Accounting for a Renewable Energy Power Purchase Agreement and the Associated Renewable Energy Credits

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A renewable energy power purchase agreement (PPA) is generally defined as a contract for the purchase of power and the associated renewable energy certificates (RECs) from a renewable energy generator (the seller) to a purchaser of renewable electricity (the buyer).[1] PPAs come in many forms, but most can be categorized as either physical or virtual.

Physical PPAs are settled by gross physical delivery[2] of electricity in exchange for periodic cash payments based on a fixed price agreed at contract inception for each unit of power delivered under the physical PPA. The fixed price is based on the prevailing forward market prices at contract inception.

Virtual PPAs (VPPAs) are periodically settled net in cash on the basis of the difference between the fixed price agreed at contract inception and a current market price on each periodic settlement date. No electricity is delivered physically.

When the renewable energy generator produces power from its renewable power facilities, it may receive a REC from a government body for each megawatt-hour (MWh) of electricity generated. RECs are market-based instruments certifying that the bearer owns one MWh of electricity generated from a renewable energy facility. RECs can be sold to others separate from the MWh produced and then resold (e.g., sold to other entities as a carbon credit to offset their own emissions).

Often the RECs generated from the renewable power facilities are included in a physical PPA or a VPPA and thus contractually required to be physically transferred to the counterparty of the physical PPA or the VPPA. The REC delivery obligation is usually indexed to a proportion of the volume of electricity in the physical PPA or the VPPA. The seller is compensated for the RECs delivered through the fixed price it receives under the contract. This means that a portion of the fixed price economically represents compensation for the RECs delivered.

The Group considered the following two fact patterns and discussed the accounting for both virtual and physical PPAs and the associated RECs.

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[1]Guide to Purchasing Green Power, United States Environmental Protection Agency, last modified September 15, 2021, https://www.epa.gov/greenpower/guide-purchasing-green-power.

[2] A contract can be subject to physical delivery in various ways, including sometimes through delivery to the customer's account. The discussion of what constitutes physical delivery is complex and outside the scope of this paper. For information on various factors, see Interpretation Committee, "IFRIC agenda decisions," *IFRIC Update*, August 2005: and the Interpretation Committee's agenda decision on Economic Benefits from Use of a Windfarm,

Fact Pattern 1

- Canadian Manufacturing Co. (CMC) uses electricity in its manufacturing and processing operations in Canada.
- Renewable Power Co. (RPC) designs, builds, and operates wind and solar power generation facilities in Canada. RPC enters into various types of contracts to sell the power it expects to generate from its facilities, including physical PPAs and VPPAs. Typically, the notional amount of a physical PPA or a VPPA is based on a proportion of the volume of electricity a facility produces (e.g., 30 per cent of windfarm production).
- When RPC produces power from its renewable power facilities, it receives a REC from a government body for each MWh of electricity generated. There is an open market for the RECs with observable prices such that RECs are considered readily convertible to cash.
- CMC enters into a VPPA with RPC. CMC makes or receives a cash payment in each settlement period equal to the difference between the fixed price per unit of power generated as defined in the VPPA and the spot price for power for 30 per cent of the output of a specific windfarm.
- As part of the VPPA, CMC will also receive RECs earned by RPC's facilities.

Issue 1: How should CMC account for the contract that includes both the VPPA and the RECs (mixed VPPA)?

View 1A– The right to receive RECs is an executory contract that qualifies for the "own use" scope exemption and the cash settled power contract is a standalone financial derivative

Proponents of this view think the rights to receive the RECs and the VPPA each represent a distinct unit of account for the following reasons:

- The rights to receive RECs and the VPPA can be transacted separately and serve different business purposes.
- The accounting for the right to receive RECs should not differ regardless of whether it is transacted separately or is bundled with a VPPA in the same contract.
- The RECs are detached from the VPPA shortly after they are generated as they are being delivered to the VPPA counterparty.

Under this view, CMC should treat the rights to receive RECs as an executory contract. The executory contract is exempt from the scope of IFRS 9 *Financial Instruments* as it meets the own use scope exemption in the standard.

Since the VPPA (apart from the RECs) is net cash settled and does not result in physical delivery of power, it does not qualify for the own use scope exemption. The VPPA meets the definition of a "derivative" in Appendix A of IFRS 9 because:

- the fair value of the VPPA changes in response to the change in the spot price of power;
- CMC is not required to make any upfront payment; and
- it is settled at a future date.

Therefore, the VPPA should be measured at fair value through profit or loss.

Opponents of this view think that:

- the mixed VPPA is one single contract. They note IFRS 9 is applied on a contract-by-contract basis. Therefore, IFRS 9 should be applied to the entire contract. In addition, they note although individual RECs are "detached" from the VPPA when they are delivered to the VPPA counterparty, the right to receive RECs over the remaining term of the VPPA is not contractually detachable from the VPPA;
- the value of the RECs is not independent from the value of the VPPA. They note that a portion of the fixed price to calculate the net settlement of the VPPA economically represents compensation for the RECs; and
- View 1A implies that an executory contract might have to be decomposed into two or more units of account when the pricing is variable and indexed to the current market price of a different item. When applying this thought process to other fact patterns, it could result in accounting outcomes that may not be appropriate.

View 1B– The mixed VPPA includes a non-financial host contract (the right to receive RECs) and an embedded price adjustment feature (the VPPA)

Proponents of this view think the mixed VPPA is a hybrid contract with the right to receive RECs as a non-financial host contract and the VPPA as the embedded derivative.

