Australian
Competition &
Consumer
Commission

New Investment Costs Pass-through

The distinction between "necessary new aeronautical investment" and other forms of expenditure, as it relates to the price cap.

Position Paper

April 2000

Introduction

Direction 13 pursuant to the *Prices Surveillance Act 1983* sets out the details of the CPI-X price cap applying to core-regulated airports and includes a 'pass-through' provision for 'necessary new investment'. This provision allows an airport operator to increase charges at a rate in excess of CPI-X where it seeks to recover the cost of such investment proposals.

This paper provides guidance on what 'new investment' is. Investments that fall into the 'new investment' category can then be assessed against the criteria at attachment A.

Assessment of new investment proposals is a two stage process. The first stage, addressed by this paper, goes to the question of whether a new investment proposal meets the 'new investment' test. The second stage assesses proposals which satisfy the 'new investment' test against the relevant criteria. The second stage of the assessment process is not addressed in this paper.

The pricing instruments do not define the term 'necessary new aeronautical investment'. In addition, whilst an amount of investment was factored into the 'X' values at each of the airports, specific investments were not detailed. Advice from the Department of Transport and Regional Services (DoTRS) to industry in April 1999 states in this regard that:[1]

> There is no mandated or required level of capex related to the revenue airports receive under the pricing cap, thus no basis for revisiting which investments are paid for and which are not. The slate must be considered clean, or else every other element used in setting the cap will become equally open to debate.

The Australian Competition and Consumer Commission (the Commission) has the role of assessing applications to increase charges in excess of CPI-X. For this reason, it must be in a position to make the distinction between necessary new aeronautical investment and other forms of expenditure. The adoption of a certain definition is necessary for the administration of the framework.

This position paper presents the approach that the Commission will use in distinguishing necessary new aeronautical investment from other types of expenditure for the duration of the current price cap arrangements.[2] The prices oversight arrangements for leased airports will be reviewed by the Commission towards the end of the five year regulatory period. The Commission will make its recommendations to the Government at the end of 2001 for Phase I airports and at the end of 2002 for Phase II airports. Treatment of new investment will be one of the matters for consideration in the review.

The Commission's draft position paper and submissions received in response to that paper have provided input to the Commission's current position. A discussion of the

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1 Letter of April 30 1999, from DoTRS to aviation industry.

2 Declaration 83 ceases on 1 July 2002, Declarations 84 and 85 on 1 July 2003.

central arguments raised in submissions to the draft position paper is included at Attachment B.

The elements of the term necessary new aeronautical investment are discussed and the Commission's view stated. The Commission does not discuss the term aeronautical as proposals to increase prices in excess of CPI-X relate to services covered by the price cap. Such services are regarded as aeronautical services and are defined in the pricing instruments. The Commission's approach to the costs that might relate to a proposal to increase prices in excess of CPI-X is also discussed.

Necessary new investment

The formulation of a definition of necessary new investment for the purposes of the airports regulatory framework effectively involves defining each of the three elements; necessary, new and investment.

Necessary

The Commission did not present its view of the meaning of the term 'necessary' in its draft position paper. Submissions requested guidance on the Commission's approach to this element.

The Commission discussed the meaning of the term 'necessary' in its draft decision on the Brisbane Airport Corporation Limited (BACL) proposal to increase aeronautical charges to recover the costs of necessary new aeronautical investment. The Commission stated:

> Regarding the term 'necessary', the Commission considers that the guidelines against which a proposal must be assessed direct it to the question of whether an investment proposal is 'necessary'.[3]

The Commission maintains the view that the guidelines in Direction 13 (see attachment A) go to the question of whether a proposal to increase charges in excess of CPI-X relates to expenditure that is necessary.

Investment

It is necessary to define the term 'investment' before qualifying its scope by the term 'new'. In economics, the term 'investment' is used to distinguish the allocation of resources away from current consumption to future production.

An airport firm uses a range of inputs, or factors of production, such as labour, materials, trucks, airport terminals, refuelling equipment, runways, taxiways, which combine to produce output. Over a long enough horizon – dependent on the technology – it will be possible to vary all of these inputs. However, for shorter

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3 ACCC, *Brisbane Airport Corporation Limited proposal to increase aeronautical charges to recover the costs of necessary new investment,* Draft Decision, February 2000, pages 7 and 19

horizons, some of the inputs will be fixed. Such inputs are generally thought of as capital inputs, and are distinguished from inputs variable in the short term.

