



مكتب التنظيم والرقابة
Regulation & Supervision Bureau

Second Consultation on the Price Control for
Abu Dhabi Water & Electricity Company

December 1999



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Abu Dhabi Water & Electricity Company

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Foreword

In October 1999, the Regulation & Supervision Bureau (the Bureau) published a consultation paper setting out the issues to be considered in setting the first price controls for the water and electricity procurement business of Abu Dhabi Water and Electricity Company (ADWEC).

Since then, the Bureau has considered carefully the responses made to the issues discussed in the first consultation paper. This paper sets out the Bureau's views on the issues raised taking account of the responses received.

The Bureau has also analysed information received from ADWEC on future costs and demands, as well as available historic information. The Bureau has to determine the values to be taken by each element of the price control formulae, the `notified values`. Part III of this consultation paper sets out proposed values for these terms that the Bureau considers appropriate. These are draft proposals and may change in the light of responses to this second consultation paper.

The price controls have effect from 1 January 1999 and are being developed by the Bureau in accordance with its Primary and General Duties in Articles (53) and (54) of Law No (2) of 1998. The main objectives in setting the price controls will be to protect customers, while providing incentives to ADWEC to improve efficiency. The Bureau expects to publish final controls in January. Comments on the matters raised in this paper are sought by 31st January 2000. Replies should be sent to:

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Senior Economist
The Regulation & Supervision Bureau
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Abu Dhabi

Comments submitted to the Bureau as part of the consultation exercise will be made publicly available. Please make it clear if your comments must be regarded as confidential.

Graeme Sims

General Manager

The Regulation & Supervision Bureau



1. Introduction

- 1.1. The Bureau is in the process of setting a price control for the water and electricity procurement business of ADWEC. A consultation paper, published in October 1999, laid out a number of issues that require consideration when setting the control and the Bureau's initial views on each of these issues. ADWEC and other interested parties were invited to comment on these and other issues relevant to ADWEC's price control.
- 1.2. Part I of this second consultation paper briefly summarizes the issues on which views were sought in the first consultation paper and the responses received from ADWEC and Abu Dhabi Distribution Company (ADDC). The paper also sets out the Bureau's considered view on these issues in the light of the comments received.
- 1.3. Part II discusses ADWEC's costs over the price control period, and forecasts of the demands likely to be used in evaluating the PWPA, BST and Fuel Cost payments. As well as ADWEC's own projections, this section contains the Bureau's view of efficient levels of costs needed to meet demand during the price control period.
- 1.4. The final part of this paper sets out possible values for the price controls. The price control proposals in this section are not finalised but the Bureau believes they form an appropriate basis for the price control and, subject to comments received from ADWEC and others, expects to confirm them as the notified values.



Part I: Issues for Consultation

2. Scope, Duration & Form of Controls

Scope of Controls

- 2.1. The first consultation paper discussed whether all revenue recovered from charges to the Discos should be included in ADWEC's price controls. The case for excluding services from the scope of a price control is generally based on there being services which are unpredictable and therefore difficult to capture adequately in the price control formula or services that are open to competition that need not therefore be subject to price control. The Bureau's view was that the controls should cover all ADWEC's revenue.
- 2.2. ADWEC and ADDC agreed that the price control should cover all revenue collected through BST charges. The Bureau therefore confirms that the control will apply to all of ADWEC's revenue.

Duration of the Controls

- 2.3. The duration of the price controls must strike a balance between providing incentives for efficiency and reducing exposure to unanticipated outcomes. ADWEC has to adjust to its responsibilities in the new industry structure and meet rapid demand growth, with little historical cost information on which to base their projections of future costs. The Bureau suggested a three-year duration for this first price control.
- 2.4. ADDC was supportive of a three-year control. However, ADWEC proposed a one-year price control on two counts. First, the 'lumpy' nature of the capital projects underway makes it difficult to project costs over a three-year period with any certainty. Second, as a company ADWEC is still developing and has not yet fully appraised its own costs.
- 2.5. The Bureau is not persuaded by ADWEC's arguments and is concerned that an annual price control would provide only minimal incentives to reduce costs and increase efficiency. The price-control period is already one-third of the way through and, whilst major capacity additions are indeed 'lumpy', they also require significant planning and can therefore be forecast some time in



advance. It is likely that ADWEC's major projects until 2001 will comprise the commissioning of the Taweelah A2 plant, the sale and extension of the Taweelah A1 plant, and the first stage development of the Shuweihat site. The costs associated with these projects should, to a significant degree, be capable of estimation now. Hence, the Bureau's view is that a three-year price control is appropriate.

