National Electric Power Regulatory Authority

Islamic Republic of Pakistan

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No. NEPRA/TRF-10/MW&P/1575

December 2, 2000

Secretary Cabinet,
Cabinet Division,
Cabinet Secretariat,
Islamabad.

SUBJECT: Ministry of Water & Power PETITION-10/2000
Intimation of Determination of Tariff pursuant to Section 31(4) of the Regulation of Generation, Transmission and Distribution of Electric Power Act, (XL of 1997)

Please find enclosed the determination of the Authority in connection with the Ministry of Water & Power Petition-10/2000

2. The determination is being intimated to the Federal Government for the purposes of notification of the approved tariff in the official gazette pursuant to Section 31(4) of the Regulation of Generation, Transmission and Distribution of Electric Power Act (XL of 1997), and rule 16(11) of the National Electric Power Regulatory Authority (Tariff Standards and Procedure) Rules, 1998.

3. Please note that only the Annex to the determination needs to be notified in the official gazette.

4. The approval of the tariff is subject to the terms and conditions of the Schedule of Tariff as determined under the determination of the Authority dated 3rd May, 1999, in respect of the petition number WAPDA 03/98 dated 21st December, 1998.

(Faryad H. Malik)

National Electric Power Regulatory Authority
NEPRA AUTHORITY

CC:

1. Secretary, Ministry of Water & Power, Islamabad.
2. Secretary Finance, Islamabad.

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY

2nd December, 2000
Case No. NEPRA/TRF-10/MW&P

TARIFF DETERMINATION IN CASE NO. NEPRA/TRF-10/MW&P

Ministry of Water & Power

Petitioner

1. SHEHRI, Citizens for a Better Environment
2. Pakistan Poultry Association
3. Consumer Protection Council
4. Senior Citizens Foundation of Pakistan
5. Consumer Rights Commission of Pakistan
6. Pakistan Steel Melters Association

Intervenors

Chairman	(Vacant)
Mr. Mansoor Elahi, Member.	Mansoor Elahi
Mr. Sardar Muhammad Sharif Khan, (TSt.), Member.	
Mr. Abdul Rahim Khan, Member.	
Member	(Vacant)

Contents List

DETERMINATION IN CASE NO. NEPRA/TRF-10/MW&P

BACKGROUND

1. The Ministry of Water & Power of the Government of Pakistan (the Petitioner) filed a petition (the Petition) before the Authority on August 15, 2000 seeking automatic tariff adjustment to recover additional costs incurred by the Distribution Companies under WAPDA (WAPDA Companies) due to increases in fuel price in the form of a Fuel Price Indexation Factor in their consumer end tariff w.e.f. September 1st , 2000. The Petitioner also sought an increase in the consumer end tariff of the WAPDA Companies to recover Rs. 10842 million in costs incurred by them due to fuel price increases since the last tariff revision approved by NEPRA and made effective from July 1, 1999. Furthermore, immediate application of the proposed rates was sought by the Petitioner in accordance with the provisions of sub rule 7 of rule 4 of the NEPRA Tariff (Standard & Procedures) Rules, 1998 (Tariff Rules). The Petition was admitted by the Authority for determination. At the same time, the Authority examined the Petitioner's request for an immediate application of the proposed tariff and for the reasons recorded in Authority's decision of September 7, 2000, the Authority allowed the Petitioner an increase in the consumer end tariff of WAPDA Companies to the extent specified in the Schedule of Tariff annexed to that decision, subject to an order for refund to consumers if in the final determination in the instant case the tariff approved by the Authority were less than that specified in the aforementioned Schedule of Tariff.

2. The Authority advertised the salient features of the Petition in the national press seeking participation of interested parties in the

tariff determination proceedings by soliciting their views both in support of and in opposition to the Petition. The Authority received twenty communications in relation to the Petition which were relevant to the subject matter. Six of these communicators applied to intervene in the proceedings as parties, namely, (i) SHEHRI, Citizens for a Better Environment; (ii) Pakistan Poultry Association; (iii) Consumer Protection Council; (iv) Senior Citizens Foundation of Pakistan; (v) Consumer Rights Commission of Pakistan; and (vi) Pakistan Steel Melters Association. Their intervention applications were accepted. Having examined the Petition and these communications, the Authority decided, on October 31, 2000, to hold a Public Hearing in the proceedings. The required fourteen day statutory notice was issued and the Public Hearing commenced with a Pre-Hearing Conference on November 15, 2000. The Public Hearing itself started on November 16, 2000 and continued for two days. Evidence in the proceedings was closed four days after the end of the Hearing.

SUBMISSIONS OF THE PETITIONER

3. The Petitioner submitted that since the last tariff revision for WAPDA Companies approved by NEPRA and made effective from July 1, 1999, there have been frequent upward revisions in the price of fuels including Residual Fuel Oil, Gas and High Speed Diesel and that WAPDA has been demanding Automatic Tariff Adjustment due to the same. The Petitioner contended that clause 1 of sub rule 3 of rule 17 of the Tariff Rules provides that:

"Tariffs should allow licensees the recovery of any and all costs prudently incurred to meet the demonstrated needs of their consumers, provided that, assessments of licensees' prudence may not be required where tariffs are set on other than cost-of-service basis, such as formula-based tariffs that are designed to be in place for more than one year".

4. It was stated by the Petitioner that the Economic Co-ordination Committee of the Cabinet, on August 2, 2000, allowed the utilities to seek an automatic adjustment in the consumer end tariff necessitated on account of variation in pass through items like fuel price, as and when needed. The Petitioner submitted that WAPDA's additional burden on account of fuel cost and energy cost of purchases from Independent Power Producers (IPPs) during the Financial Year (FY) 2000-2001 due to increases in fuel price during the FY 1999-2000 and up to July 2000 had been estimated as follows:

A	<u>WAPDA Thermal</u>	<u>Rs. in Million</u>
	Fuel cost (prices as on 26.07.2000)	32897
	Fuel cost (prices as on 01.07.99 + 8%)	27932
	Additional Burden (FY 2000-01)	4965
B	<u>Private Power (IPPs)</u>	
	Energy Payment (Prices as on 26.07.2000)	35247
	Energy payments (Prices as on 01.07.99 + 8%)	29370
	Additional burden (FY 2000-01)	5877
	Total Additional burden (A+B)	10842
C	Expected Units to be sold (01.09.2000 to 30.06.2001)	34986 (Gwh)

5. This additional burden on account of fuel price increases translated into a per unit tariff of Paisa 30.99/kWh or a 9.54% increase over the existing average tariff of Paisa 325/kWh as of July 2000. The Petitioner also submitted that this financial impact had been estimated on the major assumptions set out in the petition and it reserved the right to inform the Authority of any variation in the actual operational results achieved hereafter or due to court decisions on issues between WAPDA, Hub Power

Company Limited (Hubco) and Kot Addu Power Company Limited (KAPCO).

