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## **Power Purchase Agreements**

### **Issues Paper**

#### **Objective**

- 1 This paper discusses the summary of the research made by the IASB staff on the prevalence and potential standard setting approaches towards power purchase agreements (PPA) and the recommendations to the IASB on how to move forward.
- 2 This paper has been prepared based on [IASB agenda paper AP3](#) of the IASB December 2023 meeting.
- 3 This paper is structured as follows:
  - (a) IASB staff recommendations and IASB tentative decisions
  - (b) Summary of research
  - (c) IASB staff analysis of possible approaches for narrow-scope standard setting
  - (d) High-level summary of the December IASB's meeting
  - (e) EFRAG Secretariat analysis

#### **IASB staff recommendations and IASB tentative decisions**

- 4 The IASB staff is of the view that PPAs are prevalent in multiple jurisdictions. They recommend the IASB to undertake narrow-scope standard-setting to amend IFRS 9 to better reflect the PPAs in the financial statements with the next project milestone to be an Exposure Draft.
- 5 The IASB staff recommend that the IASB further explore an approach to narrow-scope standard-setting that includes amending the own-use (see approach 1 in paragraphs 29 to 36) and hedge accounting requirements (see approach 2 in paragraphs 37 to 45) at the

same time. In their view, these approaches are not mutually exclusive and can be explored in combination.

- 6 At its December 2023 meeting, the IASB tentatively decided to agree with the IASB staff recommendation included in paragraph 5 above.

### Summary of research

- 7 The IASB staff identified two questions that were used as the framework for their research. The two questions are:
- (a) prevalence—whether the accounting challenges for PPAs are widespread and could, or are expected to, materially affect entities’ financial statements?
  - (b) scope—whether it would be possible to limit any potential standard-setting so that the amendments remain sufficiently narrow in scope and be completed in an efficient and timely manner?
- 8 The IASB staff consulted the Accounting Standards Advisory Forum (ASAF), the IFRS Interpretation Committee (IFRS IC), the large accounting firms and 31 stakeholders that provided insights into what both producers and off-takers of power consider when entering into PPAs.

### *Prevalence*

- 9 Nearly all of the consulted stakeholders confirmed that PPAs are increasingly being used for the long-term supply of power from renewable energy sources. This is because power producers and off-takers respond to jurisdictional requirements to transform their power consumption to renewable power. A stakeholder cited an article from [Bloomberg NEF](#) that includes statistics about the annual increase in the use of PPAs across different regions.
- 10 The research confirmed that PPAs are being used by entities 1) in almost all geographical regions, 2) across many industries and 3) of different sizes and levels of sophistication, which continue to evolve.
- 11 Many participants said that the type of PPAs an entity enters into depends on the set up or structure of the relevant power market. They can be broadly grouped into:
- (a) physical PPAs - where the off-taker has a contractual obligation to gross settle the volume of power delivered by the producer; and
  - (b) virtual PPAs - a contract for the settlement of the difference between that spot price and the contractually specified fixed price without any [right or] obligation to take gross delivery of a volume of power.

- 12 The key terms and conditions of PPAs include:
- (a) *contract length*: tend to be long term often ranging from 10 to 30 years. Often non-cancellable or subject to substantial early termination penalties;
  - (b) *pricing*: usually fixed but in some cases could also be adjustable over the term of the contract;
  - (c) *volume*: specified volume, proportionate amount the volume produced or could include maximum or minimum quantities. PPAs with renewable energy producers often require the off-taker to purchase all or a proportion of all the power produced from specified power production units (pay-as-produced);
  - (d) *net-settlement clauses*: some PPAs include net settlement clauses for periods of planned maintenance; and
  - (e) *renewable energy certificates (RECs)*: most PPAs for renewable power include the purchase of RECs. RECs are market-based instruments certifying that the bearer owns electricity generated from a renewable energy facility and can be sold to others separate from the electricity purchased. The price for the RECs is not always specified separately in the PPA.
- 13 Power producers explained that to secure affordable long-term financing for investments in renewable power infrastructure, they need to enter into long-term PPAs with off-takers that include predetermined prices over the whole tenor of the PPA. If such a structure could not be achieved in a PPA, the cost of capital of such projects would potentially be too high to attract financing.
- 14 From the off-takers' perspective, the key business drivers they consider when deciding to enter into a long-term PPA are:
- (a) access to supply of renewable power as part of their climate commitments; and
  - (b) stable/fixed input prices of power for their products.
- 15 With regards to transactions with the spot market to sell any power that an entity is unable to use, off-takers said that such transactions are never done with a profit objective in mind. This is because they do not have control over the timing, volume or price at which such sales and subsequent purchases are transacted at. On average, off-takers are almost always in a net purchase position (that is, they do not end up selling more power than what they use).