Form of Price Control

- 2.6. The first consultation paper discussed different forms of control that could be used to regulate ADWEC's electricity and water procurement business. These include an RPI-X approach, a profit control, or sliding scale regulation.
- 2.7. ADWEC and ADDC identified RPI-X as the preferred form of control citing the strong incentives for efficiency promoted by this approach.
- 2.8. However, ADWEC had a number of concerns about the use of the UAE Consumer Price Index (CPI) in the price control formula. First, ADWEC cited references¹ to support their view that UAE CPI systematically underestimates actual inflation. To deal with this ADWEC proposed to increase reported CPI by 3.3 per cent in each year of the control.
- 2.9. ADWEC also questioned whether the price index used in the control should be based solely on the UAE CPI, as a significant proportion of its operating expenditure is denominated in foreign currency. A weighted index of UAE and either European or US CPI might therefore be more appropriate. The weight of UAE CPI and US or other foreign CPI in a composite index could be based on the proportion of domestic and foreign expenditures.
- 2.10. The Bureau has examined the proportions of foreign and local currency in ADWEC's operating expenditure. Certain operating expenses, such as salaries, allowances, purchases of power and water from the generation and

¹ The Economist Intelligence Unit (EIU) calculated that official estimates of inflation in 1995-1997 underestimated actual inflation by an average of 3.3 per cent each year.



desalination plants, fuel purchases from ADNOC, and office expenses are assumed to be in local currency. However, other operating expenses, such as professional fees and computing resources for example, are procured internationally. The Bureau considers it appropriate for the price indices used to reflect the different sources of cost. The Bureau therefore proposes that ADWEC's allowed procurement cost be indexed in the ratio 50:50 to the UAE and US CPI.

- 2.11. With regard to the systematic underreporting of UAE CPI, the Bureau is not persuaded that the problem is as extensive as ADWEC claims or that the adjustment proposed by ADWEC is justified. The basis of preparation of the UAE CPI has recently been improved with the completion of a new expenditure survey in Abu Dhabi and another planned in Dubai. Furthermore, the indexation to UAE CPI of some cost items in the Taweelah A2 PWPA suggests that the Bureau is not alone in considering the index suitable for escalation in the payment terms of contracts with significant monetary value.
- 2.12. The Bureau therefore confirms RPI-X as the form of price control of ADWEC's procurement costs.

3. Financial Issues

- 3.1. The first consultation paper raised the issue of ADWEC's potential working capital requirement and, if it has such a requirement, the cost of capital to be used in assessing the funding of working capital.
- 3.2. ADDC thought it likely that ADWEC would have a working capital requirement. Although not in a position to quantify what this might be, ADDC said they did not expect the requirement to be significant and considered the 6 per cent cost of capital suggested by the Bureau sufficient for funding purposes.
- 3.3. ADWEC argued that it could have a need for substantial working capital in certain months arising from differences between the revenues obtained from the Discos under the BST and payments to the Generation and Desalination Companies and ADNOC. ADWEC said they attempted to deal with the consequences of differences between payments and receipts in its analysis by taking account of the payment terms for Discos and GDs. Even assuming that these payment terms are fulfilled, which ADWEC regarded as optimistic,



ADWEC identified a need for working capital considering the seasonal variations in revenues and costs identified in its price control cost projections.

