Table 2.27: Proposed Reference Tariffs (Class FT), 2001 to 2005 (July $2000)

	2001	2002	2003	2004	2005
Mainline					
Capacity Tariff ($/TJ/d/km/mth)	15.26	15.07	14.88	14.70	14.52
Throughput Tariff ($/TJ/km)	0.0434	0.0429	0.0424	0.0418	0.0413
Laterals					
Capacity Tariff ($/TJ/d/km/mth)	38.17	61.04	83.90	106.76	129.63
Throughput Tariff ($/TJ/km)	0.210	0.336	0.462	0.588	0.714

The tariffs in Table **2.27** are in terms of July 2000 dollars. The mainline tariffs during the initial access arrangement period will be indexed by a price control formula which is CPI-X based with the objective of providing a smooth price path for users.[158] The escalation factor proposed by EAPL for a particular year (year n) is of the form:

$$(CPI_n/CPI_{n-1}) - X$$

The selection of the tariff for the initial year is guided by the existing published firm service tariffs. The proposed reference tariffs (for Class FT service) are projected to follow a price path whereby prices will fall in real terms by 1.25 per cent each year (the X factor). This approach will not only provide a smooth price path during the initial access arrangement period, but is also proposed by EAPL with the objective of facilitating a continuation of the smooth price path at the commencement of the next access arrangement period.

With regards to the laterals, EAPL proposes that the lateral reference tariffs would apply to the first 100 km only. After that, the mainline tariffs would apply. An example of the tariff calculation for a user on a lateral is shown in Box **2.2.** The tariff path for lateral pipelines is guided by the objective of phasing in tariffs in equal increments over the access arrangement period so that the final year tariff is equal to that which would recover the full allocation of total costs if applied over the full access arrangement period. However, as a consequence of the capping **and** phasing in of tariffs, lateral reference tariffs under-recover total costs by about **3.7** per cent over the initial access arrangement period (see section **2.8).**

While EAPL adopts a price control formula for lateral tariffs also, the approach is different to that adopted for mainline tariffs. For each year of the access arrangement period (year n), the base lateral tariffs shown in Table **2.27** will be adjusted by the following formula:

$$CPI_n/CPI_{2000}$$

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158 The formulae to index mainline and lateral reference tariffs are in the access arrangement Information, p. 58 **and** the access Arrangement, p. 28.

Therefore, rather than starting with a base (year one) tariff and making an adjustment to tariffs each year in accordance with the annual change in the rate of inflation less an X factor (as for the mainline), base tariffs are set for each year and adjusted in accordance with the change in the CPI with reference to the CPI for the year 2000.

Box 2.2: Example of a tariff calculation for a lateral user

This example concerns a user with a contracted MDQ of 10 TJ per day from Moomba to Bathurst (mainline distance of 1033 km and lateral distance of 161 km) and throughput of 280 TJ per month. The first 100 km of the lateral distance is charged at lateral rates, while the remaining 61 km is charged at mainline rates. Assume 2000/2001 tariffs apply, namely:

Mainline		
Capacity:	15.26	($/TJ/d/km/mth)
Throughput:	0.0434	($/TJ/km)
Laterals		
Capacity:	38.17	($/TJ/d/km/mth)
Throughput:	0.2100	($/TJ/km)

The monthly charge for this user is:

Capacity charge		
Mainline:	$157 636	(15.26 x 10 TJ x 1033 km)
Lateral capped:	$38 170	(38.17 x 10 TJ x 100 km)
Lateral excess:	$9 309	(15.26 x 10 TJ x 61 km)
Total capacity charge:	$205 115	
Throughput charge		
Mainline:	$12 553	(0.0434 x 280 TJ x 1033 km)
Lateral capped:	$5 880	(0.2100 x 280 TJ x 100 km)
Lateral excess:	$741	(0.0434 x 280 TJ x 61 km)
Total throughput charge:	$19 174	
Total charge (capacity plus throughput):	$224 289	

The unit cost for this user is approximately $0.80 GJ. ($224 289 / 280 TJ / 1000)

Reference services - Class STP (small take-offpoints): mainline and laterals

EAPL proposes to offer a Class STP service with the objective:

> … to promote the development of small regional natural gas markets at new delivery points where the quantity of gas is not expected to exceed 200 TJ per year. EAPL's concessional tariff is intended to reduce the delivered costs of gas to small communities.[159]

As can be seen in Table 2.26 both the STP mainline and lateral reference tariffs are linked directly to the Class FT mainline and lateral reference tariffs.

[159] Access arrangement, p. 13.

Reference services: Backhaul credits (Class FT and STP)

For any segment of the MSP where backhaul of the user's gas occurs based on monthly flows as determined by EAPL, the user will be entitled to the following reductions for the backhaul credits:[160]

- a 50 per cent discount on the capacity charge; and
- waiver of the throughput charge.

Non-reference services: Rebatable services (WFT, OFT and IT)

EAPL proposes to offer three types of rebatable services as part of an incentive mechanism to promote the efficient growth of the gas market in NSW and increase the utilisation of the pipeline. These will be offered at various times of the year with the nature of those services described in more details in Appendix C.

Non-reference services: Negotiable service

EAPL proposes to offer a negotiable service with negotiable tariffs and negotiable terms and conditions. This service is targeted to those prospective users whose requirements and circumstances vary significantly from those conditions on which the reference tariffs for reference services are based.

Overrun charges

Overrun charges, which apply to all classes of service with the exception of Class STP service, are incurred when the quantity of gas withdrawn by the user from a delivery point in a day is in excess of the user's MDQ. For authorised overruns, charges are at the rate of 200 per cent of the capacity charge, and for unauthorised overruns at 350 per cent of the capacity charge.

Odorisation charges

EAPL reserves the right to impose reasonable charges for odorisation, which is expected to be less than $0.01/GJ of gas delivered to the user.

Balancing charges

EAPL proposes to impose balancing charges if a user fails to rectify the imbalance after notice as follows: a charge of 150 per cent of the purchase price of gas paid by EAPL to restore the user to zero inventory plus a service fee of *$2* 000 per occurrence. However, it is proposed that balancing charges net of EAPL's expenses (including gas purchase) will be reimbursed to eligible users shortly after the end of each financial year?

