In depth
A look at current financial reporting issues

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New revenue guidance

Implementation in the engineering and construction industry

At a glance

Public companies must adopt the new revenue standards in 2018. Almost all companies will be affected to some extent by the new guidance, though the effect will vary depending on industry and current accounting practices. Although originally issued as a converged standard, the FASB and IASB have made slightly different amendments, so the ultimate application of the guidance could differ under US GAAP and IFRS.

The Revenue Recognition Transition Resource Group (TRG) has discussed various implementation issues impacting companies across many industries. These discussions may provide helpful insights, and the SEC expects registrants to consider them in applying the new guidance.

This publication reflects the implementation developments over the past few years and highlights certain challenges specific to companies in the engineering and construction (E&C) industry. The content in this publication should be considered together with our global Revenue guide, available at CFOdirect.com.

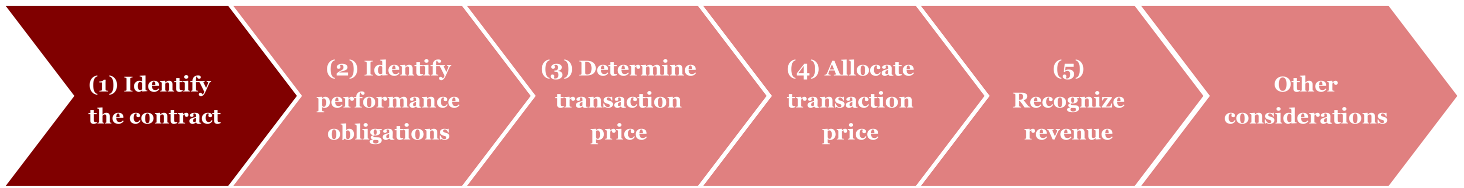
Overview

Companies in the E&C sector have historically followed industry-specific guidance[1] to account for revenue. These standards provide guidance on a wide range of considerations specific to long-term contracts, including:

- Defining the contract, including when to combine or segment them, and when and how to account for change orders and other modifications
- Defining the contract price, including variable consideration, and the impact of customer-furnished materials and claims
- Defining recognition methods, including the percentage-of-completion method (and in the case of US GAAP, the completed contract method) and input/output methods to measure performance
- Accounting for contract costs, such as pre-contract costs and costs to fulfill a contract

The revenue standards (ASC 606 and IFRS 15, *Revenue from Contracts with Customers*) will replace substantially all revenue guidance under US GAAP and IFRS, including the industry-specific guidance for construction-type and production-type contracts.

[1] ASC Topic 605-35, *Construction-Type and Production-Type Contracts* (US GAAP), and International Accounting Standard 11, *Construction Contracts* (IFRS).



1. Identify the contract

The first step in applying the new revenue standards is to identify the contract. In the E&C industry, this may be more complicated because multiple parties are often involved in a construction project and there may be multiple contractual arrangements between the parties and the ultimate end customer or among the various suppliers. Current guidance for construction-type and production-type contracts allows a company to combine contracts with different customers when certain criteria are met, such as when the contracts are economically linked. Conversely, a single contract may be segmented into, effectively, multiple contracts under certain circumstances.

The revenue standards require contracts entered into at or near the same time with the same customer (or related parties of that customer) to be combined when certain criteria are met. This means that contracts with different customers may no longer be combined, even if the contracts are economically linked. Management will need to carefully assess which parties are customers and whether the contracts meet the criteria to be combined. The revenue standards do not contain guidance on segmenting contracts; however, the new guidance broadly requires the identification of separate performance obligations within a contract, the allocation of consideration to the individual performance obligations and an independent measure of progress (revenue recognition) for each performance obligation. Thus, E&C companies that currently segment contracts may not see a significant difference in this regard.

The revenue standards also address contract modifications, which are common in the E&C industry (e.g., change orders). Contract modifications are accounted for as either a separate contract or as part of the existing contract, depending on whether (1) the modification adds distinct goods or services and (2) the distinct goods or services are priced at their standalone selling prices.

New standards	Current US GAAP	Current IFRS
Combining contracts Two or more contracts (including contracts with parties related to the customer) are combined and accounted for as one contract if the contracts are entered into at or near the same time and one or more of the following conditions are met: • The contracts are negotiated with a single commercial objective. • The amount of consideration in one contract depends on the other contract. • The goods or services promised are a single performance obligation.	Combining or segmenting contracts is permitted provided certain criteria are met, but it is not required so long as the underlying economics of the transaction are fairly reflected.	Combining or segmenting contracts is required when certain criteria are met.

New standards	Current US GAAP	Current IFRS
Contract modifications (for example, change orders (US GAAP) or variations (IFRS))		
A company will account for a modification if the parties to a contract approve a change in the scope and/or price of a contract. A contract modification is approved when the modification creates or changes the enforceable rights and obligations of the parties to the contract. If the parties have approved a change in the scope, but have not yet determined the corresponding change in price (for example, unpriced change orders), the company should estimate the change to the contract price as variable consideration (refer to the section *Determine the transaction price* below for further information on variable consideration). A contract modification is accounted for as a separate contract when the additional goods and services are distinct (refer to the section *Identify performance obligations* below for further information on distinct goods and services) and the contract price increases by an amount that reflects the standalone selling price (SSP) of the additional goods or services. If the additional goods or services are distinct, but not at SSP, the modification is accounted for prospectively. If the additional goods or services are not distinct, the modification is accounted for through a cumulative catch-up adjustment (see flowchart in PwC's guide, *Revenue from contracts with customers*, Section 2.9).	A change order is included in contract revenue when it is probable that the change order will be approved by the customer and the amount of revenue can be reliably measured. US GAAP also includes detailed revenue and cost guidance on the accounting for unpriced change orders (or those in which the work to be performed is defined, but the price is not).	A change order (known as a variation) is generally included in contract revenue when it is probable that the change order will be approved by the customer and the amount of revenue can be reliably measured. There is no detailed guidance on the accounting for unpriced change orders.

Example 1-1 - Change orders

Facts: A contractor has a single performance obligation to build an office building. During construction, the customer requests a change to the building design. Consistent with its customary business practices, the contractor commences work on the design change once they agree to the scope of the change, but before agreeing on the price (i.e., an unpriced change order).

How should the contractor account for the change order?

Analysis: A change order is a contract modification, so the contractor will first need to confirm that the change order is approved under the contract modifications guidance. Once approved, the contractor will need to determine whether the change order should be accounted for as a separate contract or as part of the existing contract. An unpriced change order is not usually accounted for as a separate contract based on the following:

- Change orders often don't provide distinct goods or services because they are not distinct within the context of the contract, but rather are part of the contractor's service of integrating goods and services into a combined item for the customer.
- The pricing of a change order often does not represent the standalone selling price of the additional goods or services.

Assuming that the unpriced change order cannot be accounted for as a separate contract, the contractor would need to consider the guidance on variable consideration. Refer to the section *Determine the transaction price* below for further information on variable consideration.

2. Identify performance obligations

A performance obligation is a promise to provide a distinct good or service or a series of distinct goods or services.