6. The Petitioner submitted a revised fuel cost estimate on the day of the Pre-Hearing Conference. This was based on the increases in fuel price upto October 27, 2000. On the basis of this revised estimate, the Petitioner contended that there would be an overall burden on WAPDA Companies of Rs. 17,688 million during the financial year 2000-2001. This, the Petitioner submitted would translate to a Ps. 51/kWh increase in the consumer end tariff in addition to the increase already allowed by the Authority subject to refund. The Petitioner filed the following table to illustrate its contention as an addendum to the table appearing above:

A.	WAPDA Thermal	Rs. Million
	Fuel Cost (Prices as on 27.10.2000)	35,692
	Fuel Cost (Prices as on 26.07.2000)	32,897
	Additional Burden	2,795
B.	Private Power (IPPs)	
	Energy Payments (Prices as on 27.10.2000)	39,298
	Energy Payments (Prices as on 26.07.2000)	35,247
	Additional Burden	4,051
	Total Additional Burden	6,846
C.	Expected Units to be sold (01.09.2000 to 30.06.2001)	27,500 Gwh

SUBMISSIONS OF INTERVENERS

Intervener 1: **SHEHRI, CITIZENS FOR A BETTER ENVIRONMENT.**

7. SHEHRI did not oppose the principle that the utilities' tariff should be adjusted to meet their costs. However, it was contended by SHEHRI that WAPDA is a natural monopoly whose actual public

duty is to provide an essential service of an acceptable quality at an equitable price and it has failed to do so in recent years. SHEHRI also contended that WAPDA is poorly managed; subject to illegal pressures and extortion by workers' unions and officers' associations; technically incompetent and riddled with corruption. SHEHRI contended that WAPDA Companies' have been run into the ground with organized theft of power in collusion with the companies' employees and that despite the fact that the new management has assumed control of these Companies the situation has not altered. SHEHRI contended that this inefficiency, imprudence of management and theft of electricity is causing the costs of supply to rise and that rather than improving themselves the utility is taking an easy way out by seeking price increases from NEPRA. SHEHRI contended that the financial losses being sustained by WAPDA are primarily due to theft of electricity, unacceptably high transmission and distribution (T&D) losses, non-recovery of substantial arrears from both the public and private sectors and high prices of energy and fuel negotiated by the previous corrupt governments. SHEHRI submitted that fuel costs are subject to international variations but have not been negotiated by the government in a way that favors Pakistani consumers. SHEHRI also submitted that a reduction in line losses and a recovery of outstanding arrears would more than adequately compensate WAPDA for any increase in fuel cost over the next several years. SHEHRI has sought the following relief from the Authority:

i) Tariffs must be restructured and simplified to protect consumers against monopolistic and oligopolistic prices. Encouragement of efficiency in WAPDA's operations and quality of service. Elimination of all arbitrary surcharges and additional surcharges.

ii) A two-part demand tariff be introduced containing fixed charges, energy charges and a fuel adjustment charge.

iii) Any effective increase in rates only be approved by NEPRA after WAPDA has:

a) recovered its outstanding arrears
b) reduced theft to zero
c) reduced T&D losses to acceptable levels; and
d) improved maintenance and operation and overall efficiency of the utility and renegotiated inflated power purchase agreements with IPPs and proper fuel prices with international suppliers.

SHEHRI primarily relied on newspaper reports as evidence in support of its contentions.

Intervener 2: **PAKISTAN POULTRY ASSOCIATION**

8. The Pakistan Poultry Association contended that any increase in the cost of electricity would adversely affect their competitiveness in the international market. The Associations' primary concern in their submission was that industrial supply consumers under tariff B-1 are required to pay 3% of their total electricity consumption at general supply rate (A-2) and industrial supply consumers on tariff B-2 are required to pay only 1% of their total electricity consumption at the general supply rate. However, under the WAPDA Companies' terms and conditions of tariff, Poultry Farms, Hatcheries and Breeding Farms are required to pay 10% of their total electricity consumption at the general supply rate whether or not these farms etc. receive supply under tariff B-1 or B-2. Thus, the Association alleges, this practice is discriminatory and needs to be changed.

Intervener 3: **CONSUMER PROTECTION COUNCIL**

9. The Consumer Protection Council contended that the Authority should not allow a tariff increase to WAPDA Companies because, according to the Planning Commission, it will be against the economic interests of the country. The Council relied on a newspaper report for its contention. The Council also protested against the intervention fee required to be paid to NEPRA for intervening in a tariff petition. It contended that it is against the public interest to decide a tariff petition without obtaining general public opinion and therefore no charge should be made from the public for obtaining their opinion.