- 3.4. The Bureau has reviewed the cash flow analysis prepared by ADWEC and does not consider the conclusions reached on the basis of it to be robust. Although the important question of the timing of contractual payment terms is discussed in ADWEC's submission, this aspect is ignored in the analysis: ADWEC assumes all payments are made/due at the same time.
- 3.5. The key payments terms are as follows: payments to ADWEC under the BST are due within thirty days of invoice (this applies to both demand and energy charges). Payments from ADWEC to the generation companies are due 44 days from the end of a billing period (effectively 44 days from the end of a month). Fuel payments to ADNOC are due 30 days from the last day of loading.
- 3.6. The Bureau has undertaken its own analysis in order to clarify the position regarding ADWEC's working capital requirement. The Bureau's analysis focused on monthly cash flows from March 1999, rolled forward to the first two months of 2000 in order to provide a full year for review.
- 3.7. The Bureau's analysis takes account of the timing of contract payment terms outlined above. The cash position is positive in most months and negative in others (in contrast to ADWEC's analysis that indicated negative cashflow in each month). The Bureau assumed an interest rate differential of 3 percentage points between negative and positive cash balances. Over the course of the year, the cash position is significantly positive.
- 3.8. ADWEC pointed out that it might be unrealistic to expect all payments to be made as per the relevant contract terms. However, as a matter of principle, the Bureau would expect ADWEC to honour its contracts and, as a matter of good management, to take all steps necessary to recover amounts due to it. Furthermore, as a matter of fact, ADWEC presently owes significant amounts to ADNOC in respect of fuel purchases. The Bureau is, therefore, of the view that ADWEC has no working capital requirement now and prospectively. It is for consideration whether any calculated interest income to ADWEC should be used to offset ADWEC's operating costs. The draft price control proposals



in Part III take no account of interest income as it seems unlikely that, in practice, ADWEC will enjoy the benefit of significant cash balances.

- 3.9. The revenue allowed by the ADWEC's price controls should recognize all the future costs of operating the business in an efficient manner. These costs will include the return required by the business's owners to continue to finance the business, that is the cost of capital. The previous section suggested that ADWEC is unlikely to incur financing costs. Nevertheless, ADWEC made a number of points in relation to the Bureau's assessment of ADWEC's cost of capital and it is appropriate for the Bureau to respond to those.
- 3.10. ADWEC raised a number of objections to the Bureau's use of CAPM and the resulting cost of capital calculation. First, ADWEC questioned whether it was appropriate to use the CAPM, as Abu Dhabi does not have the well developed equity markets found in the US and UK that enable CAPM to be meaningfully applied. Nor does it have the same credit rating, which suggests that the risk free rate of 3 per cent – 4 per cent obtained from the UK and US may be inappropriate.
- 3.11. ADWEC also noted that it is a wholly owned state company and as such has a single equity owner. ADWEC therefore questioned whether it is meaningful to separate debt and equity financing for ADWEC.
- 3.12. ADWEC further noted that the A2 project, with guaranteed revenues from the Abu Dhabi government, has a rate of return of about 13 per cent. ADWEC wondered whether a hypothetical equity investor operating in Abu Dhabi might wish to invest in either ADWEC or A2 (assuming both were available). The question arises as to whether the equity investor would consider that the 6 per cent return on money lent to ADWEC (as proposed by the Bureau) for working capital purposes was an adequate return when compared to the A2 project. ADWEC does not believe that a 7 percentage point difference between itself and A2 adequately reflects the cost of its capital.
- 3.13. ADWEC pointed out that the UAE has a Moody's credit rating of A2, which means that "Factors giving security to principal and interest are considered adequate, but elements may be present which suggest a susceptibility to impairment some time in the future." According to ADWEC the underlined portion of the previous sentence demonstrates that long-term bonds in the



UAE cannot be considered risk free in the same way as similar bonds issued in the UK and US. Even the best long-term bonds issued in the UAE would therefore demand a risk premium over similar bonds issued in the UK and US. To put the UAE's Moody's credit rating of A2 into context, Greece and Cyprus have identical Moody's credit ratings to the UAE. The UAE may therefore have a good credit rating when compared to other Middle East countries, however its credit rating is below average when compared to the OECD countries with which it competes for investment funds. The UAE would therefore have to pay a risk premium, when compared to the UK and US, even on apparently risk-free investments. The applicability to Abu Dhabi of the risk free rate and debt premium assumptions shown in Table A.1 of the Bureau's first consultation paper are therefore questioned by ADWEC.