Incentive mechanisms

In its access arrangement, EAPL proposes a market-based incentive mechanism to promote the efficient growth of the gas market and increase the utilisation of the pipeline through the provision of three types of rebatable services **(as** described earlier)

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[160] **Access arrangement, pp. 13 and 16.**

[161] **Access arrangement, p. 34.**

and a price path approach in setting reference tariffs during the initial access arrangement period.[162]

Rebatable services are designed to promote the efficient growth of the gas market and increase the utilisation of the MSP. EAPL is proposing that revenue generated from the rebatable services will be distributed in the following manner: 75 per cent to eligible users; 15 per cent to a depreciation reserve and ten per cent to EAPL. The depreciation reserve is designed to offset depreciation charges that would otherwise be paid by users in the next access arrangement period.

EAPL states that the price path approach to setting reference tariffs will provide it with strong incentives to reduce costs and promote growth in gas transmission volume. EAPL proposes a price control formula in the form of a CPI-X whereby reference tariffs for both mainline and lateral pipelines will follow a certain path in advance for the five-year term of the initial access arrangement period, that is from 2001 to 2005. As tariffs will not be adjusted for differences between actual and forecast costs and volumes, EAPL will gain any benefits that result from lower than forecast costs and higher than forecast volumes.

***Adjustments** to tariffs*

During the initial access arrangement period reference tariffs will only be adjusted for:

- new or increased taxes, charges, levies, imposts or fees; and
- inflation: Consumer Price Index (CPI) – All groups average of eight capital cities as published by the Australian Bureau of Statistics (ABS).

The reference tariffs proposed in EAPL's access arrangement are based on government taxes, charges, levies, imposts and fees, charges, levies, imposts and fees as at 30 April 1999. A principle of EAPL's tariff policy Clause 8.2(7) is that reference tariffs will be adjusted to take account of any changes in taxes and other government charges, including introduction of the GST. Reference tariffs will reflect both reductions and increases in any taxes and charges.

2.10.3 Submissions by interested parties

Santos's primary concern relates to the level of tariffs. It estimates that the price of transporting gas from Moomba to Sydney from 1 July 2000 essentially remains unchanged from the same level that applied during the past five years. It believes that a significant reduction of EAPL's proposed tariff of between 23 to 25 per cent in the Moomba to Sydney transportation charge should be possible for the following reasons:

- AGL has publicly stated that the transportation charge for the proposed 2 000 km pipeline from PNG to Queensland will not be more than $1.00 per GJ. However, based on a proportional pipeline length basis, the AGL charge for the PNG pipeline converts to $0.65 per GJ for a theoretically newly constructed pipeline from Moomba to Sydney. According to Santos, the 25 year old Moomba to Sydney should attract an even lower tariff; and

[162] Access arrangement, p. 21.

- Epic's current transportation charge for the 780 km pipeline Moomba to Adelaide Pipeline System (MAPS) is approximately $0.40 cents per GJ (for an 80 per cent load factor customer). However, based on a proportional pipeline length basis, the Epic charge of $0.40 cents per GJ for the Adelaide pipeline converts to $0.67 cents per GJ. Santos notes that the Epic pipeline has a higher degree of compression than EAPL and may therefore have higher operational costs per kilometre.

NERA identifies three issues in relation to the tariff structure proposed by EAPL:[163]

- EAPL's policy for promoting pipeline extension and expansion is neither economically efficient nor in the public interest. This issue is dealt with in the section on Extensions and Expansions Policy;
- diversion of a proportion (15 per cent) of revenue from rebatable services into a depreciation reserve; and
- the backhaul charge proposed by EAPL (that is, half the normal forward haul charge) is neither cost-based nor economically efficient. NERA argues that the proposed backhaul charge is high considering that, with the exception of administrative costs in arranging to swap gas supplies between different customers, there are no other costs directly related to backhaul transactions.

NERA objects to EAPL's proposal to keep 15 per cent of rebatable revenue to depreciation reserve which it considers to be a pre-payment for the purpose of reducing future tariffs. It sees no justification for holding back payments that otherwise would constitute refunds to eligible customers in this access arrangement period. Accordingly, it states that the proposal by EAPL to collect a fund to lower permissible revenues during the next tariff period should be rejected by the Commission.

Incitec has provided a sensitivity analysis which compares the level of EAPL's tariffs based on DORC, DAC and depreciated sale price and its effect on Incitec's costs under each of the scenarios. In support of the arguments that EAPL's proposed tariffs are too high, Incitec compares EAPL's level of tariffs with some Canadian pipelines based on a per 1 000 km basis.[164] This issue is discussed in more detail in Chapter 4 of this ***Draft Decision.***

Boral submits that the application of balancing charges is unclear. It argues that EAPL should specify a minimum grace period before charges would be applied to promote the desired behaviour and eliminate some uncertainty over the charges.

No comments were received on EAPL's price path approach to tariff setting.

2.10.4 Commission's considerations

This section deals with EAPL's proposed reference tariffs. Other charges, such **as** overrun charges, are dealt with in Chapter 3 under 'Terms and conditions'.

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[163] NERA submission on behalf of Incitec, 15 July 1999, pp. 3-4 and 11.
[164] Incitec submission, 18 August 1999, pp. 4-16.

Level of tariffs for mainlines and laterals

The level of proposed transportation charges was one of the most common concerns expressed by interested parties in submissions. Some submissions have argued that the proposed level of tariffs may be inappropriate either because of the application of DORC methodology (Incitec, AGUG, and Energy Market Reform Forum) or because of low forecast volumes (Santos). Other submissions (Santos and Incitec) contend that the level of tariffs being proposed is not justifiable on a per kilometre basis.

The Commission notes the concerns of Santos and Incitec regarding the level of EAPL's tariffs relative to the MAPS and selected Canadian pipelines. The Commission considers that price comparisons of this nature do not necessarily offer a reliable guide as to which set of charges is either fair or economically efficient. Such a conclusion would require an assessment of the costs involved in constructing and operating the pipeline, the vintage of the pipeline, overall load factors relative to available capacity, govemment charges and the pricing methodology which determines whether charges are distance related, as well as time profile and structure of charges.

However, as a result of the proposed amendments to EAPL's access arrangement contained in this *Draft Decision,* the price of transportation charge proposed by EAPL will fall for most customers and is likely to compare favourably to rates with those of several other pipelines quoted by Santos and Incitec.