Judgment will be needed to determine whether all of the promises in a contract should be accounted for as a single combined performance obligation, particularly when assessing contracts such as engineering, procurement, and construction (EPC) or design and build contracts. In the E&C industry, many individual promises within an arrangement may be capable of being distinct, but, *in the context of a specific contract*, the promised good or service may not be separately identifiable from other promises in the contract (that is, the promise to transfer the good or service is not distinct within the context of the contract). The revenue standards provide a list of indicators for the contractor to consider in determining whether promised goods or services are separately identifiable.

Under current practice, contractors often account for contracts in the scope of construction accounting at the contract level (for example, an obligation to build a road or an oil refinery). Contracts are typically only segmented in specific, limited circumstances. The new standards' requirement to account for each individual performance obligation represents, at least semantically, a different starting point for the analysis – i.e., account for each performance obligation separately unless they are not distinct. However, given the high level of integration that is typically involved in these arrangements, companies may ultimately reach the conclusion that, in many cases, these contracts contain a single performance obligation.

New standards	Current US GAAP	Current IFRS
A company should assess the goods or services promised in a contract and identify as a performance obligation each promise to transfer to a customer either: a) A good or service (or bundle of goods or services) that is distinct b) A series of distinct goods or services that are homogenous that are substantially the same and have the same pattern of transfer to the customer.	The basic presumption is that each contract is the profit center for revenue recognition, cost accumulation, and income measurement. That presumption may be overcome only if a contract or a series of contracts meets specific conditions for combining or segmenting contracts.	The requirements of the standard are usually applied separately to each construction contract. That presumption is overcome when a contract or a series of contracts meets the conditions described for combining or segmenting contracts.

New standards	Current US GAAP	Current IFRS
A good or service is distinct if both of the following criteria are met: • The customer can benefit from the good or service either on its own or together with other resources that are readily available to the customer (that is, it's capable of being distinct). • The company's promise to transfer the good or service to the customer is separately identifiable from other promises in the contract (that is, the promise to transfer the good or service is distinct within the context of the contract). Factors that indicate that two or more promises to transfer goods or services to a customer are not separately identifiable include, but are not limited to, the following: • The company provides a significant service of integrating the goods or services with other goods or services promised in the contract into a bundle of goods or services. • One or more of the goods or services significantly modifies or customizes, or are significantly modified or customized by, one or more of the other goods or services. • The goods or services are highly interdependent or highly interrelated. ASC 606 states that a company is not required to separately account for promised goods or services that are immaterial in the context of the contract. IFRS 15 does not include the same specific guidance; however IFRS reporters should consider the overall objective of IFRS 15 and the application of materiality concepts when identifying performance obligations. We would not expect a GAAP difference in identifying performance obligations.		

Example 2-1 - Design and build contract

Facts: A contractor enters into a contract to design and build an airport terminal. The contractor is responsible for the design and overall management of the project, including engineering, site clearance, foundation, procurement, construction of terminal space, gates with loading bridges, customs and immigration, airline office space, distribution systems required for its operations, and installation of equipment and finishing. The terminal is being designed and constructed on infrastructure owned by the customer.

How many distinct performance obligations are in the contract?

Analysis: The contractor will likely conclude that the contract contains a single performance obligation because the promised goods and services in the contract are not distinct. The goods and services in the contract are capable of being distinct because the customer can benefit from each good or service on its own, or with readily available resources, since all of the goods and services are sold separately by other contractors in the market. However, the contractor is providing a significant service of integrating the goods and services into the combined item the customer contracted for; that is, the airport terminal. A contractor should also consider the utility of the promised goods or services (that is, the ability of each good or service to provide benefit or value). This is because a contractor may be able to fulfill its promise to transfer each good or service in a contract independent of the other, but each good or service may significantly affect the other's utility to the customer such that the combination of the design and build services are transformational in nature as opposed to being additive. Therefore, the goods and services are not separately identifiable.

In some circumstances, the contractor may conclude that the design services are distinct from the build activities if the customer has rights to the design and could, in practice, provide the design to another construction contractor to complete the build activities. This might be the case if the design and build services are not iterative in nature and the customer is truly making a separate procurement decision—for example, when negotiating the contract the customer is given a choice regarding whether to procure the design services only as opposed to the design and build services being marketed as one integrated offering.

Example 2-2 - Procurement of equipment

Facts: Assume the same fact pattern as Example 2-1 except that the contract requires the contractor to procure equipment from a subcontractor and perform a significant integration service to integrate the equipment into the airport terminal. The installation and integration of the equipment continues throughout the contract.

How many distinct performance obligations are in the contract?

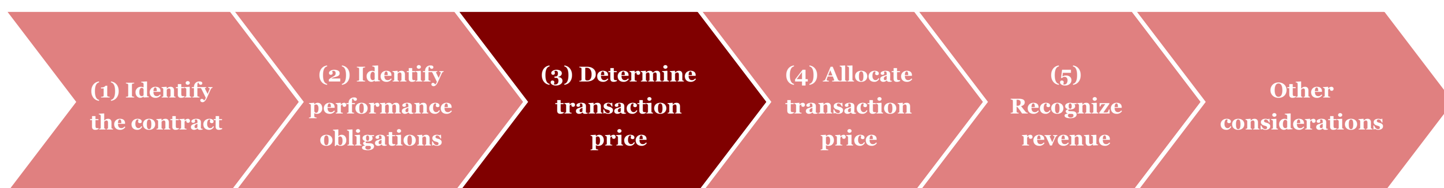
Analysis: The contractor will likely include the procurement and integration of the equipment in the single performance obligation already identified (i.e., building the airport terminal). The procured equipment is highly interrelated with the rest of the bundled goods and services and providing them to the customer requires the contractor to also provide significant services of integrating them into the combined item the customer has contracted to receive.

Example 2-3 - Provision of maintenance services

Facts: Assume the same fact pattern as Example 2-2 except that the contract requires the contractor to provide maintenance services on the specialized equipment and the airport terminal after construction is complete. Also, assume that this arrangement does not fall within the scope of the guidance for service concession arrangements. The maintenance services consist of regularly-scheduled maintenance of the terminal and equipment. Major overhaul services are not within the scope of this contract.

How many distinct performance obligations are in the contract?

Analysis: The contractor will likely identify two performance obligations: (1) combined design/build services (including the specialized equipment), and (2) the maintenance services. In determining whether the maintenance services are distinct from the design/build services, the contractor would likely conclude that the maintenance services are separately identifiable because the maintenance services are not integrated with or highly interdependent on the design/build services and do not significantly modify or customize the design and construction of the airport terminal.



3. Determine the transaction price

Variable consideration

The transaction price (or contract revenue) is the consideration the contractor expects to be entitled to in exchange for satisfying its performance obligations. This determination is more complex when the contract price is variable. Common considerations for E&C companies include the accounting for awards or incentive payments (possible increases to revenue), penalties (possible decreases to revenue), change orders or variations, customer-furnished materials (gross versus net question), and claims and liquidated damages (possible decreases to revenue / payments to customer). When it is probable (US GAAP) or highly probable (IFRS) that a significant reversal in the amount of cumulative revenue recognized will not occur in the future, revenue related to variable consideration should be included in the transaction price. Although the terminology differs, "highly probable" under IFRS means the same as "probable" under US GAAP. Whether a reversal would be "significant" should be assessed at the contract level (rather than at the performance obligation level or in relation to the financial position of the company). Management should therefore consider revenue recognized to date under the contract when evaluating the significance of any potential reversal of revenue. Refer to TRG Memo No. 14, *Variable Consideration*, and the related meeting minutes for further discussion of this topic.