- 16 Almost all off-takers explained that they factor into the selling price of their goods any potential input cost that may arise from PPAs. Therefore, fixed price PPAs enable off-takers to have more stable input costs into their goods and services which enable them to manage their input costs and margins much better over time.
- 17 For this reason, stakeholders believe that the financial impact from supply contracts should be accounted for when transactions occur, as part of their 'cost of sales' or operating expenses. In their view, having the full valuation impact over the life of PPA is not providing useful information to users of the financial statements. Inclusion of the full fair value changes of the PPA (if accounted for as a derivative) would distort performance metrics and would require the use of non-GAAP measures. This is consistent with the limited feedback received by the IASB staff from investors.
- 18 Furthermore, because power prices could be quite volatile due to changes in commodity prices, recognising the fair value changes in profit or loss results in information that neither reflect the effect of PPA on their activities by fixing the cost of power, nor would it reflect the outcome of not having the PPA—in the absence of a PPA, all transactions for the purchase of power in the spot market would be presented as part of cost of sales or operating costs in the period in which the transactions occurred.
- 19 The key risks associated with PPAs for off-takers are:
- (a) Most physical PPAs are structured as 'pay as produced' contracts, which means the off-taker is bearing the production risk—if the power producer does not deliver sufficient power when the off-taker requires it, the off-taker must purchase additional power in the spot market that may be at a price higher than the price determined in the PPA. This situation is typically the case because at the time an off-taker requires power will be when most other off-takers also need power and prices are high. If the power producer generates power at a time when the off-taker does not need it—but is required to pay for it—the off-taker will need to sell the surplus power in the spot market at a price that may be lower than the price in the contract. This situation is typically the case because at the time when the off-takers do not need power, power is typically cheaper, for example in the evenings, nights or over weekends.
  - (b) A virtual PPA requires the off-taker to settle the difference between the agreed price in the PPA and the spot market price whenever power is delivered in the grid. There could therefore be a timing difference between settling the difference on a volume

of power produced and when the entity purchases that same volume of power from the spot market.

- 20 Off-takers considered that as power is an input into the prices of their goods and services, they would not necessarily consider a PPA to become onerous simply because the spot price is below the contracted fixed price. From their perspective, the input cost for power compared to the total product cost, would make it unlikely that even in an unfavourable price risk scenario the contract became onerous as the effect would likely be absorbed via the product pricing (i.e. they could increase the price of goods and services accordingly or accept a lower margin). As a result, these off-takers also did not think such contracts could likely become onerous in the future.

#### *Scope*

- 21 Some participants agreed that using characteristics of the underlying non-financial items to ring-fence the project could achieve a principle-based outcome, while some others questioned whether a list of characteristics could have unintended consequences with regards to other non-financial items or future developments.
- 22 A few participants suggested that to amend IFRS 9's own-use requirements management's intention with entering into the contract or a business model test are better approaches to ring-fence the project. A suggestion has also been made that management's intention could be used as a basis for applying the own-use requirements in paragraph 2.4 of IFRS 9 to a portion of PPA.
- 23 Participants suggested the unique characteristics of power included in paragraph 26 below. A few participants said that the physical or economic feasibility of the storage of power is not a viable characteristic because of possible future developments.
- 24 Some participants commented that, in their view, any potential standard-setting solution needs to result in the same accounting treatment for physical PPAs and virtual PPAs. This is because in their view, both types of PPAs are used for the same purposes and are economically very similar.
- 25 Feedback received by the IASB staff on the different potential approaches to narrow-scope standard-setting are included below under the corresponding heading.