- 3.14. ADWEC's response raises a number of important issues regarding the calculation of a cost of capital for a price-regulated company in Abu Dhabi's water and electricity sector. The Bureau's discussion of ADWEC's cost of capital acknowledged that the application of CAPM to the Abu Dhabi market is not straightforward. However, some method of estimating financing costs is needed and neither ADWEC, nor any other respondent, has proposed an alternative to CAPM. Moreover, the difficulties of applying CAPM should not be overstated; in a world of relatively mobile capital one can expect convergence in the required returns for business facing similar market and other risks. Abu Dhabi's water and electricity companies are not so very different from those in more developed capital markets in terms of the risks they face and Abu Dhabi's market structure and regulatory regime have been modeled explicitly and deliberately on the privatisation experience of other countries, notably the UK. It therefore remains the Bureau's view that CAPM provides a suitable framework for assessing the cost of capital. As the privatisation programme develops and as the UAE's capital markets mature, it will increasingly be possible to use UAE market data in such calculations.
- 3.15. ADWEC also made a number of more specific comments regarding the Bureau's discussion and calculation of the cost of capital. ADWEC questioned the use of a risk-free rate of 3 per cent to 4 per cent, derived from UK and US experience. However, the Bureau is of the view that this risk-free rate is available to investors in ADWEC. The issue then is what premium they expect for the risks of equity investment. This takes us back to the discussion of



CAPM in the previous section. In support of its argument, ADWEC cited the return expected for the Taweelah A2 project of around 13 per cent, and contrasted this figure with the 6 per cent cost of capital suggested by the Bureau. However, this comparison is misleading. The Taweelah A2 return is a nominal return on equity whereas the Bureau's 6 per cent is a weighted average cost of capital in real terms. To compare the two figures one therefore needs to make two adjustments. Adjusting the Taweelah A2 return for inflation of 3 per cent results in a 10 per cent real return on equity. Adjusting further for the cost of debt finance results in a real weighted average cost of capital for the Taweelah A2 project that is comparable to the Bureau's proposed cost of capital.

- 3.16. ADWEC also questioned whether, given that ADWEC is government owned, it is reasonable to hypothesize a debt to equity split for ADWEC. The Bureau's approach to estimating the cost of capital has been that ownership of a regulated company should have no effect on the business' required return, which should be a function of its inherent risks. The alternative approach advocated by ADWEC would require an estimation of the cost of funds to the Abu Dhabi government. This calculation would not itself be straightforward but it is likely that it would result in a lower cost of capital than the 6 per cent suggested by the Bureau.
- 3.17. The last point made by ADWEC concerns the cost of debt. It discusses the characteristics of the A2 country rating given to the UAE by Moody's, and the likely premium that investors would require on debt finance for projects in the UAE. The Bureau's calculations effectively treated ADWEC as having the same debt rating as the UAE government. It might be argued that any company would require an additional premium over and above that of the government of the country in which it is based. On the other hand, the UAE's A2 country rating probably overstates the country risk of Abu Dhabi whose financial position is significantly stronger than that of the rest of the federation. On balance, therefore, the A2 assumed rating for ADWEC is probably close to the company's true position.



4. Other Issues

- 4.1. Since ADWEA determines the structure and timing of projects, ADWEC explained that it is difficult for it to assess its future project's professional fees, as it has no control over its procurement costs of projects A1, A2 and Shuweihat.
- 4.2. It is a matter of concern to the Bureau that ADWEC claims to have little control over new capacity additions. However, whilst it may be true that, as a result of its ownership interest, ADWEA plays an active role in new projects, the amount and timing of capacity additions is strongly influenced by the demand forecasting and capacity planning carried out by ADWEC.
- 4.3. As regards the level of professional fees likely to be incurred by ADWEC the Bureau recognises that it is sensible for ADWEC to employ professional advisers on a project basis and that the costs of such advisers for major capacity additions will be significant. It is also the case, however, that such advisers also act for ADWEA in respect of its ownership interest. The draft price control proposals in Part III are based on ADWEC's projections of professional fees but assume that ADWEC will incur only 50 per cent of those costs, with the balance met by ADWEA.
- 4.4. ADWEC was concerned that the first consultation paper talked about incentives, whereas only penalties were proposed. ADWEC's main concern in this regard is that the price control will penalise ADWEC for poor performance but fails to grant rewards when ADWEC performs above average.
- 4.5. The consultation paper proposed a framework for ADWEC's price regulation, RPI-X, which has strong incentive properties. If ADWEC can achieve efficiency savings greater than those assumed by the Bureau, then it will be rewarded with greater profitability for the duration of the price control period. The principal penalty discussed in the consultation paper related to failure to achieve the generation security standard. Given that generation and desalination security are legal obligations of ADWEC, it is not apparent that the company should be rewarded for doing no more than meeting its legal obligations.