Existence of a significant financing component

Long-term contracts with various payment terms are common in the E&C industry. Under the revenue standards, companies will need to assess the timing of customer payments in relation to the transfer of goods or services. A difference in the timing of when payments are made in relation to when goods and services are transferred could indicate that a contract contains a significant financing component. Financing may be provided by either party - so a seller could recognize less revenue (and record interest income) or more revenue (and record interest expense). In either case, total revenue would be different than the consideration received from the customer.

Identifying a significant financing component in a contract may require judgment. It could be particularly challenging in a long-term arrangement when product or service delivery and cash payments occur throughout the term of the contract over an extended period of time. A significant financing component does not exist in all situations that include progress payments or a difference in timing between payments and transfer of goods and services. In particular, amounts retained by the customer in a long-term arrangement (commonly referred to as "retainage" or "retention") are usually intended to provide the customer with a form of security that the seller will perform as specified under the contract, rather than to provide the customer with a significant financing benefit. Refer to TRG Memo No. 30, *Significant Financing Components*, and the related meeting minutes for further discussion of this topic.

New standards	Current US GAAP	Current IFRS
Awards / incentive payments / liquidated damages Awards and incentive payments contingent upon a contractor's performance are variable consideration. Liquidated damages provisions can be thought of as negative incentive payments. These amounts are included in the transaction price using either the expected value (i.e., probability-weighted) approach or most likely amount approach, whichever is more	Awards/incentive payments should be included in contract revenue when the specified performance standards are probable of being met or exceeded and the amount can be reliably measured.	Awards/incentive payments should be included in contract revenue when the specified performance standards are probable of being met or exceeded and the amount can be reliably measured.

predictive. However, any amounts so included are subject to the constraint on variable consideration—i.e., only if it is probable (US GAAP) or highly probable (IFRS) that a significant reversal in the amount of cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is subsequently resolved. A company's past experience with similar types of performance obligations is relevant in making that assessment.		
Unpriced change orders and variations A company will account for a modification if the parties to a contract approve a change in the scope and/or price of a contract. A contract modification is approved when the modification creates or changes the enforceable rights and obligations of the parties to the contract. If the parties have approved a change in the scope, but have not yet determined the corresponding change in price (for example, unpriced change orders), the company should estimate the change to the contract price as variable consideration.	A change order is included in contract revenue when it is probable that the change order will be approved by the customer and the amount of revenue can be reliably measured. US GAAP also includes detailed revenue and cost guidance on the accounting for unpriced change orders (or those in which the work to be performed is defined, but the price is not).	A change order (known as a variation) is generally included in contract revenue when it is probable that the change order will be approved by the customer and the amount of revenue can be reliably measured. There is no detailed guidance on the accounting for unpriced change orders.
Customer-furnished materials The value of goods provided by a customer (for example, materials, or equipment) to facilitate the fulfillment of the contract is included in contract revenue (as noncash consideration) if the seller (contractor) obtains control of these goods or services. Under US GAAP, noncash consideration is measured at fair value at contract inception. IFRS does not specify the measurement date for noncash consideration; therefore, management should apply judgment to determine the measurement date. Different conclusions might be reached under US GAAP and IFRS.	The value of customer-furnished materials is included in contract revenue when the contractor has the associated risk for these materials.	There is no explicit guidance on the accounting for non-cash consideration in the construction contracts standard. Management follows general principles on nonmonetary exchanges, which generally require companies to use the fair value of goods or services received in measuring the amount to be included in contract revenue.

Claims Claims for overruns are accounted for as variable consideration and included in the transaction price subject to the variable consideration constraint—i.e., not probable/highly probable of a significant reversal.	A claim is recorded as contract revenue when it is probable and can be estimated reliably (determined based on specific criteria), but only to the extent of contract costs incurred. Profits on claims are not recorded until a change order is approved by the customer or they are otherwise realized.	A claim is included in contract revenue only if negotiations have reached an advanced stage such that it is probable the customer will accept the claim and the amount can be reliably measured.
Significant financing component The transaction price should be adjusted whenever the contract includes a significant financing component. As a practical expedient, a company may ignore consideration of whether a significant financing component exists if the period between payment and the transfer of the promised goods or services is one year or less.	Revenue is discounted in only limited situations, including receivables with payment terms greater than one year.	In practice, revenue is discounted when the inflow of cash or cash equivalents is deferred.

Example 3-1 - Variable consideration – unpriced change orders

Facts: Assume the same facts as Example 1-1 in which the unpriced change order does not result in a separate contract.

How should the contractor account for the unpriced change order?

Analysis: The contractor should account for the unpriced change order as variable consideration when the scope changes are approved. The contractor would estimate the corresponding change in the transaction price, using either the expected value method or the most likely amount method (whichever is more predictive; see ASC 606-10-32-8 (or IFRS 15.53) and PwC's guide, *Revenue from contracts with customers*, Section 4.3.1) provided that it is probable (US GAAP) or highly probable (IFRS) that a significant reversal in the amount of cumulative revenue recognized will not occur once the price of the change order is approved or otherwise more certain.

The contractor would update the transaction price through a cumulative catch-up adjustment because the remaining goods or services, including the change order, are not distinct and are part of a single performance obligation that is partially satisfied.

Example 3-2 - Variable consideration – award fees

Facts: A contractor enters into a contract for the expansion of an existing two-lane highway into a three-lane highway. The contract price is $65 million plus a $5 million award fee if the expansion is completed before the holiday travel season. The contract is expected to take one year to complete. The contractor has a long history of performing this type of highway work. If the job is not finished before the holiday travel season, the contractor receives no award fee. The contractor believes, based on its past experience, that it is 95% likely that the contract will be completed in advance of the holiday travel season.

How should the contractor account for the award fee?

Analysis: The award fee is variable consideration, which must be estimated by the contractor to determine the total transaction price. The contractor is likely to conclude, given the binary nature of the award fee (that is, the only possible consideration amounts are $65 million or $70 million), that the most likely amount method is the best predictor of the amount of variable consideration to include in transaction price. Given the contractor's expectation for receiving the award fee, the contract's transaction price would be $70 million—the fixed contract price of $65 million plus the $5 million award fee (most likely amount). This estimate would be regularly reassessed and adjusted, as appropriate, if the expected outcome changes from initial expectations.

The contractor would need to conclude that the variable consideration is not constrained. The contractor could support that conclusion by considering the following factors:

- The contractor has a long history of performing this type of work.
- It is largely within the contractor's control to complete the work before the holiday travel season.
- The uncertainty will be resolved within a relatively short period of time.

