

In depth

A look at current financial reporting issues



Revenue from contracts with customers

The standard is final – A comprehensive look at the new revenue model

Power and Utilities industry supplement

INT2014-02 (supplement)
May 8, 2015

What's inside:

Overview	1
Scope	2
Identify the contract with a customer	5
Identifying performance obligations	8
Determine the transaction price	11
Allocate transaction price to the performance obligations in the contract	14
Recognize revenue when (or as) the entity satisfies a performance obligation	16
Comprehensive example - application of the 5-step model	19
Presentation, disclosure, and transition	22

At a glance

On May 28, 2014, the FASB and IASB issued their long-awaited converged standard on revenue recognition. Almost all entities will be affected to some extent by the significant increase in required disclosures. But the changes extend beyond disclosures, and the effect on entities will vary depending on industry and current accounting practices.

In depthINT 2014-02 is a comprehensive analysis of the new standard. This supplement highlights some of the areas that could create the most significant challenges for power and utilities entities as they transition to the new standard.

Overview

Reporting entities in the power and utilities industry, including regulated and non-regulated power companies, will be affected by the new revenue recognition standard (the “new standard”), which replaces substantially all of the current U.S. GAAP and IFRS revenue recognition guidance. This power and utilities industry supplement discusses the key areas of interest to reporting entities in the power and utilities industry, including (1) whether or not tariff-based sales are within the scope of the new standard, (2) accounting for contract modifications, (3) allocation of a transaction price to the performance obligations within a contract, and (4) methods to be used to measure progress toward the complete satisfaction of a performance obligation.

On April 29, 2015, the FASB issued a proposed Accounting Standards Update (“the FASB proposal”) that would defer the effective date of the new standard. Public business entities, certain not-for-profit entities, and certain employee benefit plans would apply the guidance in the new standard to annual reporting periods beginning after December 15, 2017, including interim reporting periods within that reporting period. Earlier application would be permitted only as of annual reporting periods beginning after December 15, 2016, including interim reporting periods within that reporting period.

All other entities would apply the guidance in the new standard to annual reporting periods beginning after December 15, 2018, and interim reporting periods within annual reporting periods beginning after December 15, 2019. Application would be permitted earlier only as of an annual reporting period beginning after December 15, 2016, including interim reporting periods within that reporting period, or an annual reporting period beginning after December 15, 2016, and interim reporting periods within annual

reporting periods beginning one year after the annual reporting period in which an entity first applies the guidance in the new standard.

On April 28, 2015, the IASB voted to propose a deferral of the effective date of the new standard by one year until January 1, 2018. The IASB's proposal will retain the option for entities to early adopt the standard.

The FASB and IASB decisions are not final. The proposals are subject to each of the board's due process requirements.

Scope

The new standard applies to contracts with customers. A contract is an agreement between two or more parties that creates enforceable rights and obligations. Enforceability of the rights and obligations is a matter of law, and the contract can be written, oral, or implied by an entity's customary business practices. A customer is defined as a party that has contracted with an entity to obtain goods or services that are an output of the entity's ordinary activities in exchange for consideration. The new standard explicitly scopes out specific contracts with customers (e.g., lease contracts, insurance contracts, financial instruments, and other contractual rights and obligations, guarantees, and certain nonmonetary exchange transactions); however, all other customer contracts are within the scope of the new standard.

In many cases, an individual customer contract will require consideration of other accounting guidance, in particular, guidance on leases and derivatives. When evaluating customer contracts under the new standard, entities within the power and utilities industry will continue to apply the commodity contract accounting framework in the same manner as it would under current guidance. This is because the new standard will only govern those elements within a customer contract that are not within the scope of other guidance. The commodity contract accounting framework is discussed in detail in PwC's *[Guide to Accounting for Utilities and Power Companies \(U.S. GAAP\)](#)* and PwC's *[Financial reporting in the power and utilities industry \(IFRS\)](#)*.

The new standard indicates that a contract can be implied by customary business practice. We believe that this concept is relevant to tariff-based sales to regulated customers. Specifically, there is an implied contract between a customer and a utility for the purchase, delivery, and sale of electricity, gas, or water, despite the role that the regulator plays in establishing the rates and terms of service. While we believe that tariff-based sales to regulated customers are within the scope of the new standard, this scope question is currently being discussed by the AICPA Power and Utility Entities Revenue Recognition Task Force ("the Task Force"). The Task Force was assembled by the AICPA in order to provide guidance and illustrative examples to assist preparers in resolving identified implementation issues encountered in applying the new standard.

The following table summarizes certain common contractual arrangements in the power and utilities industry and whether they are expected to be in-scope or out-of-scope of the new standard.

Contract	In-scope or out-of-scope of the new standard	Commentary
Power sales agreement This includes arrangements where the normal purchase / normal sale scope exception (U.S. GAAP) or own use exemption (IFRS) applies.	In-scope	An independent power producer that sells electricity into the merchant market would likely apply the new standard. A generator that enters into a power sales agreement would likely apply the new standard to those elements in the contract that are not accounted for under other accounting guidance.
Revenue based on a regulated tariff	In-scope	There is an implied contract between a customer and a utility for the purchase, delivery, and sale of electricity, gas, or water, despite the role that the regulator plays in establishing the rates and terms of service. <u>Note:</u> As discussed above, while we believe that tariff-based sales to regulated customers are within the scope of the new standard, this scope question is currently being discussed by the Task Force.
Home services, including installation and maintenance of energy efficiency equipment	In-scope	Contracts for home services, such as water heater or energy efficiency installations or electronic home repairs and protection, are generally within the scope of the new standard. These are commonly contracted services with specifically defined obligations that are enforceable.

Rate-regulated considerations - U.S. GAAP only*

Revenue subject to refund as defined by ASC 980-605 (U.S. GAAP only)	Out-of-scope	U.S. GAAP specifies that revenue subject to refund arises in contracts between an entity and a regulator of utilities; not a contract between an entity and a customer. Existing U.S. GAAP guidance (ASC 980-605) was preserved by the new standard; however, the judgments should reflect the concepts of recognition under the new standard as opposed to warranties.
Alternative revenue programs, as defined by ASC 980-605 (U.S. GAAP only)	Out-of-scope	U.S. GAAP specifies that alternative revenue programs are contracts between an entity and a regulator of utilities; not a contract between an entity and a customer. Existing U.S. GAAP guidance (ASC 980-605) has been retained for the recognition of regulatory assets and liabilities from alternative revenue programs and to require that an entity present revenue arising from those assets and liabilities separately from revenues arising from contracts with customers on the face of the statement of comprehensive income.

*In September 2014, the IASB published a Discussion Paper to consider the common features of rate regulation and explore which of them, if any, creates a combination of rights and obligations that is distinguishable from the rights and obligations arising from activities that are not rate-regulated. The Discussion Paper does not include specific accounting proposals; rather, it explores several possible approaches that the IASB could consider when deciding how best to report the financial effects of a defined type of rate regulation in IFRS financial statements. Comments on the Discussion Paper were due by January 15, 2015. Feedback on the Discussion Paper was discussed at the March 2015 Rate Regulated Consultative Group meeting.

Example 1 – Contract with a customer that is partially within the scope of the new standard

Facts: Wisteria Wind Farm enters into a power purchase agreement (“PPA”) to sell 100% of the electricity output and the associated renewable energy credits (“RECs”) to Rosemary Gas & Electric. Wisteria’s accounting policy is that RECs are not considered output of its wind facility. The electricity element of this PPA is accounted for as a lease.

How should Wisteria Wind Farm account for its sale of electricity and RECs under its PPA with Rosemary Gas & Electric?