While the distinction is not always this clear, it can be demonstrated by considering two major fixed inputs in the airport context, runways and terminal infrastructure. It is not possible to increase these inputs in the same time-scale as it is possible to increase the amount of, say, labour employed. In addition, these inputs are durable – that is, once they are installed they last for several successive periods, and can be kept at their initial standard with sufficient maintenance.

In economics, it is this distinction between inputs that are variable in the short run and those that are relatively fixed, and durable over a number of periods, that underlies the definition of investment. In economics, **investment** is generally defined as:

An increase in fixed durable inputs, or capital.[4]

'New' investment

To define investment alone, however, would be inadequate for the operation of the regulatory framework, as it captures all types of investment. That is, it does not discriminate between 'new' investment and other types of investment.

The Commission considers that the presence of user support for an investment, including the associated charges, is a useful indicator of a project being a new investment. Just as it is reasonable to assume that user support indicates that a project is necessary it can be assumed that airport users will not support new charges unless they are satisfied that it meets the 'new' investment requirement.

However, there might not always be agreement between airport operators and users regarding an investment being 'new' or otherwise. Where there is no user support the Commission will refer to an economic approach to distinguishing between 'new' and other types of investment.

It is a widely held proposition of economics that three levels of investment can be distinguished; total investment, replacement investment and new investment. Total investment refers to the sum of all investment that occurs within a production system. By the laws of nature, and through wear and tear, capital naturally degrades over time. That is, there is a natural amount of *dis-investment*. The amount of investment necessary to maintain the existing productive base is equal to replacement.[5]

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4 Symmetrically, *divestment* can be defined as a reduction in fixed durable inputs.

5 This amount of investment is often referred to as depreciation or the capital consumption allowance. See for example, Lipsey, R, Langley, P and Mahoney, D, (1985) *Positive Economics,* 2nd ed, Weidenfeld and Nicholson, p. 556.

The balance of total investment over and above replacement of the productive base is referred to as net investment.[6] It is only this net investment that leads to new production. This is suggestive of a natural definition of 'new' investment.

Definition:

New investment is a change in fixed durable inputs that does not simply seek to replace natural degradation of capital.

On this basis, an expenditure is 'new' investment if it is not merely aiming to replace capital that has degraded naturally, whether through exposure to the elements, or through wear and tear from continual usage. In contrast, replacement investment is expenditure that merely aims to maintain the pre-existing levels of capacity and quality of the facility(ies).

The corollary to the definition above is that 'new' investment is therefore expenditure that is done as a means of either:

? Significantly altering the firms capacity, thus making significantly larger quantities of output more physically and/or economically feasible; or

? Attaining *net* enhancements in quality, that is, resulting in an improvement in quality over and above the pre-existing peak standard of quality for a given facility.

Although most investment aims to, and has the effect of, improving levels of capacity and quality what is relevant for the classification of 'new' investment is whether improvement has been achieved over and above pre-existing levels. The contribution of the expenditure to this end is the 'new' investment component.

The conceptual appeal of this definition is its acknowledgment that replacement investment and maintenance costs simply result in keeping the capital at some initial level (or reducing the rate of decline).

As well as being consistent with the economic analysis of investment, this approach is consistent with statements of policy in this area. This is borne out in correspondence between DoTRS and industry previously referred to:[7]

> ? there was no specific capital expenditure required under the price cap arrangements, it being expected that capital expenditure items would be negotiated between airports and airlines, and either be:
> - ✍ accepted by both sides as essential and on-going and funded accordingly out of continuing revenue streams; or
> - ✍ new and significant, demonstrably not part of on-going maintenance of existing capital stock and thus negotiable as to the new revenue that would be required; …

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6 "Net investment increases the economy's stock of capital; replacement investment keeps the existing stock intact by replacing what has been worn out or otherwise used up" Lipsey, R, Langley, P and Mahoney, D, ibid.

7 Letter of April 30 1999, from DoTRS to aviation industry.

This approach is also consistent with the calculation of the X values for the current price cap as provision was made for anticipated replacement and maintenance of the existing capital stock.

