

PUBLIC BENEFIT ENTITY INTERNATIONAL PUBLIC SECTOR ACCOUNTING STANDARD 17 PROPERTY, PLANT AND EQUIPMENT (PBE IPSAS 17)

Issued September 2014 and incorporates amendments to 31 January 2019 other than consequential amendments resulting from early adoption of PBE FRS 48 *Service Performance Reporting*

This Standard was issued on 11 September 2014 by the New Zealand Accounting Standards Board of the External Reporting Board pursuant to section 12(a) of the Financial Reporting Act 2013.

This Standard is a disallowable instrument for the purposes of the Legislation Act 2012, and pursuant to section 27(1) of the Financial Reporting Act 2013 takes effect on 9 October 2014.

Reporting entities that are subject to this Standard are required to apply it in accordance with the effective dates in paragraphs 108.1 to 108.9.

In finalising this Standard, the New Zealand Accounting Standards Board has carried out appropriate consultation in accordance with section 22(1) of the Financial Reporting Act 2013.

This Tier 1 and Tier 2 PBE Standard has been issued as part of a revised full set of PBE Standards that incorporate enhancements for not-for-profit public benefit entities.

This Standard, when applied, supersedes PBE IPSAS 17 *Property, Plant and Equipment* issued in May 2013.

PBE IPSAS 17 PROPERTY, PLANT AND EQUIPMENT

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PBE IPSAS 17 PROPERTY, PLANT AND EQUIPMENT

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The following is available on the XRB website as additional material:

IPSASB Basis for Conclusions

Public Benefit Entity International Public Sector Accounting Standard 17 *Property, Plant and Equipment* is set out in paragraphs 1–109 and the Application Guidance. All the paragraphs have equal authority. PBE IPSAS 17 should be read in the context of its objective, the NZASB’s Basis for Conclusions on PBE IPSAS 17, the IPSASB’s Basis for Conclusions on IPSAS 17, the *Public Benefit Entities’ Conceptual Framework* and Standard XRB A1 *Application of the Accounting Standards Framework*. PBE IPSAS 3 *Accounting Policies, Changes in Accounting Estimates and Errors* provides a basis for selecting and applying accounting policies in the absence of explicit guidance.

Objective

1. The objective of this Standard is to prescribe the accounting treatment for property, plant and equipment so that users of financial statements can discern information about an entity's investment in its property, plant and equipment and the changes in such investment. The principal issues in accounting for property, plant and equipment are (a) the recognition of the assets, (b) the determination of their carrying amounts, and (c) the depreciation charges and impairment losses to be recognised in relation to them.

Scope

2. **An entity that prepares and presents financial statements shall apply this Standard in accounting for property, plant and equipment, except:**
 - (a) **When a different accounting treatment has been adopted in accordance with another PBE Standard.**
 - (b) [Not used]
3. [Not used]
- 3.1 **This Standard applies to Tier 1 and Tier 2 public benefit entities.**
- 3.2 **A Tier 2 entity is not required to comply with the requirements in this Standard denoted with an asterisk (*). Where a Tier 2 entity elects to apply a disclosure concession it shall comply with any RDR paragraphs associated with that concession.**
4. [Not used]
5. This Standard applies to property, plant and equipment including:
 - (a) Weapons systems;
 - (b) Infrastructure assets;
 - (c) Service concession arrangement assets after initial recognition and measurement in accordance with PBE IPSAS 32 *Service Concession Arrangements: Grantor*; and
 - (d) Heritage assets.
6. This Standard does not apply to:
 - (a) Biological assets related to agricultural activity other than bearer plants (see PBE IPSAS 27 *Agriculture*). This Standard applies to bearer plants but does not apply to the produce on bearer plants;
 - (b) Mineral rights and mineral reserves such as oil, natural gas, and similar non-regenerative resources (see the relevant international or national accounting standard dealing with mineral rights, mineral reserves, and similar non-regenerative resources); or
 - (c) Property, plant and equipment classified as held for sale in accordance with PBE IFRS 5 *Non-current Assets Held for Sale and Discontinued Operations*.

However, this Standard applies to property, plant and equipment used to develop or maintain the assets described in (a)–(c).
7. Other PBE Standards may require recognition of an item of property, plant and equipment based on an approach different from that in this Standard. For example, PBE IPSAS 13 *Leases* requires an entity to evaluate its recognition of an item of leased property, plant and equipment on the basis of the transfer of risks and rewards. PBE IPSAS 32 requires an entity to evaluate the recognition of an item of property, plant and equipment used in a service concession arrangement on the basis of control of the asset. However, in such cases other aspects of the accounting treatment for these assets, including depreciation, are prescribed by this Standard.
8. An entity using the cost model for investment property in accordance with PBE IPSAS 16 *Investment Property* shall use the cost model in this Standard.

Heritage Assets

9. [Not used]

10. Some assets are described as heritage assets because of their cultural, environmental, or historical significance. Examples of heritage assets include historical buildings and monuments, archaeological sites, conservation areas and nature reserves, and works of art. Certain characteristics, including the following, are often displayed by heritage assets (although these characteristics are not exclusive to such assets):
- (a) Their value in cultural, environmental, educational, and historical terms is unlikely to be fully reflected in a financial value based purely on a market price;
 - (b) Legal and/or statutory obligations may impose prohibitions or severe restrictions on disposal by sale;
 - (c) They are often irreplaceable and their value may increase over time, even if their physical condition deteriorates; and
 - (d) It may be difficult to estimate their useful lives, which in some cases could be several hundred years.
- Entities may have large holdings of heritage assets that have been acquired over many years and by various means, including purchase, donation, bequest, and sequestration. These assets are rarely held for their ability to generate cash inflows, and there may be legal or social obstacles to using them for such purposes.
11. Some heritage assets have future economic benefits or service potential other than their heritage value, for example, an historic building being used for office accommodation. In these cases, they may be recognised and measured on the same basis as other items of property, plant and equipment. For other heritage assets, their future economic benefit or service potential is limited to their heritage characteristics, for example, monuments and ruins. The existence of both future economic benefits and service potential can affect the choice of measurement base.
12. [Not used]

Definitions

13. The following terms are used in this Standard with the meanings specified:

A bearer plant is a living plant that:

- (a) **Is used in the production or supply of agricultural produce;**
- (b) **Is expected to bear produce for more than one period; and**
- (c) **Has a remote likelihood of being sold as agricultural produce, except for incidental scrap sales.**

(Paragraphs 9A–9C of PBE IPSAS 27 elaborate on this definition of a bearer plant.)

Carrying amount (for the purpose of this Standard) is the amount at which an asset is recognised after deducting any accumulated depreciation and accumulated impairment losses.

Class of property, plant and equipment means a grouping of assets of a similar nature or function in an entity's operations that is shown as a single item for the purpose of disclosure in the financial statements.

Depreciable amount is the cost of an asset, or other amount substituted for cost, less its residual value.

Depreciation is the systematic allocation of the depreciable amount of an asset over its useful life.

Entity-specific value is the present value of the cash flows an entity expects to arise from the continuing use of an asset and from its disposal at the end of its useful life or expects to incur when settling a liability.

An impairment loss of a cash-generating asset is the amount by which the carrying amount of an asset exceeds its recoverable amount.

An impairment loss of a non-cash-generating asset is the amount by which the carrying amount of an asset exceeds its recoverable service amount.

Property, plant and equipment are tangible items that:

- (a) **Are held for use in the production or supply of goods or services, for rental to others, or for administrative purposes; and**
- (b) **Are expected to be used during more than one reporting period.**

Recoverable amount is the higher of a cash-generating asset's fair value less costs to sell and its value in use.

Recoverable service amount is the higher of a non-cash-generating asset's fair value less costs to sell and its value in use.

The **residual value** of an asset is the estimated amount that an entity would currently obtain from disposal of the asset, after deducting the estimated costs of disposal, if the asset were already of the age and in the condition expected at the end of its useful life.

Useful life is:

- (a) The period over which an asset is expected to be available for use by an entity; or
- (b) The number of production or similar units expected to be obtained from the asset by an entity.

Terms defined in other PBE Standards are used in this Standard with the same meaning as in those Standards, and are reproduced in the *Glossary of Defined Terms* published separately.

Recognition

14. The cost of an item of property, plant and equipment shall be recognised as an asset if, and only if:

- (a) It is probable that future economic benefits or service potential associated with the item will flow to the entity; and
- (b) The cost or fair value of the item can be measured reliably.¹

15–16. [Not used]

17. Items such as spare parts, stand-by equipment and servicing equipment are recognised in accordance with this Standard when they meet the definition of property, plant and equipment. Otherwise, such items are classified as inventory.

18. This Standard does not prescribe the unit of measure for recognition, i.e., what constitutes an item of property, plant and equipment. Thus, judgement is required in applying the recognition criteria to an entity's specific circumstances. It may be appropriate to aggregate individually insignificant items, such as library books, computer peripherals, and small items of equipment, and to apply the criteria to the aggregate value.

19. An entity evaluates under this recognition principle all its property, plant and equipment costs at the time they are incurred. These costs include costs incurred initially to acquire or construct an item of property, plant and equipment and costs incurred subsequently to add to, replace part of, or service it.

