National Electric Power Regulatory Authority

Islamic Republic of Pakistan

Registrar

2nd Floor, OPF Building, G-5/2, Islamabad,
Ph: 051-9206500, 9207200, Fax: 9210215
E-mail: registrar@nepra.org.pk

No. NEPRA/TRF-226/NTDC-2013 /8916-8918
July 19, 2013

Subject: **Determination of the Authority in the matter of Petition filed by National Transmission & Despatch Company Ltd. (NTDC) for Determination of Its Transfer/Wheeling Charges for the FY 2012-13 - Case No. NEPRA/TRF-226/NTDC-2013** - 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)

Dear Sir,

Please find enclosed herewith the subject Determination of the Authority along with Annex-1, II & III (47 pages) in Case No. NEPRA/TRF-226/NTDC-2013.

2. The determination is being intimated to the Federal Government for the purpose of notification 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 Order of the Authority at para 31 of the Determination along with Annex-I, II & III needs to be notified in the official gazette.

Enclosure: As above

(Syed Safeer Hussain)

Secretary
Ministry of Water & Power
'A' Block, Pak Secretariat
Islamabad

CC:

1. Secretary, Cabinet Division, Cabinet Secretariat, Islamabad.
2. Secretary, Ministry of Finance, 'Q' Block, Pak Secretariat, Islamabad.

National Electric Power Regulatory Authority
(NEPRA)

PETITION NO: NEPRA/TRF-226/NTDC-2013

DETERMINATION OF TRANSFER / WHEELING CHARGES

FOR THE YEAR 2012-13

UNDER

TARIFF STANDARDS AND PROCEDURE RULES - 1998

FOR

NATIONAL TRANSMISSION & DESPATCH COMPANY (NTDC)

Islamabad

July , 2013

DETERMINATION OF THE AUTHORITY IN THE MATTER OF PETITION FILED BY NATIONAL TRANSMISSION & DESPATCH COMPANY (NTDC) FOR DETERMINATION OF ITS TRANSFER / WHEELING CHARGES FOR THE FY 2012-13

CASE NO. NEPRA/TRF/226/NTDC-2013

PETITIONER

National Transmission & Despatch Company Limited (NTDC),

INTERVENERS

1. Karachi Electric Supply Company Limited (KESC)
2. The Network for Consumer Protection

COMMENTATORS

3. Pakhtunkhwa Hydel Development Organization:-
4. Bridge Factor - Commentator

REPRESENTATION

• Mr, Khalid Hussain Rai	MD NTDC
• Mr. Zia-ur-Rehman,	General Manager Technical
• Mr.Waseem Saadat,	Finance Director
• Mr. Muhammad Dawood	Consultant Planning
• Mr. Rizwan Ahmed	General Manager (SO)
• Mr. Tahir Mahmood	General Manager (CPPA)
• Mr. Khalid Ali Shah	Additl Manager Finance (CPPA)

Abbreviations

CPPA	Central Power Purchasing Agency
FY	Financial Year
GOP	Government of Pakistan
MoWP	Ministry of Water and Power
NTDC	National Transmission & Despatch Company Limited
GWh	Giga Watt Hours
KV	Kilo Volt
kW	Kilo Watt
kWh	Kilo Watt Hour
MW	Mega Watt
NEPRA	National Electric Power Regulatory Authority
O&M	Operation and Maintenance
PEPCO	Pakistan Electric Power Company
SRO	Statutory Regulatory Order
T&T	Transmission and Transformation Losses

The Authority, in exercise of the powers conferred on it under Section 7(3) (a) read with Section 31 of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997, Tariff (Standards and Procedure) Rules, 1998 and all other powers enabling it in this behalf, and after taking into consideration all the submissions made by the parties, issues raised, evidence/record produced during hearings, and all other relevant material, hereby issues this determination.