Although this definition can be applied to any investment proposal, one type of new investment that should be excluded, however, is that aimed solely at cost saving innovations. Where innovation has no effect on quality or capacity, the price cap already provides sufficient incentive for firms to undertake investment of this sort. That is to say, the airport owner retains increased earnings resulting from lower costs under the price cap arrangements.

Determining the costs to be recovered

A criticism levelled at the Commission's draft position paper is that the definition it proposed biases investment decisions of airport operators to capital rather than operating or maintenance expenditure. The view was expressed that the Commission's approach anticipated only capital expenditure and only in a single period.

The Commission does not maintain such an approach should be adopted. To the extent that such an approach could potentially bias the selection of the preferred production technology, the Commission maintains a flexible approach to the costing of proposals.

As submissions to the draft position paper identified, there are a diverse range of potential aeronautical investments that an airport operator could seek to undertake. In turn, these projects represent numerous alternate efficient mixes of capital and operating expenditure.

The necessary new investment guidelines allow the Commission to pass through the costs associated with a necessary new aeronautical investment.[8] Such an approach could include incremental operating or maintenance expenditures that flow from the new capital expenditure. This approach is consistent with that taken by the Commission in its Adelaide multi-user integrated terminal decision and its BACL draft decision.

The Commission is aware that it is not possible to predict the various mix of costs associated with proposed necessary new aeronautical investment proposals. As a general principle, a necessary new aeronautical investment proposal should articulate and enumerate the costs associated with that proposal in sufficient detail for the Commission to determine whether prices are excessive. As Direction 13 requires, "each proposal will be considered on its merits having regard to the information available to the ACCC".[9]

[8] Criterion (a) refers to "the operator's plans for new investment or service innovation and the associated costs".

[9] Direction 13, 22 May 1998, paragraph (6)

Tests of the definition

Testing the above definition of necessary new aeronautical investment against cases of expenditure that have arisen, or are likely to arise, is useful in illuminating the principles underlying it, as well as the method of its operation. The cases are analysed under the following two-stage framework:

1. Is the expenditure *investment*?

2. If so, is it *new* investment?

Runway overlay

1. *Investment*? Yes. This is expenditure on a fixed durable input; the runway should be expected to last for multiple periods.

2. *New*? Depends. This expenditure is not likely to pass the "new" test if it simply seeks to replace the natural degradation of capital arising through repeated usage and exposure to the elements. This, of course, assumes that the runway overlay would not result in greater throughput capacity, or amount to a net improvement on its quality when compared to its pre-existing level. A runway overlay resulting in significant strengthening which allows the bearing of heavier craft, for example, would be considered new investment. Importantly, the definition implies that only the proportion of expenditure that forms the increment to the runway's prior characteristics would be recognised as the "new investment" component.

Y2K compliance

1. *Investment*? Arguably, these costs can be construed as investment, given their once-off nature.

2. *New*? No. It can be argued that these expenditures amount to a mere maintenance of past capacity and quality. In this sense, Y2K compliance costs should be distinguished from investment in information technology (IT) generally. Where investment in IT will result in enhanced capacity or quality, it could satisfy the definition of new investment.

New fittings in terminal

1. *Investment*? Yes. Many of these inputs are fixed over the relatively short term.

2. *New*? Depends. It would in some cases be a mix of old and new investment. The key is whether there has been a net enhancement of the service. If no, then the expenditure can be classified as replacement investment. Therefore, the excess (if any) of the cost of the new fittings above the replacement cost of the old fittings would be the new investment component of the expenditure.

Extra runway

1. *Investment*? Yes – this is a significant and once-off increase in a capital input that would last for many periods.

2. *New*? Yes. Clearly, this expenditure is not simply seeking to replace natural capital decay. Rather, the investment would result in a considerably greater throughput capacity at the airport.

Major refurbishment of existing runway

1. *Investment*? Yes – it is an increase in fixed durable inputs.

2. *New*? More complicated than either the runway overlay, or the new runway cases. In certain circumstances this will not be new investment, since the expenditure would only amount to maintenance of past quantity and quality levels. Alternatively, a major refurbishment could result in significant enhancements in quality and/or capacity. The Commission will consider each proposal for this type of expenditure on a case by case basis.