As noted in the previous section, analysis undertaken by the Commission suggests that a common tariff structure for the three laterals is inefficient, as evidenced by an over-recovery of stand-alone costs on the Dalton to Canberra lateral. One possible option to overcome this problem is to apply the mainline tariff to the Dalton to Canberra lateral. This would leave only the Young to Lithgow and Junee to Griffith laterals being charged the lateral tariff structure. Table 2.28 shows a feasible structure based on the amendments contained in this *Draft Decision.* This is only one set of tariffs which conform with the amendments. The Commission will consider any other reasonable tariff structure proposed by EAPL that is in accordance with this *Draft Decision.*

Table 2.28: ACCC indicative tariff structure (July 2000 $)

	Proposed tariffs				
	2001	**2002**	**2003**	**2004**	**2005**
Mainlines[(a)]					
Capacity ($/TJ/d/km/month)	8.99	9.94	9.62	10.28	9.83
Throughput ($/TJ/km)	0.0367	0.0446	0.0413	0.0487	0.0427
Laterals					
Capacity ($/TJ/d/km/month)	88.06	86.74	83.13	83.92	81.09
Throughput ($/TJ/km)	0.7060	0.7491	0.6862	0.7384	0.6633

Note: (a) Includes Moomba

Compared in Table 2.29 are EAPL's proposed tariffs and Commission's indicative tariffs for various pipeline segments (on a $/GJ basis and assuming a 100 per cent load factor) based on the tariff structures in Tables 2.27 and 2.28. Table 2.29 shows that

over the access arrangement period the indicative average tariff proposed by the Commission for Moomba to Wilton (Sydney) is $0.47 GJ compared with $0.69 proposed by EAPL, a **32** per cent reduction. Users on the Young to Culcairn and Dalton to Canberra pipelines will also benefit from lower tariffs, whereas tariffs for users on the Junee to Griffith and Young to Lithgow laterals may experience some increase in tariffs, although significantly less than the tariffs proposed by EAPL.

Table 2.29: ACCC indicative tariffs on a per GJ basis (July 2000 $)

	Published	Tariffs					Average
	30/6/00	2001	2002	2003	2004	2005	
Moomba to Sydney							
EAPL ($GJ)	0.71	0.71	0.70	0.69	0.68	0.67	0.69
ACCC ($GJ)		0.43	0.48	0.46	0.50	0.48	0.47
Moomba to Wagga							
EAPL ($GJ)	0.64	0.63	0.63	0.62	0.61	0.60	0.62
ACCC ($GJ)		0.39	0.43	0.42	0.45	0.43	0.42
Moomba to Culcairn							
EAPL ($GJ)	0.68	0.68	0.67	0.67	0.66	0.65	0.67
ACCC ($GJ)		0.42	0.47	0.45	0.48	0.46	0.45
Moomba to Lithgow							
EAPL ($GJ)	0.68	0.77	0.85	0.93	1.01	1.09	0.93
ACCC ($GJ)		0.74	0.79	0.75	0.79	0.75	0.76
Moomba to Griffith							
EAPL ($GJ)	0.72	0.81	0.89	0.97	1.05	1.13	0.97
ACCC ($GJ)		0.76	0.81	0.78	0.82	0.78	0.79
Moomba to Canberra							
EAPL ($GJ)	0.65	0.70	0.74	0.79	0.83	0.88	0.79
ACCC ($GJ)		0.40	0.44	0.43	0.46	0.43	0.43

Note: Tariffs are based on a 100 per cent load factor.

Price path approach

EAPL's tariffs are based on forecast costs with a smooth price path to avoid tariff shocks. EAPL has adopted the published tariffs applicable at the time of lodgment of its access arrangement as the reference point for reference tariffs for the initial year of the access arrangement period.

This approach may be reasonable under EAPL's proposed access arrangement, as the revenue generated from published tariffs would not be substantially different to EAPL's proposed revenue under a cost of service approach. However, as a result of the Commission's proposals in this *Draft Decision,* application of published tariffs in the first year of the access arrangement would significantly over-recover total costs. Accordingly, the reference point for the initial tariffs should be the costs of providing reference services and rather than the published tariffs. This will result in an immediate

reduction in reference tariffs from the commencement of the access arrangement compared with current published tariffs for users on the Moomba to Wilton, Culcairn and Canberra pipelines.

The indicative tariffs proposed by the Commission and shown in Table **2.29** are based on annual forecast costs, whereas the tariffs proposed by EAPL incorporate a price path to avoid price shocks, both within the current access arrangement period and at the commencement of the next access arrangement period. The Commission supports a smooth price path provided that the approach is revenue neutral.

Proposed amendment A2.12

In order for EAPL's access arrangement for the MSP to be approved, the initial reference tariffs must be set in relation to the efficient forecast costs of providing reference services in accordance with the amendments proposed in this ***Draft Decision,*** rather than current published tariffs.

CPI-X adjustments

EAPL is proposing to adjust mainline tariffs in a particular year (year n) in accordance with the following escalation factor:

$$(CPI_n/CPI_{n-1}) - X$$

However, the Commission considers that the following formula for indices involving an X factor is more appropriate:

$$(CPI_n/CPI_{n-1}).(1 - X)$$

This latter formula preserves the relationship between target revenues (based on the cost of service approach) and forecast revenue (proposed tariffs multiplied by volumes) irrespective of the level of inflation. Accordingly the Commission proposes an amendment to the access arrangement to reflect the alternative formula. The difference in outcomes resulting from the two formulae is relatively minor at low levels of inflation, but more significant at higher levels.

For the mainlines, EAPL is proposing a positive X factor of 1.25 per cent. Consequently, tariffs are designed to decrease in real terms during the course of the initial access arrangement period. Given that volumes are forecast to rise during the next access arrangement period, further reductions in tariffs (in real terms) could be expected during the next period. Adoption of a positive X factor and resulting downward sloping price path (in real terms) should facilitate a continuation of a smooth price path during the next access arrangement period. The Commission supports this approach.

Proposed amendment A2.13

In order for EAPL's access arrangement for the MSP to be approved, the CPI-X escalation factor must be of the form $(CPI_n/CPI_{n-1}).(1 - X)$.

As discussed in section 2.1 in relation to EAPL's current cost accounting methodology, the Commission proposes that the CPI index should be exclusive of the impact of the New Tax System (NTS). The same principle applies to CPI-X adjustments to tariffs.