16/7/2013

(Habibullah Khiji)
Member

17/7/2013

(Maj (Rtd) Haroon Rashid)
Member

16-7-2013

(Khawaja Muhammad Naeem)
Vice Chairman

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19.07.13

1. BACKGROUND AND BRIEF HISTORY:

1.2 National Transmission & Despatch Company (NTDC), hereinafter referred as (the petitioner) is one of the successor companies of WAPDA, which was incorporated on November 06, 1998 and commenced commercial operation on March 1, 1999. The company has a status of public (unquoted) limited liability company under the Companies Ordinance 1984. NTDC was granted Transmission License No. TL/01/2002 on 31st December, 2002 to engage in the exclusive transmission business for a term of thirty (30) years, pursuant to Section 17 of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997. Under the regime set out in the License, the Company is entrusted to act as System Operator (SO), Transmission Network Operator (TNO), Central Power Purchasing Agency (CPPA) and Contract Registrar and Power Exchange Administrator (CRPEA). Presently, the Petitioner operates and maintains the following Network System;

NTDC Network	500 Kv	220 kV	Total
Number of Grid Stations	12	29	41 *
Transmission Lines (kms)	5,077	7,359	12,436 *

NTDC Past Determination History

NTDC filed first petition for determination of transfer / wheeling charges on 28.4.2003 and its determination was given 13.4.2004. NTDC filed 2nd petition for transfer / wheeling charges on 24.5.2005 and its determination was issued on 6.1.2006. In year 2006 NTDC's transfer price mechanism was revised to include KESC as a Distribution Company in addition to eight Ex-WAPDA Distribution Companies while maintaining the wheeling Use of System Charges for NTDC. NTDC filed 3rd petition on 23.8.2010 and its determination was made on 9.5.2011. NTDC submitted motion for leave for review with respect to the determination of the Authority which was decided on 18.7.2011. The comparison of actual and determined tariff is given hereunder:

Rs./kW/Month	FY 2003-04	FY 2006-07	FY 2010-11
Fixed Charge (UOSCF)	73.40	100.15	85.91

2. THE PETITION

2.1 NTDC filed a petition in January 2013 for determination/revision of its Transmission/Wheeling Charge for FY 2012-13 for transporting Electricity from the power producers to the Distribution Companies and Bulk Power Purchasers at Common Delivery Points (CDPs).

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2.2 In its petition, NTDC stated that it was allowed to charge Use of System Charge (UoSC) to recover the total costs of NTDC and return on equity. NTDC requested for increase in its Use of System Charge to recover its revenue requirement. In support of its request NTDC provided actual as well as projected revenue for the FY 2011-12 to FY 2012-13 respectively. The Petitioner later revised its figures for FY 2011-12 by providing latest un-audited financial statements for FY 2011-12. These are also indicated in the following table.

S.No.	Description	2010-11 Actual	2011-12 (Prov) Tariff Petition	2011-12 Actual Un-audited	2012-13 Projected
1.	Average monthly Demand (MW)	16,213	17,264	16,736	16,391
2.	Demand Growth over last year			3.2%	-2.06%
3.	Use of System Charge(Rs./kW/Month)	100.15	93.09	89.72	145.87
4.	Tariff Increase required (% age over last year)				62.58%
5.	Expected Revenues (Mln Rs.)	19,484	18,717	18,017	28,691
6.	Net Profit / (Loss) before tax Mln Rs.	(16,517)	5,061	6,463	13,753

2.3 NTDC compared the actual revenue of FY 2011-12 with the projected Revenue Requirement for FY 2012-13. The comparison is given in the following table:

Rs. Mln

Description		2010-11 Actual	2011-12 (Prov) Tariff Petition	2011-12 Actual Un-audited	2012-13 Projected
General Establishment		3,482	4,309	3,675	5,502
Repair & Maintenance		602	658	544	939
Insurance		93	96	102	140
Depreciation		3,639	3,865	3,717	4,766
Transmission losses beyond 2.5%		2,916	2,317	2,331	
Provision for bad debts		26,525		616	-
Financial Charges*		2,945	3,586	2,770	4,844
Income Tax @ 35%		612		1,387	
Return on Equity**		(17,129)	5061	6,463	13,753
Less: Other income	NTDC	(1,127)	(1,175)	(1,396)	(1,250)
	CPPA	(3,075)		(2,191)	
Net Revenue Requirement		**19,484**	**18,717**	**18,017**	**28,691**

** Financial charges are based on the actual cost of debt according to the loan agreements.*
*** 14.66% Return on Equity is assumed by the petitioner for FY 2012-13.*

2.4 Based upon the estimated maximum demand, NTDC requested to allow the following Use of System Charge (UOSC);

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Description	2010-11 (Actual as per NTDC)	2011-12 Petition (Prov)	2011-12 Actual Un-audited	2012-13 Estimated
Monthly Average Peak Demand Including KESC (MW)	16,212	16,756	16,736	16,391
Tariff Rs./kW/month	100.15	93.09	89.72	145.87
Total Tariff Revenue Mln Rs.	**19,484**	**18,717**	**18,017**	**28,691**

2.5 According to NTDC following are the main reasons / grounds to make afresh tariff application for the year 2012-13:

- Increase in General Establishment Expenditure due to an Adhoc and other reliefs announced by GoP in the Budget for FY 2012-13.
- The induction of new employees has also been planned corresponding to the envisaged expansion in the Transmission Network of NTDC.

- Increase in Maintenance Expenditure:
  - to ensure the desired reliability, security and adequacy of the transmission network,
  - maintain and strengthen the transmission system to the optimum level,
  - Augmentation/ Expansion in the Transmission Network of NTDC,
  - An extra cost is being incurred to rehabilitate the system from terrorist /Sabotage activities,
- Increase in financial Charges due to increase in borrowings for capacity expansion program.
- Financial burden of T & T losses beyond 2.5% approved by the Authority which is swallowing on the average Rs. 3.0 billion per year.
- To seek 14.66% return on equity, keeping in view the NEPRA determination for power sector companies as well as the prevalent market trends.

3. PROCEEDINGS:

3.1 The subject petition was considered by the Authority in Regulatory Meeting No. 13-087 dated February 12, 2013 wherein the Authority decided not to admit the Tariff Petition and directed vide letter No. NTDC NEPRA/R/TRF-100/NTDC/1634 dated February 15, 2013 to submit the deficient information within 14 days of receipt of letter from NEPRA failing which tariff petition was to be returned to NTDC. In response NTDC submitted the requisite information except Annual Accounts for FY 2011-12. The Authority admitted the petition on 14th March 2013 and directed to submit latest audited report of accounts before the date of hearing. Accordingly NTDC was directed vide letter NEPRA/TRF-226/NTDC-2013/2846 dated 28th March 2013 to provide the audited accounts.

3.2 In response the Petitioner vide letter no. 1790-91/FD/NTDC/Comp: dated 8th April 2013 submitted draft accounts for FY 2011-12 and informed that audited accounts for FY 2011-12 will be provided at the end of April 2013. In terms of Rule 5 (c) of the Tariff Standards & Procedure Rues – 1998, notice of admission/Public hearing

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was published in the leading English/Urdu newspapers on 24th March 2013 wherein salient features of the petition were published and comments / intervention request in support of or against the petition were solicited from any interested person/stake holder within 15 days of publication of the advertisement. For meaningful participation of the stakeholders, individual letters were also sent to the major stakeholders for their comments.

3.3 In response to notice of hearing, two interventions requests from the Network for Consumer Pakistan protection, Islamabad and Karachi Electric Supply Company Limited (KESCL) were filed whereas Khyber Pakthunkhawa Hydel Development Organization and Bridge Factor submitted their comments.