20. Weapons systems will normally meet the definition of property, plant and equipment, and should be recognised as an asset in accordance with this Standard. Weapons systems include vehicles and other equipment, such as warships, submarines, military aircraft, tanks, missile carriers and launchers that are used continuously in the provision of defence services, even if their peacetime use is simply to provide deterrence. Some single-use items, such as certain types of ballistic missiles, may provide an ongoing service of deterrence against aggressors and, therefore, can be classified as weapons systems.

Infrastructure Assets

21. Some assets are commonly described as infrastructure assets. While there is no universally accepted definition of infrastructure assets, these assets usually display some or all of the following characteristics:

- (a) They are part of a system or network;
- (b) They are specialised in nature and do not usually have alternative uses;
- (c) They are immovable; and
- (d) They may be subject to constraints on disposal.

¹ Information that is reliable is free from material error and bias, and can be depended on by users to faithfully represent that which it purports to represent or could reasonably be expected to represent. Paragraph BC10 of PBE IPSAS 1 *Presentation of Financial Statements* discusses the transitional approach to the explanation of reliability.

Although ownership of infrastructure assets is not confined to entities in the public sector, significant infrastructure assets are frequently found in the public sector. Infrastructure assets meet the definition of property, plant and equipment and should be accounted for in accordance with this Standard. Examples of infrastructure assets include road networks, sewer systems, water and power supply systems, and communication networks.

Initial Costs

22. Items of property, plant and equipment may be required for safety or environmental reasons. The acquisition of such property, plant and equipment, although not directly increasing the future economic benefits or service potential of any particular existing item of property, plant and equipment, may be necessary for an entity to obtain the future economic benefits or service potential from its other assets. Such items of property, plant and equipment qualify for recognition as assets, because they enable an entity to derive future economic benefits or service potential from related assets in excess of what could be derived had those items not been acquired. For example, fire safety regulations may require a hospital to retro-fit new sprinkler systems. These enhancements are recognised as an asset because, without them, the entity is unable to operate the hospital in accordance with the regulations. However, the resulting carrying amount of such an asset and related assets is reviewed for impairment in accordance with PBE IPSAS 21 *Impairment of Non-Cash-Generating Assets*.

Subsequent Costs

23. Under the recognition principle in paragraph 14, an entity does not recognise in the carrying amount of an item of property, plant and equipment the costs of the day-to-day servicing of the item. Rather, these costs are recognised in surplus or deficit as incurred. Costs of day-to-day servicing are primarily the costs of labour and consumables, and may include the cost of small parts. The purpose of these expenditures is often described as for the “repairs and maintenance” of the item of property, plant and equipment.
24. Parts of some items of property, plant and equipment may require replacement at regular intervals. For example, a hospital may need to upgrade the air-conditioning in its operating theatres, a road may need resurfacing every few years, a furnace may require relining after a specified number of hours of use, or aircraft interiors such as seats and galleys may require replacement several times during the life of the airframe. Items of property, plant and equipment may also be required to make a less frequently recurring replacement, such as replacing the interior walls of a building, or to make a non-recurring replacement. Under the recognition principle in paragraph 14, an entity recognises in the carrying amount of an item of property, plant and equipment the cost of replacing part of such an item when that cost is incurred if the recognition criteria are met. The carrying amount of those parts that are replaced is derecognised in accordance with the derecognition provisions of this Standard (see paragraphs 82–87).
25. A condition of continuing to operate an item of property, plant and equipment (for example, an aircraft) may be performing regular major inspections for faults regardless of whether parts of the item are replaced. When each major inspection is performed, its cost is recognised in the carrying amount of the item of property, plant and equipment as a replacement if the recognition criteria are satisfied. Any remaining carrying amount of the cost of previous inspection (as distinct from physical parts) is derecognised. This occurs regardless of whether the cost of the previous inspection was identified in the transaction in which the item was acquired or constructed. If necessary, the estimated cost of a future similar inspection may be used as an indication of what the cost of the existing inspection component was when the item was acquired or constructed.

Measurement at Recognition

26. **An item of property, plant and equipment that qualifies for recognition as an asset shall be measured at its cost.**
27. **Where an asset is acquired through a non-exchange transaction, its cost shall be measured at its fair value as at the date of acquisition.**
28. An item of property, plant and equipment may be acquired through a non-exchange transaction. For example, land may be contributed to a local government by a developer at no or nominal consideration, to enable the local government to develop parks, roads, and paths in the development. A building may be gifted or bequeathed to a not-for-profit entity to enable it to provide services for the local community. An

asset may also be acquired through a non-exchange transaction by the exercise of powers of sequestration. Under these circumstances, the cost of the item is its fair value as at the date it is acquired.

29. For the purposes of this Standard, the measurement at recognition of an item of property, plant and equipment, acquired at no or nominal cost, at its fair value consistent with the requirements of paragraph 27, does not constitute a revaluation. Accordingly, the revaluation requirements in paragraph 44, and the supporting commentary in paragraphs 45–50, only apply where an entity elects to revalue an item of property, plant and equipment in subsequent reporting periods.

Elements of Cost

30. The cost of an item of property, plant and equipment comprises:
- (a) Its purchase price, including import duties and non-refundable purchase taxes, after deducting trade discounts and rebates.
 - (b) Any costs directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management.
 - (c) The initial estimate of the costs of dismantling and removing the item and restoring the site on which it is located, the obligation for which an entity incurs either when the item is acquired, or as a consequence of having used the item during a particular period for purposes other than to produce inventories during that period.
31. Examples of directly attributable costs are:
- (a) Costs of employee benefits (as defined in PBE IPSAS 39 *Employee Benefits*) arising directly from the construction or acquisition of the item of property, plant and equipment;
 - (b) Costs of site preparation;
 - (c) Initial delivery and handling costs;
 - (d) Installation and assembly costs;
 - (e) Costs of testing whether the asset is functioning properly, after deducting the net proceeds from selling any items produced while bringing the asset to that location and condition (such as samples produced when testing equipment); and
 - (f) Professional fees.
32. An entity applies PBE IPSAS 12 *Inventories* to the costs of obligations for dismantling, removing, and restoring the site on which an item is located that are incurred during a particular period as a consequence of having used the item to produce inventories during that period. The obligations for costs accounted for in accordance with PBE IPSAS 12 and PBE IPSAS 17 are recognised and measured in accordance with PBE IPSAS 19 *Provisions, Contingent Liabilities and Contingent Assets*.
33. Examples of costs that are not costs of an item of property, plant and equipment are:
- (a) Costs of opening a new facility;
 - (b) Costs of introducing a new product or service (including costs of advertising and promotional activities);
 - (c) Costs of conducting business in a new location or with a new class of customers (including costs of staff training); and
 - (d) Administration and other general overhead costs.
34. Recognition of costs in the carrying amount of an item of property, plant and equipment ceases when the item is in the location and condition necessary for it to be capable of operating in the manner intended by management. Therefore, costs incurred in using or redeploying an item are not included in the carrying amount of that item. For example, the following costs are not included in the carrying amount of an item of property, plant and equipment:
- (a) Costs incurred while an item capable of operating in the manner intended by management has yet to be brought into use or is operated at less than full capacity;
 - (b) Initial operating losses, such as those incurred while demand for the item's output builds up; and

- (c) Costs of relocating or reorganising part or all of the entity's operations.
35. Some operations occur in connection with the construction or development of an item of property, plant and equipment, but are not necessary to bring the item to the location and condition necessary for it to be capable of operating in the manner intended by management. These incidental operations may occur before or during the construction or development activities. For example, revenue may be earned through using a building site as a car park until construction starts. Because incidental operations are not necessary to bring an item to the location and condition necessary for it to be capable of operating in the manner intended by management, the revenue and related expenses of incidental operations are recognised in surplus or deficit, and included in their respective classifications of revenue and expense.
36. The cost of a self-constructed asset is determined using the same principles as for an acquired asset. If an entity makes similar assets for sale in the normal course of operations, the cost of the asset is usually the same as the cost of constructing an asset for sale (see PBE IPSAS 12). Therefore, any internal surpluses are eliminated in arriving at such costs. Similarly, the cost of abnormal amounts of wasted material, labour, or other resources incurred in self-constructing an asset is not included in the cost of the asset. PBE IPSAS 5 *Borrowing Costs* establishes criteria for the recognition of interest as a component of the carrying amount of a self-constructed item of property, plant and equipment.
- 36A. Bearer plants are accounted for in the same way as self-constructed items of property, plant and equipment before they are in the location and condition necessary to be capable of operating in the manner intended by management. Consequently, references to 'construction' in this Standard should be read as covering activities that are necessary to cultivate bearer plants before they are in the location and condition necessary to be capable of operating in the manner intended by management.

