material only if it results in a discount that the customer would not otherwise receive (e.g., a discount that is incremental to the range of discounts typically given for those goods or services to that class of customer in that geographical area or market). If the option does provide a material right to the customer, the option would be accounted for as a separate performance obligation in the original contract. The inclusion of the option as a separate performance obligation will impact the revenue recognition profile of the original contract. Further details on identifying the contract and accounting for these options, can be found in Sections 2 and 3.7 of our general publication.

**Step 2: Identifying the performance obligations**

The next step is to identify all promised goods or services in the contract and then determine whether to account for each good or service as a separate performance obligation. That is, the entity would need to identify the distinct goods and services representing individual units of account. Section 3 of our general publication explores in further detail the requirements for identifying separate performance obligations, and whether they meet the concept of being distinct.
In applying this requirement, one question that arises is how an entity should identify the performance obligations and, specifically, what level of granularity is needed.

While the proposed standard requires distinct goods and services to be identified as the first step in identifying performance obligations, it then outlines two possible ways in which distinct goods and services should or could be bundled.

The first approach looks at the interrelationship between the goods and services provided. That is, to what extent are the goods and services provided together with an overall significant integration service and significant modification and customisation to fulfil the contract. Treatment of these as a bundle is a requirement of the ED and not an election. This type of bundling is discussed in more detail in Section 3.2 of our general publication.

The second approach is a practical expedient that has been added to this ED, which is intended to simplify the application of the model. This practical expedient allows an entity to account for multiple distinct goods and services as one performance obligation when the underlying goods and services have the same pattern of transfer. We believe this could occur either when there is simultaneous transfer (i.e., at the same point in time or over the same period of time) or consecutive transfer (where the pattern of transfer is similar, e.g., units produced). The practical expedient appears to be a choice (on a contract-by-contract basis) provided by the ED rather than a requirement.

**Illustration 1**

Coal Company A enters into a 3-year take-or-pay contract for a minimum of 1000 metric tonne (mt) of coal per year.

In considering the requirements of identifying the performance obligations of the contract, the following outcomes may be selected by an entity:

- 3000 separate performance obligations for the delivery of 1 mt of coal over three years. At its lowest level, each metric tonne of coal is considered to be a distinct performance obligation
- One single performance obligation for the delivery of 3000 mt of coal. Making use of the practical expedient, the entity may consider the entire contract to be one distinct performance obligation
- Three performance obligations for the delivery of 1000 mt of coal per year. This is an example of a variation that could potentially be created by applying the practical expedient to discrete time periods
Step 3: Determining the transaction price

The third step is to determine the transaction price of the contract. The ED defines the transaction price as “the amount of consideration to which an entity expects to be entitled in exchange for transferring promised goods or services to a customer, excluding amounts collected on behalf of third parties (e.g., sales taxes)”\(^5\). In many cases, the transaction price is readily determined because the entity receives a fixed payment at or near the same time as it transfers the minimum promised good or service. However, determining the transaction price may be more challenging when it is variable in amount, when payment is received at a time different from when the entity provides goods or services, or when payment is in a form other than cash. Consideration paid or payable by the vendor to the customer may also affect the determination of the transaction price.

Specifically in relation variable transaction prices, the ED provides examples of factors that can cause the transaction price of a contract to vary in amount and timing. These factors include discounts, rebates, refunds, credits, incentives, bonuses, penalties, contingencies or concession. Another way in which the transaction price can vary, considered in illustrative example 13 to the ED, is where the price for each unit is variable, e.g., it is based upon or linked to a market price (or some other variable price).

Where the transaction price is variable, the ED requires an entity to estimate the transaction price using either the “expected value” (probability weighted) approach or the “most likely amount” approach, whichever better predicts the ultimate consideration to which the entity will be entitled. Further information on these approaches is set out in Section 4 of our general publication.

Step 4: Allocating the transaction price

The next step is to allocate the transaction price to the performance obligations (where there is more than one performance obligation). Such an allocation would ordinarily be in proportion to the relative standalone selling price of each performance obligation (except in specific circumstances where the residual methodology is permitted). Under the ED, the standalone selling price is the price at which an entity would sell a good or service on a standalone basis at contract inception.

The ED is not clear on how to determine the standalone selling price at contract inception where there is only one type of good, e.g., a metric tonne of coal, and the contract requires selling multiple units of that good in succession as in a take-or-pay contract. Using our example, is the price of a metric tonne of coal to be sold and delivered today different to a metric tonne of coal you expect to sell and deliver in three years time? Later in this document, we explore the potential impact of this question.

Section 5 of our general publication provides more details about how an entity determines a standalone selling price and how these are used to allocate the transaction price.