Discussion: The sale of electricity would be accounted for under ASC 840, *Leases*; therefore, the electricity element of the PPA would not be within the scope of the new standard. The sale of RECs is not a lease element because in this fact pattern, Wisteria’s accounting policy is that RECs are not an output of the wind facility; therefore, the REC element of the PPA would be within the scope of the new standard.

Sale of non-financial assets (e.g., real estate)

Power and utilities entities that sell non-financial assets (e.g., real estate) will have to evaluate all facts and circumstances in determining whether or not such sales are within the scope of the new standard. The new standard will apply to transfers of non-financial assets, which do not constitute a business, to a customer in the ordinary course of business. Transfers that are not an output of an entity’s ordinary activities are outside the scope of the new standard. Power and utilities entities applying U.S. GAAP should consider this guidance when evaluating sales of gas pipelines, power plants, and wind-farms. The appropriate recognition model to apply to these sales of real estate depends on several factors, as illustrated in the table below.

Scenario	Revenue recognition model
Scenario 1: Sales of non-financial assets to customers Sales of non-financial assets to customers in the ordinary course of business (e.g., generation facilities, etc.)	Apply the new standard to the entire transaction.
Scenario 2: Sales of non-financial assets to non-customers Sales of non-financial assets, outside of the ordinary course of business (non-customers), that do not constitute a business	Apply ASC 610-20 (U.S. GAAP) / IAS 16, IAS 38, or IAS 40 (IFRS), which requires entities to apply certain aspects of the new standard to determine: <ul style="list-style-type: none">• if an enforceable contract exists,• if control of the asset has transferred to the buyer, and• the amount of gain or loss to recognize when the asset is derecognized, considering any constraint on income due to variable consideration.
Scenario 3: Sales of businesses to non-customers Sales of a business, including real estate, to non-customers	Apply the derecognition model within the consolidation guidance (ASC 810 (U.S. GAAP) / IFRS 10 (IFRS)) to sales of businesses, including real estate, to non-customers.

Identify the contract with a customer

A contract with a customer should be accounted for pursuant to the new standard only when all of the following criteria are met:

- a. The parties to the contract have approved the contract and are committed to perform their respective obligations;
- b. The entity can identify each party's rights regarding the goods or services to be transferred;
- c. The entity can identify the payment terms for the goods or services to be transferred;
- d. The contract has commercial substance; and
- e. It is probable that the entity will collect the consideration to which it will be entitled in exchange for the goods or services that will be transferred to the customer.

If a contract with a customer meets the criteria above at contract inception, an entity should not reassess those criteria unless there is an indication of a significant change in facts and circumstances. If a contract with a customer does not meet the criteria above at inception, an entity should continue to assess the contract to determine whether the criteria above are subsequently met.

Combination of contracts

Power and utilities entities may need to evaluate whether they should account for two or more contracts with the same customer as a single contract. Combining contracts, when appropriate, helps to ensure that the unit of accounting is properly identified and the model is properly applied. For example, separate agreements to sell electricity and capacity to an individual counterparty that were executed on the same day might have a single commercial objective if either of the individual contracts would be loss-making without taking into account the consideration received under the other contract.

Contract modifications

Contract modifications, such as a "blend and extend" arrangement, are common in the power and utilities industry. In a blend and extend arrangement, the buyer and seller negotiate amended pricing of an existing contractual arrangement, including extending the term of the existing arrangement. It is common for the buyer to benefit from a lower blended price (original price blended with the extension period price which is at a lower rate per unit) and the seller to benefit from an extended term (original term plus the extension period term). Management will need to evaluate these types of modifications in order to determine how and when they will be accounted for under the contract modification provisions included within the new standard.

Included in the table below is a summary of the accounting treatment associated with combining contracts and contract modifications under the new standard, current U.S. GAAP, and current IFRS.

New standard	Current U.S. GAAP	Current IFRS
Combining contracts Two or more contracts (including contracts with parties related to the customer) should be combined and accounted for as one contract if the contracts are entered into at or near the same time and: <ul style="list-style-type: none">the contracts are negotiated with a single commercial objective;the amount of consideration in one contract depends on the price	Combining contracts that are not in the scope of certain industry-specific guidance (e.g., construction accounting) is required if they are with the same or related entities and are negotiated at the same time.	Combining contracts that are not in the scope of certain industry-specific guidance (e.g., construction accounting) is required when two or more transactions are linked and combination is necessary to reflect the commercial (that is, economic) substance of the transactions.

New standard	Current U.S. GAAP	Current IFRS
<p>or performance of the other contract; or</p> <ul style="list-style-type: none"> the goods or services promised are a single performance obligation. 		
<p>Contract modifications</p> <p>A contract modification is accounted for as a separate contract if:</p> <ul style="list-style-type: none"> the modification promises distinct goods or services; and the price of the contract increases by an amount of consideration that reflects the standalone selling price of the additional promised goods or services. <p>A modification that is not a separate contract is evaluated and accounted for either as:</p> <ul style="list-style-type: none"> a termination of the original contract and the creation of a new contract, if the goods or services are distinct from those transferred before the modification; a cumulative adjustment to contract revenue, if the remaining goods and services are not distinct and are part of a single performance obligation that is partially satisfied; or a combination of the preceding two approaches. 	<p>Guidance on accounting for contract modifications under current U.S. GAAP does not exist for most industries and arrangements; therefore, practice was mixed with regard to how entities accounted for contract modifications.</p>	<p>Guidance on accounting for contract modifications under current IFRS does not exist for most industries and arrangements; therefore, practice was mixed with regard to how entities accounted for contract modifications.</p>

Potential impact:

We expect that one of the most judgmental aspects of implementing the new standard for power and utilities entities will be applying the contract modifications guidance to arrangements, such as blend and extend arrangements. A reporting entity would likely account for a blend and extend arrangement in one of two ways:

- (1) a separate contract from the existing arrangement, if the modification results in an increase in the amount of distinct goods (e.g., units of electricity to be delivered) and the additional consideration reflects the reporting entity's standalone selling price of the additional promised goods, or
- (2) a termination of the existing agreement and the creation of a new agreement to be accounted for prospectively, if the modification results in an increase in the amount of distinct goods (e.g., units of electricity to be delivered), but the additional consideration does not reflect the reporting entity's standalone selling price of the additional promised goods (e.g., the price per unit of the new distinct goods are priced significantly lower than market).

We do not expect that typical blend and extend arrangements will require a cumulative catch-up adjustment to revenue as the electricity to be delivered in the extension period will generally represent additional distinct goods. A cumulative

catch-up adjustment might be required in some circumstances (e.g., a modification to a construction services arrangement that represents a single performance obligation).

Example 1 – Contract modification – Prospective basis

Facts: Power Sale Co. (“Seller”) and Electric Buy Co. (“Buyer”) are party to an existing arrangement for the purchase and sale of electricity. The contract term began on January 1, 20X0 and ends on December 31, 20X7 and the contract price and annual contract quantities were \$50/MWh and 87,600MWh (10MW per hour * 24 [hours per day] * 365 [days per year]), respectively.

Seller concluded that its obligation to sell electricity represents a single performance obligation that is satisfied over time (that is, the sale of electricity over the term of the agreement represents a series of distinct goods that are substantially the same and that have the same pattern of transfer to the customer). Refer to the section titled “Identifying performance obligations” for more information on identifying performance obligations and the section titled “Recognize revenue when (or as) the entity satisfies a performance obligation” for more information regarding the concepts of satisfying performance obligations and measuring progress toward complete satisfaction of a performance obligation.

On January 1, 20X2, two years into the agreement, Seller and Buyer negotiate a modification (that is, a blend and extend arrangement) to the existing arrangement, which extended the contract term by two additional years. The contract price and annual contract quantities for the purchase and sale of electricity during the additional two years is \$60/MWh and 87,600MWh, respectively.