Proposed amendment A2.14

In order for EAPL's access arrangement for the MSP to be approved, the CPI-X formula must be exclusive of the impact of the New Tax System.

Application of the New Tax System

The tariffs discussed earlier in this section are exclusive of GST. EAPL has estimated that the impact of the GST and other elements of the New Tax System will result in an increase in tariffs of 9.83 per cent. The Commission considers that this estimate is reasonable. EAPL proposes to adjust references for new, or changes to, government taxes and charges (clause 8.2(7) of EAPL's proposed access arrangement).

Backhaul

The Commission notes the concern of NERA with the proposed backhaul rate, which it considers to be too high. The capital cost implications for the provision of a backhaul service are usually minimal and any charge at all may be fairly arbitrary. As a general rule, if there are no actual costs incurred or constraints placed on other parts of the system, EAPL's proposed figure could be viewed as high and not in accordance with efficient pricing principles based on costs.

Backhaul on the MSP is applicable to the Young to Culcairn pipeline, where the predominant flow of gas on different occasions may be either north or south. The 50 per cent backhaul rate proposed by EAPL is in the form of credits to users of firm service (rather than a service in its own right) and is dependent on the predominant flow of gas. If the predominant flow in any month is north from Victoria into New South Wales, then those users with firm contracts shipping gas south will receive a 50 per cent rebate of their capacity charge and waiver of their throughput charge. Similarly if the predominant flow is south, shippers sending gas north will receive the benefits of backhaul. In this manner shippers of gas along the Interconnect bear the risk of the uncertainty over the direction of the dominant flow of gas.

Under these circumstances the Commission considers that a rate of 50 per cent of the capacity charge may be appropriate. Nevertheless, the Commission notes that the backhaul service is mainly designed to cater for transactions in relation to the Interconnect. This is not to say, however, that a 50 per cent charge would be appropriate in other circumstances that may arise. For example, a user who ships gas through the EGP may wish to backhaul that gas on the MSP from Wilton to, say, a

delivery point on the Young to Lithgow lateral. The Commission appreciates that some charge may be appropriate to cover administrative costs, but has not attempted to determine an appropriate level for backhaul charges under these circumstances. The Commission invites comments from interested parties on this issue.

STP tariff

EAPL's states that its objective for the provision of a STP Class of service is to provide a concessional tariff in order to reduce the delivered cost of gas to small communities. The service applies to new delivery points where the quantity of gas is not expected to exceed 200 TJ per annum. Under EAPL's proposal, STP users will pay for the capital costs (including offtake and metering facilities) in return for lower tariffs. The Commission considers that, subject to economic efficiency tests being met, different pricing for different quality of service, reflecting different market conditions, can be a desirable feature of pricing for haulage.

Rebatable services

The objectives of the rebatable services as originally proposed by EAPL were to promote the growth of the market and the efficient utilisation of the pipeline. As part of EAPL's incentive mechanism, ten per cent of revenue generated from rebatable services would be retained by EAPL. The Commission endorses the concept of a rebate mechanism to provide the service provider with an incentive to promote the efficient use of capacity and enable users of reference services to share in the gains from the sale of rebatable services.

APT has submitted that circumstances have changed since the lodgment of the access arrangement (in particular the replacement of the GTA with the GTD) which render the rebatable services unviable. The Commission supports APT's submission that the rebatable services should not be offered in their current format and proposes that the access arrangement be amended accordingly. This issue is discussed in detail in Chapter **2.**

While the rebate mechanism as proposed by EAPL is no longer relevant to the approval process, the Commission notes NERA's concern with EAPL's original proposal to divert 15 per cent of revenue from rebatable services to a depreciation reserve. The Commission considers that the issue relates to a timing difference in the reimbursement of the financial benefits to eligible users. Under EAPL's proposal, future users (in subsequent access arrangement periods) would benefit from lower tariffs. It would be reasonable for current users rather than future users to be the beneficiaries of revenue generated from rebatable services in the current period. While the Commission appreciates that EAPL's proposal would have ultimately benefited users, if this feature of EAPL's proposed access arrangement were still applicable, the Commission would have required an amendment to the effect that the revenue intended to be diverted to a depreciation reserve be refunded to users in the current access arrangement period.

Factors contributing to out-performance

It is possible that in the first access arrangement period EAPL will achieve returns greater than those implied by the WACC used in calculating the target revenue. These 'excess' returns may occur for a number of reasons, including actual volumes being greater than forecast; costs being less than forecast; and capital expenditure being less

than forecast. In some instances, the reason for the excess return may be due to the efforts of EAPL. The amendments proposed by the Commission in this ***Draft Decision*** will result in lower tariffs than those proposed by EAPL in its access arrangement. The tariffs proposed by the Commission are based on EAPL's volume forecast and no allowance has been made for lower tariffs leading to higher quantities demanded (depending on the price elasticity of gas transmission services). As a result, to the extent that lower tariffs lead to an increase in volumes greater than forecast, EAPL will retain the benefits of the additional revenue generated by the higher volumes.

The Commission considers that the retaining of returns greater than those forecast during the initial access arrangement period by EAPL provides an incentive as envisaged by the Code. As tariffs are based on forecast volumes, EAPL will retain the benefit of any additional revenue in the event that actual volumes are greater than forecast. Likewise, the Commission would expect EAPL to bear any loss of revenue resulting from realised volumes being less than forecast and would not expect EAPL to submit revisions to the access arrangement during the term of the initial access arrangement in the event of this happening.

Conclusion

The proposed tariff path and incentive mechanisms are designed to provide EAPL with incentives to decrease costs, promote market growth, and reduce capital expenditure consistent with requirements for safe and reliable operation of the pipeline. In its report to the Commission on regulation of competing pipelines, NERA considered the issue of incentives, particularly in relation to the level of volumes used to determine tariffs. NERA argues that basing tariffs on forecast sales provides only weak incentives to the service provider to promote market growth and improve utilisation of the pipeline. NERA's report is covered in more detail in section 2.8.