Continual R&D in more cost-efficient baggage screening systems technologies

1. *Investment*? Yes. Expenditure on innovations is by nature long term.

2. *New*? Not likely. This is the case whereby the investment, although not simply for the purposes of replacement and hence "new," is not likely to be regarded as new investment, because innovations which are purely cost-saving in nature are excluded from the pass-through provisions, as discussed above.

Capitalisation of O&M costs

As an alternative to routine O&M costs, some services may be subject to a once-off investment that obviates the need to undertake O&M to the same degree in the future.

1. *Investment*? Yes, even though the expenditure is merely a capitalisation of O&M.

2. *New*? Not likely. In general, the investment would not lead to a substantial (or likely any) change in the capacity of the relevant facility, or in its quality levels. The increment on past capacity or quality levels, if any, could be viewed as new investment.

Masterplan and major development plans

1. *Investment?* It is arguable that planning expenses relate to relatively fixed durable assets. As such they are likely to satisfy the definition of investment.

2. *New?* It is unlikely that masterplans significantly increase airport planning capacity or enhance quality above the pre-existing level as masterplans are broad, indicative documents only.

Conclusions

The distinction can be practically difficult to make between new investment and other expenditure. User support for an investment, including the associated charges, is a useful indicator of a project being a new investment. However, user agreement will not always be forthcoming and some guidelines for interpreting the term necessary new investment can be developed based on the price cap framework and economic principles.

Where user support is not forthcoming, the Commission will adopt the following definition of new investment: *a change in fixed durable inputs that does not simply seek to replace natural degradation of capital.*

Essentially, new investment is expenditure that results in one, or both:

? altering the firms cost structure and/or capacity, thus making significantly larger quantities of output more physically and/or economically feasible; or

? attaining *net* enhancements in quality, that is, expenditure resulting in an improvement in quality over and above the pre-existing peak standard of quality for a given facility.

Other expenditure is likely to fall into the category of replacement investment, or operating and maintenance costs.

Once it has been established that a proposal is a 'new investment', the proposal can be assessed against the criteria at attachment A. These criteria focus on user support and "the relationship between the proposed increases in aeronautical charges and the costs (including the level of rate of return) of the new investment or service".

Attachment A: Guidelines for assessing proposals to increase charges to recover the costs of necessary new investment

The relevant paragraph discussing price increases to recover the costs of necessary new aeronautical investment from Direction 13 is reproduced below:

> (6) The ACCC is to use the following criteria to guide its assessment of proposals to increase charges for declared aeronautical services at a rate in excess of the CPI-X cap as a result of necessary new investment:
>
> (a) the operator's plans for new investment or service innovation and the associated costs;
>
> (b) the relationship between the proposed increases in aeronautical charges and the costs (including the level of rate of return) of the new investment or service;
>
> (c) support from airport users with a significant interest in the investment for the operator's proposals, including in relation to charging changes;
>
> (d) contribution of the new investment/service to productivity improvements at the airport;
>
> (e) overall efficiency of the airport's operation;
>
> (f) the particular demand management characteristics of individual airports, including any demand management schemes in place, capacity constraints and any under-utilisation of airport infrastructure;
>
> (g) airport performance against quality of service measures, including services under the control of the airport operator;
>
> (h) airport performance *vis a vis* other Australian airports and any comparable international airports; and
>
> (i) the extent to which the proposed investment will facilitate the operations of new entrants to domestic or international aviation.
>
> While the ACCC must take the above into account in deciding whether to approve a proposal to increase charges outside the cap, each proposal will be considered on its merits having regard to the information available to the ACCC. The weight provided by the ACCC to each of the criteria (a) to (i) may vary on a case by case basis.
>
> Where the ACCC does not approve a proposal to increase charges outside the price cap, it will provide a statement of reasons for its determination.

Although Direction 15, relating to Sydney Airports Corporation, makes no mention of price increases in excess of CPI-X, it contains guidelines (a) through (i) for consideration by the Commission in assessing proposals to increase charges for declared aeronautical services as a result of necessary new investment.