#### **IASB staff analysis of possible approaches for narrow-scope standard setting**

- 26 In the IASB staff view, the scope of any potential narrow-scope amendments could be determined using the unique characteristics of the underlying item (power) and the market structure within which the item is transacted and could include:

- (a) neither the seller nor the purchaser fully controls the timing and volumes of the production of the non-financial item, resulting in short-term mismatches between supply and demand. Production could be sporadic and unpredictable (i.e. it is weather dependent), especially for each discrete interval at which power could be needed or used;
  - (b) the entity's usage or sales expectations can be predicted to a high degree of certainty over a period of time that might be shorter than contractual period; and
  - (c) if the non-financial item is delivered and the purchaser is unable to use the volume supplied, the market structure requires any unused power to be put back into the market at the prevailing market rate (the entity has no control over timing of sales).
- 27 If the nature of the non-financial item and the market structure have the characteristics listed above, potential narrow-scope amendments could include:
- (a) requirements for how an entity needs to assess expected usage in paragraph 2.4 of IFRS 9 (see paragraphs 29–36); and/or
  - (b) requirements for how an entity assesses whether a forecast transaction to buy or sell the non-financial item is 'highly probable' in accordance with paragraph 6.3.3 of IFRS 9 (see paragraphs 37–45).
- 28 However, in the absence of using the characteristics of the non-financial item and the market structure to determine the scope of potential narrow-scope amendments, an alternative approach could be to create an exception from the scope of IFRS 9 for PPAs (see paragraphs 46–50).

*Approach 1 – amend the 'own-use' requirements in IFRS 9*

- 29 This approach focusses on a potential amendment to the 'own use' requirements in paragraph 2.4 of IFRS 9. Where the underlying non-financial items display the characteristics as described in paragraph 26, the IASB staff considers it is currently not clear:
- (a) over which period an entity's expected usage requirements needs to be evaluated; and
  - (b) to what extent transactions in the spot market subsequent to delivery indicate that a PPA is or is not held for the purpose of an entity's own usage requirement.
- 30 Potential standard-setting could include adding application guidance that could consider clarifying that for the purposes of the 'own use' assessment an entity considers:

- (a) the purpose and reasons for entering into the contract (for example the structure and design of the contract meets an entity's expected usage requirements over the contract term);
- (b) the frequency and volume of transactions with the market other than those needed as a result of short-term mismatches between supply and demand;
- (c) evidence of actual vs. expected usage (for example if a purchasing entity is in a net buyer position) since inception of the contract; and
- (d) indications of trading intent (for example profit-driven sales).

31 In the IASB staff's view a physical PPA should not automatically fail to be considered held for own-use because of its unique characteristics. They do not consider the IASB would need to contemplate a broad range of commodity contracts to develop an approach focussing on the own use requirements. Furthermore, if there are other non-financial items, apart from power, that have these unique characteristics an entity should also consider the factors listed in paragraph 26 when assessing the own use requirements for those non-financial items.

#### *Advantages*

32 According to the IASB staff, following this approach would not be a fundamental change to the current own use requirements and be a narrow-scope amendment that could be finalised in an efficient manner. It would maintain the current discipline of the own use requirements as it would require the continuous assessment of the purpose of the PPA. It would also achieve an accounting outcome that is consistent with other executory contracts for which the underlying are also non-financial items which are delivered gross, without a significant risk of unintended consequences or disruption to current practices with regards to own use.

#### *Disadvantages*

33 There are no specific disclosure requirements for any contracts to which the own use requirements are applied. Given the unique characteristics of PPAs, investors might require additional information to be disclosed that will enable them to understand the timing, amount and uncertainty of future cash flows arising from these contracts.