Measurement of Cost

37. The cost of an item of property, plant and equipment is the cash price equivalent or, for an item referred to in paragraph 27, its fair value at the recognition date. If payment is deferred beyond normal credit terms, the difference between the cash price equivalent and the total payment is recognised as interest over the period of credit, unless such interest is recognised in the carrying amount of the item in accordance with the allowed alternative treatment in PBE IPSAS 5.
38. One or more items of property, plant and equipment may be acquired in exchange for a non-monetary asset or assets, or a combination of monetary and non-monetary assets. The following discussion refers simply to an exchange of one non-monetary asset for another, but it also applies to all exchanges described in the preceding sentence. The cost of such an item of property, plant and equipment is measured at fair value unless (a) the exchange transaction lacks commercial substance, or (b) the fair value of neither the asset received nor the asset given up is reliably measurable. The acquired item is measured in this way even if an entity cannot immediately derecognise the asset given up. If the acquired item is not measured at fair value, its cost is measured at the carrying amount of the asset given up.
39. An entity determines whether an exchange transaction has commercial substance by considering the extent to which its future cash flows or service potential is expected to change as a result of the transaction. An exchange transaction has commercial substance if:
- (a) The configuration (risk, timing, and amount) of the cash flows or service potential of the asset received differs from the configuration of the cash flows or service potential of the asset transferred; or
 - (b) The entity-specific value of the portion of the entity's operations affected by the transaction changes as a result of the exchange; and
 - (c) The difference in (a) or (b) is significant relative to the fair value of the assets exchanged.

For the purpose of determining whether an exchange transaction has commercial substance, the entity-specific value of the portion of the entity's operations affected by the transaction shall reflect post-tax cash flows, if tax applies. The result of these analyses may be clear without an entity having to perform detailed calculations.

40. The fair value of an asset for which comparable market transactions do not exist is reliably measurable if (a) the variability in the range of reasonable fair value estimates is not significant for that asset, or (b) the probabilities of the various estimates within the range can be reasonably assessed and used in estimating fair value. If an entity is able to determine reliably the fair value of either the asset received or the asset

given up, then the fair value of the asset given up is used to measure the cost of the asset received unless the fair value of the asset received is more clearly evident.

41. The cost of an item of property, plant and equipment held by a lessee under a finance lease is determined in accordance with PBE IPSAS 13.

Measurement after Recognition

42. **An entity shall choose either the cost model in paragraph 43 or the revaluation model in paragraph 44 as its accounting policy, and shall apply that policy to an entire class of property, plant and equipment.**

Cost Model

43. **After recognition as an asset, an item of property, plant and equipment shall be carried at its cost, less any accumulated depreciation and any accumulated impairment losses.**

Revaluation Model

44. **After recognition as an asset, an item of property, plant and equipment whose fair value can be measured reliably shall be carried at a revalued amount, being its fair value at the date of the revaluation, less any subsequent accumulated depreciation, and subsequent accumulated impairment losses. Revaluations shall be made with sufficient regularity to ensure that the carrying amount does not differ materially from that which would be determined using fair value at the reporting date. The accounting treatment for revaluations is set out in paragraphs 54–56.**
45. The fair value of items of property is usually determined from market-based evidence by appraisal. The fair value of items of plant and equipment is usually their market value determined by appraisal. For many assets, the fair value will be readily ascertainable by reference to quoted prices in an active and liquid market. For example, current market prices can usually be obtained for land, non-specialised buildings, motor vehicles, and many types of plant and equipment.
46. For some assets, it may be difficult to establish their market value because of the absence of market transactions for these assets. Some entities may have significant holdings of such assets.
47. If no evidence is available to determine the market value in an active and liquid market of an item of property, the fair value of the item may be established by reference to other items with similar characteristics, in similar circumstances and location. For example, the fair value of an entity's vacant land that has been held for a long period during which time there have been few transactions may be estimated by reference to the market value of land with similar features and topography in a similar location for which market evidence is available. In the case of specialised buildings and other man-made structures, fair value may be estimated using depreciated replacement cost, or the restoration cost or service units approaches (see PBE IPSAS 21). In many cases, the depreciated replacement cost of an asset can be established by reference to the buying price of a similar asset with similar remaining service potential in an active and liquid market. In some cases, an asset's reproduction cost will be the best indicator of its replacement cost. For example, in the event of loss, a parliament building may be reproduced rather than replaced with alternative accommodation, because of its significance to the community.
48. If there is no market-based evidence of fair value because of the specialised nature of the item of plant and equipment, an entity may need to estimate fair value using, for example, depreciated replacement cost, including where relevant, reproduction cost, or the restoration cost or service units approaches (see Application Guidance and PBE IPSAS 21). The depreciated replacement cost of an item of plant or equipment may be established by reference to the market buying price of components used to produce the asset or the indexed price for the same or a similar asset based on a price for a previous period. When the indexed price method is used, judgement is required to determine whether production technology has changed significantly over the period, and whether the capacity of the reference asset is the same as that of the asset being valued.
49. The frequency of revaluations depends upon the changes in the fair values of the items of property, plant and equipment being revalued. When the fair value of a revalued asset differs materially from its carrying amount, a further revaluation is necessary. Some items of property, plant and equipment experience significant and volatile changes in fair value, thus necessitating annual revaluation. Such frequent

revaluations are unnecessary for items of property, plant and equipment with only insignificant changes in fair value. Instead, it may be necessary to revalue the item only every three or five years.

50. When an item of property, plant and equipment is revalued, the carrying amount of that asset is adjusted to the revalued amount. At the date of the revaluation, the asset is treated in one of the following ways:
- (a) The gross carrying amount is adjusted in a manner that is consistent with the revaluation of the carrying amount of the asset. For example, the gross carrying amount may be restated by reference to observable market data or it may be restated proportionately to the change in the carrying amount. The accumulated depreciation at the date of the revaluation is adjusted to equal the difference between the gross carrying amount and the carrying amount of the asset after taking into account accumulated impairment losses; or
 - (b) The accumulated depreciation is eliminated against the gross carrying amount of the asset.

The amount of the adjustment of accumulated depreciation forms part of the increase or decrease in carrying amount that is accounted for in accordance with paragraphs 54 and 55.

51. **If an item of property, plant and equipment is revalued, the entire class of property, plant and equipment to which that asset belongs shall be revalued.**

51A Impairment losses and reversals of impairment losses of an asset under PBE IPSAS 21 and PBE IPSAS 26 *Impairment of Cash-Generating Assets*, do not necessarily give rise to the need to revalue the class of assets to which that asset, or group of assets, belongs.

52. A class of property, plant and equipment is a grouping of assets of a similar nature or function in an entity's operations. The following are examples of separate classes:

- (a) Land;
- (b) Operational buildings;
- (c) Roads;
- (d) Machinery;
- (e) Electricity transmission networks;
- (f) Ships;
- (g) Aircraft;
- (h) Weapons systems;
- (i) Motor vehicles;
- (j) Furniture and fixtures;
- (k) Office equipment;
- (l) Oil rigs; and
- (m) Bearer plants.

53. The items within a class of property, plant and equipment are revalued simultaneously in order to avoid selective revaluation of assets and the reporting of amounts in the financial statements that are a mixture of costs and values as at different dates. However, a class of assets may be revalued on a rolling basis provided revaluation of the class of assets is completed within a short period and provided the revaluations are kept up to date.

54. **If the carrying amount of a class of assets is increased as a result of a revaluation, the increase shall be recognised in other comprehensive revenue and expense and accumulated in net assets/equity under the heading of revaluation surplus. However, the increase shall be recognised in surplus or deficit to the extent that it reverses a revaluation decrease of the same class of assets previously recognised in surplus or deficit.**

55. **If the carrying amount of a class of assets is decreased as a result of a revaluation, the decrease shall be recognised in surplus or deficit. However, the decrease shall be recognised in other comprehensive revenue and expense to the extent of any credit balance existing in the revaluation surplus in respect of that class of assets.**

56. **Revaluation increases and decreases relating to individual assets within a class of property, plant and equipment must be offset against one another within that class but must not be offset in respect of assets in different classes.**
57. Some or all of the revaluation surplus included in net assets/equity in respect of property, plant and equipment may be transferred directly to accumulated comprehensive revenue and expense when the assets are derecognised. This may involve transferring some or the whole of the surplus when the assets within the class of property, plant and equipment to which the surplus relates are retired or disposed of. However, some of the surplus may be transferred as the assets are used by the entity. In such a case, the amount of the surplus transferred would be the difference between depreciation based on the revalued carrying amount of the assets and depreciation based on the assets' original cost. Transfers from revaluation surplus to accumulated comprehensive revenue and expense are not made through surplus or deficit.
58. Guidance on the effects on taxes on surpluses, if any, resulting from the revaluation of property, plant and equipment can be found in PBE IAS 12 *Income Taxes*.