Under this view, CMC first evaluates whether the non-financial host contract meets the own use scope exemption in IFRS 9. If it does, then CMC will evaluate whether the VPPA needs to be separated from the host contract and accounted for as a derivative in accordance with paragraph 4.3.3 of IFRS 9.

Because the VPPA economically represents a net-cash settled swap on electricity prices, its economic characteristics and risks are not closely related to those of the host contract. As noted in View 1A, the VPPA meets the definition of a derivative. As a result, the VPPA is an embedded derivative that should be separated from the host contract and accounted for as a derivative.

Opponents of this view note that although RECs have become more valuable in recent years, the VPPA tends to be the economically more significant component. Therefore, it seems counterintuitive to treat the obligation to deliver RECs as the host contract.

View 1C– The mixed VPPA is a derivative contract

Proponents of this view think the rights to receive the RECs and the VPPA present a single unit of account. They think it is inappropriate to split a contract that is readily convertible into cash into one component that meets the “own use” scope exemption and another component that is accounted for under IFRS 9. Instead, the contract must be evaluated in its entirety to determine whether it meets the own use scope exemption.

Proponents of this view think if the VPPA component of the mixed VPPA is not closely related to the obligation to deliver RECs, the right to receive RECs does not qualify for the own use scope exemption. As such, the entire mixed VPPA contract does not qualify for the own use scope exemption.

Proponents of this view note that the mixed VPPA should be evaluated on the basis of its predominant characteristics. Given the VPPA component of the mixed VPPA is economically more significant and VPPA meets the definition of a derivative, the mixed VPPA should be accounted for as a derivative in its entirety.

Opponents of this view note that a separable embedded derivative should not preclude CMC from having an own use host contract. The host contract should be evaluated for embedded derivatives. In addition, they think the predominance of the VPPA component should not dictate the accounting for the host contract.

View 1D- Accounting policy choice

Proponents of this view think the accounting guidance is not clear. Therefore, CMC has an accounting policy choice among View 1A, 1B, or 1C, to be applied consistently.

The Group’s Discussion

Most Group members thought View 1B (i.e., the mixed VPPA includes a non-financial host contract and an embedded price adjustment feature) is the most technically accurate view. However, they also observed that the accounting outcomes between View 1A (i.e., right to receive RECs being a separate contract from the VPPA) and View 1B are similar. Under both views, the right to receive the RECs is accounted for as an executive contract and the VPPA is accounted for as a derivative.

One Group member noted that the differing views between View 1A and View 1B can impact CMC’s analysis when designating the mixed VPPA as measured at fair value through profit or loss (FVTPL). Under View 1A, CMC should apply the guidance in paragraph 2.5 of IFRS 9 to the stand-alone contract to purchase RECs and consider whether the contract is eligible to be designated as measured at FVTPL.

Some Group members commented that whether View 1A or View 1B is more appropriate depends on the structure of the contract and the entity’s business intention behind such structure. For example, when evaluating the accounting for the contract, entities should consider whether their

primary business purpose to structure the contract as a mixed VPPA is to fix the price of power to be used in its operations through the VPPA as opposed to acquire the RECs.

Issue 2: If the right to receive RECs is an executory contract with an embedded VPPA derivative, how should CMC account for the RECs?

Analysis

Once received, CMC's accounting for the RECs depends on how they are used.

Per paragraph 6 of IAS 2 *Inventories*, RECs may be accounted for as inventories if they are:

- held for sale in the ordinary course of business;
- in the process of production for such sale; or
- in the form of materials or supplies to be consumed in the production process or in the rendering of services.

If the RECs are not inventories, they may be accounted for as intangible assets in accordance with IAS 38 *Intangible Assets*.

The Group's Discussion

Group members agreed with the analysis.

Group members also discussed the subsequent accounting for the RECs that are intangible assets. Some Group members observed that in practice, entities that use carbon credits to offset their own emissions generally derecognize the RECs and recognize the associated expense when the RECs are cancelled. However, how and when entities cancel the RECs could impact the subsequent accounting for these credits.

Fact Pattern 2

- Similar to Fact Pattern 1, except CMC enters into a physical PPA in which it pays cash in each settlement period based on a fixed price agreed at contract inception.
- As part of the physical PPA, CMC will also receive RECs earned by RPC's facilities.

Issue 3: How should CMC account for its contract which includes both the physical PPA and the RECs (a mixed physical PPA)?

Analysis

CMC should assess whether the mixed physical PPA meets the own use scope exemption in IFRS 9.

To qualify for the own use scope exemption, the purpose of the mixed physical PPA should be for CMC to buy electricity in accordance with its expected usage requirements. If CMC has a past practice of settling similar PPAs net in cash or by taking delivery of the electricity and selling it in a

short period to generate a profit from short-term fluctuations in price or dealer's margin, then the mixed physical PPA would not satisfy the own use scope exemption.

If the IFRS 9 requirements for the own use scope exemption are met, the mixed physical PPA would be accounted as a purchase of electricity and RECs. The RECs would be accounted for as either inventory or intangible assets as discussed in Issue 2 above.

The Group's Discussion

Group members agreed with the analysis.

Overall, the Group's discussion raises awareness of the accounting for both virtual and physical PPAs and the associated RECs. No further action was recommended to the AcSB.