One factor in constructing the appropriate incentives for EAPL is the extent to which EAPL will be allowed to keep returns in excess of those implied by the WACC, both in the initial access arrangement period and any continuing benefit in the subsequent access arrangement period. The Commission considers that the question of retention of benefits into the subsequent access arrangement period is most appropriately dealt with at that time. The Commission has discussed the issue of benefit sharing, both within and between regulatory periods, in its ***Draft Regulatory Principles.*** In particular, the ***Draft Regulatory Principles*** focuses on CPI-X mechanisms, P_o adjustments and glide paths.[165]

The Commission considers that EAPL has satisfied the Code in relation to its proposal to establish a price path approach for tariffs and an incentive mechanism to encourage efficiency gains and growth of the gas market in NSW/ACT.

[165] **ACCC, Draft Regulatory Principles, pp. 86-97.**

2.11 Assessment of reference tariffs and reference tariff policy

2.11.1 Code requirements

Section 3.5 of the Code requires the access arrangement to include a policy describing the principles that are to be used to determine a reference tariff **(a** reference tariff policy). This reference tariff policy must, in the Commission's opinion, comply with the reference tariff principles described in section 8 of the Code.

Section 8 of the Code establishes the principles which must be followed in the establishment of reference tariffs. Specifically, section 8.1 of the Code requires that the reference tariff policy and all reference tariffs should be designed to achieve a number of objectives, as follows:

(a) providing the Service Provider with the opportunity to earn a stream of revenue that recovers the efficient costs of delivering the Reference Service over the expected life of the assets used in delivering that Service;

(b) replicating the outcome of a competitive market;

(c) ensuring the safe and reliable operation of the Pipeline;

(d) Not distorting investment decisions in Pipeline transportation systems or in upstream and downstream industries;

(e) efficiency in the level and structure of the Reference Tariff; and

(f) providing an incentive to the Service Provider to reduce costs and to develop the market for Reference and other Services.

To the extent that there may be conflict between the application of these objectives, the Commission has the responsibility to determine how they may be best reconciled. In addition, under section 8.2, there are a number of matters on which the Commission must be satisfied before it can approve a reference tariff, including:

(a) the revenue to be generated from the sales (or forecast sales) of all Services over the Access Arrangement Period (the *Total* ***Revenue)*** should be established consistently with the principles and according to one of the methodologies contained in this section 8;

(b) to the extent that the Covered Pipeline is used to provide a number of Services, that portion of Total Revenue that a Reference Tariff is designed to recover (which may be based upon forecasts) is calculated consistently with the principles contained in this section **8;**

(c) a Reference Tariff (which may be based upon forecasts) is designed so that the portion of Total Revenue to be recovered from a Reference Service (referred to in paragraph (b)) is recovered from the Users of that Reference Service consistently with the principles contained in this section **8;**

(d) Incentive Mechanisms are incorporated into the Reference Tariff Policy wherever the Relevant Regulator considers appropriate and such Incentive Mechanisms are consistent with the principles contained in this section **8;** and

(e) any forecasts required in setting the Reference Tariff represent best estimates arrived at on a reasonable basis.

These factors are mandatory requirements on the Commission. In addition, the Code specifies principles and requirements for each of these factors. These principles and factors are a mixture of mandatory requirements on the Commission and principles which provide the Commission with different levels of discretion. Furthermore, the

Code provides the Commission with a limited ability to approve 'principles' (fixed principles) in an access arrangement that will bind its hands at future reviews. The Code, however, only permits fixed principles to be included if they meet certain principles in section 8.48 of the Code.

Nevertheless, within these parameters, the reference tariff principles are designed to provide sufficient flexibility so that the reference tariff policy can be designed to meet the specific needs of each pipeline system. The overarching requirement is that when reference tariffs are determined and reviewed, they should be based on the efficient cost (or anticipated efficient cost) of providing the reference services.

The principles also require that, where appropriate, reference tariffs be designed to provide the service provider with the ability to earn greater profits (or less profits) than anticipated between reviews if it outperforms (or underperforms) against the benchmarks that were adopted in setting the reference tariffs. The intention is that, to the extent possible, service providers be given a market-based incentive to improve efficiency and to promote efficient growth of the gas market (an incentive mechanism).

Reference tariffs are to be set on the basis that sales of all services provided by the covered pipeline deliver (or are forecast to deliver) a certain amount of revenue (total revenue) over the period for which the reference tariffs remain in effect (the reference tariff period).

2.11.2 EAPL's proposal

EAPL submits that its proposed tariffs policies and principles for reference services have been developed based on the following objectives consistent with section 8 of the Code:[166]

- achieving greater utilisation of the pipeline;
- providing a flexible tariff structure that can be responsive to price sensitive markets;
- providing encouragement for the growth of natural gas markets;
- identifying new market opportunities;
- generating sufficient revenue to operate the pipeline safely and reliably and to provide a fair return on the capital invested in the pipeline; and
- providing an incentive to all affected parties to retain and develop gas markets through market responsive reference tariffs and rebatable services.

2.11.3 Submissions by interested parties

No submission raised any issues relating to EAPL's proposed reference tariff policy per se. However, issues were raised with some elements that comprised EAPL's proposed revenue requirements, and hence reference tariffs. Those issues have already been considered under previous sections in this ***Draft Decision.***

[166] Access arrangement, clause 8.1, and Access arrangement information, clause 4.2.2,

2.11.4 Commission's considerations

The Commission considers that as EAPL's proposed access arrangement includes a reference tariff policy, it satisfies the requirements of section 3.5 of the Code.

The Commission's assessment of the reference tariffs in EAPL's access arrangement for the MSP pursuant to the Code has been made in this chapter. The following discussion draws together the Commission's conclusions within the framework of sections 8.1 and **8.2** of the Code on reference tariffs.

Recovery of efficient costs associated with the provision of reference services [8.1(a)]

EAPL's reference tariff policy is essentially a cost of service approach under which EAPL's revenue requirements equate to the costs of providing reference services. Under this approach the regulator is obliged to approve reference tariffs which deliver a revenue stream sufficient to recover the efficient costs of providing reference services. The 'efficient costs' test refers to both non-capital costs (such as operating and maintenance costs) and capital expenditure. Only those costs incurred by a prudent service provider acting efficiently should be included.

The Commission notes that since its purchase of the MSP in 1994 EAPL has significantly reduced costs and improved the efficiency of the pipeline. EAPL has also submitted key performance indicators that suggest EAPL's costs compare favourably with other pipelines, although such comparisons do have their limitations. The major items included in EAPL's forecast capital expenditure are the looping of the Canberra lateral and the compressor on the Interconnect at Uranquinty.