Attachment B: The definition of necessary new investment – submissions on the Commission's Draft Position Paper

Introduction

In December 1999 the Australian Competition and Consumer Commission (the Commission) released a Draft Position Paper "New Investment Costs Pass-through: The distinction between 'new investment' and other forms of expenditure, as it relates to the price cap pass-through provisions". The Draft Position Paper outlined a proposed approach to interpreting "necessary new investment". It provided a framework for distinguishing between new investment and other types of expenditure for the duration of the current price cap arrangements. The Commission sought submissions on the proposed approach from interested parties. The Commission received submissions from the following organisations:

? Ansett Australia;

? the Board of Airlines Representatives of Australia;

? Brisbane Airport Corporation;

? the Department of Transport and Regional Services;

? Northern Territory Airports;

? Melbourne Airport;

? Perth International Airport;

? Qantas; and

? Sydney Airport.

This paper provides a summary of the issues raised in the submissions and the Commission's consideration of them. It is structured around the issues raised in the submissions. These fall into three categories. First the meaning of 'necessary' in the necessary new investment framework. Secondly, the meaning of 'new'. Thirdly the potential distortion towards capital intensive investment decisions arising from the definition of 'investment'.

When is an investment necessary?

Submissions in response to the draft position paper did not comment on this element of the definition, however, Melbourne Airport stated:

> It is noted that the Commission's paper does not discuss the question of what constitutes necessary. Melbourne Airport believes this is an important issue that the Commission should also consider and provide guidance on.

The Commission discussed the meaning of the term necessary separately in its draft decision on Brisbane Airport 's proposal to increase aeronautical charges to recover the costs of necessary new investment. The Commission stated:

> Regarding the term 'necessary', the Commission considers that the guidelines against which a proposal must be assessed direct it to the question of whether an investment proposal is 'necessary'.

This approach has been adopted in the Discussion Paper. The relevant guidelines for leased 'Phase I and Phase II' airports are set out in paragraph 6 of Direction 13 made by the Treasurer pursuant to section 20 of the *Prices Surveillance Act 1983*. The relevant guidelines for Sydney (Kingsford Smith) Airport are in paragraph 3 of Direction 15. One of the main elements in the guidelines is user support.

The Commission's interpretation of the term 'new'

All of the airline submissions supported the Commission's draft position. The submissions explicitly supported the position that replacement investment should not be included as 'new' investment.

By contrast, most submissions from airport operators disagreed with the approach adopted in the Draft Position Paper. They argued that replacement investment should be considered 'new'. Two arguments in support of this were presented in the submissions. One was the lack of incentives for replacement if a pass-through of the costs of the investment were not possible. The second was that 'new' has a temporal meaning.

In relation to incentives for investment Northern Territory Airports put the view that:

> Faced with an administrative prohibition on securing WACC returns on full aeronautical expenditures, airport are, reluctantly, likely to reject or defer investment in aeronautical infrastructure.

Similarly Perth Airport argued:

> Where the ALC is faced with the prospect of securing sub-normal returns on an investment, the entity is likely to not undertake or at least delay that investment until economies are introduced into the investment equation.

And Sydney Airport argued that:

> The disincentive to replacing assets is the lack of immediate incremental revenue (erosion of bottom-line) caused by the investment. In some instances, short term financial gains could be made by 'sweating' assets at the cost of service quality and reliability.

By the same argument, however, to allow price increases in excess of CPI-X for replacement of existing infrastructure could create incentives for excessive levels of replacement. As Melbourne Airport stated:

> The current returns on aeronautical assets are so low as to prevent any real incentive for many airports to undertake expenditure either to prolong asset lives or replace assets. It is therefore to be expected that given a situation where pass-through is available for replacement assets, airports will prefer to replace assets rather than maintain them so as not to divert scarce resources from other areas of their business.

Some of the submissions also considered recovery of existing aeronautical costs. Perth Airport, for example, stated that:

> The extent to which WAC failed to fully recover even the operating costs of its aeronautical assets, not taking into account a return on those assets at any time either before or after the time of the sale of the airport is an explicit rebuttal to any proposition that there is an existing revenue stream to fund replacement assets.

From the *Pricing Policy Paper* it is clear that the purpose of the price cap is to constrain prices. However, it is not stated that prices should necessarily relate to costs. In fact the CPI-X price cap framework adopted is based on pre-existing prices, not an assessment of costs. Because of this it is not clear how it could be appropriate for the Commission to form a view as to what the term 'new' means on the basis of existing costs and prices. It is not directed to do so and to do so would involve detailed analysis of prices for existing services.