Depreciation

59. **Each part of an item of property, plant and equipment with a cost that is significant in relation to the total cost of the item shall be depreciated separately.**
60. An entity allocates the amount initially recognised in respect of an item of property, plant and equipment to its significant parts and depreciates separately each such part. For example, in most cases, it would be required to depreciate separately the pavements, formation, kerbs and channels, footpaths, bridges, and lighting within a road system. Similarly, it may be appropriate to depreciate separately the airframe and engines of an aircraft, whether owned or subject to a finance lease.
61. A significant part of an item of property, plant and equipment may have a useful life and a depreciation method that are the same as the useful life and the depreciation method of another significant part of that same item. Such parts may be grouped in determining the depreciation charge.
62. To the extent that an entity depreciates separately some parts of an item of property, plant and equipment, it also depreciates separately the remainder of the item. The remainder consists of the parts of the item that are individually not significant. If an entity has varying expectations for these parts, approximation techniques may be necessary to depreciate the remainder in a manner that faithfully represents the consumption pattern and/or useful life of its parts.
63. An entity may choose to depreciate separately the parts of an item that do not have a cost that is significant in relation to the total cost of the item.
64. **The depreciation charge for each period shall be recognised in surplus or deficit, unless it is included in the carrying amount of another asset.**
65. The depreciation charge for a period is usually recognised in surplus or deficit. However, sometimes, the future economic benefits or service potential embodied in an asset is absorbed in producing other assets. In this case, the depreciation charge constitutes part of the cost of the other asset, and is included in its carrying amount. For example, the depreciation of manufacturing plant and equipment is included in the costs of conversion of inventories (see PBE IPSAS 12). Similarly, depreciation of property, plant and equipment used for development activities may be included in the cost of an intangible asset recognised in accordance with PBE IPSAS 31 *Intangible Assets*.

Depreciable Amount and Depreciation Period

66. **The depreciable amount of an asset shall be allocated on a systematic basis over its useful life.**
67. **The residual value and the useful life of an asset shall be reviewed at least at each annual reporting date and, if expectations differ from previous estimates, the change(s) shall be accounted for as a change in an accounting estimate in accordance with PBE IPSAS 3 *Accounting Policies, Changes in Accounting Estimates and Errors*.**
68. Depreciation is recognised even if the fair value of the asset exceeds its carrying amount, as long as the asset's residual value does not exceed its carrying amount. Repair and maintenance of an asset does not negate the need to depreciate it.

69. The depreciable amount of an asset is determined after deducting its residual value. In practice, the residual value of an asset is often insignificant, and therefore immaterial in the calculation of the depreciable amount.
70. The residual value of an asset may increase to an amount equal to or greater than the asset's carrying amount. If it does, the asset's depreciation charge is zero unless and until its residual value subsequently decreases to an amount below the asset's carrying amount.
71. Depreciation of an asset begins when it is available for use, i.e., when it is in the location and condition necessary for it to be capable of operating in the manner intended by management. Depreciation of an asset ceases at the earlier of the date that the asset is classified as held for sale (or included in a disposal group that is classified as held for sale) in accordance with PBE IFRS 5 and the date that the asset is derecognised. Therefore, depreciation does not cease when the asset becomes idle or is retired from active use and held for disposal unless the asset is fully depreciated. However, under usage methods of depreciation, the depreciation charge can be zero while there is no production.
72. The future economic benefits or service potential embodied in an item of property, plant and equipment are consumed by the entity principally through the use of the asset. However, other factors such as technical or commercial obsolescence and wear and tear while an asset remains idle often result in the diminution of the economic benefits or service potential that might have been obtained from the asset. Consequently, all the following factors are considered in determining the useful life of an asset:
- (a) Expected usage of the asset. Usage is assessed by reference to the asset's expected capacity or physical output.
 - (b) Expected physical wear and tear, which depends on operational factors such as the number of shifts for which the asset is to be used and the repair and maintenance program, and the care and maintenance of the asset while idle.
 - (c) Technical or commercial obsolescence arising from changes or improvements in production, or from a change in the market demand for the product or service output of the asset. Expected future reductions in the selling price of an item that was produced using an asset could indicate the expectation of technical or commercial obsolescence of the asset, which, in turn, might reflect a reduction of the future economic benefits or service potential embodied in the asset.
 - (d) Legal or similar limits on the use of the asset, such as the expiry dates of related leases.
73. The useful life of an asset is defined in terms of the asset's expected utility to the entity. The asset management policy of an entity may involve the disposal of assets after a specified time, or after consumption of a specified proportion of the future economic benefits or service potential embodied in the asset. Therefore, the useful life of an asset may be shorter than its economic life. The estimation of the useful life of the asset is a matter of judgement based on the experience of the entity with similar assets.
74. Land and buildings are separable assets and are accounted for separately, even when they are acquired together. With some exceptions, such as quarries and sites used for landfill, land has an unlimited useful life and therefore is not depreciated. Buildings have a limited useful life and therefore are depreciable assets. An increase in the value of the land on which a building stands does not affect the determination of the depreciable amount of the building.
75. If the cost of land includes the cost of site dismantlement, removal, and restoration, that portion of the land asset is depreciated over the period of benefits or service potential obtained by incurring those costs. In some cases, the land itself may have a limited useful life, in which case it is depreciated in a manner that reflects the benefits or service potential to be derived from it.

Depreciation Method

76. **The depreciation method shall reflect the pattern in which the asset's future economic benefits or service potential is expected to be consumed by the entity.**
77. **The depreciation method applied to an asset shall be reviewed at least at each annual reporting date and, if there has been a significant change in the expected pattern of the consumption of the future economic benefits or service potential embodied in the asset, the method shall be changed to reflect the changed pattern. Such a change shall be accounted for as a change in an accounting estimate in accordance with PBE IPSAS 3.**

78. A variety of depreciation methods can be used to allocate the depreciable amount of an asset on a systematic basis over its useful life. These methods include the straight-line method, the diminishing balance method, and the units of production method. Straight-line depreciation results in a constant charge over the useful life if the asset's residual value does not change. The diminishing balance method results in a decreasing charge over the useful life. The units of production method results in a charge based on the expected use or output. The entity selects the method that most closely reflects the expected pattern of consumption of the future economic benefits or service potential embodied in the asset. That method is applied consistently from period to period unless there is a change in the expected pattern of consumption of those future economic benefits or service potential.
- 78A. A depreciation method that is based on revenue that is generated by an activity that includes the use of an asset is not appropriate. The revenue generated by an activity that includes the use of an asset generally reflects factors other than the consumption of the economic benefits or service potential of the asset. For example, revenue is affected by other inputs and processes, selling activities and changes in sales volumes and prices. The price component of revenue may be affected by inflation, which has no bearing upon the way in which an asset is consumed.

Impairment

79. To determine whether an item of property, plant and equipment is impaired, an entity applies PBE IPSAS 21 or PBE IPSAS 26, as appropriate. These Standards explain how an entity reviews the carrying amount of its assets, how it determines the recoverable service amount or recoverable amount of an asset, and when it recognises, or reverses the recognition of, an impairment loss.

Compensation for Impairment

80. **Compensation from third parties for items of property, plant and equipment that were impaired, lost, or given up shall be included in surplus or deficit when the compensation becomes receivable.**
81. Impairments or losses of items of property, plant and equipment, related claims for or payments of compensation from third parties, and any subsequent purchase or construction of replacement assets are separate economic events and are accounted for separately as follows:
- (a) Impairments of items of property, plant and equipment are recognised in accordance with PBE IPSAS 21 or PBE IPSAS 26, as appropriate;
 - (b) Derecognition of items of property, plant and equipment retired or disposed of is determined in accordance with this Standard;
 - (c) Compensation from third parties for items of property, plant and equipment that were impaired, lost, or given up is included in determining surplus or deficit when it becomes receivable; and
 - (d) The cost of items of property, plant and equipment restored, purchased, or constructed as replacement is determined in accordance with this Standard.

Derecognition

82. **The carrying amount of an item of property, plant and equipment shall be derecognised:**
- (a) **On disposal; or**
 - (b) **When no future economic benefits or service potential is expected from its use or disposal.**
83. **The gain or loss arising from the derecognition of an item of property, plant and equipment shall be included in surplus or deficit when the item is derecognised (unless PBE IPSAS 13 requires otherwise on a sale and leaseback).**
- 83A. However, an entity that, in the course of its ordinary activities, routinely sells items of property, plant and equipment that it has held for rental to others shall transfer such assets to inventories at their carrying amount when they cease to be rented and become held for sale. The proceeds from the sale of such assets shall be recognised as revenue in accordance with PBE IPSAS 9 *Revenue from Exchange Transactions*. PBE IFRS 5 does not apply when assets that are held for sale in the ordinary course of business are transferred to inventories.
84. The disposal of an item of property, plant and equipment may occur in a variety of ways (e.g., by sale, by entering into a finance lease or by donation). In determining the date of disposal of an item, an entity applies

the criteria in PBE IPSAS 9 for recognising revenue from the sale of goods. PBE IPSAS 13 applies to disposal by a sale and leaseback.

85. If, under the recognition principle in paragraph 14, an entity recognises in the carrying amount of an item of property, plant and equipment the cost of a replacement for part of the item, then it derecognises the carrying amount of the replaced part regardless of whether the replaced part had been depreciated separately. If it is not practicable for an entity to determine the carrying amount of the replaced part, it may use the cost of the replacement as an indication of what the cost of the replaced part was at the time it was acquired or constructed.
86. **The gain or loss arising from the derecognition of an item of property, plant and equipment shall be determined as the difference between the net disposal proceeds, if any, and the carrying amount of the item.**
87. The consideration receivable on disposal of an item of property, plant and equipment is recognised initially at its fair value. If payment for the item is deferred, the consideration received is recognised initially at the cash price equivalent. The difference between the nominal amount of the consideration and the cash price equivalent is recognised as interest revenue in accordance with PBE IPSAS 9, reflecting the effective yield on the receivable.