How should Seller account for the transaction?

Discussion: If Seller concludes at the date of the contract modification that (1) the additional electricity to be delivered represents distinct goods and (2) the additional consideration of \$10,512,000 ($(\$60 \times 87,600 \text{ MWh})$ [year 9] + $(\$60 \times 87,600 \text{ MWh})$ [year 10]) reflects the standalone selling price of the additional promised goods, the blend and extend arrangement would be accounted for as a separate agreement. Accounting for this contract modification as a separate arrangement reflects the fact that there is no economic difference between the entities entering into a separate contract or agreeing to the modification to the existing arrangement. The Seller would continue to recognize revenue at \$50/MWh through December 31, 20X7 and then recognize revenue at \$60/MWh in 20X8 and 20X9.

If Seller concludes at the date of the contract modification that the additional electricity to be delivered represents distinct goods, but that the additional consideration of \$10,512,000 ($(\$60 \times 87,600 \text{ MWh})$ [year 9] + $(\$60 \times 87,600 \text{ MWh})$ [year 10]) does not reflect the standalone selling price of the additional promised goods, the blend and extend arrangement would be accounted for as a termination of the existing contract and the creation of a new contract on a prospective basis. In this case, the amount of total consideration to be recognized in the final six years of the existing arrangement (January 1, 20X2 – December 31, 20X7) and the additional two years (January 1, 20X8 – December 31, 20X9) is \$36,792,000 ($(\$50 \times 87,600 \times 6) + (\$60 \times 87,600 \times 2)$), or \$4,599,000 per year. Accounting for this contract modification on a prospective basis reflects the effective termination of the existing arrangement and the execution of a new arrangement.

Example 2 – Contract modification – Construction services arrangement – Cumulative catch-up adjustment

Facts: Gas Pipeline Co. (“Seller”) contracts with Energy Co. (“Buyer”) to construct a natural gas pipeline to transport natural gas from delivery point A to delivery point B. The contract requires Seller to construct the natural gas pipeline over a 24 month period at fixed price of \$150,000,000, with construction beginning on January 1, 20X0 and ending on December 31, 20X1. Total expected costs to construct the pipeline are expected to be \$110,000,000. The construction of the natural gas pipeline is a single performance obligation. At the end of the first year, Seller has incurred total costs of \$50,000,000 and Seller and Buyer agree to modify the grade of the steel used to construct the remainder of the natural gas pipeline, which will increase the transaction price and expected cost by \$10,000,000 and \$7,500,000, respectively.

How should Seller account for the modification?

Discussion: Seller should account for the modification as if it were part of the existing contract. The modification does not create a performance obligation because the remaining goods and services to be provided under the modified contract are not distinct. Seller should update its estimate of the transaction price and its measure of progress to account for the effect of the modification. This will result in a cumulative catch-up adjustment at the date of the contract modification.

Assuming that seller has (1) accounted for its obligation to construct the gas pipeline to connect delivery point A to delivery point B as a single performance obligation that is satisfied over time and (2) measured its progress toward complete satisfaction of its performance obligation via a cost-based input method, Seller would recognize cumulative revenue of \$68,085,106 ($\$160,000,000 [\$150,000,000 + 10,000,000] * (\$50,000,000 / \$117,500,000 [\$110,000,000 + \$7,500,000])$) for the year-ended December 31, 20X0. Refer to the section titled “Recognize revenue when (or as) the entity satisfies a performance obligation” for more information regarding the concepts of satisfying performance obligations and measuring progress toward complete satisfaction of a performance obligation.

Note: The accounting for contract modifications under the new standard is currently being discussed by the Task Force.

Identifying performance obligations

A performance obligation is a promise to transfer a distinct good or service, or a series of distinct goods or services that are substantially the same and have the same pattern of transfer, to a customer. The promise can be explicit or implicit based on an entity’s customary business practices. The objective of identifying and separating performance obligations is to recognize revenue when the performance obligations are satisfied (that is, goods or services are transferred to the customer). Distinct performance obligations identified within a customer contract are the units of account that determine when and how revenue is recognized. A series of distinct goods or services has the same pattern of transfer to the customer if (1) each distinct good or service in the series meets the criteria to be a performance obligation satisfied over time and (2) the same method would be used to measure the entity’s progress toward complete satisfaction of the performance obligation to transfer each distinct good or service in the series to the customer.

It is common for customer contracts within the power and utilities industry to contain multiple performance obligations; therefore, it is critical that power and utilities entities proactively evaluate their portfolio of customer contracts in order to identify those explicit, implicit, or implied promises to transfer a distinct good or service to a customer.

Included in the table below is a summary of the guidance relevant to the identification of performance obligations within customer contracts under the new standard, current U.S. GAAP, and current IFRS.

New standard ¹	Current U.S. GAAP	Current IFRS
Performance obligations An entity should separately account for performance obligations if the good or service is distinct, or if a series of goods or services are homogenous and meet both of the following criteria: <ul style="list-style-type: none"> Each distinct good or service in the series that the entity promises to transfer consecutively to the customer would be a performance obligation satisfied over time. A single method would be used to measure the entity’s progress 	Arrangements with multiple deliverables that are not in the scope of construction accounting are divided into separate units of accounting if the deliverables in the arrangements meet specific criteria. Separation is appropriate when the delivered item(s) has value to the customer on a standalone basis and the delivery of the undelivered item(s) is probable and substantially within the control of the vendor.	It is necessary to apply the revenue recognition criteria to each separately identifiable component of a single transaction in order to reflect the transaction’s substance. The customer’s perspective is important in determining whether the transaction has a single element or multiple elements.

¹ The FASB and IASB tentatively decided in February 2015 to amend and clarify the guidance on identifying performance obligations, including adding additional examples. For more information, see [In transition US2015-02](#).

New standard ¹	Current U.S. GAAP	Current IFRS
<p>toward satisfaction of the performance obligation to transfer each distinct good or service in the series to the customer.</p> <p>A good or service is distinct if both of the following criteria are met:</p> <ul style="list-style-type: none"> • 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. • The entity's promise to transfer the good or service is separable from other promises in the contract. <p>Factors that indicate that a good or service in a contract is separately identifiable include, but are not limited to:</p> <ul style="list-style-type: none"> • The entity is not using the good or service as an input to produce the combined output specified by the customer. • The good or service does not significantly modify or customize another good or service promised in the contract. • The good or service is not highly dependent on, or highly interrelated with, other promised goods or services. 		

Potential impact:

A promise to transfer electricity under a power sales agreement represents a promise to transfer a series of distinct goods that are substantially the same and that have the same pattern of transfer to the customer. This conclusion is based on the following factors:

1. The electricity is distinct as (a) a customer can benefit from electricity on its own (i.e., customer can sell electricity, on a standalone basis, into the marketplace, etc.) and (b) the promise to transfer electricity is separately identifiable from other promises in the contract.
2. The performance obligation to deliver electricity is satisfied over time as the customer simultaneously receives and consumes the benefits provided by the entity's performance as the entity performs. Refer to the section titled "Recognize revenue when (or as) the entity satisfies a performance obligation" for further discussion regarding the concept of satisfying a performance obligation over time.
3. Each delivery of electricity in the series that the entity promises to transfer to the customer meets the criteria to be a performance obligation satisfied over time and the same method will be used to measure the entity's

progress toward complete satisfaction of the performance obligation to transfer each distinct delivery of electricity in the series to the customer.