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\(^5\) ED/2011/6 – Revenue from Contracts with Customers – Appendix A.
**Exceptions to the relative standalone selling price**

Two exceptions to the relative selling price method of allocating the transaction price are proposed in the ED. The first relates to the allocation of variable or contingent consideration and the second relates to the allocation of a discount (see Section 5.4 of our general publication for details on the second exception).

In relation to the first exception, the ED states that variable or contingent consideration can be allocated entirely to a distinct good or service if both of the following criteria are met:

- The variable or contingent payment terms for the distinct good relate specifically to the entity’s efforts to transfer that good
- The amount allocated depicts the amount of consideration to which the entity expects to be entitled in exchange for transferring that distinct good

Variable consideration does not have to be allocated to all distinct goods or services or to other performance obligations that may exist in the contract, provided these criteria are met.

**Step 5: Satisfaction of performance obligations — recognition of revenue**

An entity would only recognise revenue when it satisfies an identified performance obligation by transferring a promised good or service to a customer. A good or service is considered to be transferred when the customer obtains control. Section 6 of our general publication outlines all of the relevant considerations when assessing when control has passed.

The ED indicates that performance obligations are either satisfied at a point in time or they are satisfied over time. For the former, revenue would be recognised at the point in time that control transfers to the customer. For the latter, the associated revenue is recognised over the period the performance obligation is satisfied.

For those performance obligations satisfied over time, an entity will need to decide how it will measure its progress toward satisfaction of that performance obligation. Two appropriate methods of measuring progress provided in the ED include output methods and input methods. Output methods use the value, to the customer, of the goods or services transferred to date as the basis for measurement, e.g., units produced or delivered, milestones reached. Input methods use the entity’s efforts or inputs to the satisfaction of a performance obligation as the basis for measurement, e.g., resources consumed, labour hours expended or costs incurred relative to the total expected inputs.

In addition, in relation to output methods, the ED states that if an entity has a right to invoice a customer in an amount that corresponds directly with value to the customer of the entity’s performance completed to date, the entity would recognise revenue in the amount to which the entity has a right to invoice.

For take-or-pay arrangements, where each metric tonne of coal is treated as a separate performance obligation, we believe these would be considered to be satisfied at a point in time. However, where an entity elects to apply the practical expedient and treat all metric tonnes of coal to be delivered as one single performance obligation, we believe these would satisfy the criteria to be considered to be as being satisfied over time. Given the nature of these arrangements, the most appropriate measure of progress towards complete satisfaction of this performance obligation satisfied over time, would most likely be the output method. If the entity is then able to demonstrate that it has the right to invoice the customer directly for the amount of product taken, measured at the applicable price at the date of delivery, and this amount directly corresponds to the value to the customer of the entity’s performance to date, revenue could be recognised based upon these invoiced amounts.

Section 6 of our general publication explores in more detail the requirements relating to the satisfaction of performance obligations, including factors to consider when determining when control has been transferred and how an entity measures its progress towards complete satisfaction of a performance obligation.
Step 2: Identify the performance obligations

As noted above, there are a number of potential ways to identify the performance obligations under these contracts – we will specifically consider:

- 3000 separate performance obligations at 1 mt of coal each

Or

- The entity applies the practical expedient and combines these into one single performance obligation to deliver 3000 mt of coal over 3 years.

And we will explore how the requirements of the ED would apply to each.

Step 3: Determine the transaction price

As a fixed price contract, this step would be relatively straight forward:

### Application of the proposed model to take-or-pay arrangements

The following examples illustrate the potential impact these new proposals may have on take-or-pay arrangements. We have selected two primary types of arrangements – one with a fixed price and the other with a variable price. For the fixed price contract, we have two scenarios – one where the price is fixed for the life of the contract and the other where the fixed price steps up each year of the contract.

For the purposes of these examples, in both situations (fixed and variable prices), the “contract” to be accounted for is the minimum volumes over three years – so 3000 mt in total and there are no material options for additional coal.

### Fixed price and stepped fixed price contracts

<table>
<thead>
<tr>
<th>Terms</th>
<th>Fixed price (life of contract)</th>
<th>Stepped fixed price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length of contract</td>
<td>3 years</td>
<td>3 years</td>
</tr>
<tr>
<td>Minimum volumes</td>
<td>1000 mt per year</td>
<td>1000 mt per year</td>
</tr>
<tr>
<td>Price per tonne</td>
<td>CU 1,000</td>
<td>Year 1 – CU 500</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Year 2 – CU 1,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Year 3 – CU 1,500</td>
</tr>
</tbody>
</table>