While at least one interested party was critical of EAPL's use of key performance indicators, none suggested that EAPL's forecast costs were inefficient. The Commission considers that the reference tariffs proposed by the Commission in this *Draft Decision* will provide EAPL with sufficient revenue to recover the efficient costs of providing reference services.

Replicating the outcome of a competitive market [8.1(b)]

Since the regulated rate of return is based on CAPM benchmarks, the returns achieved are expected to be similar to those achieved by firms facing commercial risks in a competitive market environment. The return will be based on only those assets necessary to deliver the services required. Pricing that is reflective of efficient costs is also a feature of competitive markets.

The reference tariffs will also allow EAPL to achieve a return in excess of a normal rate from any increased efficiency and growth of the market as would occur in a competitive market. However, in a competitive market over time any excessive returns will be passed on to consumers.

Ensuring the safe and reliable operation of the pipeline [8.1(c)]

The reference tariffs are based on costs forecast as being necessary for the safe and reliable operation of the pipeline. Each review of the access arrangement provides an opportunity for EAPL to increase its revenue if the safety and reliability of the pipeline demands it.

*Not distorting investment decisions in pipeline transmission systems or in upstream **or** downstream industries [8.1(d)]*

The rate of return set by the regulator should be sufficient to cover the service provider's cost of capital. A rate of return that is lower than that required by investors will be insufficient to attract investment in the long run. On the other hand, a higher than required rate of return will enable the service provider to set tariffs a high level, earn monopoly rents and will result in a misallocation of resources. The Commission considers that the rate of return determined in this *Draft Decision* will not distort investment decisions.

Inter-temporal investment distortions are minimised by the smooth price path approach proposed by EAPL, which is intended to produce stable prices over the access arrangement period, and the CCA framework which avoids tariffs which increase or decrease markedly over time (price shocks).

The risk of inefficient investment by another pipeliner seeking to bypass the system is minimised by the upper limit, DORC valuation, placed by the Code on the value of the initial capital base. EAPL's proposed tariff structure for the lateral pipelines would result in a revenue stream for the Dalton to Canberra lateral indicative of an asset value for that lateral in excess of its DORC. Accordingly, the Commission requires an adjustment to EAPL's proposed tariff for the Dalton to Canberra lateral.

Efficiency in the level and structure of the reference tariff(s) [8.1(e)]

EAPL's tariff structure is designed to recover the efficient costs of providing reference services. As traditional marginal cost pricing would be insufficient to recover costs, EAPL has adopted a two-part tariff comprising a charge for capacity reservation and a throughput charge. The capacity and throughput charges are designed to recover the fixed and variable costs respectively of providing reference services. This approach is considered efficient as capacity rather than throughput is the major cost driver.

EAPL is also proposing higher tariffs for the lateral pipelines than the mainline to reflect higher unit costs. Again, this approach is considered efficient in theory. However, EAPL's proposal for a common tariff structure across all laterals results in inefficient pricing on the Dalton to Canberra lateral (as mentioned above).

Incentives to reduce costs and expand the market [8.19(f)]

EAPL has sufficient incentives to reduce costs and expand the market, as any benefits arising from reduced costs and/or higher realised volumes than forecast will be retained by EAPL during the term of the access arrangement period. EAPL will also retain ten per cent of all revenue generated from rebatable services.

Section 8.2 factors

Section *8.2* of the Code lists five factors on which the Commission must be satisfied in determining whether to approve the reference tariffs. These are assessed below.

*Total revenue is established consistently with the principles and according **to** one of the methodologies contained in section 8 of the Code [8.2(a)]*

EAPL's revenue requirements are essentially based on a cost of service approach with a smooth price path to avoid price shocks. This approach is consistent with the Code.

However, the Commission believes that EAPL's proposed costs are overstated and as a result of amendments proposed in this ***Draft Decision*** EAPL's revenue stream will be less than that proposed by EAPL.

The proportion of total revenue that any one reference tariff is designed to recover is calculated consistent with the principles of section 8 of the Code [8.2(b)]

The large bulk of EAPL's revenue is expected to be derived from the FT Class service. Accordingly, for tariff setting purposes EAPL has allocated all costs to this service and assumed all volumes relate to this service. While this approach may at first seem inconsistent with the Code, little revenue is expected from other services (or in the case of rebatable services the bulk of revenue will be returned to eligible users) and a more precise methodology of allocating total revenue is not considered warranted.

The proportion of total revenue recovered from users of a service is calculated consistent with the principles of section 8 of the Code [8.2(c)]

As discussed above, EAPL's proposal to segregate the MSP into mainline and laterals for the tariff-setting purposes will lead to an inefficient allocation of costs to users on the Dalton to Canberra lateral.

The Commission considers that, after implementation of the proposed amendments, the tariffs will recover from each user a fair and reasonable share of costs (see section 2.8).

Incentive mechanisms that are incorporated are consistent with the principles of section 8 of the Code [8.2(d)]

The Code states that an incentive mechanism may include, among other things, a sharing between the service provider and users of any revenue in excess of the target revenue. For the duration of the access arrangement period EAPL is proposing to retain any benefits from cost savings and higher than forecast volumes. The sharing of such benefits between the service provider and users will be an issue for consider at the commencement of the next access arrangement period.

An incentive mechanism based on forecast variables (such as volumes) carries a certain degree of risk and the Commission believes that the service provider should equally bear both the upside and downside of that risk. Just as EAPL is able to retain during the access arrangement period any excess revenue if actual volumes are greater than forecast, the Commission would not expect EAPL to submit revisions to the access arrangement prior to the expiry of the initial five year term to increase tariffs in the event that actual volumes are less than forecast. The same argument applies if realised costs are higher than forecast.

The Commission considers that the incentive mechanisms in the access arrangement are consistent with the Code.

Forecasts are best estimates [8.2(e)]

The Commission considers that EAPL's forecasts of volumes are reasonable. In considering EAPL's forecast volumes the Commission has taken into account recent studies into future gas demand in New South Wales.