Intervener 4: **SENIOR CITIZENS FOUNDATION OF PAKISTAN**

10. The Senior Citizens Foundation of Pakistan contended that after a detailed study, it has come to the conclusion that there was no justification for an increase in tariff. The Foundation contended that, in fact, there was considerable scope for reduction in tariff if NEPRA enforced its standards of efficiency. The Foundation submitted that the salient features of its examination of the Petition by them are:

i) That WAPDA's energy losses have been estimated to be 26% whereas these should have been 20% according to WAPDA's own previous commitment. If this is done, it would, according to the figures provided in the Petition, amount to 9% of the expected units to be sold between September 1, 2000 and June 30, 2001. This is almost equal to the additional burden claimed to have been incurred by the WAPDA Companies. Thus, any financial loss resulting from WAPDA's inefficiencies should not be passed on to the consumers.

ii) WAPDA's chairman has made repeated statements that the utility has settled matters with all the IPPs save HUBCO and that these statements have reduced WAPDA's financial burden. A rough calculation by the Foundation shows that the financial burden on WAPDA has been reduced by more that US $ 100 million. Again, this offsets the additional financial burden claimed.

iii) The recovery of outstanding arrears and a reduction in administrative expenditure also require attention to enable an improvement in WAPDA's financial position and lessen the burden on the consumers. Receivables outstanding from the government should be cleared. This can be achieved by adjusting WAPDA's debit and credit with the government through book adjustment, for which permission from the Ministry of Finance is already there.

iv) With regard to the Automatic Tariff Adjustment, the Foundation contended:

a) The law does not provide for delegation of NEPRA's powers to fix tariff. Therefore, even if some equitable automatic formula is devised, its implementation should rest with NEPRA and not with WAPDA or the government.

b) The figures involved in the implementation of such a formula should be audited and certified by independent auditors and NEPRA.

c) A representative base period should be used for estimating comparable periods in the future, subject to examination by NEPRA. This should particularly take into account the generation mix of various sources of generation so as not to increase the share of thermal generation in relation to hydro electric and nuclear generation.

11. The Foundation also contended that in its March 1998 determination, NEPRA had issued certain directives to WAPDA and had barred itself from considering any further tariff increases until WAPDA carried out the mandated improvements. There is nothing to show that WAPDA's operations have been improved to the

required standard. Thus, NEPRA has no legal or moral authority to act against its own directives and grant the tariff increase.

12. The Foundation relied on newspaper reports and a letter written by Member Power, WAPDA to Chairman NEPRA on December 21, 1998 as evidence to support its submissions.

Intervener 5: **CONSUMER RIGHTS COMMISSION OF PAKISTAN**

13. The Consumer Rights Commission of Pakistan contended that NEPRA should not allow an automatic adjustment in tariff without going through the due process stipulated by law since this would give WAPDA a free hand to play havoc with the consumers and open new doors of corruption. The Commission requested that a public hearing be held before taking any decision on the automatic adjustment in tariff because of the reason already mentioned and because the automatic tariff adjustment sought by the Petitioner has the potential to destabilize the whole economy.

14. At the public hearing the representative of the Commission accepted, in principle, that an automatic tariff adjustment formula needs to be devised but stated that a lot of care should be exercised in doing the same. He also contended that the Commission requires time to engage experts to examine the matter in detail. No evidence was relied upon in support of the Commission's submissions.

Intervener 6: **PAKISTAN STEEL MELTERS ASSOCIATION**

15. Pakistan Steel Melters Association contended that WAPDA should not be given permission for automatic tariff adjustment because this would negate the essence of having a regulator. Particularly

because, under the law, a Petitioner has the right to seek an immediate application of the tariff while his Petition is under consideration. The Association submitted that electricity is a major raw material and a major cost of production for their members. Their industry is hard hit because of economic conditions and therefore the tariff should not be increased. The Association did not rely on any evidence to support is submissions.

16. Under the Tariff Rules, any person interested in a tariff review petition may send his or her comments to the Authority on the subject matter of the proceedings. The Authority is entitled, by the Tariff Rules, to take such comments into consideration when rendering its determination. If a person wishes to take a more active part in the proceedings, he or she can seek leave of the Authority to become a party to the proceedings by becoming an intervenor. A person who gets leave to intervene in the tariff determination proceedings acquires a right to be informed of all that transpires during the course of the proceedings. For this purpose, a nominal fee is charged from such a person to offset the costs incurred by the Authority.

17. The Interveners in the instant case largely opposed the tariff increase sought by the Petitioner. However, two Interveners, namely, SHEHRI CBE and the Consumer Protection Council agreed in principle that an automatic tariff adjustment formula to cater for increases in fuel price may need to be devised. The Interveners largely relied on newspaper reports as evidence to support their contentions and did not appear to have undertaken detailed research of their own backed up with evidence containing the facts and figures required for a thorough examination of the matter. The Tariff Rules provide for a mechanism whereby

interveners can seek recourse to any documents they require, from a petitioner or any other party to the proceedings and make interrogatories seeking clarification of any fact or figure. However, for their examination of a petition to be meaningful, some work is required to have been done by the Interveners long before the commencement of the proceedings. Only with such background information would potential interveners be in a position to meaningfully adduce detailed evidence in support of their contentions. We hope that more detailed and analytical interventions would take place in the future. The Interveners have not filed parawise replies to the Petitioner's pleadings and have elected to raise issues, which may not be directly relevant to the instant prayers of the Petitioner. Parawise replies supported by substantive evidence would also go a long way in steering the course of the proceedings in a manner that would be beneficial to the interveners and the consumers at large. We also find it interesting to note that the Petitioner has not rebutted any of the contentions made by the interveners by way of filing rejoinders opposing their pleadings.

ISSUES FRAMED FOR DETERMINATION

18. The following issues were framed for discussion and certification during the Public Hearing of the matter:

    1. Formula for automatic adjustment of tariff.
    2. Expected revenue from the existing tariff and fuel cost correction.
    3. Efficiency measures.
    4. Investment.

19. The following Paragraphs contain the Authority's determination on the issues framed for discussion:

FORMULAE FOR AUTOMATIC ADJUSTMENT OF TARIFF.

20. The Petitioner has requested that the WAPDA Companies be allowed automatic adjustment in their consumer end tariff to promptly compensate them for the additional burden on their finances due to frequent increases in fuel price. In considering the same, we have examined the fuel price increases that have occurred in the previous financial year, their effect on the cash flow situation of the utilities and their consequent demand for an increase in tariff. On the basis of this data the projections for the year 2000-2001 indicate that without any further significant increases in the fuel prices, the utilities would experience a significant cash deficit in the months of December and March, in which months their dependence on thermal fuel, particularly furnace oil, is considerable. If we add to the equation further fuel price increases in the year 2000-2001, the aforesaid financial position of the utilities in the months of December and March, would be adversely affected even further. We are of the opinion that such a monthly cash deficit may result in a situation where WAPDA is no longer able to pay the fuel suppliers. The fuel suppliers may not be in a position to absorb delays in payment and a situation may arise where the utilities are refused further supply of fuel. As a consequence, the utilities being unable to meet the demand of their consumers may have to resort to loadshedding. To cater for this, WAPDA can be asked to borrow the required funds to finance its immediate cash requirements. However, this will result in an additional cost in the form of financial charges payable for borrowing the required resources. These charges would be considerable because the borrowing would be on a short term basis. Hence, we feel that allowing the utilities to raise the funds through an adjustment in tariff would result in a

lower overall cash requirement and a lesser ultimate burden on the consumers.