- 4.6. In commenting on the licence obligations of Northern Ireland Electricity's (NIE) procurement business, ADWEC stated that since the water and electricity system in the emirate of Abu Dhabi is growing faster than that of Northern Ireland, it would be more difficult to meet the generation security standard without adding new major capacity. This notion is based on ADWEC's claim that in 1999 there was no capacity surplus available in Abu Dhabi. In this regard, ADWEC signified the importance of including in its price-control an incentive to meet the fast growing system demand.
- 4.7. The Bureau recognizes that ADWEC has inherited a supply-demand balance over which it had no previous control. In designing an incentive regime related to the generation security standard it would be appropriate to take this into account. Nevertheless, a breach of the generation security standard (GSS) would be a very serious matter and so it is important that ADWEC's licence acknowledges that fact. The Bureau therefore proposes that in cases where ADWEC fails to meet the GSS, the Bureau should have the ability to reduce ADWEC's maximum allowed revenue under the price control by a maximum of AED 5 million.



Part II: ADWEC’s Demand & Cost Projections

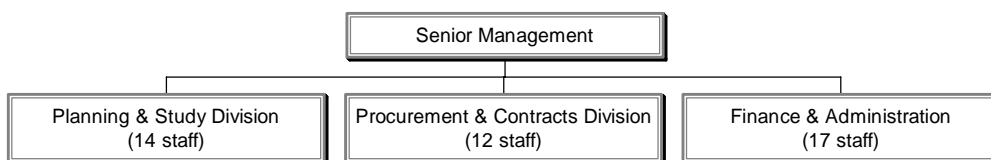
5. Introduction

- 5.1. Part I of this consultation paper outlined ADWEC’s response to the first consultation paper and the Bureau’s comments on ADWEC’s response. This section considers ADWEC’s projections of its costs over the period of the price control and beyond.
- 5.2. To aid the analysis of costs, we consider first the organisational structure adopted by ADWEC and the functions undertaken by each of its divisions. ADWEC’s electricity and water demand projections to 2003 are then presented as are the fuel and PWPA costs ADWEC expects to incur in meeting projected demand.
- 5.3. The following section reviews ADWEC’s estimates of its procurement costs over the period of the price control. Thereafter, a section outlining the Bureau’s assessment of ADWEC’s costs will follow; points made in this section form the basis of the price control proposal presented in Part III.

6. Organisational Structure

- 6.1. ADWEC provided the Bureau with details of its organisational structure and required level of staff. The company consists of three main divisions, all reporting to senior management, see Figure 1.

Figure 1: ADWEC Proposed Organisation Structure



Source: ADWEC price control submission

- 6.2. The Planning and Study division comprises 14 staff members who carry out ADWEC’s planning function; assessing the requirement for new electricity and water production capacity against the security standards ADWEC is required to meet. The Procurement and Contracts division (12 people) is responsible



for the establishment and management of the main contracts through which ADWEC discharges its duties: the Power and Water Purchase Agreements; the Bulk Supply Agreement (and associated Bulk Supply Tariff) with the distribution companies; and fuel supply contracts. Finally, the Finance and Administration division manages ADWEC's finances and is responsible for certain other services, such as those personnel and IT functions that are not handled by ADWEA.

- 6.3. At present some 28 members of staff have been appointed by ADWEC. When all positions are filled ADWEC will have a staff complement of 47 (including senior management).
- 6.4. In addition to its own direct staff costs, from time to time ADWEC retains the services of lawyers and other professionals to advise on the tender and procurement of new production units. As mentioned in the first consultation paper, these costs will be correlated with new capacity additions and will be high in some years and low, sometimes zero, in others. ADWEC's direct staff costs and professional fees are discussed in section 9.