**Constraining the cumulative amount of revenue recognised**

Although an entity would estimate the total transaction price (without any particular constraint on the estimate), the amount of revenue the entity could recognise may be constrained. The ED states that the cumulative amount of revenue an entity would be able to recognise for a satisfied or partially satisfied performance obligation is limited to the amount to which the entity is reasonably assured to be entitled (refer to Section 6.3 of our general publication for further guidance on determining when the amount to which an entity expects to be entitled is reasonably assured).
Steps 4 and 5: Allocate the transaction price to the performance obligations and recognise revenue

The outcome of these steps will depend upon how the performance obligations are determined, i.e., either 3000 separate performance obligations for 1 mt each, or one single performance obligation.

a) 3000 separate performance obligations

If this approach is taken, an entity would need to:

- Determine the standalone selling price of each performance obligation
- Allocate the transaction price based upon the relative standalone selling prices

As noted, it is not clear whether the standalone selling price of an identical unit, i.e., a metric tonne of coal to be sold repeatedly over a period of time, is determined at contract inception by looking at the price of a unit sold and delivered at inception, or whether the entity would have to consider the standalone selling prices for a metric tonne of coal to be sold and delivered in the future, i.e., the entity should consider future pricing.

The former will result in an identical standalone selling price for each performance obligation, i.e., each metric tonne of coal. The latter may result in a different standalone selling price for each metric tonne of coal, or groups of metric tonnes. This would impact the allocation of the transaction price, increase the complexity of applying the model and, would ultimately impact the pattern of revenue recognition.

To illustrate, assume the following prices for future delivery:

- To deliver a metric tonne of coal throughout Year 1, the price would be CU 500
- To deliver a metric tonne of coal throughout Year 2, the price would be CU 1,000
- To deliver a metric tonne of coal throughout Year 3, the price would be CU 1,500

We have assumed that the views around the future standalone selling prices of coal have been built into the pricing of the contract—so these future prices happen to be the same as the stepped prices in the contract. However, this may not always be the case.
**Constant standalone price**

Here we have assumed that as the contract involves selling identical products, i.e., coal, each metric tonne of coal would have the same standalone selling price at contract inception, regardless of when the coal was to be delivered. This would mean that each metric tonne of coal would be allocated the same proportion of the transaction price. So an entity would allocate the total transaction price, as follows:

<table>
<thead>
<tr>
<th>Calculation</th>
<th>Relative standalone price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fixed price contract</td>
<td>CU 3,000,000 / 3000 mt</td>
</tr>
<tr>
<td>Stepped price contract</td>
<td>CU 3,000,000 / 3000 mt</td>
</tr>
</tbody>
</table>

**Future standalone selling prices**

As noted above, in this scenario we have assumed that the standalone selling price of a metric tonne of coal to be sold and delivered today is different to the standalone selling price of a metric tonne of coal to be sold and delivered in the future. This means that the coal to be sold and delivered throughout Year 1 would attract a different proportion of the transaction price to the coal to be sold and delivered throughout Years 2 and 3. Given this, the coal sold throughout each of the various years would attract the following percentages of the total transaction price:

<table>
<thead>
<tr>
<th>Year</th>
<th>Calculation</th>
<th>Total transaction price</th>
<th>Relative % of total (rounded)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>CU 500 x 1000 mt</td>
<td>CU 500,000</td>
<td>16.67%</td>
</tr>
<tr>
<td>2</td>
<td>CU 1,000 x 1000 mt</td>
<td>CU 1,000,000</td>
<td>33.33%</td>
</tr>
<tr>
<td>3</td>
<td>CU 1,500 x 1000 mt</td>
<td>CU 1,500,000</td>
<td>50.00%</td>
</tr>
<tr>
<td></td>
<td>CU 3,000,000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In applying all of the information calculated above, the revenue recognition profile would be as follows:

**Fixed price contract**

<table>
<thead>
<tr>
<th>Year</th>
<th>Current IAS 18</th>
<th>ED – Constant standalone selling price</th>
<th>ED – Future standalone selling price</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Calculation</td>
<td>Revenue</td>
<td>Calculation</td>
</tr>
<tr>
<td>1</td>
<td>CU 1,000,000</td>
<td>1000 mt x CU 1,000</td>
<td>CU 1,000,000 x 16.67%</td>
</tr>
<tr>
<td>2</td>
<td>CU 1,000,000</td>
<td>1000 mt x CU 1,000</td>
<td>CU 1,000,000 x 33.33%</td>
</tr>
<tr>
<td>3</td>
<td>CU 1,000,000</td>
<td>1000 mt x CU 1,000</td>
<td>CU 1,000,000 x 50.00%</td>
</tr>
<tr>
<td></td>
<td>CU 3,000,000</td>
<td>CU 3,000,000</td>
<td>CU 3,000,000</td>
</tr>
</tbody>
</table>
In this scenario, if we assume a constant standalone selling price, the revenue recognition profile is the same as that currently achieved under IAS 18. However, if we assume a future standalone selling price, the revenue recognition profile changes.