21. A study of the past fuel price increases in the international market reveals that the current prices can be expected to be at the crest of the price curve for furnace oil prices in the international market and one can reasonably expect stability in prices and even a reduction. One such reduction in fuel price has already occurred in the month of November. Thus, it can be expected that the cash availability position of WAPDA would improve. Equity demands that the benefit accruing from this improvement should also be transferred to consumers in the shape of a reduction in tariff to compensate for the increase to which they were subjected in the past in the same prompt manner as a burden of fuel price increase is transferred to them.

22. If we do not allow the petitioner's prayer to introduce automatic tariff adjustment in the consumer end tariff due to fuel price increases, any tariff determined by us would have to cater for increases in the price of fuel. Traditionally, this has been done by determining a percentage of the average increase during the financial year and allowing the average tariff to be increased to cater for the same. In view of the trend of fuel price increases witnessed during this year, such a percentage would be much higher than the 8% determined in the last tariff review. With the expectation that fuel prices would stabilize next year, this traditional method of adding a component in the tariff to cater for fuel price increases may have the result of imposing an unnecessary burden on consumers in the absence of a mechanism whereby decreases in the cost of fuel are also reflected in the tariff prior to a full scale tariff review.

23. Two Interveners namely SHEHRI and the Consumer Protection Council have stated that, in principle, they agree that the utilities' tariff should be adjusted to meet their costs. Several communicators including the Lahore Chamber of Commerce & Industry have also suggested that an automatic adjustment mechanism may be provided if the power to determine tariff is not delegated by NEPRA. The Senior Citizens Foundation has even pointed out that, by law, NEPRA can not delegate the power to WAPDA or the government to introduce changes in the tariff.

24. In view of the foregoing, we are of the opinion that an automatic adjustment in the consumer end tariff necessitated on account of an increase or decrease in the cost of fuel procurement would be in the interest of both the utilities and the consumers.

25. However, any automatic adjustment mechanism needs to be simple in application, ensuring reasonable predictability and stability to operate within the existing legal framework. The mechanism that we are prescribing meets this criteria. We are of the opinion that a consumer should not be subject to frequent changes in his monthly bills and therefore, are prescribing a minimum period of three months before allowing the utilities a variation in tariff. However, in exceptional circumstances the utilities may request for a variation in tariff after two months of the last adjustment, if the quantum of variation in tariff required is more than three percent and such a request may be considered by NEPRA for allowing the adjustment requested. We are also concerned that changes in fuel prices need to be smoothened out when passed on to the consumers. Therefore, any fuel price variation requiring a tariff increase of more than three percent would be restricted to three percent in that quarter and the

remaining burden would be shifted to the following quarter and so on. We have also provided for a full review at the end of every financial year (or at any other earlier or later time determined by NEPRA) which would be in the form of a tariff petition in accordance with the Tariff Rules. At the time of this yearly (or early/later) review the unadjusted difference due to the three percent cap would be taken in to consideration while considering all aspect in accordance with the standards prescribed in the Tariff Rules including a full scale prudency review of costs and revenue accrual and the tariff structure. The procedure for approval of automatic adjustment has been kept simple. No petition will have to be filed by the utility for the quarterly adjustment nor would any fee be payable to NEPRA.

26. The following mechanism is prescribed for allowing the utilities to adjust its tariff due to increases or decreases in cost of fuel:-

(1) Every 3 months (or earlier if the Authority so decides on a specific request of the Utility), NEPRA shall determine and announce an increase or decrease in sale rate based on the Utility's incremental Revenue Requirement according to the following formulae:-

For Fuel A:

$RA_{r1} = (P_{R1}-P_{O1})CF_1*UR_1$ For Power House (1)

Where RAr_1 is the incremental cost (and consequent Revenue Requirement) due to Fuel A with respect to Power House 1, P_{R1} is the revised price and P_{O1} is the original base price of Fuel A with respect to Power House 1, as Rs/(unit of fuel), CF_1 is the conversion factor which converts the price of fuel in Rs./(unit of fuel in weight or volume) to Rs. per Kwh. UR_1 are the units to be generated in the remaining of the year through Power House 1 using Fuel A.

$RA_{r2} = (P_{R2}-P_{O2})CF_2*UR_2$ For Power House (2)

$RA_{r3} = (P_{R3}-P_{O3})CF_3*UR_3$ For Power House (3)

....

$RA_{r\,n} = (P_{Rn}-P_{On})CF_n*UR_n$ For Power House (n)

Incremental cost for fuel A = TRA = ($RAr_{1}+RAr_{2}+ RA_{r3}+.......RA_{r\,n}$)

For Fuel B: (Similar calculation as for fuel A)
Incremental cost for fuel B = TRB = ($RBr_{1}+RBr_{2}+ RB_{r3}+.......RB_{r\,n}$)

For Fuel C: (Similar calculation as for fuel A)
Incremental cost for fuel C = TRC = ($RCr_{1}+RCr_{2}+ RC_{r3}+.......RC_{r\,n}$)

Total incremental cost requirement
GTR= (TRA+TRB+TRC +..........)

(Incremental Revenue requirement may be plus or minus depending upon increase/decrease in price fuel resulting in a corresponding increase/decrease in consumer end tariff.)

The total Incremental Revenue Requirement will be distributed on the units to be sold for the remaining year on a uniform basis or on consumer class wise basis to achieve gradual elimination of cross subsidies.

If uniform increase/decrease is intended, the incremental rate increase/decrease will be GTR divided by the remaining total units expected to be sold during the year.