Example 3-3 - Claims

Facts: Assume the same fact pattern as Example 3-2 except that due to reasons outside of the contractor's control (for example, customer-caused delays), the cost of the contract far exceeds the original estimates, but a profit is still expected. Based on the underlying contractual terms, the contractor has an enforceable right to be paid for additional direct costs incurred due to customer-caused delays and, therefore, submits a claim against the customer to recover a portion of these costs. The claim process is in its early stages, but the contractor has a long history of successfully negotiating claims with customers, although sometimes at a discount from the amount sought. Amendments due to customer-caused delays are not contract modifications.

How should the contractor account for the claim?

Analysis: If the contractor has a history of successful negotiations of similar claims or with the same customer, it might conclude that some amount of the claim is not probable (US GAAP) or highly probable (IFRS) of significant reversal when the uncertainty is resolved.

However, claims subject to negotiations with third parties often have a wide range of possible outcomes. Even if the contractor has significant experience in successfully negotiating claims, it may be challenging to assert that claims with unrelated customers have predictive value to negotiations with any other customer. This is an area of the revenue standards that requires significant judgment.

Example 3-4 - Significant financing component – retainage (or retention)

Facts: A contractor enters into a contract for the construction of a hospital that includes progress payments based on various contractual milestones. The performance obligation to construct the hospital will be satisfied over time (refer to the section *Recognize revenue* below for further information on the satisfaction of performance obligations over time) and the payment milestones are estimated to coincide with the contractor's recognition of revenue. The contract specifies that the customer will retain 5% of each milestone payment with the retainage due to the contractor upon completion.

Does the contract include a significant financing component?

Analysis: The contractor will likely conclude that the contract does not include a significant financing component because the milestone payments are estimated to coincide with the provision of goods and services and consequently, the amount of revenue to be recognized. With respect to the retainage provisions, the contractor will likely conclude that the delayed payment terms are for reasons other than to provide financing to the customer—that is, the retainage is intended to provide the customer with some security against the contractor failing to adequately complete some or all of its obligations under the contract.

4. Allocate the transaction price

The transaction price is allocated to each performance obligation based on the relative standalone selling prices of the goods or services being provided to the customer. A common challenge in the E&C industry will be the allocation of variable consideration (for example, award or incentive payments) associated with only one performance obligation, rather than the contract as a whole. A company may allocate variable consideration entirely to specific performance obligations when certain conditions are met.

New standards	Current US GAAP	Current IFRS
The transaction price (and any subsequent changes in estimate of the transaction price) is allocated to each separate performance obligation based on the relative standalone selling price of each performance obligation. The best evidence of a standalone selling price is the observable price of a good or service when sold separately. The standalone selling price should be estimated if the actual selling price is not directly observable. The standard does not prescribe a specific estimation method. For example, a contractor might use cost plus a reasonable margin to estimate the selling price of a good or service. A company should maximize the use of observable inputs when estimating the standalone selling price. Companies may use a residual approach to estimate the standalone selling price if the standalone selling price of a good or service is highly variable or uncertain. A company should also allocate a discount entirely to one or more, but not all, performance obligations if all of the following criteria are met: • The company regularly sells each distinct good or service (or each bundle of distinct goods or services) in the contract on a standalone basis. • The company also regularly sells on a standalone basis a bundle (or bundles) of some of those distinct goods or services at a discount to the standalone selling prices of the goods or services in each bundle. • The discount attributable to each bundle of goods or services is substantially the same as the discount in the contract, and an analysis of the goods or services in each bundle provides observable evidence of the performance obligations to which the entire discount in the contract belongs.	Except for allocation guidance related to contract segmentation, there is no explicit guidance on allocating contract revenue to multiple deliverables in a construction contract, given the presumption that the contract is the profit center for determining revenue recognition.	Except for allocation guidance related to contract segmentation, there is no explicit guidance on allocating contract revenue to multiple deliverables in a construction contract, given the presumption that the contract is the profit center for determining revenue recognition.

New standards	Current US GAAP	Current IFRS
Variable consideration (and subsequent changes in the measurement of that consideration) should be allocated entirely to a single performance obligation if: • Payment of the variable consideration under the contract relates specifically to the performance obligation; and • Such allocation is consistent with the overall allocation objective.		

Example 4-1 - Allocating contract revenue to more than one performance obligation

Facts: A contractor enters into a contract to build both a road and a bridge (assume there are two separate performance obligations: building the road and building the bridge). The contractor determines at inception that the contract price is $151 million, which includes a $140 million fixed fee and a variable award fee depending on how early the contractor finishes the project. The contractor will receive a base award fee of $10 million if it finishes the project 30 days ahead of schedule. The award fee increases (decreases) by 10% for each day before (after) the 30 days it finishes the project.

The contractor has experience with similar contracts. The contractor uses the most likely amount method to estimate the variable consideration associated with the award fee. Based on the contractor's prior experience and its current estimates, the contractor determines that it will finish the project 31 days ahead of schedule and be entitled to the $10 million award fee. The contractor uses the expected value method to estimate the additional variable consideration associated with the 10% daily penalty or incentive. The contractor believes it will be entitled to an additional 10% award fee, or $1 million, for total variable consideration of $11 million. The contractor concludes that it is probable (US GAAP) or highly probable (IFRS) that a change in estimate would not result in a significant revenue reversal in the future. The standalone selling price of the road, based on prior experience, is $140 million. The standalone selling price of the bridge, based on prior experience, is $30 million.

How should the contractor allocate the contract price to the two separate performance obligations?

Analysis: The contractor must first assign a standalone selling price to the construction of the road and the bridge in order to allocate the contract price (including both the fixed and variable amounts). The contractor constructs roads and bridges of a similar type and nature to those required by the contract on a standalone basis. Because the variable fee is based on completion of the overall project rather than either the road or the bridge individually, it would be subject to allocation to both performance obligations. The $151 million transaction price would be allocated as follows using a relative allocation model:

Road: $124.4m ($151m * ($140m / $170m))
Bridge: $ 26.6m ($151m * ($ 30m / $170m))

Example 4-2 - Allocating contract revenue – changes in the transaction price

Facts: Assume the same fact pattern as Example 4-1 except that the amount of variable consideration changes from an expected $11 million to an expected $13 million after contract inception. The changes are due to improved weather conditions during the construction period, and therefore an expectation that the contractor will complete the entire project earlier than expected.

How should the contractor allocate the change in the estimated contract price?

Analysis: The basis for allocating the transaction price to performance obligations (i.e., the percentage used to allocate based on relative standalone selling prices) does not change after contract inception. The additional $2 million of transaction price would be allocated to the road and bridge using the initially developed allocation percentages as follows:

Road: $1.6m ($2m * ($140m / $170m))
Bridge: $0.4m ($2m * ($ 30m / $170m))

The change in estimate would be recognized using a cumulative catch-up approach. For example, if the road was 90% complete and work on the bridge had not yet commenced when the estimate changed, the contractor would recognize additional revenue of $1.44 million ($1.6 million x 90%) for the portion of the performance obligation already satisfied for the road.

If the award fee was designated to only relate to the completion of the road, the contractor would allocate the entire award fee at contract inception and the change in the estimated contract price of $2 million to the road. The contractor would recognize additional revenue of $1.8 million ($2 million x 90%) in the period of the change of estimate for the portion of the performance obligation already satisfied for the road.