Some may argue that this revenue recognition profile accurately reflects the economic characteristics of the contract – in that the entity is selling coal at a discount to the market in Years 2 and 3. Therefore, in the context of the contract, some of the cash paid by the customer in Year 1 is effectively a prepayment for coal that will be delivered in the future years.

### Stepped price contract

<table>
<thead>
<tr>
<th>Year</th>
<th>Current IAS 18 (Calculation)</th>
<th>ED – Constant standalone selling price (Calculation)</th>
<th>ED – Future standalone selling price (Calculation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>CU 500,000</td>
<td>1000 mt x CU 1,000</td>
<td>CU 3,000,000 x 16.67%</td>
</tr>
<tr>
<td>2</td>
<td>CU 1,000,000</td>
<td>1000 mt x CU 1,000</td>
<td>CU 3,000,000 x 33.33%</td>
</tr>
<tr>
<td>3</td>
<td>CU 1,500,000</td>
<td>1000 mt x CU 1,000</td>
<td>CU 3,000,000 x 50.00%</td>
</tr>
</tbody>
</table>

In this scenario, if we assume a constant standalone selling price, the revenue recognition profile differs from that currently achieved under IAS 18 in that it is spread evenly over the three years. However, if we assume a future standalone selling price, the revenue recognition profile is the same as that under IAS 18. In the latter situation, it is important to note that the only reason a similar revenue recognition profile is achieved is because we have assumed that the future standalone selling prices of coal have been built into the pricing of the contract. However, should the standalone selling prices differ to the pricing built into the contract a different recognition profile may result.

b) Treat as 1 single 3-year performance obligation

If this approach is taken, assuming the criteria are met to treat this as a single performance obligation satisfied over time and, the entity determines that the impact of the time value of money is not significant, an entity would need to:

- Determine how it will measure its progress towards complete satisfaction of that performance obligation, i.e., an output or input method
- Allocate the total transaction price based upon the measure selected
- Recognise revenue as progress is made, in line with the selected output or input method
Using an output based measurement approach whereby the entity directly measures the value of the goods or services provided to the customer, to date, by reference to the metric tonnes of coal delivered, for which the entity has a right to invoice, the revenue recognition profile would be the same for both the fixed price and stepped price contracts. That is revenue would be recognised at the amount invoiced as and when the metric tonnes of coal were delivered. This is provided the entity can demonstrate that the amount invoiced represents the value of the goods or services provided to the customer. We understand that the concept of “value” was left deliberately broad, so entities will need to assess what value means for its customers.

**How we see it**

The above analysis demonstrates that, by virtue of the steps of the model, and the new practical expedients, that the choice of how to identify the performance obligations within a contract; whether to treat them as separate performance obligations or apply the practical expedient to bundle these into one single performance obligation; decisions about how a standalone selling price is determined; and, then whether the “right to invoice” provisions can be applied, could either result in a different revenue recognition profile and increased complexity, or could actually result in a revenue recognition profile that is the same or virtually the same as that currently achieved under IAS 18.

Given the importance of these decisions, we believe the Boards should provide additional application guidance and clarity on some of these key decisions in the final standard.

### Variable price contract

<table>
<thead>
<tr>
<th>Terms</th>
<th>Variable price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length of contract</td>
<td>3 years</td>
</tr>
<tr>
<td>Minimum volumes</td>
<td>1000 mt per year</td>
</tr>
<tr>
<td>Price per metric tonne</td>
<td>VWAP** in week prior to delivery of coal</td>
</tr>
</tbody>
</table>

**VWAP** - volume weighted average price

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**Step 2: Identify the performance obligations**

Each metric tonne of coal would be considered a distinct good and hence a separate performance obligation. So initially, this contract would have 3000 separate performance obligations. However, as explained above, the practical expedient could be applied to combine these 3000 separate performance obligations into one performance obligation. Again, we will consider the implications of each option.

**Step 3: Determine the transaction price**

As a variable price contract, this step is likely to be significantly more complex than for a fixed price contract and, depending upon the terms of the arrangement, may not even be possible. This may be so where the price the customer will pay is to be based on or derived from a market price at or near the date of delivery. Such an estimate would require an entity to:

- Estimate when the customer would take delivery of the product and how much they will take at each point – which even in a one year contract would be difficult, let alone in contracts that can extend 20-30 years
- Estimate the market price of coal at the point of delivery

However, in applying certain parts of the proposed model, it may not be necessary to have to determine this at contract inception. We explore this issue further in the next section. Although determination of the transaction price may still be needed for other parts of the model, e.g., it appears to still be required for the onerous performance obligations assessment which we discuss further below.