3. Non-tariff elements

Section 3 of the Code establishes the minimum contents of an access arrangement, which include the following non-tariff mandatory elements:

- a services policy that must contain at least one service that is likely to be sought by a significant part of the market;
- terms and conditions on which the service provider will supply each reference service;
- a capacity management policy to state whether the covered pipeline is a contract carriage or market carriage pipeline;
- in the case of a contract carriage pipeline, a trading policy which provides for the trading of capacity;
- a queuing policy which defines the priority that users and prospective users have to negotiate capacity where there is insufficient capacity on the pipeline;
- an extensions and expansions policy which determines whether an extension or expansion of a covered pipeline is or is not to be treated as part of the covered pipeline for the purposes of the Code; and
- a date by which revisions to the access arrangement must be submitted and a date on which the revisions are intended to commence.

An access arrangement must also contain a reference tariff policy and at least one reference tariff. EAPL's tariff related proposals for the MSP are assessed for compliance with the Code in Chapter *2* of this ***Draft Decision.***

In this chapter the mandatory non-tariff elements of access to the MSP are assessed for conformance with the Code. The Code requirements are outlined for each mandatory element followed by a summary of the service provider's proposal, the issues raised in submissions, and the Commission's considerations. The Commission's assessment includes, where relevant, amendments that the Commission proposes be made in order for the access arrangement to be approved. All amendments are replicated in the Executive *Summary* of this ***Draft Decision.***

3.1 Services policy

3.1.1 Code requirements

Sections 3.1 and 3.2 of the Code require an access arrangement to include a services policy which must include a description of one or more services that the service provider will make available to users and prospective users. The policy must contain one or more services which are likely to be sought by **a** significant part of the market, and any service or services that in the relevant regulator's opinion should be included in the services policy.

To the extent that is practicable and reasonable, a service provider should also make available only those elements of a service required by users and prospective users and apply **a** separate tariff for each element if this is requested.

3.1.2 EAPL's proposal

EAPL's service policy consists of six services:

1. two reference services:
   (i) a firm transportation service (Class FT service); and
   (ii) a small take-off point service (Class STP service);
2. three rebatable non-reference services with biddable features:
   (i) winter season firm transportation service (Class WFT service);
   (ii) off-season firm transportation service (Class OFT service); and
   (iii) interruptible transportation service (Class IT service); and
3. a negotiable non-reference service to cater for users who require different conditions than those offered by the reference services due to differing requirements and circumstances.

FT service

For the FT service, gas is transported from the receipt point to delivery points with tariffs determined on the basis of capacity and throughput (commodity). Different tariffs apply depending on whether delivery points are on the mainline or laterals.

The monthly capacity charge equals the product of the capacity reference tariff in $/TJ/day/month/km, the pipeline distance (km) between receipt point and delivery point and the MDQ (TJ/day) specified in the service agreement. The throughput charge equals the product of the throughput reference tariff in $/TJ/km, the pipeline distance (km) and the quantity of gas delivered (TJ). Other charges are levied for overruns, balancing, odorisation and, if applicable, a capacity surcharge for enhanced facilities.[167] For backhaul service, there is a 50 per cent discount on the capacity charge and the throughput charge is waived.

The minimum term for FT service is one year and the maximum term is twenty years.

STP service

STP service is intended for small users where the quantity of gas to a delivery point is not expected to exceed 200 TJ/year. Gas is transported by EAPL to metering facilities provided by the user. Tariffs are based on those applicable to the FT service between the same receipt point and delivery point. The minimum term for STP service is one year and the maximum term is twenty years.

WFT service

This service is a firm service to apply between 1 June and 30 September each year, subject to capacity being available. Tariffs and charges will be determined in accordance with bidding procedures to be established by EAPL. Expressions of interest will be called prior to 1 March each year. Charges are levied for overruns, balancing and odorisation. There is no backhaul.

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[167] **These are facilities for which an agreement has been made between EAPL and a user in relation to the construction of additional, modified or enhanced facilities to provide services.**

The minimum term for WFT service is one month and the maximum term is four months. Agreements will not be renewable.

OFT service

This is an equivalent service to the WFT service, offered for a period between October and May each year.

IT service

Subject to capacity being available, IT service is offered at least twice each year. EAPL will call for expressions of interest from users prior to each bidding period. This service is subject to whole or partial interruption by EAPL at any time or by the user on short notice. Charges are levied for overruns, balancing and odorisation. There is no backhaul.

The term for IT service will be at least one month as specified by EAPL in setting the bidding process. Each user's tariff, maximum hourly quantity (MHQ) and maximum daily quantity (MDQ) and the priority amongst users of IT service will be established by means of the bidding process. Agreements will not be renewable.

Subsequent APT submission on behalf of EAPL

Subsequent to its establishment on 13 June 2000 as the owner of EAPL, APT wrote to the Commission identifying a number of revisions to the proposed access arrangement which it considered were necessary 'to properly protect EAPL's legitimate business interests'? APT advised that EAPL had concerns, in the expected absence of capacity constraints, about the proposal for seasonal interruptible service tariffs to be set through a bidding process. EAPL also ' ... has concerns regarding establishing the rules under which the bidding process will be conducted.'[169]

Subsequent correspondence from APT notes support for the general principle of offering interruptible services. However, APT suggests that in the circumstances of the MSP there is 'little practical justification to pursue offering such a service'. It states:

> We are unable to confirm the rationale behind EAPL offering seasonal interruptible service in the Access Arrangement, and apart from the current winter we see little, if any, likelihood that capacity in the pipeline is likely to be constrained in the near future. Indeed with the decrease in throughput expected to be encountered due to the competitive pressure that EAPL is facing from the Eastern Gas pipeline, we wish to revise the Access Arrangement to remove a seasonable interruptible service together with the associated bidding process.[170]

Similarly, APT considers that the rebatable services (WFT, OFT and IT) be amended as the current proposal is unworkable. It states:

> Since the time of preparing the Access Arrangement, the Gas Transmission Agreement has been replaced with the Gas Transportation Deed which has the affect of significantly reducing the total firm capacity contracted on MSPS. In these changed circumstances the proposed rebate mechanism could result in the perverse outcome that a small firm shipper could be rebated in excess of its firm tariff or that substantial tariff revenue is rebated to AGL Wholesale Gas simply because it now has (under the Gas Transmission Deed) an

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168 **APT** submission, 11 August 2000, p. 1.
169 APT submission, 11 August 2000, p. **3.**
170 APT letter to the Commission, 21 September 2000, p. **2.**

> ability to vary its nomination between firm and interruptible service. These potential outcomes were not contemplated in the Access Arrangement, and given the potentially adverse impacts on **EAPL's** revenue we believe the rebating mechanism should be revised accordingly.[171]

APT advised that various options in revising the rebate mechanism were under its consideration. A proposed revision has not been provided to the Commission.