Disclosure

88. **The financial statements shall disclose, for each class of property, plant and equipment recognised in the financial statements:**
- (a) **The measurement bases used for determining the gross carrying amount;**
 - (b) **The depreciation methods used;**
 - (c) **The useful lives or the depreciation rates used;**
 - (d) **The gross carrying amount and the accumulated depreciation (aggregated with accumulated impairment losses) at the beginning and end of the period; and**
 - (e) **A reconciliation of the carrying amount at the beginning and end of the period showing:**
 - (i) **Additions;**
 - (ii) **Assets classified as held for sale or included in a disposal group classified as held for sale in accordance with PBE IFRS 5 and other disposals;**
 - (iii) **Acquisitions through entity combinations;**
 - (iv) **Increases or decreases resulting from revaluations under paragraphs 44, 54, and 55 and from impairment losses (if any) recognised or reversed directly in net assets/equity in accordance with PBE IPSAS 21 or PBE IPSAS 26, as appropriate;**
 - (v) **Impairment losses recognised in surplus or deficit in accordance with PBE IPSAS 21 or PBE IPSAS 26, as appropriate;**
 - (vi) **Impairment losses reversed in surplus or deficit in accordance with PBE IPSAS 21 or PBE IPSAS 26, as appropriate;**
 - (vii) **Depreciation;**
 - *(viii) **The net exchange differences arising on the translation of the financial statements from the functional currency into a different presentation currency, including the translation of a foreign operation into the presentation currency of the reporting entity; and**
 - (ix) **Other changes.**

RDR 88.1 A Tier 2 entity is not required to disclose the reconciliation specified in paragraph 88(e) for prior periods.

89. **The financial statements shall also disclose for each class of property, plant and equipment recognised in the financial statements:**
- (a) **The existence and amounts of restrictions on title, and property, plant and equipment pledged as securities for liabilities;**

- ***(b) The amount of expenditures recognised in the carrying amount of an item of property, plant and equipment in the course of its construction;**
 - (c) The amount of contractual commitments for the acquisition of property, plant and equipment; and**
 - ***(d) If it is not disclosed separately on the face of the statement of comprehensive revenue and expense, the amount of compensation from third parties for items of property, plant and equipment that were impaired, lost or given up that is included in surplus or deficit.**
90. Selection of the depreciation method and the estimation of the useful life of the assets are matters of judgement. Therefore, disclosure of the methods adopted and the estimated useful lives or depreciation rates provides users of financial statements with information that allows them to review the policies selected by management, and enables comparisons to be made with other entities. For similar reasons, it is necessary to disclose:
- (a) Depreciation, whether recognised in surplus or deficit or as a part of the cost of other assets, during a period; and
 - (b) Accumulated depreciation at the end of the period.
91. In accordance with PBE IPSAS 3, an entity discloses the nature and effect of a change in an accounting estimate that has an effect in the current period or is expected to have an effect in subsequent periods. For property, plant and equipment, such disclosure may arise from changes in estimates with respect to:
- (a) Residual values;
 - (b) The estimated costs of dismantling, removing, or restoring items of property, plant and equipment;
 - (c) Useful lives; and
 - (d) Depreciation methods.
92. **If a class of property, plant and equipment is stated at revalued amounts, the following shall be disclosed:**
- (a) The effective date of the revaluation;**
 - (b) Whether an independent valuer was involved;**
 - (c) The methods and significant assumptions applied in estimating the assets' fair values;**
 - (d) The extent to which the assets' fair values were determined directly by reference to observable prices in an active market or recent market transactions on arm's length terms, or were estimated using other valuation techniques; and**
 - (e) The revaluation surplus, indicating the change for the period and any restrictions on the distribution of the balance to shareholders or other equity holders.**
 - (f)–(g) [Not used]
93. In accordance with PBE IPSAS 21 and PBE IPSAS 26, an entity discloses information on impaired property, plant and equipment in addition to the information required by paragraph 88(e)(iv)–(vi).
- *94. Users of financial statements may also find the following information relevant to their needs:
- (a) The carrying amount of temporarily idle property, plant and equipment;
 - (b) The gross carrying amount of any fully depreciated property, plant and equipment that is still in use;
 - (c) The carrying amount of property, plant and equipment retired from active use and not classified as held for sale in accordance with PBE IFRS 5; and
 - (d) When the cost model is used, the fair value of property, plant and equipment when this is materially different from the carrying amount.

Therefore, entities are encouraged to disclose these amounts.

94.1 **An entity shall disclose:**

- (a) **A description of the heritage assets held by the entity that have not been recognised in the financial statements, including the significance and nature of such assets; and**
- (b) **Where current information is available, an estimate of the value of those unrecognised assets, such as a recent insurance value.**

94.2 The disclosures in paragraph 94.1 relating to unrecognised heritage assets that do not meet the criteria for recognition shall aim to ensure that, when read in the context of information about recognised assets, the financial statements provide useful and relevant information about the entity's overall holding of heritage assets.

Transitional Provisions

95–106. [Not used]

106A. *2015 Omnibus Amendments to PBE Standards*, issued in July 2015, amended paragraph 50. An entity shall apply that amendment to all revaluations recognised in annual periods beginning on or after the date of initial application of that amendment and in the immediately preceding annual period.

Effective Date

107–108. [Not used]

108.1 **A public benefit entity shall apply this Standard for annual financial statements covering periods beginning on or after 1 April 2015. Earlier application is permitted for not-for-profit public benefit entities as long as the full suite of PBE Standards is applied at the same time.**

108.2 *2015 Omnibus Amendments to PBE Standards*, issued in July 2015, amended paragraphs 17, 50 and 72 and added paragraphs 78A and 106A. An entity shall apply those amendments prospectively for annual financial statements covering periods beginning on or after 1 January 2016. Earlier application is permitted, subject to paragraph 108.1. If an entity applies those amendments for an earlier period it shall disclose that fact.

108.3 *2016 Omnibus Amendments to PBE Standards*, issued in January 2017, added a footnote to paragraph 14. An entity shall apply that amendment for annual financial statements covering periods beginning on or after 1 January 2017.

108.4 *2016 Omnibus Amendments to PBE Standards*, issued in January 2017, amended paragraphs 5, 20 and 52. An entity shall apply those amendments for annual financial statements covering periods beginning on or after 1 January 2017. Earlier application is permitted. If an entity applies those amendments for an earlier period it shall disclose that fact.

108.5 *2016 Omnibus Amendments to PBE Standards*, issued in January 2017, amended paragraphs 6, 13 and 52 and added paragraph 36A. Those amendments relate to bearer plants and also resulted in amendments to PBE IPSAS 27. An entity shall apply those amendments for annual financial statements covering periods beginning on or after 1 January 2018. Earlier application is permitted. If an entity applies the amendments for a period beginning before 1 January 2018, it shall disclose that fact. An entity shall apply those amendments retrospectively, in accordance with PBE IPSAS 3, except as specified in paragraph 108.6.

108.6 **In the reporting period when the amendments to PBE IPSAS 17 and PBE IPSAS 27 from bearer plants are first applied an entity need not disclose the quantitative information required by paragraph 33(f) of PBE IPSAS 3 for the current period. However, an entity shall present the quantitative information required by paragraph 33(f) of PBE IPSAS 3 for each prior period presented.**

108.7 **An entity may elect to measure an item of bearer plants at its fair value at the beginning of the earliest period presented in the financial statements for the reporting period in which the entity first applies the amendments to PBE IPSAS 17 and PBE IPSAS 27 from bearer plants and use that fair value as its deemed cost at that date. Any differences between the previous carrying amount and fair value shall be recognised in opening accumulated comprehensive revenue and expense at the beginning of the earliest period presented.**

108.8 ***Impairment of Revalued Assets*** (Amendments to PBE IPSASs 21 and 26), issued in April 2017, amended paragraph 79 and added paragraph 51A. An entity shall apply that amendment for annual financial statements covering periods beginning on or after 1 January 2019. Earlier application is permitted. If an entity applies that amendment for an earlier period it shall disclose that fact.

108.9 PBE IPSAS 39, issued in May 2017, amended paragraph 31. An entity shall apply that amendment when it applies PBE IPSAS 39.

Withdrawal and Replacement of PBE IPSAS 17 (May 2013)

109. This Standard, when applied, supersedes PBE IPSAS 17 *Property, Plant and Equipment* issued in May 2013.

Application Guidance

This Appendix is an integral part of PBE IPSAS 17.