In case consumer classes are identified for increase/decrease, the incremental rate for each class will be determined separately such that

$$GTR = \Delta T_A *U_r C_A + \Delta T_B *U_r C_B +\text{---------}+\Delta T_n *U_r C_n$$

Where ΔT_A is the increase in tariff rate for consumer class A; $U_r C_A$ are the remaining units for the year expected to be sold for consumer class A. ΔT_B is the increase in tariff rate for consumer class B; $U_r C_B$ are the remaining units for the year expected to be sold for consumer class B and so on for all the consumer classes.

(2) Revenue Requirement and base tariff structure of the utility will normally be determined at the beginning of the financial year for the period 1st July year zero to 30 June of year one or such other predetermined review period (Review Period),

after a detailed assessment of expected revenue and expected costs is carried out.

(3) Prior to commencement of the Review Period the utility shall submit for the review period:

i) Forecast of monthly units to be generated for the review period in respect of each power house using a particular type of fuel. (The calculation of annual cost of generation with respect to each type of fuel shall be based on this forecast. The same Power House if using different fuels will be mentioned in each fuel type separately according to fuel usage)

ii) Forecast of monthly units expected to be sold for the review period in respect of each consumer class, retail tariff category wise and for total sales on the basis of the sale mix and load factors actually observed in the year prior to the Review Period.

(4) Base Price of each fuel in market terms and converted into fuel rate in rupees per unit of generation (Kwh) shall be provided by the utility prior to the Review period taking into account the conversion factor as: :Fuel rate (Rs/Kwh) =Fuel price (Rs/Unit of fuel)*Utilization rate (Units of fuel required to produce one Kwh).

(5) The effective time of increase in price of fuel will be intimated by the utility to NEPRA on occurrence after taking into account the use of existing stock of that fuel purchased at old price. This information shall be submitted at the time of submitting a request for adjustment in tariff.

(6) At the end of the Review Period the consumer class wise tariff will be reviewed and adjusted to take into account actual costs incurred based on actual generation and actual units sold during the past year adjusted by the level of line losses as determined by NEPRA. Thus, the base tariff will be reset for the next Review Period and the quarterly tariff adjustment on account of fuel price variation in the next Review Period will be adjusted to the base tariff rate for the next Review Period on the same basis as the formulae given in para (1).

(7) Any request for average tariff increase of more than three percent of the prevailing tariff, if occurring in a certain

quarter may be allowed as restricted to three percent only and the remaining burden compensated in the next quarter.

(8) If in exceptional circumstances, such as an unusual increase in fuel price, a tariff increase of more than three percent is required by the utility earlier than the expiry of the quarter a request for tariff revision may be made in the 2nd month of the quarter.

(9) There will be no need for the utility to submit a petition for tariff adjustment on quarterly basis. A simple form (indicated below as Form TA-1) completing the requirement of data required in para 5 and the new fuel price will be submitted by the utility at the end of each quarter. The utility would normally request for any tariff adjustment on 14th or 15th day (if the 14th day is a holiday) of the last month of the quarter for which adjustment is required. NEPRA would determine and allow the consumer end tariff increase or decrease accordingly within 5 working days if the required information has been provided by the utility.

Form TA-1 (REQUEST FOR AUTOMATIC TARIFF ADJUSTMENT)

To,

The Chairman NEPRA.

Subject: **Automatic Tariff Adjustment for Fuel Price Variation**.

Reference: Your determination of ________________ and the forecasts/financial statements submitted vide our No.__________________________ dated ___________ regarding request for base tariff setting for the year 2000-2001.

The following fuel price increase/decrease has taken place during the period [01.01.2001 to 31.03.2001] which has necessitated a charge in the Estimated Revenue Requirement for the year [2000-2001] and a corresponding revision of retail sale tariff as indicated:

Fuel Type	Previous Price (Rs.)	Revised Price(Rs.)	Previous Price/kWh (Rs.)	Revised Price/kWh (Rs.)	Effective date of Revision	Remaining units to be generated	Incremental Revenue Requirement
R. Gas	...../ MCF	...../ MCF	....	.....	....	....	**Rs..... Mln.**
Fuel Gas	...../ MCF	...../ MCF	....	.....	....	....	**Rs..... Mln**
Furnace Oil	...../ MCF	...../ MCF	....	.....	....	....	**Rs..... Mln**
Any other fuel applicable							
Total incremental revenue requirement							**Rs. ... Mln**

Total remaining units to be sold during the year	**............(Mln. KWh)**
Increase in overall sale rate requested for each unit	**............Paisas/kWh**

G. M. Finance (Power) WAPDA.

(10) If the utility does not submit a request for tariff adjustment in a certain quarter, NEPRA shall review the market fuel price on its own and approve a tariff adjustment required to compensate for any variation in prices during the quarter.

(11) The increase in consumer class-wise tariff shall be allowed in terms of Paisas per Kwh as opposed to a percentage increase in rates for the reason that a percentage increase in rates will further aggravate the existing distortion in tariff due to cross subsidies. Applying increase as Paisas/Kwh would have the effect of correcting the distortion to some extent even if a uniform increase over all the consumer classes is allowed as adjustment.

(12) The utility shall not carry out any adjustment in consumer end tariff unless approved by NEPRA.

EXPECTED REVENUE FROM THE EXISTING TARIFF AND FUEL COST CORRECTION.

27. In order for the automatic adjustment to be applicable, a base tariff is required to which future incremental adjustments will be applied. To establish the base tariff we need to examine the costs and revenue requirement of the utilities and their expected revenue accrual from the existing tariff in order to arrive at the incremental increase/decrease in tariff required by the utility. The WAPDA Companies had last submitted their financial statements during the proceedings in Case No. NEPRA-04/WAPDA-99. These contained projected financial statements for the year 1998-99. During the course of the proceedings, these statements were supplemented by some actuals for a portion of the FY 1999-2000. The statements indicated that despite a number of fuel price increases during the FY 1999-2000, WAPDA had not sought an increase in rates, in view of their adequate surplus cash availability at the end of FY 1998-99 and also in the projection for the FY ending June 2000. The WAPDA Companies had not