**Steps 4 and 5: Allocate the transaction price to the performance obligations and recognise revenue**

Unlike a fixed price contract, we do not believe that the outcomes of these steps will change based upon how the performance obligations are determined, i.e., either 3000 separate performance obligations for 1 mt each, or one single performance obligation to deliver 3000 mt. However, the disclosure requirements may vary.
The ED stipulates that the allocation of variable consideration, discussed above, can be made to a distinct good or service provided certain criteria are met. Where the contract is accounted for as 3000 separate performance obligations, each metric tonne would be a distinct good or service. Therefore, as each metric tonne was delivered and the transaction price was then known, this exception would allow the entity to allocate that known part of the transaction price to the distinct good or service, being the actual metric tonne delivered. The entity would not be required to allocate that known transaction price over the total number of performance obligations in the contract.

Where the practical expedient is applied, using an output based measurement approach, whereby the entity directly measures the value of the goods provided to the customer to date by reference to the metric tonne of coal delivered to the customer for which the entity has a right to invoice, revenue would be recognised at the amount invoiced as and when the metric tonne of coal were delivered, provided the entity could demonstrate this reflected the value provided to the customer. Therefore, the revenue recognition profile would be same as the current IAS 18 recognition profile for variable price contracts.

Other considerations

Onerous performance obligations

The proposed model contains onerous performance obligations requirements. These only apply where performance obligations are satisfied over time and the expected length of the contract at inception is greater than one year. Therefore, where an entity decides to treat the contract as 3000 separate performance obligations that would likely be considered to be satisfied at a point in time, these onerous performance obligations requirements would not be applicable.

However, where an entity decides to apply the practical expedient and treat the contract as one single performance obligation, and, it meets the criteria to be treated as satisfied over time, the onerous test will apply if the contract is longer than one year. In undertaking this assessment, one of the inputs required is the transaction price allocated to the performance obligation, which, in this case, would be the whole contract. A performance obligation is considered onerous if the lowest cost of settling the performance obligation exceeds the amount of the transaction price allocated to that performance obligation.

How we see it

The changes that have been made to the current model regarding the allocation of variable consideration are a significant change from the requirements of the 2010 ED, as is the addition of the “right to invoice” provisions.

As we explained in our mining and metals-specific revenue recognition publication issued in February 2011, under the 2010 ED, the transaction price for a variable price contract would have only been considered capable of being reasonably estimated progressively as each actual sale occurred. Therefore, as each sale occurred, the transaction price would have slowly built up and would need to have been re-estimated and reallocated across all of the performance obligations (both satisfied and unsatisfied). This would have resulted in a very unusual revenue recognition profile.

We believe the changes the Boards have made to the proposed model will now avoid this issue. This assumes that each of the goods or services delivered can be considered distinct (even after applying the practical expedient to bundle these into one single performance obligation); or that the entity has a right to invoice, which, in most take-or-pay arrangements, they do. Consequently, we do not believe the revenue recognition profile of variable price take-or-pay arrangements will change from that currently obtained under IAS 18.
As we explored earlier, for a fixed price contract, determining the transaction price of the contract would be relatively straight forward. However, determining the transaction price of a variable price contract would be more difficult, if not impossible. And whereas we illustrated earlier that, by virtue of the various practical expedients and the exception for the allocation of a variable price, determining the transaction price of a variable price contract may not initially be necessary for revenue recognition purposes, it would still be required for the purposes of completing the onerous performance obligation assessment. Therefore to be able to complete this assessment, entities will need to make an estimate of the total transaction price.

**Volumes paid for, but not taken**

Another feature unique to take-or-pay arrangements are the terms relating to payments made for volumes not taken, as explained earlier. The requirements of the proposed model may result in different accounting considerations depending on the terms.

**Payments cannot be applied to future volumes**

Where payments received for unused volumes cannot be applied to future volumes, the seller has no further performance obligations, i.e., it has no obligation to deliver these unused volumes in the future. Therefore, this amount can generally be recognised as revenue once the seller’s obligations no longer exist, i.e., once the customer’s right to volumes has expired unused. For most take-or-pay arrangements, such an assessment may only be possible at the end of a pre-defined period, e.g., the end of each contract year. This is because the customer’s rights have technically not expired and the entity is still obliged to stand ready to deliver the volumes, should the customer request them right up until the end of the stated period. Also, the customer is not contractually obliged to pay the amount in relation to the unused volumes until this time, i.e., the entity does not have an unconditional right to receive cash.

This treatment would be consistent with current practice and, as such, would not represent a change.