4. INTERVENERS:

4.1 **Karachi Electric Supply Company Limited (KESC)**

4.1.1 KESCL submitted the following:

- The Petition submitted by the NTDC for FY 2012-13 on January 24, 2013 (after 7 months), was time barred. However, the increase, if any allowed by the Authority should beapplicable from the date of Notification of the new determination (possibly from July 2013). The last determination of the NTDC wheeling charges for FY 2010-11 was issued on 23-09-2011, however, the reduction in rate from Rs. 100.15/kW to Rs. 85.91/kW from Jul 2010, was made effective from January 2012 by NTDC. KESCL in support of its arguments submitted the following comparison:

<u>Excess Return on Equity in 2010-11 (Refund/Adjustment):</u>

Rupees in Million

DESCRIPTION	2010-11 Actual	2011-12 Provisional	2012-13 Estimated
Return shown Under item 3 (ground for filing the Petition)	-17,129	5060	13,304
Return shown in Revenue Requirement - Annexure 'II'	12,312	7,377	13,304
Return Required as per calculation of Capital base & Return	8,264	9,886	13,304
(Working sheet provided by NTDC)	12.75%	12.75%	14.66%

- According to KESCL, it is evident from the above Table that the actual ROE (Rs. 12,312 million) achieved during FY 2010-11 was surplus by Rs. 4,048 million, against the requirements of Rs. 8,264 million. It shows significant revenue generated by NTDC during the year which may be refunded to DISCOs including KESC or may be adjusted against the increase in future, if any, allowed by the Authority.

- KESC pointed out that the Authority had approved Rs. 85.91/kW for the year 2010-11 which was short by 20% against the NTDC demand of Rs. 107.45/kW, however, the NTDC not only managed its affairs but also recovered an excess amount of Rs. 4.148 Billion as explained above.

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- The NTDC now requested for increase of wheeling charges from existing Rs. 85.91/kW to Rs. 138.56/kW i.e. increase by 61.3% for the year 2012-13. The comparative break-up of existing and proposed rates of wheeling charges are:

Description	Determination 2010-11		Proposed for 2012-13		Increase / Decrease	
	Rs/kW	Ratio	Rs/kW	Ratio	Rs/kW	%age
General Establishment	17.61	20.5%	26.56	19.2%	8.95	50.8%
Repair & Maintenance	5.39	6.3%	4.53	3.3%	(0.86)	-15.9%
Insurance	0.43	0.5%	0.64	0.5%	0.21	49.1%
Depreciation	18.98	22.1%	23.84	17.2%	4.85	25.6%
Tranmision losses > 2.5%		0.0%		0.0%	-	0.0%
Provision for bad debts		0.0%		0.0%	-	0.0%
	42.41	49.4%	55.56	40.1%	13.16	31.0%
Financial charges	18.99	22.1%	24.73	17.9%	5.74	30.2%
Income tax @ 35%	-	0.0%	-	0.0%	-	0.0%
Return on equity	32.83	38.2%	64.22	46.3%	31.38	95.6%
	94.24	109.7%	144.52	104.3%	50.28	53.4%
Less: Other income	(8.32)	-9.7%	(5.96)	-4.3%	2.37	-28.4%
Net Revenue Requirement	**85.91**	**100.0%**	**138.56**	**100.0%**	**52.65**	**61.3%**

- KESCL stated that almost all the items have been increased without any justification which ultimately will put the burden on the consumers, being a pass through item. The GOP is already reluctant to enhance the consumer end tariff as such will have to bear additional tariff differential subsidy of Rs. 10.9 billion, due to increase in revenue of NTDC, which will also create circular debt issue.

- Furthermore, if the 35% income tax is also allowed, the rate of wheeling will have to increase further by Rs. 34.58/kW or Rs. 7.1 Billion (ROE 22.56% before tax).