requested for any revision of rates during the FY 1999-2000. Therefore, during this period, their financial statements with respect to costs and revenue earning capability from the existing tariff have not been examined by us earlier. However now that the utilities' performance with respect to actual costs and revenue earning capability is available to us for the FY1999 –2000, the expectation of costs and revenue earning capability for the FY 2000-2001 can be based upon the acutals for the FY 1999-2000 to arrive at a base tariff as of today which will allow sufficient revenue to the utilities to cover their costs for the FY 2000-2001 from the base tariff and recover their incremental costs due to fuel price variations through the tariff adjustment mechanism allowed by us. While going through the information provided by the Petitioner in respect of revenue earnings of the WAPDA Companies, it can be inferred that the utilities' revenue expectation for the FY 2000-2001 through the existing tariff will be Rs.147,569 million, as compared to the claim of the Petitioner that the same is Rs. 140,687 million. This correction has been based on applying the existing tariff rates to the consumer class wise and tariff category wise sales mix and load factors (for two part tariff) calculated from the statement of actuals provided by the Petitioner for the FY1999-2000. Therefore, a correction of Rs. 7,882 million has been made in the amount the WAPDA Companies seek to be compensated for through an initial adjustment of tariff. Similarly, the incremental fuel cost of the utilities due to fuel price increases has been indicated by the Petitioner as Rs. 17,687 million. Whereas according to our assessment the total incremental burden due to fuel price increases from July 2000 to 27th October 2000 comes to Rs. 16,763 million as against Rs. 17,687 million claimed by the Petitioner.

28 While assessing the expected revenue of WAPDA Companies it has been observed that WAPDA is selling power to KESC at the rate of Rs. 3.19/Kwh. This rate does not appear in the schedule of rates and apparently the sale rate has been established through a contract between WAPDA and KESC. The expected revenue from KESC is now based on a rate of Rs.3.41/Kwh which is 22 Paisa higher than the previous rate of Rs.3.19/Kwh. The raise in rate of sale to KESC is of the same quantum as that in the case of bulk supply tariff. The contract between WAPDA and KESC for sale of power to KESC needs to be examined and approved by NEPRA. We therefore direct that WAPDA submit the sale of power contract (made with KESC) to NEPRA for examining its reasonability. This will be considered as a mandatory direction to the Petitioner as well as to WAPDA. In the event of failure to comply with the mandatory directions WAPDA shall be liable to fines in the manner as the Authority may determine.

EFFICIENCY MEASURES.

29. As aforesaid, in establishing the incremental burden we have to look into the costs and revenue expectations of the utility for a certain Review Period i.e. in this case the FY 2000-01. Therefore, we have to look into the broad performance/efficiency measures such as losses and receivables, the estimation of which has a direct bearing on the calculation of the incremental burden required to establish the base tariff. This point has been raised in virtually all communications we have received and has been made forcefully by the interveners. The policy of the Federal Government also appears to cater for this aspect. We have been informed that the National Security Council has decided that "regulatory authorities should look into the inefficiency and losses of public utilities before allowing an increase in tariff".

Losses

30. The annual losses of the utility for FY 1996-97 were 24.2% and for the FY 1997-98 were reported to be 26% as indicated in the respective WAPDA progress reports for the years. The annual losses for the FY 1998-99 were 27.5% which were brought down to 27.3% in the FY 1999-2000. The Petitioner has committed in the Petition that the line losses for the FY 2000-01 will be maintained at 26.0%. WAPDA had earlier committed to maintain an annual loss level of 20% during the FY 1998-99. While determining the tariff in Case No. NEPRA 03/WAPDA 98, we had remarked that this target was very stringent and if achieved would be considered commendable. However, instead of reducing its losses from 26% in FY 1997-98 WAPDA increased its line losses to 27.5% in FY 1998-99 which were marginally reduced to 27.3% in FY 1999-2000. We are of the opinion that inefficiencies of the utilities in terms of high losses should not be passed on to the consumers in the shape of an increase in tariff. However, it is apparent that certain corrections would have been made in arriving at a figure of actual losses with the elimination of flat rates. This would have resulted in the aforementioned figures. It appears that the figures of line losses of 27.5% for the FY 1998-99 and 27.3% for the FY 1999-2000 can be considered as reasonably correct. At the same time we believe that the management of WAPDA is capable of ensuring a reduction in losses far greater than the 0.2% reduction achieved in the FY 1999-2000. Therefore, the target of restricting line losses to 26% for the FY 2000-01 will again mean the shifting of a portion of the burden of losses to the consumers. We believe that a reduction in losses from 27.3% to 25% during the FY 2000-01 needs to be achieved by the present management of WAPDA instead of the target of 26%. A one percent reduction in losses amounts to a saving of fuel cost of Rs. 2,407 million. Therefore, the additional

revenue requirement of the utilities required to be compensated through an increase in the consumer end tariff has to be adjusted correspondingly.

Receivables

31. The outstanding receivables of the WAPDA Companies as on June 30, 1998 stood at Rs. 43,892 million. During the FY 1998-99 these receivables increased by Rs. 11,850 million and again during FY 1999-2000 these increased by a further Rs. 6,855 million resulting in an opening receivables of Rs. 62,694 million as on June 30, 2000. The WAPDA Companies have thus increased their receivables by Rs. 18,705 million during the last two years. WAPDA Companies have committed to reduce their receivables by Rs.7,461 million during the FY 2000-01. This would result in a closing receivables figure of Rs. 55,233 million if an almost full monthly recovery of assessment is considered for the FY 2000-01. The increase in receivables during the year indicates the inability of the utilities to recover their dues from consumers particularly public sector consumers. The increase in outstanding receivables against public sector consumers in the last two years has been Rs. 13,000 million. It would appear that the utilities are now demanding a tariff increase to compensate their inability to recover their dues during the last two years. If the utilities would have recovered their assessed dues during the past two years and not increased their receivables, their present requirement of compensation through a tariff increase would have been unnecessary. The Intervenres have also pointed out this aspect. In this context, the present dues against the government are now Rs. 29,400 million. The additional requirement of the utilities amounting to Rs. 16,763 million can be adequately covered even if the government pays only a little more than 50% of its dues to

WAPDA. The Senior Citizens Foundation is of the view that if all receivables are settled, it would result in a reduction in tariff. We are, however, conscious of the fact that it will not be reasonable to expect that the government would be in a position to clear all their dues owed to WAPDA in the current financial year, particularly when some of the claims lodged by WAPDA with respect to utility bills are not agreed to by the government. We feel that a reasonable expectation of payment from the government as well as private consumers to the utility can be made for the FY 2000-01 which indicates that the utilities can easily recover about Rs. 10,091 million out of the arrears outstanding from July 1st, 2000, (and maintaining an almost full monthly recovery of assessments during the FY 2000-01) as against a recovery of Rs.7,461 million indicated by the Petitioner. Hence, the additional cash requirement needed to be financed by the tariff reduces by Rs. 2,630 million.