Arrangements to sell other commodities, including natural gas and physical capacity, over a contractual term may represent a series of distinct goods or services that are substantially the same and that have the same pattern of transfer to the customer. However, more judgment may be required to determine if they meet the definition of a performance obligation satisfied over time. Accounting for the transfer of a series of distinct goods or services as a single performance obligation has been discussed by the joint Transition Resource Group established by the FASB and IASB to assist preparers with potential implementation issues. For more information, see [*In transition US2015-04*](#).

The identification of performance obligations in power and utilities contracts under the new standard will require the application of judgment. Reporting entities commonly execute arrangements for the purchase and sale of multiple products, including electricity, capacity, ancillary services, and RECs. In evaluating these contracts, reporting entities will be required to consider whether or not each promise to transfer a good or service to the customer is distinct.

Example 1 – Identify the performance obligations (power purchase agreement)

Facts: Solar Sun Power Co. (“Solar”) sells electricity and RECs to Power Buyer Co. (“Buyer”) pursuant to a three year PPA. The PPA does not contain a lease. The electricity element of this PPA meets the definition of a derivative, but it is not accounted for as a derivative instrument because Solar elects the normal purchase / normal sale scope exception under U.S. GAAP. The RECs element of this PPA is also not accounted for as a derivative (e.g., net settlement characteristic is not met). As such, each element of this agreement is within the scope of the new standard.

Control, including title and risk of loss related to the electricity, transfers to Buyer upon delivery of the electricity at a single point within the electricity grid. Control, including title and risk of loss related to the RECs, transfers upon the completion of the transfer of RECs from Solar’s account to the Buyer’s account, which happens in the month following the month in which the associated electricity is delivered. Solar and Buyer frequently execute contracts for the purchase and sale of electricity and RECs on a standalone basis.

How many performance obligations are included in the PPA between Solar and Buyer?

Discussion: The electricity represents a promise to transfer to the customer a series of distinct goods that are substantially the same and that have the same pattern of transfer to the customer. The basis for its conclusion that the electricity represents one performance obligation that is satisfied over time is as follows:

1. Buyer can benefit from the electricity on its own (i.e., Buyer can sell electricity, on a standalone basis, into the marketplace, so the electricity is capable of being distinct);
2. The promise to transfer electricity is separately identifiable within the PPA (i.e., the electricity is distinct within the context of the contract);
3. The performance obligation to deliver electricity is satisfied over time as Buyer simultaneously receives and consumes the benefits of the electricity provided by Solar’s performance as Solar performs.
4. Each distinct transfer of electricity in the series that Solar promises to transfer to Buyer meets the criteria to be a performance obligation satisfied over time and the same method will be used to measure Solar’s progress toward complete satisfaction of the performance obligation to transfer electricity in the series to Buyer.

The monthly promise to transfer RECs to the customer during the term of the three year PPA (36 deliveries) represents goods that are distinct based on the following:

1. Buyer can benefit from the RECs on their own (i.e., Buyer can sell RECs, on a standalone basis, into the marketplace, so the RECs are capable of being distinct);
2. The promise to transfer RECs is separately identifiable within the PPA (i.e., the RECs are distinct within the context of the contract).

Each monthly promise to deliver RECs (36 deliveries) is a separate performance obligation that is satisfied at a point in time as none of the criteria are met to account for such promises as performance obligations satisfied over time.

Note: Many contracts in the power and utilities industry include the sale of electricity and capacity. These products are commonly sold on a standalone basis; therefore, management is likely to conclude that electricity and capacity

represent separate performance obligations, as long as the promises are separately identifiable within the contract. Judgment will need to be applied in making these determinations.

Refer to the section titled “Recognize revenue when (or as) the entity satisfies a performance obligation” for further discussion regarding the concept of satisfying a performance obligation over time.

Example 2 – Identify the performance obligations (design and build a power plant)

Facts: Plant Builder Co. (“Builder”) enters into a contract to design and build a power plant for its customer, Facility Owner Co. (“Owner”). Builder is responsible for the overall management of the project and identifies various goods and services that are provided, including architectural design, site preparation, electrical services, and turbine construction. Builder regularly sells these goods and services individually to customers.

How many performance obligations are in the contract?

Discussion: The bundle of goods and services should be combined into a single performance obligation. The promised goods and services are capable of being distinct because Owner could benefit from the goods or services either on their own or together with other readily available resources. The goods and services are capable of being distinct because Builder regularly sells the goods or services separately to other market participants and Owner could generate economic benefit from the individual goods and services by using, consuming, or selling them.

However, the goods and services are not distinct within the context of the contract because they are not separately identifiable from other promises in the contract. Builder provides a significant service of integrating the various goods and services into the power plant that Owner has contracted to purchase; therefore, the promised goods and services are not distinct.

Determine the transaction price

The transaction price is the amount of consideration that an entity expects to be entitled to in exchange for transferring promised goods or services to a customer, excluding amounts collected on behalf of a third party (i.e., certain sales taxes). The determination of the transaction price in many power and utilities contracts will be fairly straightforward, particularly when the contract pricing and contract quantities are fixed; however, in practice, reporting entities often enter into contracts that contain index-based pricing, variable volume, or both.

For example, Seller may enter into a requirements contract to sell electricity to Buyer at predetermined prices, but the volume is not known at contract inception and therefore, uncertainty exists with respect to the total consideration to be received by Seller over the term of the contract. In certain fact patterns, the Seller may be able to recognize revenue based on the amount invoiced, if it directly corresponds with the value to the customer of the Seller’s performance completed to date. Refer to the section titled “Recognize revenue when (or as) the entity satisfies a performance obligation” for further discussion on the concept of measuring progress toward the complete satisfaction of a performance obligation and the “as invoiced” practical expedient.

Contracts that contain forms of variable consideration, significant financing components, noncash consideration, and/or consideration payable to a customer are likely to be more complex and will require judgment.

Included in the table below is a summary of the guidance relevant to the determination of the transaction price within customer contracts under the new standard, current U.S. GAAP, and current IFRS.

New standard	Current U.S. GAAP	Current IFRS
Variable consideration		
An entity needs to determine the transaction price, which is the amount of consideration it expects to be entitled to in exchange for transferring promised goods or services to a customer, including an estimate of	The seller's price must be fixed or determinable for revenue to be recognized. Revenue related to variable consideration generally is not	Revenue is measured at the fair value of the consideration received or receivable. Fair value is the amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an

New standard	Current U.S. GAAP	Current IFRS
<p>variable consideration. The estimate of variable consideration should be based on the expected value or most likely amount approach (whichever is more predictive).</p> <p>Variable consideration included in the transaction price is subject to a constraint. The objective of the constraint is that an entity should recognize revenue as performance obligations are satisfied to the extent that a significant revenue reversal is not expected to occur. An entity will meet this objective if it is probable (U.S. GAAP) or highly probable (IFRS) that there will not be a significant downward adjustment of the cumulative amount of revenue recognized.</p> <p>Management will need to determine if there is a portion of the variable consideration (that is, a “minimum amount”) that would not result in a significant revenue reversal and that should be included in the transaction price. Management is required to reassess its estimate of the transaction price at each reporting period, including any estimated minimum amount of variable consideration it expects to receive.</p>	<p>recognized until the uncertainty is resolved. It is not appropriate to recognize revenue based on a probability assessment.</p>	<p>arm's length transaction.</p> <p>Trade discounts, volume rebates, and other incentives (such as cash settlement discounts) are taken into account in measuring the fair value of the consideration to be received.</p> <p>Revenue related to variable consideration is recognized when it is probable that the economic benefits will flow to the entity and the amount is reliably measurable, assuming all other revenue recognition criteria are met.</p>
<p>Significant financing component</p> <p>Contracts may contain a financing component because payment by a customer occurs either significantly before or significantly after performance. This timing difference can benefit either the customer, if the entity is financing the customer's purchase, or the entity, if the customer finances the entity's activities by making payments in advance of performance. An entity should reflect the effects of any significant financing benefit in the transaction price.</p> <p>Revenue recognized will be less than the cash received for contracts with significant customer financing, as a portion of the consideration received will be recorded as interest income. Revenue recognized will be greater than the cash received for contracts</p>	<p>Current U.S. GAAP does not require specific consideration of the presence of a financing component beyond consideration of the time value of money principle.</p>	<p>IAS 18 requires discounting when payment is deferred and the arrangement effectively constitutes a financing transaction.</p>

New standard	Current U.S. GAAP	Current IFRS
with significant seller financing, as interest expense will be recorded.		