5. Recognize revenue

Under current US GAAP, contractors apply the percentage-of-completion method across the industry. The revenue standards contain specific criteria for assessing whether control transfers at a point in time or over time based on the terms of the arrangement (similar to IFRIC 15 under IFRS). While many construction-type contracts will transfer control of a good or service over time and therefore might warrant a similar pattern of revenue recognition as under existing guidance, a contract-by-contract analysis will be necessary to determine the appropriate timing of revenue recognition.

Once a contractor determines that a performance obligation is satisfied over time, it must measure its progress toward completion to determine the timing of revenue recognition using a method that best depicts the transfer of the goods or services to the customer. The company should consider the nature of the product or services provided and the terms of the contract, such as termination rights, the rights to demand or retain payments, and the legal title to work in process in determining the best input or output method for measuring progress toward satisfaction of a performance obligation. The guidance requires that companies apply a single method to measure progress for each performance obligation within a contract. It may be challenging to identify the measure of progress that best reflects the company's performance, particularly when the individual goods or services included in the single performance obligation will be transferred over different periods of time, such as the design and various construction and procurement activities. A company should consider the nature of its overall promise for the performance obligation to determine an appropriate measure of progress. In making this assessment, a company should consider why the individual goods or services are not distinct and accounted for as a single combined performance obligation. Refer to TRG Memo No. 41, *Measuring Progress when Multiple Goods or Services Are Included in a Single Performance Obligation*, and the related meeting minutes for further discussion of this topic.

Management may utilize various methods for measuring progress for different performance obligations and for different contracts but should select the method that best depicts the transfer of control of goods or services. The method can be either an input method (for example, cost incurred, labor hours) or output method (for example, units produced, milestones reached). The measure selected should depict the company's performance to date and should not exclude a material amount of goods or services for which control has transferred to the customer. Measuring progress based on units produced or units delivered, for example, might be a reasonable method for measuring the satisfaction of performance obligations in some, but not all, circumstances. These measures should not be used if they do not take into account work in process for which control has transferred to the customer. Refer to US TRG Memo No. 53, *Evaluating How Control Transfers over Time*, and the related meeting minutes for further discussion of this topic.

New standards	Current US GAAP	Current IFRS
Transfer of control Revenue is recognized upon the satisfaction of performance obligations, which occurs when control of the good or service transfers to the customer. Control can transfer at a point in time or, perhaps more common for the E&C industry, over time. A performance obligation is satisfied over time when at least one of the following three criteria is met: • The customer receives and consumes the benefits of the company's performance as the company performs. • The company's performance creates or enhances a customer-controlled asset. • The company's performance does not create an asset with alternative use to the company and the company has an enforceable right to payment for performance completed to date. The enforceable right to payment needs to be an amount that covers a company's cost plus a reasonable profit margin for work completed. A performance obligation is satisfied at a point in time if it does not meet the criteria above. Determining when control transfers will require judgment. Indicators that might be considered in determining whether the customer has obtained control of an asset at a point in time include: • Does the company have a present right to payment? • Does the customer have legal title? • Has the customer taken physical possession? • Has significant risks and rewards of ownership transferred to the customer? • Has the customer accepted the asset?	Revenue is recognized using the percentage-of-completion method when reliable estimates of the extent of progress toward completion, contract revenues, and contract costs are available. In addition to requiring reliable estimates, the percentage-of-completion method can be used in circumstances in which all of the following conditions exist: • Contracts executed by the parties normally include provisions that clearly specify the enforceable rights regarding goods or services to be provided and received by the parties, the consideration to be exchanged, and the manner and terms of settlement. • The buyer can be expected to satisfy all obligations under the contract. • The contractor can be expected to perform all contractual obligations. The percentage-of-completion method based on a zero-profit margin is used when reliable estimates cannot be made, but there is an assurance that no loss will be incurred on a contract (for example, when the scope of the contract is ill-defined, but the contractor is protected from an overall loss) until more precise estimates can be made. The completed-contract method is required when reliable estimates cannot be made.	Revenue is recognized using the percentage-of-completion method when the outcome of a construction contract can be estimated reliably. In the case of a fixed price contract, the outcome of a construction contract can be estimated reliably when all of the following conditions are satisfied: • Total contract revenue can be measured reliably. • It is probable that the economic benefits associated with the contract will flow to the entity. • Both the contract costs to complete the contract and the stage of contract completion at the end of the reporting period can be measured reliably. • The contract costs attributable to the contract can be clearly identified and measured reliably so that actual contract costs incurred can be compared with prior estimates. In the case of a cost plus contract, the outcome of a construction contract can be estimated reliably when all of the following conditions are satisfied: • It is probable that the economic benefits associated with the contract will flow to the entity, • The contract costs attributable to the contract, whether or not specifically reimbursable, can be clearly identified and measured reliably. The percentage-of-completion method based on a zero-profit margin is used when reliable estimates cannot be made, but there is assurance that no loss will be incurred on a contract (for example, when the scope of the contract is ill-defined, but the contractor is protected from an overall loss) until more precise estimates can be made.

New standards	Current US GAAP	Current IFRS
		Contract costs that are not probable of being recovered are recognized as an expense immediately. The completed-contract method is prohibited. Rather, when the outcome of a construction contract cannot be estimated reliably: • Revenue is recognized only to the extent of contract costs incurred that it is probable will be recoverable. • Contract costs are recognized as an expense in the period in which they are incurred.

In the E&C industry, one common input method uses costs incurred relative to total estimated costs to determine the extent of progress toward completion. It is often referred to as the "cost-to-cost" method. Under the new guidance, application of the "cost-to-cost" method can create the need for additional judgments related to the accounting for uninstalled materials and the recognition of contract costs (see discussion of warranties and mobilization costs below).

Uninstalled materials, as defined in the revenue standards, are certain materials acquired by a contractor that will be used to satisfy its performance obligations for which the cost incurred is not proportionate to the company's progress in satisfying the performance obligation. Such goods are often procured from third parties on an as-needed basis throughout the duration of the contract. In most cases, construction contractors attempt to schedule the receipt of those goods shortly before integrating them into the project. However, in some cases, due to extended lead times or delays in installation timing, materials may arrive on the job site in advance of the contractor's ability to install them. The criteria used to define such materials include all of the following:

- The good is not distinct.
- The customer is expected to obtain control of the good significantly before receiving services related to the good.
- The cost of the transferred good is significant relative to the total expected costs to completely satisfy the performance obligation.
- The company procures the good from a third party and is not significantly involved in designing and manufacturing the good (but the company is acting as a principal)

When all of these criteria are met, a more faithful depiction of a company's performance might be to recognize revenue equal to the cost of the uninstalled materials. Some of the key decision points E&C companies will need to consider in evaluating the accounting for uninstalled materials, relates to:

- Whether the materials might be considered inventory by the contractor (that is, costs for standard materials that are delivered in advance of installation but are able to be readily used by the contractor for other projects) or are highly customized and specific to the contract;
- Whether certain materials qualify for capitalization under other standards (i.e., inventory); and
- How to account for such materials when installed or when control transfers but installation has not yet occurred (i.e., "day 2").