INVESTMENT PROGRAMME.

32. The petition discloses that the development expenditure to be incurred by WAPDA in the year 2000-2001 is expected to be Rs.31,285 million. For the last four years the average expenditure incurred by WAPDA for development has been around Rs.19,000 million. Therefore, the current year's estimates seem to be on the higher side. The petitioner's representative explained that most of its expenditure is to be incurred at the Ghazi Barotha and Chashma hydroelectric projects. We feel that work on these hydroelectric projects should not be jeopardized or delayed because hydroelectric generation would be beneficial to the consumers being cheaper. For this reason the expenditure on development is being allowed to be incorporated in the tariff.

CROSS SUBSIDIES

33. The standards for determining the tariff set out in the Tariff Rules provide that the tariff regime should identify subsidies and provide these transparently, if found essential, with a view to minimize if not eliminate them, keeping in view the need for an adequate transition period. In determining the base tariff we have attempted to apply the required increase in tariff to various consumer classes in a manner that would not aggravate the existing cross subsidies. No increase is being imposed on commercial consumers, and no increase is being imposed on industrial consumers beyond that which was given in the immediate application of the tariff approved by us on September 7, 2000. Despite the foregoing, in keeping with the tariff standards we have endeavoured to protect the subsidy being provided to lifeline consumers consuming upto 50 units in a month and no increase has been made in rates payable by them.

ORDER

34. Incorporating the adjustments namely, correction for actual revenue accrual equal to Rs. 6,669 million, correction for recovery of receivables equal to Rs.2,630 million, correction for saving in fuel costs due to 1% loss reduction equal to Rs.2,407 million, results in an adjustment of Rs. 11,706 million in the Rs. 16,763 million requirement of additional burden due to fuel price increases demanded by the Petitioner to compensate WAPDA for fuel price increases in the period July 2000 to October 27, 2000. As a result the additional burden required to be compensated as an initial adjustment of tariff comes to Rs. 5,057 million. We hereby allow the WAPDA Companies to increase their consumer end tariff in the manner specified in the attached Schedule of Tariff. This relief also includes the relief accruing out of the

immediate application of rates pursuant to our order of September 7, 2000. The terms and conditions of the Schedule of Tariff as determined vide our earlier determination of 03.05.1999 in Case No. NEPRA 03/WAPDA/98 remain unaltered and therefore applicable to the attached Schedule of Tariff. For this purpose, the attached Schedule of Tariff is recommended to the Federal Government for notification in the official Gazette in accordance with Section 31(4) of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997. We also allow an Automatic Tariff Adjustment Formula to WAPDA Companies as prescribed in Para 26 ante.

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY
(NEPRA)

ANNEX

Tariff Determination dated 02 December, 2000

Ministry of Water & Power PETITION-10/2000

S.R.O. ________ In exercise of the powers conferred on the Federal Government pursuant to Section 31(4) of the Regulation of Generation, Transmission and Distribution of Electric Power Act (XL of 1997), the Federal Government hereby notifies the following tariff in respect of the provision of electric power services by the Water and Power Development Authority. This tariff has been approved by the National Electric Power Regulatory Authority pursuant to Section 31(4) of the said Act, subject to the terms and conditions of the Schedule of Tariff as determined under the determination of the Authority dated 3rd May, 1999, in respect of the petition number WAPDA 03/98 dated 21st December, 1998. The rates set out herein shall take effect as of the date of publication of this statutory revisionary order in the official gazette, and shall continue to be effective until notified otherwise.

SCHEDULE OF ELECTRICITY TARIFFS

TARIFF CATERGORY/PARTICULARS	FIXED CHARGES Rs/KW/M	ENERGY CHARGES Ps/KWH	F.A.S. Ps/KWH	ADDITIONAL SURCHARGE Ps/KWH
GENERAL SUPPLY TARIFF A-1				
UPTO 50 UNITS	-	54	7	73
FOR CONSUMPTION ABOVE 50 UNITS				
FOR FIRST 100 UNITS (1-100)	-	68	7	111
FOR NEXT 200 UNITS (101-300)	-	77	15	182
FOR NEXT 700 UNITS (301-1000)	-	110	75	308
FOR NEXT 3000 UNITS (1001-4000)	-	147	75	407
ABOVE 4000 UNITS	-	147	75	458

Under this tariff, there shall be minimum monthly charges at the following rates even if no energy is consumed.

a) Single Phase Connections: Rs. 45/-
b) Three Phase Connections: Rs. 100/- plus Rs. 25/- per KW for load in excess of 5 KW

FLAT RATE FOR FATA (Rs/CON/MONTH)		Rs. 90 /Con/M	-	Rs. 537 /Con/M
GENERAL SUPPLY TARIFF A-2				
FOR FIRST 100 UNITS	-	217	75	346
ABOVE 100 UNITS	-	241	75	356

Under this tariff, there shall be minimum monthly charges at the following rates even if no energy is consumed.

a) Single Phase Connections; Rs. 150/-
b) Three Phase Connections: Rs. 300/- plus Rs. 30/- per KW for load in excess of 10 KW

INDUSTRIAL SUPPLY TARIFFS				
B-1 UPTO 40 K.W. (at 400 Volts)	-	119	75	259

There shall be a minimum monthly charges of Rs. 70/KW for first 20 Kilowatt of load and Rs. 90/KW for loads between 20-40 KW even if no energy is consumed.

B-2 41-500 K.W. (at 400 Volts)	200	68	75	233
B-3 UPTO 5000 K.W. (at 11/33 KV)	290	67	75	157
B-4 FOR ALL LOADS (at 66/132/220 KV)	280	62	75	146
Special Tariff for High Voltage & Short Circuit Testing Lab. Rawat.	-	126	75	157

Note: B2 consumers can opt for T.O.D Tariff
B3 and B4 Tariff is valid upto 30-09-1999 by which date all B3 and B4 connection will be converted to T.O.D Tariff.