3.1.3 Submissions by interested parties

Boral stated that the proposed IT service offered by EAPL is not an interruptible service of the nature required by customers in that it may only be offered twice a year and will not satisfy the needs of customers.[172] Boral submitted that a more flexible interruptible service similar to that currently applying to the MSP is required and that the service should also be a reference service. It stated that the bidding process proposed for class WFT, OFT and IT as described in the access arrangement was vague and largely unspecified. Boral sought more information on the capacity register EAPL intends to maintain to record spare capacity.[173]

Incitec also raised some concerns in relation to backhaul charges. These have been discussed in section 2.10 of this ***Draft*** *Decision*.

3.1.4 Commission's considerations

The Commission considers that EAPL's FT service is a service that would be sought by a significant part of the market. Accordingly, EAPL satisfies the requirements of sections 3.1 and 3.2(a)(ii) of the Code.

The Commission is able to require that a services policy include any service or services that the Commission considers should be included (section 3.2(a)(ii) of the Code). However, with the exception of Boral, no users or prospective users sought services not already proposed by EAPL. As noted above Boral has sought inclusion of an amended IT service in the reference services. While the availability of an IT service may generally be desirable, the excess capacity anticipated on the MSP during the initial access arrangement period suggests that an interruptible service would effectively be a firm service. Pricing of an interruptible service below the level of the firm service may encourage users to opt for an interruptible service instead of a firm service in the knowledge that interruption of service is unlikely to occur and, therefore, with no additional risk. **As** a consequent EAPL may incur an undue loss of revenue and fail to cover its efficient costs. Accordingly, the Commission proposes that it will not require EAPL to include an IT service, or any other service, as a reference service in its access arrangement, other than the reference services proposed by EAPL.

More recent correspondence from APT indicates further changes to the IT service are likely. The Commission agrees that a bidding process may be impractical during the initial the access arrangement period when it is unlikely that capacity will be constrained. Nonetheless, it considers that such a process may well provide useful

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171 **APT** letter to the Commission, **2** 1 September 2000, p. **3.**
172 Boral submission, **2** July 1999, p. **2.**
173 Access arrangement, clause **4.**

price signals and lead to greater utilisation of capacity in future. EAPL's legitimate business interests would be protected by clause 11.2(1)(a) of the proposed access arrangement which allows EAPL to specify the minimum bid price and the capacity available for the rebatable service.

APT has identified shortcomings with the rebatable services as originally proposed by EAPL. APT states that it does not wish to eliminate rebates but that they should be reconsidered. However, EAPL has not identified the likelihood or extent of the apparent anomaly occurring, or proposed an alternative mechanism.

In light of the concerns raised by both APT and interested parties in regard to the three rebatable services currently included in the proposed access arrangement, the Commission considers that the most appropriate course of action would be to delete these services from the access arrangement. An amendment to this effect is required by the Commission.

Proposed amendment A3.1

> In order for EAPL's access arrangement for the MSP to be approved, EAPL must remove the three rebatable services known as class WFT, OFT and IT services currently included in the access arrangement.

The Commission expects APT and interested parties to provide further comment in relation to rebatable services. In particular:

- are rebatable services required by users;
- should any rebatable services be reference services;
- the nature (terms and conditions and tariffs) of any rebatable services sought; and
- the appropriateness of the current EAPL rebatable services to be incorporated into the access arrangement.

In particular the Commission is interested in receiving comments on any practical alternative IT service to that original proposed by EAPL. The Commission notes that IT services are offered by other pipeline operators, as has EAPL in the past, usually at a premium above the tariff for firm service. **As** well as comments on the desirability of an IT service, the Commission is seeking comments on how the IT service should be priced so that EAPL would still achieve its revenue requirements. This information will assist the Commission in forming a view in its ***Final Decision*** in regard to the compliance of the services policy with the Code.

In relation to Boral's request for clarification regarding the 'Capacity Register' (clause 4.2 of the access arrangement), the Commission notes EAPL's advice that the reference is to the public register of capacity that a service provider must establish and maintain pursuant to section 5.9 of the Code.

The Commission considers that EAPL's proposed services policy satisfies those provisions of the Code that require the access arrangement to include at least one service which is likely to be sought by a significant **part** of the market.

3.2 Terms and conditions

3.2.1 Code requirements

Section **3.6** of the Code requires an access arrangement to include the terms and conditions on which a service provider will supply each reference service. Based on the regulator's assessment, these terms and conditions must be reasonable.

3.2.2 EAPL's proposal

Clause 13 of the access arrangement states that EAPL will provide the reference services on terms and conditions consistent with principles set out in Attachment **3** to the access arrangement. EAPL also states that the operational requirements and balancing provisions will be consistent with the procedures described in Attachment **4** to the access arrangement.

In addition to the provisions of these attachments, some terms and conditions are dealt with in the main section of the access arrangement (for example, prudential requirements). Key factors relating to all the proposed transportation services include:

- EAPL will receive gas at the receipt points, transport it through the pipeline and deliver it at the delivery points;
- EAPL will supply, install, own, operate and maintain measuring equipment at or near each receipt and delivery point (subject to EAPL's right to waive the requirement);[175]
- users will be required to establish a MDQ and a MHQ for each delivery point which fairly reflect their maximum daily and hourly requirements;[176] and
- EAPL will receive into the pipeline quantities of gas up to the MDQ and MHQ at a receipt point and deliver from the pipeline quantities of gas up to the MDQ and MHQ at a delivery point.

EAPL's proposed access arrangement also outlines the procedures that must be followed for a prospective user to gain access to a service, including the minimum level of detail to be provided in a request, and time periods within which AGLP will respond.[177]

Key aspects of the terms and conditions covered by Attachment **3** of the access arrangement include:

a) Quantity nominations (clause **3)**

Users must nominate the quantity of gas to be received into the pipeline and delivered at each delivery point at daily or other intervals as EAPL advises. EAPL may introduce binding procedures for nominations, which EAPL may amend from time to time by notice to users.

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[175] Not applicable to STP service.
[176] Only MHQ is applicable to **STP** service.
[177] Access Arrangement Clause 7.