Introduction

- AG1. PBE Standards define fair value as the amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transaction. An entity that elects to measure a class of property, plant and equipment using the revaluation model, as permitted by paragraph 44 of this Standard, may need to estimate the fair value of certain assets. This Application Guidance provides guidance on the estimation of fair value using the depreciated replacement cost method in the circumstances permitted by paragraph 48 of this Standard.
- AG2. For the purposes of this Standard, if depreciated replacement cost is used to estimate the fair value of property, plant and equipment:
- (a) The value of land shall reflect the fair value of the actual land held, in terms of both its size and location; and
 - (b) The value of improvements to property, plant and equipment shall be estimated as the current replacement cost of the asset less deductions for all relevant forms of obsolescence, including physical deterioration.
- AG3. Adjustments to assets, apart from land, are normally considered for the following types of obsolescence:
- (a) Physical obsolescence;
 - (b) Functional obsolescence; and
 - (c) External obsolescence.
- AG4. All types of obsolescence are measured by making comparisons between the subject asset and the asset of equal utility upon which the cost estimate is based.
- AG5. This guidance discusses three types of obsolescence and proposes that an entity shall identify a separate adjustment for each form of obsolescence. In practice PBEs may not always be able to separately identify adjustments for each form of obsolescence. In particular, it may be difficult for PBEs to distinguish between functional obsolescence and external obsolescence. In such cases the adjustments for obsolescence may need to be considered collectively.

Bases of Value

- AG6. The term depreciated replacement cost is often used to describe the application of the cost approach to property, plant and equipment. In the case of PBE IPSAS 17, depreciated replacement cost may be used to estimate the fair value of an asset. Application of depreciated replacement cost in estimating fair value for financial reporting purposes should, wherever possible, be based on the market prices of inputs.
- AG7. For example, the replacement cost, the level of utility required from the asset, the assessment and measurement of different types of obsolescence and depreciation profiles should, as far as is possible, be based on market observations of inputs such as material costs and labour costs.
- AG8. If the purpose of the valuation requires an entity-specific basis of value, e.g. investment value, the cost input will still be based on cost that would be incurred by the entity in replacing the asset, and therefore will normally be no different from the cost calculation for market value, unless the entity is in a situation where it could either procure a replacement asset at a lower cost, or would incur higher costs, because of factors specific to its situation. However, the entity's actual operating experience of the subject asset and intentions for future utilisation could result in a significant difference in the measurement of obsolescence.

Land

- AG9. In instances where land is underutilised, the fair value of the land shall be determined by reference to the highest and best use of such land. For example, in a case where specialised facilities are located in a prime central business district site but the operation would be able to be run from a smaller sized and/or less valuable alternative site offering the same service potential, the fair value of the land would be the market value of the entire central business district-located site.

AG10. The fair value of land would normally be determined from market-based evidence. However, in the rare instances where extensive works have been carried out in order to prepare land for use in the entity's operations, available market evidence will normally relate to land of the same size and in the same general vicinity but which is priced for uses that are sub-optimal relative to the use for which the works were carried out. In these rare instances the fair value of the land shall be determined by having regard to the replacement cost of the land. For example, a customs department or marine research entity may acquire a section of seabed, fill it in and build a seawall in order to produce flat land for use in the entity's operations. The reclaimed land is in the precise location where the entity requires land. Market evidence may exist for other land of the same size and in the same general vicinity as the reclaimed land, but that other land is not suitable for the use intended by the entity. Thus, the market evidence on the fair value of that other land is not relevant to the reclaimed land, and the best indicator of the fair value of the reclaimed land is the replacement cost of that land. A similar situation occurs when a local authority carries out extensive works constructing new roads.

Physical Obsolescence

AG11. Physical obsolescence is any loss of utility due to the physical deterioration of an asset or its components resulting from its age and normal usage that results in loss of value.

AG12. Some physical obsolescence can be corrected or ameliorated by maintenance and repair. Other forms of physical obsolescence cannot be corrected or ameliorated, i.e., the deterioration in condition cannot be remedied, either at all or cost effectively. The measurement of physical obsolescence that can be remedied is the cost to remedy it. Physical obsolescence that cannot be remedied can be measured by considering the asset's age, expected total and remaining life where the adjustment for physical obsolescence is equivalent to the proportion of the expected total life consumed.

AG13. The value of an asset will not be below its value for an alternative use, including for scrap, salvage or recycling, less the costs of clearance, decommissioning and any decontamination required.

Functional Obsolescence

AG14. Functional obsolescence is any loss of utility resulting from inefficiencies in the subject asset compared to its replacement that results in a loss of value. There are two forms of functional obsolescence:

- (a) Excess capital cost which can be caused by changes in design, materials of construction, technology or manufacturing/construction techniques resulting in the availability of modern equivalent assets with lower capital costs than the subject asset; and
- (b) Excess operating cost which can be caused by improvements in design or excess capacity resulting in the availability of modern equivalent assets with lower operating costs than the subject asset.

AG15. Functional obsolescence can arise due to either:

- (a) The design or specification of the asset no longer being the most appropriate for delivery of the service for which it was originally intended as it may be inadequate or over-engineered;
- (b) The technology used in the asset having been superseded; or
- (c) A combination of both of the above factors.

AG16. For inadequate items, functional obsolescence is measured by considering the cost of correcting the inadequacy compared with the value gained. For over-engineered or "super-adequate" items, functional obsolescence is measured by the excess capital cost compared with the modern equivalent asset.

External Obsolescence

AG17. External obsolescence is any loss of utility value caused by economic or locational factors external to the asset that results in a loss of value. It may be called economic obsolescence when the external factors relate to changes in supply or demand for the asset or for products or services produced by the asset. Changes in the way goods and services are delivered in a sector may give rise to external obsolescence. When considering demand for the asset or for the products or services produced from the asset, demand both by policy makers in seeking to further public policy objectives and demand evidenced by the recipients of the products or services produced by the asset should be taken into account.

- AG18. The external obsolescence adjustment is deducted after physical deterioration and functional obsolescence. External obsolescence should be measured at the lowest level possible.
- AG19. An example of external obsolescence is where the subject asset has excess capacity compared to the reasonably foreseeable demand. In such circumstances it may be possible to make the appropriate adjustment using the cost-to-capacity method.
- AG20. The cost-to-capacity method can be used to address both functional and external obsolescence depending on the cause of the lack of utility. The cost-to-capacity method can be used as a method to:
- (a) Estimate the replacement cost for an asset with one capacity where the replacement costs of an asset or assets with a different capacity are known; or
 - (b) Estimate the replacement cost for a modern equivalent asset with capacity that matches foreseeable demand where the subject asset has excess capacity (as a means of measuring the penalty for the lack of utility to be applied as part of an external obsolescence adjustment).
- AG21. No obsolescence adjustment is made in respect of surplus capacity that, while rarely or never used, is necessary for stand-by or for safety purposes.
- AG22. If the whole entity or operating unit is affected by adverse external factors, this will be evident in the drop in demand for the goods and services produced by the asset and therefore an overall measure of external obsolescence can be determined by reference to the performance of the entity or unit. The way in which performance is assessed will depend on whether the entity or unit holds cash-generating or non-cash-generating assets. In order to estimate the value of an individual asset the overall external obsolescence will have to be allocated to individual assets. Cash or cash equivalents do not suffer obsolescence and are not adjusted. Marketable assets are not adjusted below their market value determined using the market approach.
- AG23. In determining depreciated replacement cost, the extent of any obsolescence adjustment for surplus capacity depends on whether that surplus capacity has an alternative use to the current use of the asset. Where there is no alternative use, the value of the surplus capacity is zero. Where there is an alternative use, the value of the surplus capacity is the value of the highest and best alternative use of that capacity. To illustrate the distinction between surplus capacity not having an alternative use to the current use of the asset and that which does, consider the following example. Assume depreciated replacement cost is to be determined for a network of water pipes where the pipe diameter is greater than currently required or ever expected to be required (including that necessary for stand-by or for safety purposes). There is also a discrete segment of the piping network that is similarly not required for the current use of the asset but which can be closed off and used for other purposes, such as a liquid storage facility. In this case, an obsolescence adjustment would be made in respect of the surplus diameter of the piping. The surplus segment of the piping network would be valued at its highest and best alternative use.
- AG24. In determining depreciated replacement cost, an adjustment for obsolescence and relevant surplus capacity is applied only to the extent that it reflects the most probable use of the asset that is physically possible, appropriately justified, legally permissible and financially feasible.

Basis for Conclusions

This Basis for Conclusions accompanies, but is not part of, PBE IPSAS 17.

BC1. The New Zealand Accounting Standards Board (NZASB) has modified IPSAS 17 *Property, Plant, and Equipment* for application by Tier 1 and Tier 2 public benefit entities. Where applicable, disclosure concessions have been identified for Tier 2 entities and the language generalised for use by public benefit entities. The NZASB considered that the requirements of IPSAS 17 are generally appropriate for application by public benefit entities.

Heritage Assets

BC2. The NZASB considered the requirements of IPSAS 17 in relation to heritage assets in the New Zealand context. IPSAS 17 does not mandate the recognition of heritage assets. If an entity does recognise heritage assets, IPSAS 17 requires that the entity disclose certain information about those heritage assets. However, IPSAS 17 does not require that the entity apply the measurement requirements in IPSAS 17 to those heritage assets. An entity applying IPSAS 17 could therefore elect not to recognise heritage assets, or to recognise heritage assets but not to assign them an amount in the statement of financial position.