34 Amending the 'own use' requirements would only resolve the practical concerns for physical PPAs but not for virtual PPAs.

*Feedback received by the IASB staff*

- 35 Participants to our research and the Committee members did not disagree that amendments to the own-use requirements in IFRS 9 can be made to clarify how an entity assesses expected usage.
- 36 Some IFRS IC members were concerned that the IASB may need to consider a broad range of commodity contracts before it can conclude that these characteristics will not result in unintended consequences.

*Approach 2 – amend the hedge accounting requirements in IFRS 9*

- 37 This approach focuses on the hedge accounting requirements in IFRS 9 for a forecast transaction and could include, among other potential clarifications, additional requirements on how to assess the requirement for a forecast transaction to be ‘highly probable’ for contracts where the underlying non-financial item have the characteristics as described in paragraph 26.
- 38 For example, by permitting the hedged item to be a forecast transaction where the entire output volume is unknown at the time of designation, it may enable a producer to more easily achieve hedge accounting when using a virtual PPA as the hedging instrument.
- 39 In addition, further amendments could for example require forecasted power purchases of the off-taker to be highly probable over the short-and medium term, while forecasted purchases (or sales) over the longer-term are expected/probable to occur.
- 40 The IASB staff acknowledge stakeholders’ suggestion that any amendments to the hedge accounting requirements be developed separate from any amendments to the own use requirements to not delay a solution addressing physical PPAs. However, in their view, separating a potential standard-setting solution into two projects may not be feasible because both approaches rely on the same underlying characteristics. Therefore, feedback and input on either approach, may affect the other.

*Advantages*

- 41 The ability to utilise hedge accounting for virtual PPAs would be consistent with an entity’s risk management strategy with respect to such contracts. For example, an entity whose objective it is to fix the price of the underlying non-financial item for the term of the virtual PPA would be able to reflect this in its financial statements by applying cash flow hedge accounting. Therefore, the effective portion would be recognised in other comprehensive income and any ineffectiveness would be recognised in profit or loss thus reflecting the economic reality of the virtual PPA.



- 42 It would also mean that the virtual PPA would continue to remain subject to the disclosure requirements in IFRS 7.

*Disadvantages*

- 43 The hedge accounting requirements set a high hurdle for forecast transactions as it results in a measurement exception for derivatives. Therefore, to be able to solve this challenge, the hedge accounting requirements may become even more complex which may trigger unintended consequences.
- 44 Furthermore, applying hedge accounting is voluntary and for entities not currently applying hedge accounting, the implementation costs may be high.

*Feedback received by the IASB staff*

- 45 Most participants in our research and many Committee members supported the IASB to consider standard-setting solutions for both physical PPAs and virtual PPAs having a project that includes the requirements for both own use and hedge accounting as part of the standard-setting solution.

*Approach 3 – Exception from the scope of IFRS 9 for PPAs*

- 46 This approach would create an exception from the scope of IFRS 9 for PPAs, either by excluding them from the definition of derivatives and/or adding a scope exclusion to paragraph 2.1 of IFRS 9. Such an exception:
- (a) would require a definition for PPAs to be developed;
  - (b) may include a ‘sunset clause’; and
  - (c) may include additional disclosure requirements.

- 47 This approach was suggested by many on the basis that it could provide a temporary exception, while the IASB continue to develop a longer-term solution as part of its project on PPAs.

*Advantages*

- 48 As this is a ‘rules-based’ approach, the project could progress relatively quickly.