<u>Average Monthly Demand (MW)</u>

KESCL stated that the average demand has been assumed to be 17,264 MW for FY 2012-13 which is only 3.0% more than the previous year, while through the media and in general it has been stated above 18,000 MW. This should also be re-examined and brought to the actual / realist level. Year-wise comparison is as under:

Year	2008-09	2009-10	2010-11	2011-12 Prv	2012-13 Pro
MW	14,481	15,886	16,213	16,756	17,264
% age		9.7%	2.1%	3.3%	3.0%

<u>Development Expenditure (Investment Program-PSDP)</u>

- The development expenditure is the major component which affects ROE, financial charges, and depreciation as well as Repair and maintenance etc. and plays an important role in increasing/decreasing the wheeling charges. The development expenditure for FY 2012-13 has been forecasted at Rs. 24 billion,

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which is higher by 145% if compared with the expenditure of Rs. 16.5 billion in 2011-12 (provisional).

- The total cost of the projects (annexure IV) has been shown as Rs. 242 billion which comes to 191 billion, showing a difference of Rs. 51 billion. Similarly, there are so many errors in the costing of individual projects, such as the total cost of up-gradation of NPCC is Rs. 2,895 million while as per year-wise breakup it comes to 4,214 million.
- The total expenditure of Rs.24 billion includes Rs. 8.9 billion for new projects whereas the NTDC has not been able even to complete the on-going projects. The question is that whether the increase in expenditure for enhancement of the system is justified / prudent or just or the investment would be in futility thus causing extra burden on the financial viability of the NTDC and the consumers. As such the Authority should approve the investment program (PSDP) for FY 2012-13, after the proper scrutiny and also in the light of actual expenditure in last 9 months (Jul 2012 to Mar 2013).

General Establishment Charges — Million Rupees

2008-09	2,496					
2009-10	3,092	23.9%	Petition	2,820		
2010-11	3,482	12.6%	Proposed	3,499	Determined	3,419
2011-12 Prv	4,309	23.8%				
2012-13 Pro	5,502	27.7%				

Increase in two year (2011-13) is 58.0% which is unjustified and needs revision.

Repair and Maintenance (R&M)

- R&M cost has been worked out on the basis of 0.75% of the Gross Fixed Assets (including W.I.P.) which is on higher side, due to huge capital expenditure. The R&M expenditure for FY 2012-13 should be capped at previous year's level due to the fact that the new assets require less repair cost. R&M for FY 2012-13 is higher by 42.7% as compared to previous year 2011-12, as shown below:

Million Rupees

Year	2008-09	2009-10	2010-11	2011-12 Prov.	2012-13 Proposed
Mill. Rs.	350	577	602	658	939
% age		64.9%	4.3%	9.3%	42.7%

Insurance cost

- Increase of 37.5% is much higher, mainly due to huge investment program, to be reduced accordingly:

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Million Rupees

Year	2008-09	2009-10	2010-11	2011-12 Prov	2012-13 Proposed
Mill. Rs.	79	75	93	96	132
% age		-5.1%	24.0%	3.2%	37.5%

Depreciation Charges Million Rupees

2008-09	2,660					
2009-10	3,771	41.8%	Petition	3,084		
2010-11	3,639	-3.5%	Proposed	3,686	Determined	3,686
2011-12 Prv	3,865	6.2%				
2012-13 Pro	4,938	27.8%	May be reviewed – Detail may be provided			

Financial charges (Net):

- Financial charges, charged to P&L account, are increasing significantly by 21.8% in FY 2011-12 and 42.9% in 2012-13, (74% in two years) are mainly due to gigantic capital expenditure. These charges would reduce with the reduction in investment under PSDP, which has been initiated without any justification.