BC3. The NZASB decided that the IPSAS 17 requirements were not appropriate in the New Zealand context. The NZASB noted that for many years NZ GAAP has required that entities recognise and measure heritage assets in the same way as other items of property, plant and equipment and that accordingly, many heritage assets have been recognised and measured. The NZASB did not identify any reasons why the requirements in relation to heritage assets should be less than that required in NZ IAS 16 *Property, Plant and Equipment*, or in the case of entities applying previous NZ GAAP, FRS-3 *Accounting for Property, Plant and Equipment*.

BC4. The NZASB noted that there are instances where heritage assets are not able to be reliably measured and are therefore not recognised in the statement of financial position. The NZASB agreed that although non-recognition of heritage assets in such circumstances is appropriate, heritage assets should be recognised when they can be reliably measured.

BC5. The NZASB therefore determined to modify IPSAS 17 for application in New Zealand by requiring application of the recognition and measurement requirements in that Standard to heritage assets when they can be reliably measured. The NZASB agreed to retain the discussion of heritage assets in IPSAS 17.

Use of Independent Valuers

BC6. The issue of whether accounting standards should require the use of independent valuers for determining the fair value of assets has been considered in New Zealand at length over a period of time.

BC7. Prior to the adoption of NZ IFRSs, New Zealand generally accepted accounting practice permitted an item of property, plant and equipment to be revalued subsequent to initial recognition. Where an item was revalued, fair value was considered to be the most appropriate basis of valuation.

BC8. During its deliberations on whether or not to include requirements regarding the use of independent valuers in the proposed NZ IAS 16 *Property, Plant and Equipment*, the Financial Reporting Standards Board (FRSB), the standard setting body at that time, noted that the requirements regarding asset valuations were not consistent throughout the suite of NZ IFRSs (for example, the fair value of intangible assets is measured by reference to an active market). On initial adoption in 2004, NZ IAS 16 included a requirement for property, plant and equipment carried at a revalued amount to be measured at fair value at the date of the revaluation, with valuations undertaken by an independent valuer or a suitably qualified employee (with their valuation being subject to review by an independent valuer).

BC9. In April 2011 *Harmonisation Amendments* was approved for issue in New Zealand. This Standard eliminated many of the differences between the accounting standards in Australia and New Zealand for for-profit entities. As part of the harmonisation project, the requirement to use independent valuers for the revaluation of property, plant and equipment, and the related disclosure requirements, was removed from NZ IAS 16.

BC10. In developing the exposure draft of the suite of PBE Standards, the NZASB proposed the inclusion of a requirement to use an independent valuer, together with related disclosure requirements, because these requirements have been part of New Zealand GAAP for an extensive period and the information provided

is considered to be useful. However, some constituents expressed the view that there was no PBE-specific reason for the PBE Standards to include more restrictive valuer requirements than IPSASs or NZ IFRSs.

BC11. The NZASB has, therefore, decided not to include in PBE IPSAS 17 a requirement, and the related disclosures, to use an independent valuer even though this proposal continues to be supported by some New Zealand constituents. The reasons for this decision include:

- (a) The proposed requirement to use independent valuers was limited to investment properties and property, plant and equipment and not extended to all classes of assets that are revalued;
- (b) It would be inconsistent with the requirements applicable to for-profit entities; and
- (c) There is now significant experience and expertise in measuring assets at fair value.

Depreciated Replacement Cost

BC12. In certain circumstances, IPSAS 17 permits the use of depreciated replacement cost as a means of estimating the fair value of an asset. Public benefit entities in New Zealand frequently use depreciated replacement cost to estimate the fair value of property, plant and equipment, including infrastructure assets. The NZASB noted that neither IPSAS 17 nor IPSAS 21 provide guidance on this topic at the level of detail previously provided in NZ IAS 16. The NZASB agreed that guidance on this topic was required in order to enhance the consistency of asset valuations in financial statements.

BC13. The NZASB noted that the International Valuation Standards Council had recently issued Technical Information Paper 2 *The Cost Approach for Tangible Assets (TIP 2)* which provides guidance on the application of the cost approach to valuation, including application of the depreciated replacement cost method. The NZASB noted the desirability of aligning, to the extent possible, the guidance in PBE IPSAS 17 with that issued by the international valuation profession. The NZASB agreed that, with the exception of the measurement of land, the guidance in Appendix A should be consistent with TIP 2.

BC14. The NZASB decided that, where land is under-utilised, the fair value of the land should be determined by reference to its highest and best use. The NZASB noted that this could result in different measures for some assets than under TIP 2, but considered that continuation of this existing requirement was appropriate in the New Zealand environment. The NZASB noted that TIP 2 acknowledges that there may be a higher value for an alternative use, but cautions that the cost approach may or may not provide an appropriate measure of market value in such cases.

Disclosure

BC15. The NZASB decided to remove the requirement to disclose the sum of all revaluation surpluses and revaluation deficits for individual items of property, plant and equipment within a class of assets on the grounds that the benefits to users of the financial statements were small and were likely to be outweighed by the costs of collecting and disseminating the information.

2015 Omnibus Amendments to PBE Standards

BC16. In the IASB's *Annual Improvements to IFRSs Cycle 2009-2011* the IASB amended IAS 16 *Property, Plant and Equipment* to clarify when servicing equipment is considered property, plant and equipment or inventory. The IPSASB made equivalent amendments to IPSAS 17 as there was no public sector specific reason for not adopting the amendments. The NZASB made these amendments as part of the *2015 Omnibus Amendments to PBE Standards*.

BC17. In the IASB's *Annual Improvements to IFRSs Cycle 2010-2012* the IASB amended IAS 16 to clarify the treatment of the carrying amount and accumulated depreciation when an item of property, plant and equipment is revalued. The IPSASB made equivalent amendments to IPSAS 17 as there was no public sector specific reason for not adopting the amendments. The NZASB made these amendments as part of the *2015 Omnibus Amendments to PBE Standards*.

BC18. In the IASB's *Clarification of Acceptable Methods of Depreciation and Amortisation (Amendments to IAS 16 and IAS 38)* the IASB amended IAS 16 and IAS 38 *Intangible Assets* to clarify the acceptable methods of depreciating assets and amortising intangible assets. The IPSASB made equivalent amendments to IPSAS 17 and IPSAS 31 as there was no public sector specific reason for not adopting the amendments. The NZASB made these amendments as part of the *2015 Omnibus Amendments to PBE Standards*.

2016 Omnibus Amendments to PBE Standards

BC19. In *Improvements to IPSASs 2015*, the IPSASB amended IPSAS 17 by replacing the term “specialist military equipment” with the Government Finance Statistics (GFS) term “weapon systems” and including a description of weapons systems. The NZASB incorporated these amendments into PBE IPSAS 17 as part of the *2016 Omnibus Amendments to PBE Standards*.

BC20. The IASB issued *Agriculture: Bearer Plants* (Amendments to IAS 16 and IAS 41) in June 2014. The amendments required bearer plants to be accounted for as property, plant and equipment and included within the scope of IAS 16 *Property, Plant and Equipment* instead of IAS 41 *Agriculture*. The produce growing on bearer plants remained within the scope of IAS 41. In *Improvements to IPSASs 2015* the IPSASB made equivalent amendments to IPSAS 17. The NZASB subsequently made equivalent amendments to PBE IPSAS 17 as part of the *2016 Omnibus Amendments to PBE Standards*.

Impairment of Revalued Assets

BC21. In July 2016, the IPSASB issued *Impairment of Revalued Assets* (Amendments to IPSAS 21 *Impairment of Non-Cash-Generating Assets* and IPSAS 26 *Impairment of Cash-Generating Assets*), which amended the scope of both standards to include property, plant and equipment and intangible assets measured at revalued amounts and also amended IPSAS 17 to clarify that the recognition of impairment losses and reversals of impairment losses for a revalued asset does not necessarily require the entire class of assets to which that item belongs to be revalued. The NZASB subsequently amended PBE IPSAS 17 by issuing *Impairment of Revalued Assets* (Amendments to PBE IPASs 21 and 26) in April 2017.

Implementation Guidance

This guidance accompanies, but is not part of, PBE IPSAS 17.