7 Demand & Cost Projections

- 7.1. It will be helpful to review ADWEC's procurement cost projections in the context of demand growth expected over the period of the price control and beyond. Table 1 presents ADWEC's projections of water and electricity demand through to 2003, and the fuel and PWPA costs that ADWEC expects to incur in meeting the demands.

Table 1: ADWEC's Projections 1999 – 2003 (money of the day)

Demand	1999	2000	2001	2002	2003
Electricity: GWh	17,188	18,722	19,875	21,040	22,206
Water: MIG	70,471	75,172	82,340	91,679	96,362

AED Million	1999	2000	2001	2002	2003
Fuel Costs (F _t)	1,107.2	1,206.0	1,280.1	1,355.3	1,430.4
PWPA Costs (PWPA _t)	1,073.9	1,181.9	1,334.3	1,448.6	1,585.2

Source: ADWEC price control submissions

- 7.2. Demand for electricity and water is projected to grow strongly over the price control period: demand in 2001 is 16 per cent and 17 per cent higher for



electricity and water, than the demand in 1999. Fuel costs are projected to increase in line with demand growth, although projected increases in PWPA costs are somewhat higher, reflecting the costs of new capacity additions.

7.3. ADWEC is presently engaged in a number of procurement projects:

- Taweelah B extension: 193.6MW of gross power capacity and 23.1 MIG water capacity;
- Taweelah A2: 910 MW and 50.6 MIG/d gross power and water capacity respectively;
- Evaluation of bids for the expansion of Taweelah A1;
- Preparation of a request for proposal (RfP) for a new desalination station at Shuweihat.

7.4. Some small-scale developments are also underway. These will increase the productive capacity of the system in the near-term: for example, the refurbishment of desalination units at UAN East A station (to add 1.2 MIG/d) and the addition of desalination units at UNA West 9 (to add 7 MIG/d).

8. ADWEC's Procurement Cost Projections

8.1. ADWEC has provided projections to 2003 of its direct costs and professional fees, these cost projections are presented in Table 2.

Table 2: ADWEC's Cost Projections: 1999 to 2003 (money of the day)

AED Million	Price Control Period			2002	2003
	1999	2000	2001		
Capital costs	0.7	3.9	1.2	0.7	0.3
Interest expense	0.4	0.9	1.1	1.2	1.2
Other costs	10.7	18.7	15.8	16.1	15.8
Total direct costs	11.9	23.5	18.1	18.1	17.3
Professional fees	21.2	21.2	10.4	10.5	4.1
Total Procurement costs	33.1	44.7	28.4	28.6	21.4

Source: ADWEC price control submission

8.2. Total procurement costs over the price control period are AED 105.5 million. These costs are evenly divided between direct costs and professional fees (AED 52.8 million each).



- 8.3. From a starting level of AED 33.1 million, total procurement costs are projected to increase by 35 per cent to AED 44.7 million in 2000 and then decline to AED 28.4 million in 2001.
- 8.4. Salary and staff related costs account for just over 50 per cent of direct costs and around 18 per cent of total procurement costs. These costs increase by 50 percent from AED 6 million in 1999 to over AED 9 million in 2000, reflecting the expected increase in staff outlined above.
- 8.5. The capital cost projections include items such as motor vehicles, IT & communications equipment and furniture. Over the price control period, IT & communications is the significant item: expenditure on these items increases from zero in 1999 to AED 3 million in 2000 and AED 1 million in 2001.
- 8.6. Professional fees are a significant element of procurement costs. On the basis of ADWEC's projections, professional fees account for 64 per cent of total procurement costs in 1999, just under half in 2000 and around a third in 2001. If only half of the professional fees are included in ADWEC's price control, total procurement costs would be significantly lower than ADWEC's estimates in Table 2.

9. Bureau's Assessment of ADWEC's Procurement Costs

- 9.1. The Bureau does not consider that ADWEC's price control can be set on the basis of ADWEC's projections of its procurement costs but that a number of adjustments are necessary. This section discusses those adjustments.
- 9.2. Earlier sections of this paper discussed ADWEC's working capital position and concluded that ADWEC has no net working capital requirement and thus cannot be expected to incur interest costs. The Bureau therefore proposes to remove ADWEC's assumed interest costs.
- 9.3. Discussion with ADWEC has also clarified that the company's cost projections include an annual amount of AED 1 million (described as a transmission use of system payment) that represents an estimate of the charge that might be levied by Transco for use of its settlement system. Transco has not yet developed such a system and it is unclear when it will be in position to consider charging for its data collection functions. It therefore seems



premature to include within ADWEC's price control an allowance for such a charge. Similarly, ADWEC's projections include a capital item of AED 3 million relating to the development of the settlement system. These costs have also been excluded on the basis that the system in question is a Transco rather than ADWEC responsibility.