However, with the addition of the requirements in relation to breakage, it may be possible to recognise such amounts earlier. Refer below for further discussion on the breakage requirements.

**Payments can be applied to future volumes**

Where payments received for unused volumes can be applied to future volumes, the seller has received consideration in advance in relation to some unsatisfied performance obligations (where each metric tonne of coal is treated as a separate performance obligation), or a partially unsatisfied performance obligation (where the practical expedient has been used to bundle the separate performance obligations into a single performance obligation). That is, the delivery of the unused volumes at some point in the future. This amount represents a contract liability, which will differ from current treatment where such amounts are referred to as deferred or unearned revenue.

When a contract provides a customer with the possibility of make-up volumes, an entity will need to estimate when such future volumes are expected to be taken. This determination is important as it may require as assessment of the time value of money and/or breakage (refer below for further information on the breakage requirements). This determination will need to be made in light of the terms of the contractual agreement in conjunction with an assessment of the expected customer behaviours. For example, such an assessment may involve considering whether the make-up volumes are:

- The first volumes to be taken at the start of the following period
- The make-up volumes can only be taken after the minimum volumes have been satisfied in the following periods

Or

- The make-up volumes can only be taken at the end of the contract period
Tracking these make-up volumes will increase in complexity when varying amounts are progressively added to the liability. For example, there may be multiple years in which the customer does not take its minimum volumes interspersed with a period in which the customer has drawn down on the make-up volumes. Similar to approaches that are likely to be currently used, an entity may have to decide to use either a weighted average cost approach, a FIFO approach, or maybe even a LIFO approach to allocate this cumulative total to future volumes as they are delivered. Such a determination may also be impacted by the specific contractual terms, e.g., the contract may specify that any coal not taken in a particular year, say 2012, can only be used in another specific year.

Impact of the time value of money on make-up volumes
When determining how to account for the contract liability in relation to make-up volumes, the ED requires the transaction price to be adjusted to reflect the time value of money if the contract has a financing component that is significant to the contract. It then provides various factors to consider when determining whether a financing component is significant. In take-or-pay arrangements the effect may be significant where the payment from the customer is received either significantly before the transfer of goods or services.  

To determine whether the time value of money is significant, an entity will need to estimate when such future volumes are expected to be taken compared to when the payment for those volumes was received.

If an entity determines that the time value of money is significant, it needs to impute interest on the contract liability. That is, an interest expense would need to be recognised on the advance payment over the period until the customer takes the additional volumes. The impact would be an increase in the contract liability and, as a result, the final amount of revenue recognised would be higher when the performance obligation is satisfied.

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6 The proposed model does provide a practical expedient by not requiring the consideration to be adjusted for the time value of money at contract inception, when the entity expects that the period between payment by the customer and the transfer of the promised good or service to the customer will be one year or less.
Coal Company A enters into a 3 year take-or-pay contract with a customer for a minimum of 1000 mt of coal per year at CU70/mt.

In Year 1, Company A delivers 900 mt of coal and the customer pays CU 63,000 for that coal. In addition, The customer is required to pay for the 100 mt of coal that it did not take delivery of.

Therefore, at the end of Year 1, CU 7,000 has been received by Company A for the undelivered 100 mt of coal. The customer is permitted to make-up the 100 mt of unused coal in a subsequent period.

Satisfaction of the performance obligation relating to the 100 mt is expected to occur during the last month of Year 3. Company A determines the discount rate on a similar borrowing would be 10%.

In Year 2, Company A delivers and receives payment for 1000 mt of coal and the customer pays CU 70,000 for this coal.

In Year 3, Company A delivers 1100 mt of coal, of which the last 100 mt is delivered in the last month of the year, which are the make-up volumes. The customer pays CU70,000 for the first 1000 mt delivered in that year.

<table>
<thead>
<tr>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>63,000</td>
<td>70,000</td>
</tr>
<tr>
<td>Interest expense</td>
<td>–</td>
<td>700</td>
</tr>
<tr>
<td>Contract liability</td>
<td>7,000</td>
<td>7,700</td>
</tr>
</tbody>
</table>

- **Revenue**: As the company has assessed that all contracted volumes will be delivered over the 3-year period, i.e., the customer is entitled to make-up volumes, revenue is only recognised as and when control of each metric tonne of coal transfers to the customer, at CU 70 per metric tonne. Therefore, any amounts received in relation to make-up volumes are initially recognised as a contract liability. Revenue will only be recognised in relation to these volumes when they are actually delivered to the customer at some point in the future. The amount of revenue recognised for the make-up volumes will comprise the initial payment received (CU 70 per metric tonne x metric tonnes of coal not taken i.e., 100 mt), plus the interest that has been imputed from the date the customer paid for the make-up volumes, i.e., the end of Year 1, until control of the make-up volumes passes to the customer, i.e., at the end of Year 3. So in Year 3, the revenue recognised comprises CU 70,000 received in relation to the minimum amount of coal required to be taken in Year 3, i.e., 1000 mt, and CU 8,406 relating to the 100 mt of coal made-up from Year 1.