Potential impact:

Variable consideration, in the form of a performance bonus, is commonly included in service contracts in the power and utilities industry (e.g., plant operations and maintenance services arrangements). When determining the transaction price, reporting entities should estimate the amount of consideration to which it will be entitled in exchange for transferring the promised services to a customer.

A reporting entity should estimate its variable consideration using the more predictive of the expected value method or the most likely amount method. The expected value method represents the sum of probability-weighted amounts for various possible outcomes. The most likely amount method represents the most likely amount in a range of possible outcomes. This is not intended to be a “free choice;” an entity needs to consider which method it expects to better predict the amount of consideration to which it will be entitled and apply that method consistently for similar types of contracts.

Power and utilities contracts will occasionally contain a significant financing component, the identification of which may be complex. If a long-term contract contains an implicit financing element, the transaction price should be adjusted for the effects of time value of money.

Example 1 – Variable consideration – performance bonus

Facts: Electric Company (“ElecCo”), an IFRS filer, and Rosemary Gas and Electric Company (“GasCo”) are party to an operations and maintenance service agreement whereby ElecCo is responsible for all operations and maintenance at GasCo’s generation facility. The contract term is for one year beginning January 1, 20X1 and ending on December 31, 20X1. Under the terms of the agreement, ElecCo receives a fixed fee of \$10,000,000 for its services and is entitled to a progressive performance bonus of \$250,000 if annual operations and maintenance costs, on a per MW basis (“costs per MW”), are at least 10% lower than the prior year, \$500,000 if costs per MW are 12% lower than prior year, and \$1,000,000 if costs per MW are 15% lower than prior year.

ElecCo’s service agreement with GasCo is similar to its other service agreements and management believes that its experience enables it to accurately predict the amount to which it will be entitled for its services, including amounts associated with the contractual performance bonuses. ElecCo concludes that the expected value method is most predictive in this case.

How should ElecCo determine the transaction price?

Discussion: The transaction price should include ElecCo’s estimate of the amount of consideration to which it will be entitled for the work performed. As ElecCo determined that the expected value approach is more predictive, the transaction price would be calculated as follows:

Probability-weighted consideration

\$11,000,000 (fixed fee plus \$1,000,000 performance bonus) * 20%	\$2,200,000
\$10,500,000 (fixed fee plus \$500,000 performance bonus) * 40%	\$4,200,000
\$10,250,000 (fixed fee plus \$250,000 performance bonus) * 40%	<u>\$4,100,000</u>
Total probability-weighted consideration	\$10,500,000

ElecCo assigned probabilities to the scenarios above based on its significant experience with similar contracts. The total transaction price of \$10,500,000 is reflective of the probability-weighted estimate. ElecCo will need to update its estimate at each reporting date. Based on ElecCo’s experience with similar contracts, management concluded that it was

highly probable that a significant reversal in the amount of cumulative revenue recognized would not occur if the full \$500,000 estimate of variable consideration were included in the transaction price; therefore, the variable consideration was not constrained. However, if ElecCo concluded that it was not highly probable that a significant reversal of cumulative revenue recognized would not occur, ElecCo may have concluded that none (or only a portion) of the variable consideration associated with the progressive performance bonus should be included in the transaction price.

Allocate transaction price to the performance obligations in the contract

Reporting entities within the power and utilities industry commonly execute agreements for the purchase and sale of electricity and other energy related products, including capacity, ancillary services, and RECs. It is common for these types of agreements, which are often referred to as “bundled arrangements,” to contain a fixed bundled price. When it is determined that a bundled arrangement contains multiple performance obligations, reporting entities will be required to allocate the transaction price to each separate performance obligation so that revenue is recorded at the right time and amounts.

Included in the table below is a summary of the guidance relevant to the allocation of the transaction price within customer contracts under the new standard, current U.S. GAAP, and current IFRS.

New standard	Current U.S. GAAP	Current IFRS
<p>The transaction price is allocated to separate performance obligations based on the relative standalone selling price of the performance obligations in the contract. The standalone selling price for items not sold separately should be estimated.</p> <p>A residual approach may be used as a method to estimate the standalone selling price in certain situations when the selling price for a good or service is highly variable or uncertain.</p> <p>Some elements of the transaction price, such as variable consideration or discounts, might affect only one performance obligation rather than all performance obligations in the contract. Variable consideration can be allocated to specific performance obligations if certain conditions are met, namely that the terms of the variable consideration relate specifically to the entity's efforts to satisfy the performance obligation or transfer the distinct good or service (or to a specific outcome from satisfying the performance obligation or transferring the distinct good or service).</p> <p>A discount is allocated to a specific performance obligation if the following criteria are met:</p>	<p>Consideration is allocated to the elements of a transaction based on the relative selling price method, with certain exceptions as described in ASC 605-25-30-4 and 30-5.</p> <p>Allocation to a delivered item is limited to the consideration that is not contingent on providing an undelivered item or meeting future performance obligations.</p>	<p>Consideration is generally allocated to the separate components in the arrangement based on a relative fair value or cost plus a reasonable margin approach. A residual or reverse residual approach may also be used.</p>

New standard	Current U.S. GAAP	Current IFRS
<ul style="list-style-type: none"> The entity regularly sells each distinct good or service in the contract on a standalone basis. The entity regularly sells, on a standalone basis, a bundle of some of those distinct goods or services at a discount. The discount attributable to the bundle of distinct 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 obligation to which the entire discount in the contract belongs. <p>An entity is required to allocate any subsequent changes in the transaction price on the same basis as at contract inception. Consequently, an entity should not reallocate the transaction price to reflect changes in standalone selling prices after contract inception.</p>		

Potential impact:

Power and utilities entities commonly sell products included in bundled arrangements on a standalone basis, including electricity, capacity, and RECs. As such, allocation of the transaction price to each performance obligation within a bundled arrangement will generally be based on the relative standalone selling price of each performance obligation, which represents the price at which a reporting entity would sell electricity, capacity, RECs, or any other product included in bundled arrangements separately to a customer.

Example 1 – Allocating the transaction price – standalone selling prices are directly observable

Facts: On January 1, 20X0, Power Seller Co. (“Seller”) agrees to sell 10MW of electricity during each hour and the associated RECs (one REC for each MWh) to Power Buyer Co. (“Buyer”) during the month of June 20X0 at a bundled price of \$200/MWh. The total transaction price equals \$1,440,000 (10MW per hour * 24 (hours per day) * 30 (days in June) * \$200/MWh). The electricity element of this contract meets the definition of a derivative; however, Seller elects the normal purchase / normal sale scope exception under U.S. GAAP. The RECs element of this contract is also not a derivative; therefore, the entire arrangement is within the scope of the new standard. Seller sells electricity and RECs to customers on a standalone basis for \$60/MWh and \$180/REC, respectively, which reflects the forward market prices at contract inception. Seller sells these products separately and they are separately identified within the agreement; therefore, they are distinct and accounted for as separate performance obligations.

How should Seller allocate the transaction price of \$1,440,000 to the performance obligations?