The specific guidance around uninstalled materials may represent a change for many E&C companies and the interpretation of the transfer of control concept in this context continues to evolve.

Example 5-1 - Recognizing revenue

Facts: A contractor enters into a construction contract with a customer to build an oil refinery on the customer's land. The contract has the following characteristics:

- The oil refinery is highly customized to the owner's specifications and changes to these specifications by the owner are expected over the contract term.
- Non-refundable, interim progress payments are required as a mechanism to finance the contract.
- The customer can cancel the contract at any time (with a termination penalty); any work in process is the property of the owner.
- Physical possession and title do not pass until completion of the contract

The contractor determines that the contract has a single performance obligation to build the refinery.

How should the contractor recognize revenue?

Analysis: The contractor should recognize revenue over time for the performance obligation to build the refinery. This arrangement satisfies the second criteria for over-time recognition as the contractor's performance creates an asset that the customer controls. The customer controls the asset constructed on land that is owned by the customer, and it can make changes to the design specifications over the contract term. The contractor will have to select either an input or output method to measure the progress toward satisfying the performance obligation. An input method may be most appropriate, such as cost-to-cost or labor hours expended, for measuring progress towards satisfaction of the performance obligation. Given that most performance obligations in E&C contracts are not satisfied evenly throughout the performance period, the cost-to-cost input method is commonly used within the sector, and is expected to continue to be prevalent under the new guidance.

Example 5-2 –Maintenance services

Facts: Assume the same fact pattern as Example 5-1 except that the contract requires the contractor to provide daily maintenance services for a period of five years once the construction is completed. The company bills monthly for the labor and material costs. The contract provides for an annual incentive based on certain safety and cost-savings targets and there are no termination provisions.

What measure of progress should contractor use for the operations and maintenance performance obligation?

Analysis: The maintenance services would be a separate performance obligation. The maintenance services may qualify as a series of distinct services that are substantially the same and that have the same pattern of transfer such that they would be recognized over time, likely using an input method such as cost-to-cost or labor hours. Alternatively, the contractor could consider the "right to invoice" practical expedient in ASC 606-10-55-18 and IFRS 15.B16 if it has the right to invoice an amount that corresponds directly with the value to the customer of the company's performance completed to date. That practical expedient may be appropriate, for example, for an operations and maintenance contract when the amounts invoiced to the customer are based on labor hours incurred. Circumstances when the practical expedient may not be appropriate include the following:

- The maintenance service contract has variable consideration, such as a significant incentive provision which is assessed and paid by the customer only once or infrequently (e.g., upon achievement of contractual milestones, upon contract completion or only once each year).
- The contract (or performance obligation) is for the delivery of an integrated set of outputs (i.e., a functioning power plant) and the value transferred to date during the project does not correspond directly to the right to consideration from the customer.

Because of the annual incentive provisions in this maintenance contract, use of the practical expedient would not be appropriate.

Example 5-3 - Recognizing revenue – right to payment for reimbursement of costs only

Facts: A contractor enters into a contract with a customer to deliver a piece of specialized equipment with the following key terms:

- Customer can terminate the contract at any time.
- Customer makes a nonrefundable deposit at contract inception to cover the cost of materials that the contractor will procure to produce the specialized equipment.
- The contract precludes the contractor from redirecting the equipment to another customer.

- Customer does not control the equipment as it's manufactured in the contractor's factory.
- The contract contains one performance obligation.
- Customer is obligated to pay the contractor an amount equal to the costs incurred if the customer cancels the contract.

How should the contractor recognize revenue for this contract?

Analysis: Contractor should recognize revenue when control of the equipment transfers to the customer. The specialized equipment does not have an alternative use to the contractor because the contract has substantive terms that preclude it from redirecting the equipment to another customer. However, the contractor is only entitled to payment for costs incurred and, thus, does not have an enforceable right to payment for work completed to date. The contractor must be entitled to costs plus a reasonable margin for work completed to date in order to have an enforceable right to payment. Therefore, none of the criteria for over time recognition are met. Contractor should recognize revenue at a point in time.

Example 5-4 - Recognizing revenue – use of cost-to-cost

Facts: Assume the same fact pattern as Example 5-1. Additional contract facts are:

- Contract duration is three years.
- Total estimated contract revenue is $300 million.
- Total original estimated contract cost is $200 million.
- In Year One, Contractor incurs $120 million of cost. This amount includes $20 million related to wasted materials and rework caused by the contractor that were not planned or budgeted for when negotiating the contract. Thus, total estimated contract costs increase to $220 million.
- The contractor concludes that cost-to-cost is a reasonable method for measuring the progress toward satisfying its performance obligation

How much revenue and cost should the contractor recognize during the first year?

Analysis: The contractor should exclude any costs that do not depict its performance in transferring control of goods or services when determining the amount of revenue to recognize under a cost-to-cost model. Thus, the costs associated with the wasted materials and rework caused by the contractor should be excluded in this situation. These items represent inefficiencies in the company's performance rather than progress in satisfying the performance obligation, and should be excluded from the measure of progress unless they are planned or budgeted when negotiating the contract. The amounts of contract revenue and cost recognized at the end of year one would be:

Revenue:	$136m ($300m * ($100m / $220m))
Contract cost:	$120m
Gross contract margin:	$ 16m

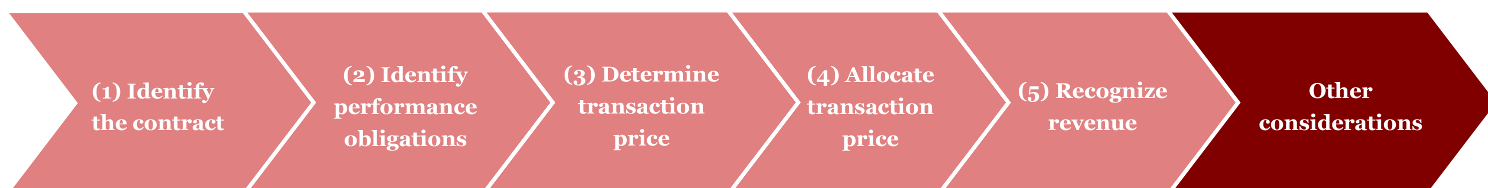
Example 5-5 - Recognizing revenue - use of cost-to-cost with changes in estimates

Facts: Assume the same fact pattern as Example 5-2 except that the total estimated cost to complete the contract increases at the end of the second year to $250 million due to an increase in the cost of materials. Actual cumulative costs incurred as of the end of the second year are $220 million (including the year-one inefficiencies of $20 million).

How much revenue and cost should the contractor recognize during the second year?

Analysis: The amount of contract revenue and cost recognized during the second year would be:

Cumulative revenue:	$240m ($300m * ($200m / $250m))
Revenue recognized year one:	$136m
Revenue recognized year two:	$ 104m
Cumulative costs:	$220m
Costs recognized year one:	$120m
Costs recognized year two:	$100m
Gross contract margin year two:	$ 4 ($104m - $100m)
Gross contract margin to-date:	$ 20m



Other considerations

Warranties

Most warranties in the construction industry provide coverage against latent defects. Under the revenue standards, warranties that provide assurance that a product will function as expected and in accordance with certain specifications are not separate performance obligations. Rather, these warranties, referred to as assurance-type warranties, are accounted for in accordance with other guidance (ASC 460, *Guarantees*, or IAS 37, *Provisions, Contingent Liabilities, and Contingent Assets*). Therefore, the estimated costs related to an assurance-type warranty are excluded from the estimated total costs in the company's measure of progress and accrued when or as the company transfers control of the goods or services to the customer.