Million Rupees

2008-09	3,529					
2009-10	2,993	-15.2%	Petition	3,365		
2010-11	2,945	-1.6%	Proposed	4,066	Determined	3,688
2011-12 Prv	3,586	21.8%				
2012-13 Pro	5,124	42.9%	May be reviewed – Detail may be provided			

Rate of Return on Equity (ROE):

- ROE has been calculated @ 22.56% (before tax) which is on much higher side, which works out to 14.66% after tax. Assuming a reasonable return of 15% the net return should be 9.75 % after eradicating impact of income tax @35% (5.25%). The main purpose of the NTDC should not be to earn money but to facilitate the national economy. The working of ROE should be made after the careful examination of the entire components, specially the investment program.

Other Income Million Rupees

2008-09	1,990					
2009-10	1,469	-26.2%	Petition	593		
2010-11	4,202	186.0%	Proposed	623	Determined	1,616
2011-12 Prv	1,175	-72.0%				
2012-13 Pro	1,234	5.0%	May be reviewed – Detail may be provided			

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4.2 Petitioner's Response to KESC.

4.2.1 In response to the KESC queries regarding petition, the petitioner responded point by point as follows:

- Late filing of tariff petition by NTDC is due to frequent management changes as 3 Managing Directors in the first half of 2013 have been changed and so as the Finance Directorate of NTDC. Another reason is late finalization of the financial statements on the part of CPPA that makes serving of timely petition difficult however; CPPA is urged to put efforts more to streamline this process efficiently.
- ROE for FY 2012-13 has been calculated as per NEPRA defined methodology which only caters O& M element of CPPA and as far as actual ROE for FY 2010-11 is concerned, the same has been provided in the tariff petition inclusive of CPPA for the projection of actual results and have nothing to do with the tariff methodology which is entirely misunderstood by the intervener.
- In fact, ROE of Rs.12,312 Mlns as has been depicted in the tariff petition of 2010-11 is inclusive of a total of other income amounting to Rs.4,202 Mlns viz Annexure-II which is inclusive of a sub-total of Rs.3,075 Mlns pertaining to the CPPA (other income of CPPA also contains accrued interest on KESC receivables being not paid off for a couple of years) and if this portion is deducted from ROE of Rs.12,312 Mlns the result will be the same as should be in accordance with the approved standards, leaving no objection with the intervener.
- Moreover, NTDC applied for Tariff in 2010-11 which was notified at a very belated stage in 2011-12 hence, tariff for 2011-12 could not be filed at the right span of time so, Regulatory ROE difference for FY 2011-12 which worked out to Rs. (2,509) i.e., Rs.7,377- 9,886 an Uncovered Cost, should be provided to petitioner.
- NTDC applied for tariff of Rs. 107.45/kW which was inclusive of taxes while NEPRA's determined Tariff Rs. 85.91/kW was exclusive of taxes and NEPRA has allowed Taxes on actual basis which is subsequently being claimed.
- Increase in the General Establishment & Admin. Expenses is justifiable as these expenses are subjected to 25% to 28% increase each year as per GoP notifications. Insurance and Depreciation depend entirely on the volume of fixed assets, as huge capitalization is experienced this year, so these have been increased to that extent accordingly.
- It is also worth mentioning that KESC does not pay its bills timely to NTDC that becomes one of the reasons of increase in the circular debt.
- Actual Demands have been extracted from the invoices issued to all Power Distributors and the same have also been duly reconciled by both the parties. Previously, we have projected the Load Growth by 3% as compared to last year but after having the actual results of current FY upto (i.e., July 2012-Feb 2013) and we observed a downward trend of 3%, and rest of the periods(i.e., March-June) last corresponding period's demand was extracted, resultantly showing 2% decline in

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the net demand for FY 2012-13. It's further to apprise that only 'Average Monthly Demands' are accounted for invoicing Discos' rather 'Monthly Peak Demands'.

- Some of Projects which have been completed, their PC-l Cost inadvertently accounted whereas the impact of these projects has not been taken in the tariff petition. The impact in totality although is not significant but the details of these closed projects is submitted for just information. It is further to peruse that future projects stream has not been envisaged either.