Discussion: Seller should allocate the transaction price of \$1,440,000 to the electricity and RECs based on their relative standalone selling prices as follows:

Electricity:	\$360,000	$(\$1,440,000 * (\$432,000 [7,200 \text{ (MWhs in June 20X0)} \times \$60/\text{MWh}] / \$1,728,000))$
RECs:	\$1,080,000	$(\$1,440,000 * (\$1,296,000 [7,200 \text{ (RECs in June 20X0)} \times \$180/\text{REC}] / \$1,728,000))$

Although the transaction price is \$1,440,000, on a standalone basis, the electricity and RECs would have been sold for a combined \$1,728,000 $((\$60 \times 7,200) + (\$180 \times 7,200))$. The allocation based on relative fair value results in the \$288,000 discount being allocated proportionately to the two performance obligations. There is an expectation that the discount will be applied proportionately between performance obligations unless there is evidence to the contrary in the arrangement.

Example 2 – Allocating the transaction price – estimating the standalone selling price

Facts: Home Maintenance Co. (“Seller”) enters into a contract to install, maintain, and verify energy efficiency equipment with Customer Co. (“Buyer”) for a transaction price of \$100,000. Seller regularly sells its installation and maintenance services on a standalone basis for \$25,000 and \$45,000, respectively. The verification services are a new service offering that Seller has not previously sold and does not have an established price; however, verification services are routinely sold by competitors of Seller for \$52,000. Given its position in the market of providing verification services (i.e., small market share), Seller determines that it would be required to sell verification services for \$55,000 in order to achieve profit margins that would make its verification service offering profitable. Seller concludes that the installation, maintenance, and verification services represent separate performance obligations.

How should Seller allocate the transaction price of \$100,000 to the performance obligations?

Discussion: Seller should allocate the transaction price of \$100,000 to the installation, maintenance, and verification services based on their relative standalone selling prices (or estimate thereof) as follows:

Installation services:	\$20,000	$(\$100,000 * (\$25,000 / \$125,000))$
Maintenance services:	\$36,000	$(\$100,000 * (\$45,000 / \$125,000))$
Verification services:	\$44,000	$(\$100,000 * (\$55,000 / \$125,000))$

Although the consideration is \$100,000, on a standalone basis, the services would have been sold for a combined \$125,000. The allocation based on relative fair value results in the \$25,000 discount being allocated proportionately to the three performance obligations.

Recognize revenue when (or as) the entity satisfies a performance obligation

Revenue recognition under current guidance is based primarily on the transfer of risks and rewards. Under the new standard, revenue is recognized upon the satisfaction of an entity’s performance obligations, which occurs when control of a good or service transfers to the customer. Control can transfer either at a point in time or over time. The change to a control-based standard will require careful assessment of when an entity should recognize revenue.

In a power sales agreement, a seller transfers controls of the electricity over time and the customer simultaneously receives and consumes the benefits provided by the seller’s performance as it performs; therefore, the seller satisfies its performance obligations and recognizes revenue over time. The seller should recognize revenue over time by measuring the progress toward complete satisfaction of its performance obligation to deliver electricity. The objective when measuring progress is to depict the seller’s performance in transferring control of the electricity to the customer.

Included in the table below is a summary of the guidance relevant to the recognition of revenue when (or as) the entity satisfies a performance obligation within customer contracts under the new standard, current U.S. GAAP, and current IFRS.

New standard	Current U.S. GAAP	Current IFRS
<p>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 over time or at a point in time.</p> <p>Over time A performance obligation is satisfied over time if any of the following criteria are met:</p> <ul style="list-style-type: none"> • The customer receives and consumes the benefits of the entity's performance as the entity performs. • The entity's performance creates or enhances an asset (work-in-process) that the customer controls as the asset is created or enhanced. • The entity's performance does not create an asset with an alternative use to the entity and the customer does not have control over the asset created, but the entity has a right to payment for performance completed to date. <p>An entity should recognize revenue over time only if the entity can reasonably measure its progress towards complete satisfaction of the performance obligation.</p> <p>Methods that can be used to measure an entity's progress toward complete satisfaction of a performance obligation satisfied over time include the following:</p> <p>Output methods – output methods recognize revenue on the basis of direct measurements of the value to the customer of the goods or services transferred to date relative to the remaining goods or services promised under the contract. Examples of such methods include the units delivered method and the invoiced amounts method (practical expedient).</p>	<p>U.S. GAAP permits the proportional performance method for recognizing revenue for service arrangements not within the scope of guidance for construction or certain production-type contracts. However, there is no clear guidance for assessing whether revenue should be recognized over time following the proportional performance method or upon completion of the service.</p> <p>Input measures, with the exception of cost measures, that approximate progression toward completion can be used when output measures do not exist or are not available to an entity without undue cost.</p> <p>Revenue is recognized based on a discernible pattern of benefit. If no pattern exists, a straight-line approach may be appropriate.</p>	<p>IFRS requires that service transactions be accounted for by reference to the stage of completion of the transaction. This method is often referred to as the percentage-of-completion method. The stage of completion may be determined by a variety of methods (including the "cost-to-cost" method).</p> <p>Revenue may be recognized on a straight-line basis if the services are performed by an indeterminate number of acts over a specified period of time and no other method better represents the stage of completion.</p> <p>The timing of revenue recognition could be impacted in instances where a specific act is much more significant than any other acts to be performed as part of the service.</p>

New standard	Current U.S. GAAP	Current IFRS
<p>Input methods – input methods recognize revenue on the basis of the entity’s efforts or inputs to the satisfaction of a performance obligation relative to the total expected inputs to the satisfaction of that performance obligation. Examples of such methods include the costs incurred method and the labor hours expended method.</p> <p>Point in time An entity will recognize revenue at a point in time (when control transfers) if performance obligations in a contract do not meet the criteria for recognition of revenue over time.</p>		

Potential impact:

In general, we expect that the obligation to purchase and sell electricity under a PPA will be viewed as a single performance obligation that is satisfied over time. As a result, a reporting entity will be required to measure its progress toward complete satisfaction of its performance obligation through application of a permissible form of the “output” or “input” method, as described in the new standard. The underlying economics and the contractual terms of the PPA, including the pricing and volume provisions, will influence the method to be selected by reporting entities. The method of measuring progress toward complete satisfaction of a performance obligation will directly impact the revenue recognized in each reporting period; therefore, reporting entities will need to ensure that the selected method faithfully depicts its performance toward complete satisfaction of a performance obligation.

The new standard includes a practical expedient that allows entities to recognize revenue in the amount at which the entity has a right to invoice, if that amount corresponds directly with the value to the customer of the entity’s performance to date. This would typically be the case when an entity bills a customer a fixed amount for each hour of service or for each unit provided. It may require judgment, in some circumstances, to determine whether the invoiced amount corresponds directly with the value to the customer, particularly if a contract contains variable pricing (for example, escalating pricing over the contract period). The accounting for revenue from contracts that contain escalating (or step) pricing under the new standard is an implementation issue that may result in further interpretative guidance, and preparers should monitor future developments on this topic.

Example 1 – Recognize revenue - measuring progress toward complete satisfaction of a performance obligation

Facts: Power Seller Co. (“Seller”) and Power Buyer Co. (“Buyer”) executed a PPA for the purchase and sale of electricity over a six year term. Buyer is obligated to purchase 10MW of electricity per hour for each hour during the contract term (87,600MWh per annual period) at prices that reflect the forward market price of electricity at contract inception. The contract prices are as follows:

- Years 1-2: \$50/MWh
- Years 3-4: \$55/MWh
- Years 5-6: \$60/MWh

The transaction price, which represents the amount of consideration to which the seller expects to be entitled in exchange for transferring electricity to the buyer, is \$28,908,000 (annual contract prices per MWh multiplied by annual contract quantities). Seller concludes that the promise to sell electricity represents one performance obligation that will be satisfied over time.