New standards	Current US GAAP	Current IFRS
Warranties that the customer has the option to purchase separately give rise to a separate performance obligation. A portion of the transaction price is allocated to that separate performance obligation at contract inception. A warranty is accounted for as a cost accrual if a customer does not have the option to purchase it separately, unless the promised warranty, or a part of the promised warranty, provides the customer with a distinct service in addition to the assurance that the product complies with agreed-upon specifications. A company might provide a warranty that calls for a service to be provided to the customer (for example, maintenance) in addition to a promise that the company's past performance was as specified in the contract. The company will account for the service component of the warranty as a separate performance obligation in these circumstances. If a company promises both an assurance-type warranty and a service-type warranty but cannot reasonably account for them separately, the company should account for both of the warranties together as a single performance obligation.	Contractors typically account for warranties that protect against latent defects outside of contract accounting and in accordance with existing loss contingency guidance. A contractor recognizes revenue and concurrently accrues any expected cost for these warranty repairs. Revenue is deferred for warranties that protect against defects arising through normal usage (that is, extended warranties) and recognized over the expected life of the contract.	Contractors are required to account for the estimated costs of rectification and guarantee work, including expected warranty costs, as contract costs. However, contractors typically account for standard warranties protecting against latent defects outside of contract accounting and in accordance with existing provisions guidance. A contractor will recognize revenue and concurrently accrue any expected cost for these warranty repairs. Revenue is deferred for warranties that protect against defects arising through normal usage (that is, extended warranties) and recognized over the expected life of the contract.

Contract costs

Existing construction contract guidance contains a substantial amount of cost capitalization guidance, both related to pre-contract costs and costs to fulfill a contract. The revenue standards also include contract cost guidance that could result in a change in the measurement and recognition of contract costs as compared to today. Under the revenue standards, contractors will no longer be able to defer costs if the performance obligation qualifies for over-time recognition unless such costs qualify for capitalization based on either the costs to obtain or costs to fulfill the contract guidance. Importantly, costs incurred in satisfying a performance obligation are charged to expense as incurred. If a contractor uses a measure of progress other than cost-to-cost, this will likely result in uneven margins in individual reporting periods over the life of the contract. A company should select the method of measuring progress that best depicts the transfer of control of the goods and services.

Set-up and mobilization costs

Set-up and mobilization costs are direct costs typically incurred at a contract's inception to enable a company to fulfill its obligations under the contract. Set-up costs may include labor, overhead, or other specific costs. Some of these costs might meet the definition of assets under other standards, such as property, plant, and equipment. Costs not addressed by other standards should be assessed under the new revenue standard. Mobilization costs are a type of set-up cost incurred to move equipment or resources to prepare to provide the future services in an arrangement. Such costs generally include transportation and other expenses incurred prior to commencement of a service that would not have been incurred absent the contract. Management should consider whether the costs are costs to fulfill a contract that qualify for capitalization as an asset. Companies may also undertake preproduction activities that may transfer a good or service to the customer. Examples of set-up and mobilization-type costs in the E&C industry include:

- Temporary facilities for a construction project that are established on the customer's property, and the related requirements for such facilities, if any, as spelled out in the contract. Examples of such costs include:
  - Offices
  - Construction parking areas
  - Access roads
  - Utilities
- Moving equipment and people

E&C companies will need to evaluate whether such activities are providing a service or are preparing the contractor to provide the services.

New standards	Current US GAAP	Current IFRS
All costs related to satisfied performance obligations and costs related to inefficiencies (i.e., abnormal costs of materials, labor, or other costs to fulfill) are expensed as incurred. Incremental costs of obtaining a contract are costs that the company would not have incurred if the contract had not been obtained and are recognized as an asset if they are expected to be recovered. As a practical expedient, such costs may be expensed as incurred if the amortization period of the asset that the company otherwise would have recognized is one year or less. Costs to obtain a contract that would have been incurred regardless of	There is a significant amount of detailed guidance relating to the accounting for contract costs within the construction contract guidance. Pre-contract costs that are incurred for a specific anticipated contract may only be deferred if their recoverability from that contract is probable.	There is a significant amount of detailed guidance relating to the accounting for contract costs. Costs that relate directly to a contract and are incurred in securing the contract are included as part of contract costs if they can be separately identified, measured reliably and it is probable that the contract will be obtained. All other costs would be written off as incurred.

New standards	Current US GAAP	Current IFRS
whether the contract was obtained (for example, certain bid costs) are recognized as an expense when incurred, unless those costs are explicitly chargeable to the customer regardless of whether the contract is obtained. Direct costs of fulfilling a contract are capitalized under the revenue standards if not within the scope of other standards and if they relate directly to a contract, generate or enhance resources that will be used to satisfy future performance obligations and are expected to be recovered. Capitalized costs are amortized as control of the goods or services to which the asset relates is transferred to the customer, which may include goods or services to be provided under specific anticipated contracts (for example, a contract renewal).		

Example 6-1 - Accounting for contract costs

Facts: Assume the same fact pattern as Example 5-1. At the beginning of the contract, the contractor incurs certain mobilization costs amounting to $1 million and bid costs of $100,000. The contractor has concluded that such costs should not be accounted for in accordance with other standards (for example, inventory, fixed assets, or intangible assets). The contractor expects that construction performance will occur evenly over a two-year period.

How should the contractor account for the mobilization and bid costs?

Analysis: The contractor will need to exercise judgment to determine whether the mobilization costs:

- represent costs to fulfill a contract and qualify for capitalization as an asset to be amortized over the contract term or
- relate to mobilization activities that transfer a service to the customer and should be reflected in the measure of progress as incurred. This would be the case if the mobilization activities are either:
  - Distinct and represent a separate performance obligation; or
  - Are part of a combined performance obligation when such activities represent an input to form an overall output

If the contractor determines that the mobilization activities are a part of a combined performance obligation and it is using the cost-to-cost method of measuring progress, it will incorporate such costs in its measurement of progress towards completion.

If the contractor determines that the mobilization activities (i.e., moving equipment and people) are not providing a distinct good or service or are part of a combined performance obligation, the mobilization costs would be capitalized as costs to fulfill a contract if they: (a) relate directly to the contract; (b) enhance resources that will be used to satisfy future performance; and (c) are expected to be recovered. Judgment may be required to determine the goods or services to which the asset relates. Capitalized costs might relate to an entire contract, or could relate only to specific performance obligations within a contract. The contractor should apply an amortization method that is consistent with the pattern of transfer of goods or services to the customer. An asset related to a performance obligation satisfied over time should be amortized using a method consistent with the method used to measure progress and recognize revenue (that is, an input or output method). Straight-line amortization may be appropriate if goods or services are transferred to the customer ratably throughout the contract, but not if the goods or services do not transfer ratably.