Frequency of Revaluation of Property, Plant and Equipment

- IG1. Paragraph 44 of PBE IPSAS 17 requires entities that adopt the revaluation model to measure assets at a revaluated amount that does not differ significantly from that which would be determined using fair value at the reporting date. Paragraph 49 of PBE IPSAS 17 specifies that the frequency of revaluations depends upon the changes in the fair values of the items of property, plant and equipment being revalued. When the fair value of a revalued asset differs materially from its carrying amount, a further revaluation is necessary. The purpose of this guidance is to assist entities that adopt the revaluation model to determine whether carrying amounts differ materially from the fair value as at reporting date.
- IG2. An entity assesses at each reporting date whether there is any indication that a revalued asset's carrying amount may differ materially from that which would be determined if the asset were revalued at the reporting date. If any such indication exists, the entity determines the asset's fair value and revalues the asset to that amount.
- IG3. In assessing whether there is any indication that a revalued asset's carrying amount may differ materially from that which would be determined if the asset were revalued at the reporting date, an entity considers, as a minimum, the following indications:

External sources of information

- (a) Significant changes affecting the entity have taken place during the period, or will take place in the near future, in the technological, market, economic, or legal environment in which the entity operates or in the market to which the asset is dedicated;
- (b) Where a market exists for the assets of the entity, market values are different from their carrying amounts;
- (c) During the period, a price index relevant to the asset has undergone a material change;

Internal sources of information

- (d) Evidence is available of obsolescence or physical damage of an asset;
 - (e) Significant changes affecting the entity have taken place during the period, or are expected to take place in the near future, in the extent to which, or manner in which, an asset is used or is expected to be used. Adverse changes include the asset becoming idle, or plans to dispose of an asset before the previously expected date, and reassessing the useful life of an asset as finite rather than indefinite. Favourable changes include capital expenditure incurred during the period to improve or enhance an asset in excess of its standard of performance assessed immediately before the expenditure is made; and
 - (f) Evidence is available from internal reporting that indicates that the economic performance of an asset is, or will be, worse or better than expected.
- IG4. The list in paragraph IG3 is not exhaustive. An entity may identify other indications that a revalued asset's carrying amount may differ materially from that which would be determined if the asset were revalued at the reporting date. The existence of these additional indicators would also indicate that the entity should revalue the asset to its current fair value as at the reporting date.

Illustrative Example

This illustrative example accompanies, but is not part of, PBE IPSAS 17.

Disclosures

IE1. Entity X controls a wide range of property, plant and equipment, and is responsible for replacement and maintenance of the property. The following are extracts from the notes to its Statement of Financial Position for the year ended 31 December 20X1 and illustrate the principal disclosures required in accordance with this Standard.

Notes

1. Land

(a) Land consists of twenty thousand hectares at various locations. Land is valued at fair value as at 31 December 20X1, as determined by National Valuer, an independent valuer.

(b) Restrictions on Titles:

Five hundred hectares of land (carried at 62,500 currency units) is designated as national interest land and may not be sold without the approval of the legislature. Two hundred hectares (carried at 25,000 currency units) of the national interest land and a further two thousand hectares (carried at 250,000 currency units) of other land are subject to title claims by former owners and the Court has ordered that the land may not be disposed of until the claim is decided; the Entity recognises the jurisdiction of the Court to hear these cases.

2. Buildings

(a) Buildings consist of office buildings and industrial facilities at various locations.

(b) Buildings are initially recognised at cost, but are subject to revaluation to fair value on an ongoing basis. National Valuer determines fair value on a rolling basis within a short period of time. Revaluations are kept up to date.

(c) Depreciation is calculated on a straight-line basis over the useful life of the building. Office buildings have a useful life of twenty-five years, and industrial facilities have a useful life of fifteen years.

(d) The Entity has entered into five contracts for the construction of new buildings; total contract costs are 250,000 currency units.

3. Machinery

(a) Machinery is measured at cost less depreciation.

(b) Depreciation is calculated on a straight-line basis over the useful life of the machine.

(c) The machinery has various useful lives:

Tractors: 10 years

Washing Equipment: 4 years

Cranes: 15 years

(d) The Entity has entered into a contract to replace the cranes it uses to clean and maintain the buildings – the contracted cost is 100,000 currency units.

4. Furniture and Fixtures

(a) Furniture and fixtures are measured at cost less depreciation.

(b) Depreciation is calculated on a straight-line basis over the useful life of the furniture and fixtures.

(c) All items within this class have a useful life of five years.

Reconciliations

(in '000 of currency units)

Reporting Period	Land		Buildings		Machinery		Furniture and Fixtures	
	20X1	20X0	20X1	20X0	20X1	20X0	20X1	20X0
Opening Balance	2,250	2,025	2,090	2,260	1,085	1,100	200	150
Additions	–	–	250	100	120	200	20	100
Disposals	–	–	150	40	60	80	20	–
Depreciation (As per Statement of Comprehensive Revenue and Expense)	–	–	160	180	145	135	50	50
Revaluations (net)	250	225	- 30	- 50	–	–	–	–
Closing Balance (As per Statement of Financial Position)	2,500	2,250	2,000	2,090	1,000	1,085	150	200
Gross Carrying Amount	2,500	2,250	2,500	2,430	1,500	1,440	250	250
Accumulated Depreciation	–	–	500	340	500	355	100	50
Net Carrying Amount	2,500	2,250	2,000	2,090	1,000	1,085	150	200

Comparison with IPSAS 17

PBE IPSAS 17 *Property, Plant and Equipment* is drawn from IPSAS 17 *Property, Plant, and Equipment*.

The significant differences between PBE IPSAS 17 and IPSAS 17 are:

- (a) PBE IPSAS 17 requires that heritage assets be recognised as property, plant and equipment and measured in accordance with the Standard. IPSAS 17 permits but does not mandate the recognition of heritage assets. IPSAS 17 also permits heritage assets to be recognised but not measured.
- (b) PBE IPSAS 17 includes integral guidance on the estimation of fair value using the depreciated replacement cost method in the circumstances permitted by paragraph 48 of the Standard. IPSAS 17 does not contain such guidance.
- (c) PBE IPSAS 17 does not require the disclosures required by IPSAS 17 of the sum of all revaluation surpluses and revaluation deficits for individual items of property, plant and equipment within a class of assets.
- (d) PBE Standards require the presentation of a statement of comprehensive revenue and expense. IPSASs require the presentation of a statement of financial performance.

History of Amendments

PBE IPSAS 17 *Property, Plant and Equipment* was issued in September 2014.

This table lists the pronouncements establishing and substantially amending PBE IPSAS 17. The table is based on amendments issued as at 31 January 2019 other than consequential amendments resulting from early adoption of PBE FRS 48 *Service Performance Reporting*.

Pronouncements	Date issued	Early operative date	Effective date (annual financial statements ... on or after ...)
PBE IPSAS 17 <i>Property, Plant and Equipment</i>	Sept 2014	Early application is permitted for not-for-profit public benefit entities	1 April 2015
<i>2015 Omnibus Amendments to PBE Standards</i>	July 2015	Early application is permitted	1 Jan 2016
<i>2016 Omnibus Amendments to PBE Standards</i>	Jan 2017	Varies	Various: 1 Jan 2017 and 1 Jan 2018
<i>Impairment of Revalued Assets</i> (Amendments to PBE IPSASs 21 and 26)	Apr 2017	Early application is permitted	1 Jan 2019
PBE IPSAS 39 <i>Employee Benefits</i>	May 2017	Early application is permitted	1 Jan 2019
PBE FRS 48 <i>Service Performance Reporting</i> ²	Nov 2017	Early application is permitted	1 Jan 2021
<i>2018 Omnibus Amendments to PBE Standards</i>	Nov 2018	–	– ³

Table of Amended Paragraphs in PBE IPSAS 17		
Paragraph affected	How affected	By ... [date]
Paragraph 5	Amended	<i>2016 Omnibus Amendments to PBE Standards</i> [Jan 2017]
Paragraph 6	Amended	<i>2016 Omnibus Amendments to PBE Standards</i> [Jan 2017]
Paragraph 13	Amended	<i>2016 Omnibus Amendments to PBE Standards</i> [Jan 2017]
Paragraph 14	Amended	<i>2016 Omnibus Amendments to PBE Standards</i> [Jan 2017]
Paragraph 17	Amended	<i>2015 Omnibus Amendments to PBE Standards</i> [July 2015]
Paragraph 20	Amended	<i>2016 Omnibus Amendments to PBE Standards</i> [Jan 2017]
Paragraph 31	Amended	PBE IPSAS 39 <i>Employee Benefits</i> [May 2017]
Paragraph 36A	Added	<i>2016 Omnibus Amendments to PBE Standards</i> [Jan 2017]
Paragraph 50	Amended	<i>2015 Omnibus Amendments to PBE Standards</i> [July 2015]
Paragraph 51A	Added	<i>Impairment of Revalued Assets</i> [Apr 2017]
Paragraph 52	Amended	<i>2016 Omnibus Amendments to PBE Standards</i> [Jan 2017]
Paragraph 72	Amended	<i>2015 Omnibus Amendments to PBE Standards</i> [July 2015]
Paragraph 78A	Added	<i>2015 Omnibus Amendments to PBE Standards</i> [July 2015]

² PBE FRS 48 has not been compiled.

³ These amendments are solely editorial. They did not have an effective date.

Table of Amended Paragraphs in PBE IPSAS 17		
Paragraph affected	How affected	By ... [date]
Paragraph 79	Amended	<i>Impairment of Revalued Assets</i> [Apr 2017]
Paragraph 106A	Added	<i>2015 Omnibus Amendments to PBE Standards</i> [July 2015]
Paragraph 108.2	Added	<i>2015 Omnibus Amendments to PBE Standards</i> [July 2015]
Paragraphs 108.3–7	Added	<i>2016 Omnibus Amendments to PBE Standards</i> [Jan 2017]
Paragraph 108.8	Added	<i>Impairment of Revalued Assets</i> [Apr 2017]
Paragraph 108.9	Added	<i>PBE IPSAS 39 Employee Benefits</i> [May 2017]
Paragraph AG1	Amended	<i>2015 Omnibus Amendments to PBE Standards</i> [July 2015]