How should Seller recognize revenue under its PPA?

Discussion: As the performance obligation will be settled over time, Seller must select the method to be used to measure its progress toward complete satisfaction of its obligation to deliver electricity during the term of the PPA.

As discussed above, the standard includes a practical expedient that allows an entity to recognize revenue in the amount at which the entity has a right to invoice if that amount corresponds directly with the value to the customer of the entity's performance to date. Judgment may be required to conclude whether invoiced amounts correspond directly with the value to the customer, and application of the practical expedient may not be appropriate in this fact pattern. If Seller concludes that application of the practical expedient is appropriate, revenue would be calculated as follows:

Contract year	Revenue recognized	Computation
Year 1 and 2	\$4,380,000 per year	87,600MWh * \$50/MWh [contract price in year 1 and 2]
Year 3 and 4	\$4,818,000 per year	87,600MWh * \$55/MWh [contract price in year 3 and 4]
Year 5 and 6	\$5,256,000 per year	87,600MWh * \$60/MWh [contract price in year 5 and 6]

Note: If Seller concluded that the price escalation included in the contract does not reflect the value to be delivered to the customer in each year, Seller might choose to measure progress for revenue recognition purposes based on the "units delivered" method, which would result in the recognition of revenue on a consistent basis over the term of the contract based on progress toward complete satisfaction of the performance obligation. This might be an average price per unit based on total transaction price over the contract and the total expected units.

Comprehensive example – application of the 5-step model

Example 1 – Applying the 5-step model to a bundled arrangement

Facts: Bundle Seller Co. ("Seller") and Bundle Buyer Co. ("Buyer") executed an agreement for the purchase and sale of 10MW of electricity per hour and the associated RECs (one REC for each MWh) at a fixed bundled price ("the agreement" or "the PPA"). The contract term begins on January 1, 20X1 and ends on December 31, 20X4 and the fixed bundled price during each of those respective years is \$200, \$205, \$210, and \$215. The increase in the bundled price represents the increase in the forward price of electricity and RECs over the term of the agreement as of the acquisition date. Control, including title to, and risk of loss related to the electricity, will pass and transfer upon delivery at a single point on the electricity grid. Control, including title to, and risk of loss related to RECs, will pass and transfer upon the completion of the transfer of RECs from the Seller's account to the Buyer's account, which happens in the month following the month in which the associated electricity is delivered.

Seller and other market participants frequently execute contracts for the purchase and sale of electricity and RECs on a standalone basis.

Seller concluded that this arrangement does not contain a lease (i.e., no PPE is explicitly or implicitly identified). The electricity element of this arrangement meets the definition of a derivative as power is readily convertible to cash at the delivery location; however, Seller elects the normal purchase/normal sale scope exception. The REC element is non-derivative (i.e. no net settlement characteristic). As such, each element of this agreement is within the scope of the new standard.

Discussion:

Step 1 – Identify the contract with a customer

This agreement, including each of its elements (i.e., electricity and RECs), is within the scope of the standard and collection of the contract consideration is considered probable.

Step 2 – Identify the performance obligations

The electricity element represents a promise to transfer a series of distinct goods that are substantially the same and that have the same pattern of transfer to the customer; therefore, the electricity represents one performance obligation that is satisfied over time. This conclusion is based on the following factors:

1. The electricity is distinct as (a) Buyer can benefit from the electricity on its own (i.e., Buyer can sell electricity, on a standalone basis, into the marketplace) and (b) the promise to transfer electricity is separately identifiable from other promises in the contract (i.e., the electricity is not an input to produce or deliver a combined output to Buyer, the electricity does not significantly modify or customize another promise in the contract, and the electricity is not highly dependent on, or highly interrelated with, other promised goods in the agreement).
2. The performance obligations to deliver electricity are satisfied over time as the Buyer simultaneously receives and consumes the benefits provided by the entity's performance as the entity performs.
3. Each distinct transfer of electricity in the series that the entity promises to transfer to the Buyer meets the criteria to be a performance obligation satisfied over time and the same method will be used to measure the entity's progress toward complete satisfaction of the performance obligation to transfer each distinct good in the series to the Buyer.

The monthly promise to transfer RECs to the customer during the term of the PPA (48 deliveries) represents goods that are distinct based on the following:

1. Buyer can benefit from the RECs on its own (i.e., Buyer can sell RECs, on a standalone basis, into the marketplace, so the RECs are capable of being distinct);
2. The promise to transfer RECs is separately identifiable within the PPA (i.e., the RECs are distinct within the context of the contract).

Each promise to deliver RECs is a separate performance obligation that is satisfied at a point in time as none of the criteria are met to account for such promises as performance obligations satisfied over time.

Step 3 – Determine the transaction price

The transaction price is the amount of consideration to which an entity expects to be entitled in exchange for transferring promised goods to a customer. Under the terms of the arrangement, Seller will sell 10MW per hour during each hour of the four year contract term at fixed bundled prices, which escalate during each year of the contract term. The transaction price is \$72,708,000. The table below illustrates the computation to arrive at the transaction price.

Contract year	Contract price	Contract quantity (a)	Amount
1	\$200/MWh	87,600MWh	\$17,520,000
2	\$205/MWh	87,600MWh	\$17,958,000
3	\$210/MWh	87,600MWh	\$18,396,000
4	\$215/MWh	87,600MWh	\$18,834,000
Total		350,400 MWh	\$72,708,000

(a) Annual contract quantities were calculated as follows: 10 [MW per hour] * 24 [hours per day] * 365 [days per year].

Step 4 – Allocate transaction price to the performance obligations in the contract

The promise to transfer electricity to the customer represents one performance obligation that is satisfied over time; the monthly promise to transfer RECs to the customer represents individual performance obligations that are satisfied at a point in time. The transaction price should be allocated to each performance obligation based on the relative standalone selling prices of the goods being provided to the customer. To do so, Seller should determine the standalone selling price ("SSP") at contract inception of the distinct good underlying each performance obligation in the bundled arrangement and allocate the transaction price in proportion to those standalone selling prices.

As Seller frequently sells electricity and RECs on a standalone basis in the normal course of its operations, the price it charges for electricity and RECs when it sells them separately to similar customers is the best evidence of the SSP. As a result, Seller is not required to estimate or derive the SSP of either electricity or RECs; rather, it will use those SSPs for

purposes of allocating the transaction price, which reflects the forward prices as of the date in which the contract was executed.

SSP for the electricity and RECs was calculated as follows:

Year	SSP – electricity (a)	SSP – REC (a)	Quantity	Total SSP – electricity	Total SSP – REC	Total SSP
20X1	\$41/MWh	\$162/REC	87,600	\$3,591,600	\$14,191,200	\$17,782,800
20X2	\$43/MWh	\$165/REC	87,600	\$3,766,800	\$14,454,000	\$18,220,800
20X3	\$45/MWh	\$168/REC	87,600	\$3,942,000	\$14,716,800	\$18,658,800
20X4	\$47/MWh	\$171/REC	87,600	\$4,117,200	\$14,979,600	\$19,096,800
Total			350,400	\$15,417,600	\$58,341,600	\$73,759,200

(a) In this fact pattern, Seller has determined that the SSP for electricity and RECs represents the forward prices for electricity and RECs as of the date the contract was executed. The allocation is not updated for changes in the SSP of electricity and RECs subsequent to contract inception.