- 9.4. ADWEC's cost projections include a modest element of depreciation. Given that ADWEC's capital requirements will be relatively minor and limited to assets, such as IT equipment and other office items, with a modest life, it seems sensible to treat such items as operating expenditure in the price control. Depreciation has therefore been excluded but the full capital cost of such items has been included in the price control period.
- 9.5. As already discussed, the Bureau believes it appropriate that only a proportion of ADWEC's professional fees estimates should be recovered through its price control, given that the same advisers also represent ADWEA's ownership interest. Only half of ADWEC's estimated fees have therefore been allowed. The Bureau has, in addition, asked ADWEC for more information to support its estimates. As and when that information is made available to the Bureau, further adjustments to the figures presented below may be necessary.
- 9.6. Finally, there is the issue of ADWEC's other direct costs, principally staff costs. As discussed above, ADWEC has a present staff complement of 28 and plans for this to rise to 47. Whilst it is not straightforward to estimate an efficient level of costs for a company such as ADWEC, the Bureau is concerned that ADWEC's projections are unjustifiably high. As a point of comparison, NIE's Power Procurement business which has similar responsibilities to ADWEC but, in addition, carries out the system operation tasks that in Abu Dhabi are carried out by Transco, has fewer staff than ADWEC has at present. Also, from the Bureau's own involvement with ADWEC it is not clear that an increase from present staffing levels is needed for ADWEC to perform its duties satisfactorily.
- 9.7. The Bureau therefore proposes to hold ADWEC's staff and other direct costs constant at their 1999 level for the duration of the price control. The 1999 figure is likely to be somewhat higher than ADWEC's actual expenditure this year. It may therefore be appropriate to consider a lower figure for 1999 itself.



9.8. Table 3 below summarizes the adjustments described above and shows the resulting cost for each of the three years of the price control.

Table 3: ADWEC’s initial projected procurement costs and the Bureau’s adjustments (money of the day)

AED Million	Price Control Period		
	1999	2000	2001
ADWEC total procurement costs	33.1	44.7	28.4
Adjustments for:			
Interest on Working Capital	-0.4	-0.9	-1.1
Transmission Use-Of-System Payments	0.0	-1.0	-1.0
Total Depreciation	-0.4	-1.0	-1.2
IT & Communications	0.0	-3.0	-1.0
50% of Professional Fees (Projects & Direct Opex)	-11.4	-12.7	-5.9
Total Direct Costs	0.0	-5.2	-3.4
Bureau Total of ADWEC's Procurement Costs	20.9	21.0	14.8

(Source: ADWEC price control submission)



Part III: Draft Proposals

10. ADWEC's Allowed Revenue

- 10.1. The level of costs in Table 3 above would, on the basis proposed, determine ADWEC's allowed procurement costs. For any given level of costs, the profile of revenue can be sculpted in a number of ways with the objective that over the price control period costs and revenue give a net present value of zero.
- 10.2. From the figures above, two approaches to the derivation of allowed revenue suggest themselves. Under the first, allowed revenue in the first year of the control would be set equal to costs in that year and the 'X' factor varied so as to fulfil the net present value objective described above. This approach would give an allowance of AED 20.3 million in 1999 and X factor of 19 per cent, largely reflecting the significant forecast reduction in expenditure in 2001.
- 10.3. Under the second approach, an 'X' of zero would be set and the first year allowance varied. This gives a constant revenue, in real terms, of AED 16.7 million over the three years of the control.
- 10.4. Of the two approaches, the Bureau presently favours the second, as the 'X' factor under the first approach might give a misleading indication of the perceived scope for efficiency savings within ADWEC. However, the Bureau will be interested to hear the views of ADWEC and others on this issue.