*Disadvantages*

- 49 The IASB staff do not consider a rules-based temporary exception to be an appropriate measure because:
- (a) it does not remove the risk for unintended consequences or necessarily lead to a timelier solution. Any scope exclusion will require precise and careful wording to avoid structuring opportunities;

- (b) Once an instrument is excluded from the scope of IFRS 9 there would typically be no requirement to assess the purpose of the instrument on an ongoing basis. Therefore, if the purpose of the instrument changes subsequently, there might be reassessment required.
- (c) There is no conceptual basis to exclude virtual PPAs from the scope of IFRS 9 and this would create inconsistency with the accounting for other contracts for the settlement of differences or other derivatives.
- (d) Considering that PPAs are expected to increase within the next few years, should a future project require PPAs to be recognised in the statement of financial position, it will place a lot of pressure on any potential transition requirements at that time to balance practicality of implementation and the usefulness of information to users of financial statements.
- (e) The IASB just recently completed its Third Agenda Consultation. Adding a large standard-setting project to the IASB's workplan may only be feasible during its next agenda consultation (from 2027 onwards)

*Feedback received by the IASB staff*

- 50 A few stakeholders were concerned that a principle-based approach to narrow-scope standard-setting could have unintended consequences that the IASB would only be able to resolve through extensive research. Many Committee members suggested the IASB could respond timeously to current concerns by making use of an exception and address the broader conceptual questions of how to apply the own-use requirements and hedge accounting requirements to non-financial items that lack physicality.

*Other approaches discussed by the IASB staff – bifurcation of contracts*

- 51 The IASB staff has considered, but do not recommend, an approach based on applying the own use requirements to a portion of a PPA for the following reasons:
- (a) Such an approach would split the unit of account of the contract. It would not only represent a fundamental change to the current requirements in IFRS 9, but also carry a significant risk of unintended consequences. This is because this approach is not unique to PPAs and could equally be applied to other contracts;
  - (b) Such an approach would require detailed requirements including ongoing assessment of the own use portion;
  - (c) It could give rise to questions similar to those that lead to the submission to the Committee. For example, if at inception of a PPA 80 per cent of a contract is

designated for own use but subsequent sales of unused power amounts to more than 20 per cent, it would be difficult to reconcile the initial intention of the entity to the actual actions the entity took in the market; and

- (d) Frequent changes in accounting outcomes based on management's intention with regards to the portion held for own use, are not likely to provide useful information to users of financial statements and could lead to very complex accounting questions, for example, how to account for the fair value of the derivative portion when changing the portion held for own use. Equally, not allowing subsequent changes to the own use portion could result in many derivatives being designated as held for own use at inception and accounted for an executory contract even when those derivatives are subsequently held for trading

52 Therefore, the IASB staff is of the view that such an approach would represent a fundamental change to the own use requirements and take a considerable time and resources to complete as it would not involve narrow-scope standard-setting nor would it be a timely solution for stakeholders.

#### **High-level summary of the December IASB's meeting**

53 According to the EFRAG Secretariat these are the main aspects discussed at the December IASB's meeting:

- (a) No IASB member supported the adoption of an exception from the scope of IFRS 9 for PPAs (approach 3);
- (b) Some IASB members discussed whether hedge accounting could apply to physical PPAs (in addition to VPPAs) by using 'all in one hedge' solution. Some members supported exploring this solution, but a few considered that the main purpose of a physical PPA is to get renewable electricity rather than to fix the price for electricity so they were in favour of amending the 'own use' requirements instead (approach 1);
- (c) IASB members highlighted that there need to be a focus on transparency (i.e. disclosures) for own use contracts so users can understand the inherent risks of these long-term contracts (PPAs); and
- (d) A member did not support an approach whereby a contract is bifurcated as it would be a very disruptive approach. The member agreed with the IASB staff's arguments included in paragraph 51 above for not considering this approach.

### **EFRAG Secretariat analysis**

54 The EFRAG Secretariat notes that PPAs may often be large, complex and long duration contracts embodying very complex and dynamic key risks. In addition to the key risks identified in paragraph 19 the EFRAG Secretariat would like to point out the following risks:

- (a) As noted in paragraph 12 PPAs often include the purchase of RECs (green certificates, guarantees of origination or similar “profs” of purchase of renewable energy). As power is in fact interchangeable, the value of these profs may be expected to decline and approach zero when the power market becomes (close/closer to) 100 per cent renewable.
- (b) If a larger and larger part of the supply in the power market becomes based on weather dependent production (like solar and wind) then the average value per unit produced by existing and new units of these production units will decline compared to a baseload<sup>1</sup> profile unit. When the sun shines or the wind blows the supply increases and prices decline, and during nights and periods of low wind the supply decreases and prices increase. The negative price volume correlation may be a significant risk to the purchaser and may increase as sun and wind increase their proportion of total supply.
- (c) When an entity enters into a long duration fixed price supply contract the long duration risk exposure may actually increase due to the following relation:
  - (i) If power prices in the future increase, then the entity (ignoring the credit risk of the counterparty) is in a more favourable cost position compared to its competitors and will benefit from reduced competition (higher sales prices) and low cost.
  - (ii) If power prices in the future decrease, then the entity (ignoring the fact that it may be drawn on liquidity if security arrangement is included in the PPA) is in an unfavourable cost position compared to its competitors and may suffer from increased competition (lower sales prices).

55 The EFRAG Secretariat agrees with the aim of getting to principle-based solutions. In the view of EFRAG Secretariat the scope of a principle-based solution should not be made so narrow that it results, in substance, in a rule-based solution.

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<sup>1</sup> A baseload has the same volume per time unit in the market over the duration under consideration (often a year).

- 56 The EFRG Secretariat agrees with the position of the IASB that a hedging solution is needed in parallel with an own use solution. The EFRAG secretariat points out that in the case of PPAs described by the IASB Staff, neither of these solutions, in isolation or in combination, will solve all issues related to these PPAs for both the buyer and the seller in the PPA. Nevertheless, the EFRAG Secretariat notes that this should not stop the IASB from developing the two solutions.
- 57 The EFRAG Secretariat notes that there is a number of issues related to the conditions described in paragraph 26 that needs clarification. These include (but are not limited to):
- (a) What is the meaning of “fully controls”, noting that when it comes to timing of production, the producer can decide on timing of maintenance and when to turn on or off the power generator?
  - (b) What is the meaning of “short-term” mismatches?
  - (c) The accounting is normally considered from the position of the entity, if the entity is the seller, why is the mismatch between supply and demand relevant? And if the entity is the purchaser should the condition of (short-term) mismatch between supply (purchase) and demand allow for a solution if the volume in the contract (the PPA) sometimes exceeds the demand and sometimes does not, as opposed if the volume in the contract (the PPA) is always above or always below the demand?
  - (d) What is the meaning of “unpredictable”?
  - (e) What is the meaning of “to a high degree of certainty”?
  - (f) PPAs are generally unique, bilaterally negotiated and agreed contracts. What is the basis for different accounting regulation for the slightly longer duration contract than the prediction horizon of the entity compared to the contract within the prediction horizon of the entity?
  - (g) As previously stated, PPAs are generally unique, bilaterally negotiated and agreed contracts. If a contract relates to all or a proportion of power produced by a power producing facility but capped to the actual consumption of the purchaser, would this PPA fail the characteristics determined by the nature of the non-financial item and the market structure within the item is transacted?
  - (h) If the entity being the buyer in the PPA can balance its power purchase and usage in a secondary or later market in which conditions on the pricing can be set would the PPA then fail the characteristics determined by the nature of the non-financial item and the market structure within the item is transacted?

- (i) Except from certain long duration contracts to purchase or sell power generated from certain renewable sources what other contracts may fit to these requirements?

58 The EFRAG Secretariat agrees with the IASB Staff that a hedging solution will be so that it most likely solves the issue in the load-following swap question that was raised to the IFRS Interpretation Committee in 2018.

59 The EFRAG Secretariat has currently not focused its attention to the solution of the hedging issue, but will particularly pay attention to how economic relationship condition is framed by the IASB staff.

60 The EFRAG Secretariat notices the request for the IASB to develop speedy solutions.

61 The EFRAG Secretariat is suggesting an alternative principle-based model that could deal with the issue of physical PPAs which is described in agenda paper 08-03 PPA – own use exemption – alternative model.