The second argument made in submissions is that the term 'new' has a strictly temporal meaning. Brisbane Airport stated this view in its submission:

> In our view, 'new' was used to distinguish between expenditure incurred up to the start of the price cap (2nd July 1997 for Phase I airports) and expenditure incurred after that date.

Perth Airport made a similar argument and related its interpretation of the term 'new' to the bid process. Perth stated:

> WAC assumed during its bid and continues to maintain that 'new' means any investment incurred by the ALC.

As with the cost based arguments for interpreting 'new' it is not clear how the temporal approach relates to the current regulatory framework. For example, bidders were advised that the Commission took account of capital expenditure in providing its advice on the 'X' values.

The challenge is to find a more robust distinction between 'new' and other types of investment. It is apparent that 'new' investment is a sub-set of investment generally. DoTRS made this point in correspondence to the industry in April 1999:

- there was no specific capital expenditure required under the price cap arrangements, it being expected that capital expenditure items would be negotiated between airports and airlines, and either be:
  - accepted by both sides as essential and on-going and funded accordingly out of continuing revenue streams; or
  - new and significant, demonstrably not part of on-going maintenance of existing capital stock and thus negotiable as to the new revenue that would be required; …

In its draft paper the Commission adopted an economic analysis of investment to distinguish between 'new' and other types of investment. It is a widely held proposition of economics that the term investment refers to the formation of capital and

three levels of investment are generally distinguished; total investment, replacement investment and net investment.[10] Total investment refers to the sum of all investment that occurs within a production system. The amount of investment necessary to replace the existing productive base is referred to as depreciation.[11] The balance of total investment over and above depreciation is referred to as net investment. This amount of net investment can also be thought of as 'new' investment as it is only this component of total investment that leads to new production.

The approach adopted by the Commission in its draft position paper is consistent with both an economic approach to the distinction between 'new' and other types of investment and with statements of policy on this matter. Where user support for a proposal is lacking, the Commission will proceed to determine the meaning of 'new' on the basis it proposed in its draft position paper.

Defining investment

In its draft position paper the Commission defined investment as:

> *An increase in fixed durable inputs (or capital).*

Some of the airport operator submissions expressed concern that the definition proposed by the Commission could create a distortion in airport operators' investment decisions. By emphasising fixed durable inputs, the definition biases the investment decision towards capital intensity. Sydney Airport submitted:

> While this may be a workable definition, SACL is concerned that a definition may not provide the correct incentives for the best outcome in each instance. In the case of many services, firms make decisions that balance the need for capital and operating resources to achieve the best outcome for customers.

Northern Territory Airports explained how this distortion could lead to inefficient outcomes:

> It is true that airports are relatively capital intensive businesses. However, ACCC's focus on fixed durable assets does not reflect the true incremental costs of providing new or better services at airports and would not facilitate improvements to services.

It was not the intention of the Commission that the definition in the draft position paper would limit the costs associated with an investment proposal to capital costs incurred in the first period. An economic approach suggests that a regulator should be indifferent to the mix of factors that a regulated firm allocates to production. The regulator's goal is that production should be efficient — factors allocated to their marginal value product, marginal revenue equal to, or exceeding, marginal cost.[12]

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[10] See for example the discussion of investment in Lipsey, R, Langley, P and Mahoney, D, (1985) *Positive Economics,* 2nd ed, Weidenfeld and Nicholson, pages 555 and 556.

[11] This sum is also sometimes referred to as the capital consumption allowance.

[12] The emphasis is here on productive efficiency, but the same rule will support allocative efficiency and dynamic efficiency through time.

The necessary new investment guidelines set out in Directions 13 and 15 allow the Commission to pass through the costs associated with a necessary new aeronautical investment[13]. Such an approach could include incremental operating or maintenance expenditures that flow from the new capital expenditure. This approach is consistent with that taken by the Commission in its Adelaide multi-user international terminal decision and Brisbane Airport draft decision.

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[13] Criterion (a) refers to "the operator's plans for new investment or service innovation and the associated costs".