- **Interest paid**: During Year 2, Company A recognises interest expense of CU 700 (CU 7,000 x 10%) and increases the contract liability by the same amount. During Year 3, a further interest charge of CU 706 (CU 8,406 x 10% x 11/12) is recognised. Therefore, immediately before the partially unsatisfied performance obligation, in relation to the make-up volumes, is satisfied, the contract liability is CU 8,406.

**Illustration 2**

IAS 18 does not explicitly address time value of money. It is implicit in the requirement to recognise revenue at the fair value of the amount to be received. However in practice, incorporating the impact of the time value of money is diverse.

For additional guidance on accounting for the time value of money, see Section 4.2 of our general publication.
**Breakage**

The ED discusses the concept that in certain industries customers may pay for goods or services in advance, but may not ultimately exercise all of their rights to these goods or services – either because they choose not to or are unable to. The ED refers to these unexercised rights as breakage.

The current wording within the application guidance to the ED relating to breakage, seems to initially suggest that these requirements only apply in situations where the customer has made a non-refundable upfront payment, which the entity has then recognised as a contract liability (because it has not yet satisfied the performance obligations to which the payment relates). Therefore, when considering take-or-pay arrangements and payments made in relation to unused volumes, it may be interpreted that these requirements only need to be considered in relation to payments relating to make-up volumes and only once the customer has made the prepayment.

However, we understand that these provisions may also be interpreted to apply to situations where an entity is entitled to a minimum amount of consideration but where the payment for the unexercised rights is only due at some point in the future, i.e., there is no prepayment of cash as such. However, there is a specific criterion an entity would need to satisfy to be able to apply the breakage provisions in such situations.

In relation to these potentially unexercised rights, i.e., breakage, the ED requires that if there is "reasonable assurance" that an entity will be entitled to a breakage amount, it will recognise the expected breakage amount as revenue in proportion to the pattern of rights exercised by the customer. However, if the entity is not reasonably assured of a breakage amount, the entity should only recognise the expected breakage amount as revenue when the likelihood of the customer exercising its remaining rights becomes remote. In take-or-pay arrangements, this may mean that an entity may be able to recognise revenue in relation to breakage amounts in an earlier period, provided that it can demonstrate it is reasonably assured that the customer will not exercise these rights. Given the nature of these arrangements and the inherent uncertainty in being able to predict a customer’s behaviour, it may be difficult to satisfy this requirement as the entity's experience may not be able to predict the outcome at this level of certainty.

The breakage provisions may be applicable to take-or-pay arrangements when:

- The customer may not be able use the extra volumes in other areas their own operations
- The customer may not be able store the volumes and use them after the take-or-pay contract has expired
- The customer may not be able take delivery of the volumes and sell them into the market

For take-or-pay arrangements this would mean that if an entity could demonstrate that it is reasonably assured the customer will not exercise all of its rights, i.e., the customer will not take delivery of the minimum volume of coal; when the entity does deliver the units of coal to the customer, the amount of revenue it recognises on each of those units, may be higher. For example, if the minimum amount of coal was 1000 mt at CU 10 per mt, and the entity was reasonably assured that the customer would only take 900 mt, then as the entity delivered the 900 mt, the amount of revenue it would recognise for each of those metric tonnes, would be higher. This can be demonstrated as follows – the total minimum transaction price for Year 1 = 1000 mt x CU 10 = CU 10,000; if the entity was reasonably assured of the breakage amount, i.e., that proportion that relates to the 100 mt which will not be taken, the entity would recognise the full amount of the transaction price when it delivered the 900 mt, which would mean the revenue recognised per metric tonne would be CU 10,000 / 900 mt = CU 11.11.

Being able to apply these provisions means an entity may be able to accelerate the timing of revenue recognition. However, in our view, to be able to do this, an entity would need robust evidence to support its assertion that it was reasonably assured the customer would not take its full entitlement, and this potentially may be difficult to do.

An alternate view may be that the breakage amount only relates to the rights that have already been exercised in the contract. This would lead to full recognition of the breakage amount when reasonable assurance is achieved, or, if reasonable assurance cannot be achieved, when the likelihood of the customer exercising the rights becomes remote.
Disclosures

In addition to the new recognition and measurement requirements to be considered for take-or-pay arrangements, there are new disclosure requirements. Those specifically applicable to take-or-pay arrangements include the following:

- Contract liabilities – a detailed roll forward is required which discloses each of the key movements in this balance from one reporting period to the next. This would apply to payments made in relation to make-up volumes.