INDUSTRIAL SUPPLY TIME OF DAY TARIFFS

PARTICULARS	FIXED CHARGE (Rs/KW/MONTH)	ENERGY CHARGES OFF-PEAK HOURS Ps/KWH	ENERGY CHARGES PEAK HOURS Ps/KWH	F.A.S. Ps/KWH	ADDL. SURCHARGE OFF-PEAK HOURS Ps/KWH	ADDL. SURCHARGE PEAK HOURS Ps/KWH
B2-TOD (from 41 kW to 500 kW)	200	58	136	75	216	289
B3-TOD for sanctioned load not exceeding 5000 KW (at 11-33 kV)	290	53	135	75	116	182
B4-TOD For All Loads (at 66-132-220	280	49	125	75	109	180

NOTE : 1) In all electricity tariffs, the "SURCHARGE" at the rate of 10.4% of "Supply Charges" is also leviable. "Supply Charge" include Fixed Charges, Energy Charges, F.A.S. and Low Power Factor Penalty.
2) Terms and conditions of the Schedule of Tariff as determined vide Determination of 3-5-1999 remain unaltered.

SCHEDULE OF ELECTRICITY TARIFFS

TARIFF CATERGORY/PARTICULARS	FIXED CHARGES Rs/KW/M	ENERGY CHARGES Ps/KWH	F.A.S. Ps/KWH	ADDITIONAL SURCHARGE Ps/KWH
BULK SUPPLY TARIFFS				
C-1 (a) 400 Volts	-	83	75	274
C-1 (b) 400 Volts	220	68	75	273
C-2 (a) 11/33 KV	-	69	75	260
For Government of AJ&K	-	69	75	187
C-2 (b) POF WAH	-	95	75	298
C-2 (c) 11/33 KV	216	65	75	270
C-3 66/132/220 KV	214	63	75	246
AGRICULTURE TARIFF-D				
1- SCARP	-	85	75	235
2-(I) PUNJAB AND SINDH	82	49	75	85
2-(II) NWFP & BALUCHISTAN and Distt. Of Mianwali and Bahawalpur in Punjab & Tharparkar in Sindh	72	34	75	68

TEMPORARY SUPPLY TARIFFS

	FIXED CHARGES Rs/KW/M	ENERGY CHARGES Ps/KWH	F.A.S. Ps/KWH	ADDITIONAL SURCHARGE Ps/KWH
E-1(i) Domestic Supply	-	170	75	321
E-1(ii) Commercial Supply	-	319	75	446

For the above two categories, the minimum bill of the consumers shall be Rs. 46/- per day subject to a minimum of Rs. 200/- for the entire period of supply, even if no energy is consumed.

E-2(i) Industrial Supply	-	174	75	303
E-2(ii)a Bulk Supply to Licensees/ non-licensees (at 400 V)	-	135	75	337
E-2(ii)b Bulk Supply to Licensees/ non-licensees (at 11 K V)	-	123	75	316
E-2(iii) Bulk Supply to other consumers	-	144	75	323

SEASONAL INDUSTRIAL SUPPLY TARIFF-F

	SUPPLY CHARGES	ADDITIONAL SURCHARGE
	125% of the "supply charges" relevant industrial supply tariff	125% of the Addl. Surch. of the relevant industrial supply tariff

Note: *** Tariff-F consumers will have the option to convert to Regular Tariff and vice versa. This option can be exercised at the time of a new connection or at the beginning of the season. Once exercised , the option remains in force for at least one year.**

NOTE: 1) In all electricity tariffs, "SURCHAGE" at the rate of 10.4% of "Supply Charges" is also leviable. "Supply Charges" include Fixed Charges, F.A.S. and Low Power Factor Penalty.

2) Terms and conditions of the Schedule of Tariff as determined vide Determination of 3-5-1999 remain unaltered.

SCHEDULE OF ELECTRICITY TARIFFS

TARIFF CATERGORY/ PARTICULARS	FIXED CHARGES Rs/KW/M	ENERGY CHARGES Ps/KWH	F.A.S. Ps/KWH	ADDITIONAL SURCHARGE Ps/KWH
RESIDENTIAL COLONIES ATTACHED TO INDUSTRIAL PREMISES (TARIFF-H)				
1. - Consumers having their own transformer		104	75	324
2. - Consumers not having their own transformer		105	75	326
TARIFF-I FOR RAILWAY TRACTION		61	75	272
TARIFF-J FOR CO-GENERATION CONSUMERS				
1. SALE OF POWER BY WAPDA		133	75	270
2. PURCHASE OF POWER BY WAPDA				
a) During December to July		103	-	-
b) During August to November		78	-	-
PUBLIC LIGHTING TARIFF (G)				
1-UNIT CHARGES				
i) For Provincial Governments affording exemption to WAPDA from payment of Octroi & Property tax		**As per General Supply Tariff A-1**		
ii) For consumers other than those falling in the category Tariff G-1(i)		152	75	449
2-FIXED LINE CHARGES PER MONTH PER MILE				
i) Where the entire capital cost in laying Street Lighting supply line which is exclusively meant for Street Lighting is borne by the Authority		Rs. 253		
ii) Where the entire capital cost in laying Street Lighting supply line which is exclusively meant for Street Lighting is borne by the consumers		Rs. 23		
iii) Where the entire capital cost is laying Street Lighting supply line over the existing distribution system is borne by the Authority		Rs.158		
iv) Where the entire capital cost in laying Street Lighting supply line over the existing distribution system is borne by the consumer		Rs.33		
v) For Street Lighting supply through underground cables		Rates to be negotiated		

NOTE: 1) In all electricity tariffs, the "SURCHARGE" at the rate of 10.4% of "Supply Charges" is also leviable.
"Supply Charges" include Fixed Charges, Energy Charges, F.A.S. and Low Power Factor pentalty
2) Terms and conditions of the Schedule of Tariff as determined vide Determination of 3-5-1999 remain unaltered.