Assuming the mobilization costs are capitalized, $500,000 would be amortized as of the end of year one (coinciding with 50% control transfer using a cost-to-cost method).

The accounting for bid costs is determined by whether such costs are chargeable to the customer regardless of whether the contract is won. Amounts that relate to a contract that are explicitly chargeable to a customer are a receivable if a company's right to reimbursement is unconditional. Costs that are not recoverable from the customer should be expensed as incurred.

Contract assets and liabilities

Existing construction contract guidance requires a contractor to record an asset for unbilled accounts receivable (US GAAP) or amounts recoverable from customers (IFRS) when revenue is recognized but not billed. The unbilled accounts receivable is transferred to a billed accounts receivable when the invoice is submitted to the customer. Under the revenue standards, if a contractor delivers services to a customer before the customer pays consideration, the contractor should record either a contract asset or a receivable depending on the nature of the contractor's right to consideration for its performance.

The transfer from a contract asset to an accounts receivable balance (when the contractor has a right to payment) may not coincide with the timing of the invoice (as would be required under the existing guidance, under which a receivable typically arises upon invoicing). Under the revenue standards, a receivable is recorded when a company has the unconditional right to the consideration at that time since payment is due based only upon the passage of time. Under the revenue standards, E&C companies will need to evaluate the appropriate balance sheet classification when the contractor has incurred costs and has the right to payment (right to invoice) but has not done so (e.g., delays in invoicing due to billing cycles).

New standards	Current US GAAP	Current IFRS
The company should present either a contract asset or a receivable, depending on the nature of the company's right for its performance, if a company recognizes revenue before the customer pays consideration. A contract asset is a company's right to payment in exchange for goods or services that the company has transferred to a customer when that right is conditioned on something other than the passage of time (e.g., the company's future performance). A receivable is a company's right to payment that is unconditional. If a customer makes a payment or an amount of payment is due before a company has satisfied its performance obligations, the company should present that amount as a contract liability. A contract liability is a company's obligation to transfer goods or services to a customer for which the company has received payment from the customer.	Unbilled receivables arise when revenues have been recognized as the performance of contract work is being performed, but the amount cannot be billed under the terms of the contract until a later date. Billings in excess of costs and estimated earnings represent obligations for work to be performed with the exception of when billings exceed total estimated costs at completion of the contract plus contract profits earned to date.	A contractor may have incurred contract costs that relate to future activities on the contract. Such contract costs are recognized as an asset provided it is probable that they will be recovered. Such costs represent an amount due from the customer. Advances received before the related work has been performed are recognized as a liability.

Onerous contracts

The revenue standards do not address the accounting for loss provisions on onerous contracts. Since IFRS 15 supersedes the accounting guidance for loss-making contracts under IAS 11, IFRS reporters will now account for onerous contracts in accordance with IAS 37, *Provisions, Contingent Liabilities and Contingent Assets*. US GAAP

reporters with contracts that are subject to existing industry- or transaction-specific guidance that addresses loss recognition will continue to apply that specific guidance to determine whether a loss should be recognized. Existing US GAAP guidance for construction-type and production-type contracts requires a loss assessment to be performed at the overall contract level unless the contract is segmented or combined. In ASU 2016-20, *Technical Corrections and Improvements to Topic 606,* the FASB clarified that the contract level is the lowest level required for determining loss provisions for construction-type and production-type contracts; however, companies may make a policy election to determine the provision for losses at the performance obligation level.

Disclosures

Regardless of the changes to a company's accounting, detailed quantitative and qualitative disclosure requirements are included in the new revenue standard that cover a range of topics, including the significant judgments made when measuring and recognizing revenue. The disclosure requirements are extensive and some will require significant judgment in application as well as the need to obtain data and information that may not have previously been captured within an organization's information systems. E&C companies will need to ensure that the existing processes and controls are amended to capture the necessary information. The disclosures include:

- Qualitative and quantitative information about performance obligations;
- Reconciliations of contract balances; and
- Significant judgments, and changes in judgments, made in applying the guidance to contracts with customers.

Performance obligations

E&C companies will find disclosures about performance obligations to be challenging given the long-term nature of the contracts and estimates required to recognize revenue over time. The revenue standards require a company to disclose qualitative information about its performance obligations, the amount of transaction price allocated to unsatisfied (or partially unsatisfied performance obligations), and either a quantitative or qualitative explanation of when the amount will be recognized as revenue. While most E&C companies currently track backlog, the definition of backlog is not consistently applied and is unlikely to be consistent with the amount of revenue associated with unsatisfied performance obligations under the new revenue standards. As such, companies may need to alter the information they collect to meet the disclosure requirements regarding remaining performance obligations in the revenue standards.

Reconciliation of contract balances

In the E&C sector, companies currently report billings in excess of costs and costs in excess of billings related to contracts in process. Those financial statement elements are similar in concept to contract liabilities and contract assets, respectively, under the revenue standards. However, there is at least one key difference under the new guidance: an entity must present any unconditional rights to consideration as a receivable, separate from any other contract assets. Therefore, certain amounts that were previously presented or included in costs in excess of billings may need to be presented as a receivable under the revenue standards.

E&C companies often enter into complex arrangements with their customers with payments due at different times throughout the arrangement. Companies may receive consideration from their customers in advance of performance on a portion of the contract and, on another portion of the contract, may perform in advance of receiving consideration. Contract assets and liabilities related to rights and obligations in a particular contract are interdependent and therefore should be recorded net—on a contract-by-contract basis—in the statement of financial position.

Given the large volume and high dollar value of contract assets and liabilities for companies within the E&C sector, an early assessment of the impacts of the new disclosure requirements is important. For example, the revenue standards require companies to disclose a reconciliation of contract balances including:

- Opening and closing balances and revenue recognized during the period from changes in contract balances
- Qualitative and quantitative information about the significant changes in contract balances

The purpose of these disclosures is to provide information about the amount of revenue that is recognized in the current period that is not a result of current period performance.

Significant judgments

The revenue standards include additional specific qualitative and quantitative disclosures regarding key judgements, such as the methods used to allocate transaction price. A company must disclose its key judgments, as well as changes

in those judgments, that significantly impact the amount and timing of revenue from its contracts with customers. Companies should disclose information about the methods, inputs, and assumptions used for allocating the transaction price, methods for measuring progress, and assessing the amount of variable consideration includable in transaction price.

Final thoughts

The above discussion does not address all aspects of the revenue standards. Companies should continue to evaluate how the revenue standards might change current business activities, including contract negotiations, key metrics (including debt covenants, surety and prequalification capacity calculations), taxes, budgeting, controls and processes, information technology requirements and accounting.

At the time of this publication, there are ongoing discussions within the sector as to how E&C companies can best operationalize the revenue standards in areas that may have a significant impact on E&C companies such as: variable consideration, number of separate performance obligations, uninstalled materials, warranties, definition of costs (e.g., mobilization activities, related costs), termination clauses and disclosures. E&C companies should keep these topics in mind as they complete their implementation of the revenue standards and continue to monitor developments and discussions regarding these topics.

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