- Allocation of the transaction price to unsatisfied performance obligations in contracts with a duration of more than one year – while it may not be apparent, this disclosure requirement applies to both performance obligations that are fully incomplete, as well as those that are partially incomplete. Therefore, whether an entity chooses, for contracts of this duration, to treat each metric tonne of coal as a separate performance obligation, or whether it decides to bundle these into one single performance obligation, new disclosure requirements may be disclosed. Specifically, an entity will be required to disclose the aggregate amount of the transaction price allocated to remaining performance obligations and it will also be required to explain when it expects to recognise that amount of revenue. Such disclosures can be quantitative or qualitative.

For fixed price contracts, while this is an additional disclosure requirement which will require the collation of additional information, determining these amounts will not be difficult as the price per performance obligation is fixed and the entity would know the time bands, e.g., years, in which revenue will be recognised. However, this will be more difficult, if not almost impossible, for variable price contracts due to the complexities in determining a variable transaction price (as explained above).

However, where an entity elects to apply the practical expedient and bundle the individual performance obligations into one single performance obligation and then is able to apply the “right to invoice” output approach as its method of measuring progress towards the complete satisfaction of that performance obligation, another practical expedient is provided such that the above disclosures, for the remaining transaction price, are not required.

How we see it

The proposed new revenue recognition model will increase the complexity in accounting for take-or-pay arrangements in which the customer is entitled to make-up volumes. In such situations, the entity will need to determine when it expects the customer to take these make-up volumes so it is able to assess whether the time value of money is significant. If the time value of money is determined to be significant, the entity will then need to have the appropriate processes and systems in place to be able to calculate and recognise the associated interest expense. Likewise, it will need to understand at what point such amounts can be recognised as revenue.

While it may also be possible that due to the breakage provisions, entities may be able to recognise revenue earlier than that currently achieved, robust evidence would be needed to support such a treatment. We also believe that to minimise divergence, some additional application is needed to clarify how the breakage provisions are to be applied.
Summary of take-or-pay arrangements

The proposed new revenue recognition model could have practical implications for, and may increase the complexity of, the accounting for take-or-pay arrangements. While, in some situations, the exact impact of the standard may still be unclear, the following impacts appear likely:

- For both fixed and variable price contracts, the inclusion of a number of new practical expedients, specifically those relating to the ability to bundle multiple distinct goods and services into one performance obligation and the ability to recognise revenue based upon invoiced amounts, seems to indicate that the accounting for these take-or-pay arrangements may not change from current practice.

- However, if an entity decides not to, or cannot use, the practical expedient for bundling – this may warrant different considerations and may lead to different outcomes.

- For variable price contracts the changes to the 2010 ED regarding allocation of variable consideration seem to have simplified the accounting for some aspects of these contracts and may mean the accounting will be the same as current practice.

- For fixed price contracts however, the revenue recognition profile of these contracts may change – but this will depend on how these contracts are priced, e.g., one fixed price compared to stepped prices, and how the standalone selling prices are to be determined.

- Where customers are entitled to make-up volumes, accounting for these will change, and could potentially become more complex.

- New disclosures will be required, which will mean an entity has to capture, collate and disclose new types of information.

Next steps

As the nature of contracts within the mining and metals sector varies significantly, as do their complexity, companies should familiarise themselves, not only with the matters outlined in this supplement, but also with the details of the new revenue recognition model in general. This will assist them in:

- Fully analysing the potential impact of these proposals on their common transactions.

- Identifying any situations where the accounting may not reflect the substance of a transaction or may be different from the current accounting.

And

- Identifying potential implementation issues.

This will also assist them in providing input to the IASB as they proceed to finalising the standard and in keeping their Audit Committee, Board and auditors apprised of the potential implications. Furthermore, entities should consider the process for communications with shareholders, analysts and other users.

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Ernst & Young’s Global Mining & Metals Center

With a strong but volatile outlook for the sector, the global mining and metals sector is focused on future growth through expanded production, without losing sight of operational efficiency and cost optimization. The sector is also faced with the increased challenges of changing expectations in the maintenance of its social license to operate, skills shortages, effectively executing capital projects and meeting government revenue expectations.

Ernst & Young’s Global Mining & Metals Center brings together a worldwide team of professionals to help you achieve your potential – a team with deep technical experience in providing assurance, tax, transactions and advisory services to the mining and metals sector.

The Center is where people and ideas come together to help mining and metals companies meet the issues of today and anticipate those of tomorrow. Ultimately it enables us to help you meet your goals and compete more effectively. It’s how Ernst & Young makes a difference.

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