Seller would allocate the transaction price to the electricity, which represents one performance obligation satisfied over time, as follows:

Electricity: \$15,197,872 ($\$72,708,000 * (\$15,417,600 \text{ [SSP]} / \$73,759,200 \text{ [total SSP]})$)

Seller would allocate the transaction price to the RECs, which represent individual performance obligations that are satisfied at a point in time, as follows:

Year	Annual amounts (a)	Computation
20X1	\$13,988,950	$\$72,708,000 * (\$14,191,200 \text{ [SSP]} / \$73,759,200 \text{ [total SSP]})$
20X2	\$14,248,005	$\$72,708,000 * (\$14,454,000 \text{ [SSP]} / \$73,759,200 \text{ [total SSP]})$
20X3	\$14,507,059	$\$72,708,000 * (\$14,716,800 \text{ [SSP]} / \$73,759,200 \text{ [total SSP]})$
20X4	\$14,766,114	$\$72,708,000 * (\$14,979,600 \text{ [SSP]} / \$73,759,200 \text{ [total SSP]})$
Total	\$57,510,128	

(a) Immaterial difference may arise due to rounding.

The excess of the sum of the SSPs of the electricity and RECs (\$73,759,200) over the promised consideration (\$72,708,000) represents a discount that Buyer is receiving from Seller for purchasing a bundle of goods. By allocating based on the relative SSPs, the discount of \$1,051,200 is allocated proportionately to each performance obligation. The discount allocated to electricity is \$219,728 ($\$1,051,200 * (\$15,417,600 / \$73,759,200)$). The discount allocated to the performance obligations to deliver RECs in January and February 20X1 is \$17,177 ($\$1,051,200 * (\$14,191,200 * (31/365)) / \$73,759,200$) and \$15,515 ($\$1,051,200 * (\$14,191,200 * (28/365)) / \$73,759,200$), respectively. The aggregate discount attributable to the 48 performance obligations to deliver RECs is \$831,472 ($\$1,051,200 * (\$58,341,600 / \$73,759,200)$).

Step 5 – Recognize revenue when (or as) the entity satisfies a performance obligation

Seller should recognize revenue when (or as) it satisfies a performance obligation by transferring a promised good (that is, an asset) to the Buyer. An asset is transferred when (or as) the Buyer obtains control of that asset. Buyer obtains control of a good if it has the ability to direct the use of and obtain substantially all of the remaining benefits from that good.

Seller transfers control of the electricity over time and Buyer simultaneously receives and consumes the benefits provided by Seller's performance as it performs; therefore, Seller would satisfy its performance obligations and would recognize revenue on sales of electricity over time by measuring the progress toward complete satisfaction of its performance obligation to deliver electricity. The objective when measuring progress is to depict the Seller's performance in transferring control of the electricity to Buyer. Seller transfers control of the RECs at a point in time; therefore, Seller recognizes revenue in the month following the month in which the associated electricity is delivered.

As discussed above, the standard includes a practical expedient that allows an entity to recognize revenue in the amount at which the entity has a right to invoice if that amount corresponds directly with the value to the customer of the entity's performance to date. Judgment may be required to conclude whether invoiced amounts correspond directly with the value to the customer, and application of the practical expedient may not be appropriate in this fact pattern.

Revenue should be recognized when control is transferred for each performance obligation (i.e., electricity upon delivery to the electricity grid and RECs upon transfer into Buyer's account). If Seller concludes that application of the practical expedient is appropriate, Seller would recognize revenue on the first three monthly deliveries of electricity and RECs as follows:

Performance obligation	January 20X1	February 20X1	March 20X1	April 20X1	Total
Electricity revenue*	\$300,502	\$271,421	\$300,502		\$872,425
REC revenue**		\$1,187,498	\$1,072,579	\$1,187,498	\$3,447,575
Total	\$300,502	\$1,458,919	\$1,373,081	\$1,187,498	\$4,320,000

*Calculated as the product of fixed quantities delivered (7,440, 6,720, and 7,440 MWhs in January, February, and March, respectively) and the allocated per unit transaction price of \$40.39/MWh. The allocated per unit transaction price is the fixed bundled price (\$200.00) multiplied by the proportionate share of the relative SSP (\$3,591,600/\$17,782,800).

**Calculated as the product of fixed quantities delivered (7,440, 6,720, and 7,440 RECs in January, February, and March, respectively) and the allocated per unit transaction price of \$159.61/REC. The allocated per unit transaction price is calculated as the product of the fixed bundled price (\$200.00) multiplied by the proportionate share of and the relative SSP (\$14,191,200/\$17,782,800). Note that revenue is recognized in the period when RECs are transferred into Buyer's account, which happens in the month after the month in which the associated electricity is delivered.

The total amount of revenue recognized by Seller for the first three monthly deliveries of electricity and RECs (\$4,320,000) is equal to the sum of the three monthly invoices billed to Buyer in January, February, and March 20X1 of \$1,488,000 (10 [MW per hour] * 24 [hours per day] * 31 [days in January] * \$200 [bundled price]), \$1,344,000 (10 [MW per hour] * 24 [hours per day] * 28 [days in February] * \$200 [bundled price]), and \$1,488,000 (10 [MW per hour] * 24 [hours per day] * 31 [days in March] * \$200 [bundled price]), respectively; however, the timing of revenue recognition is different as a result of when control of each product is transferred to Buyer.

Note: In practice, a reporting entity's conclusions may differ from the above on similar bundled arrangements based on, among other factors, (1) the underlying economics of the arrangement, including the conclusion on whether the contractual pricing corresponds directly with the value to the customer over the contractual term, (2) the market constructs (e.g., RECs may not represent a separate performance obligation in all markets), (3) the composition of its sales portfolios (e.g., electricity or RECs may not be sold on a standalone basis; therefore, it may be necessary to estimate SSPs), and (4) conclusions regarding when control is transferred (e.g., a reporting entity might conclude, in certain facts and circumstances, that transfer of control of RECs occurs upon the transfer of control of the associated electricity).

Presentation, disclosure, and transition

Refer to [In depth US2014-01 - Revenue from contracts with customers](#) and the [PwC 2014 global accounting and reporting guide – Revenue from contracts with customers](#) for presentation, disclosure, and transition guidance associated with the new standard.

About PwC's Power and Utilities practice

PwC provides a full range of accounting and business advisory services to leading power and utilities reporting entities. Our professionals specialize in accounting and auditing, rate regulation, financial risk management, revenue assurance, taxation, transaction services, environmental regulation, Sarbanes-Oxley compliance, and other areas.

In addition, PwC is at the forefront of interpreting and understanding the technical impacts and implementation issues associated with new and constantly evolving accounting standards to reporting entities in the power and utilities industry.

For more information, please contact:

Michael (Casey) A. Herman

U.S. Power and Utilities Leader

Phone: 1 312 298 4462

Email: michael.a.herman@us.pwc.com

Michael Reuther

Global Power and Utilities Partner

Phone: +49 20 1438 1441

Email: michael.reuther@de.pwc.com

Questions?

PwC clients who have questions about this *In depth* should contact their engagement partner. Engagement teams who have questions should contact the authors of this document or the Revenue team in the National Professional Services Group (1-973-236-7804 or 1-973-235-4377).

Authored by:

Sean Riley

Partner

Phone: 1 973 236 7764

Email: sean.p.riley@us.pwc.com

Christopher Barello

Senior Manager

Phone: 1 973 236 7837

Email: christopher.barello@us.pwc.com

Jeffrey Normant

Senior Manager

Phone: 1 973 236 5627

Email: jeffrey.s.normant@us.pwc.com

David Humphreys

Partner

Phone: 1 617 530 7332

Email: david.humphreys@us.pwc.com

Andrea Allocco

Director

Phone: +44 20 7212 3722

Email: a.allocco@uk.pwc.com