- The PC-1 cost of NPCC Up-gradation Project is subjected to changes in Forex rate of JPY from Rs. 0.49 at the time of project estimation to Rs. 1.05 over the time span of the project, resulting an expenditure of Rs. 3,270 Mlns against approved PC-1 cost of Rs. 2,895 Mlns. This exchange rate difference is not considered while over-run in PC-1 cost is examined. Accordingly revised PSDP is enclosed for contemplation. (Annex-A)

- Comparison of FY 2012-13 against FY 2010-11 is contended being illogical as the impact of FY 2011-12 is not taken into consideration. Analysis of hike under the head 'General Establishment Charges' would be inappropriate because a 20% increase in Salaries & Wages was given by GoP in FY 2011-12 likewise 20% increase in Pension was also observed in FY 2011-12. Again, CPI was 11% for FY 2011-12. So, without comparative Financial Years, the comparison would be no more homogenous.

- Besides, NTDC follows Govt. National Pay Scales for its employees hence, enhancement made by the Govt. has to be implemented. Moreover, Qualification Pay has been increased by 100% by GoP. Travelling Expenses have been increased to 75% (Avg.) as 150% increase in Milage Allowance i.e., Rs. 1.0 per Km to Rs. 2.50 per Km. Medical and Hospitalization has been increased by 10%. There is no over & above increase in 'General Establishment Charges' which is unfairly adopted and passed through the general public.

- NEPRA has allowed the company to calculate the maintenance cost @ 0.75% of the average gross fixed assets since 2003 (Ref: TRF-19-2003) resulting R&M Cost for FY 2012-13 Rs. 939 Million. In FY 2012-13, Capital Base has also been enhanced leaving its impact in further increase under this head. Moreover, sabotage activities being unavoidable need emergent addressing so are dealt on emergent basis accordingly.

- Again, Comparison of FY 2012-13 against FY 2010-11 is unjust for not being comparative/successive financial years. As discussed earlier, NTDC's equipments are insured under WEPS (WAPDA Equipment Protection Scheme) in which insurance cost is calculated @ 0.30% of the book value of assets. Besides this, Capital Base has also been enhanced resulting in further increase under this head. NTDC is maintaining assets worth in Billions, to that tune Insurance of these highly valuable assets becomes a part and parcel to be incorporated.

- Comparison of FY 2012-13 against FY 2010-11 is unjust for not being comparative financial years. Due to heavy capitalization of WIP into Fixed Assets, depreciation cost is surged up accordingly. 'Capital Base' in current financial year is also one of

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the reasons of increment under this head. Comparison of FY 2012-13 against FY 2010-11 is unjust for not being comparative financial years.

- Comparison of FY 2012-13 against FY 2010-11 is unjust for not being comparative financial years. NTDC's profile is based on heavy infra-structure which is ever expanding. To cope with the needs loans are taken which fall under two categories (i) Existing loans following their own schedule. (ii) New loans to assure power evacuation from all Power Producers. All these financial arrangements require debt-service; the more loans for expansion in infra-structure, the more would be the financial charges with full justifications and most of the loans are Foreign Committed Loans

- Comparison of FY 2012-13 against FY 2010-11 is unjust for not being comparative financial year. Other income only includes the incomes of recurring nature which is more obvious to be observed. Moreover, realistic yard-sticks are being adopted to come to the closest estimates. The 'Other Income' includes interest income which has been reduced due to declining trend in 'Discount Rate' of State Bank of Pakistan. For FY 2012-13, the other income falls in the same vicinity as witnessed in previous years.

4.3 **The Network for Consumer Protection:-**

4.3.1 Following concerns were raised by The Network for Consumer Protection

- The tariff petition is fatally deficient as no electricity is transmitted by CPPA to DISCOs
- Any inefficiency on part of NTDC and its transmission system cannot be passed on to the end-consumers
- NTDC failed to defend the petition of KESC with regard to transfer price charging mechanism determined by NEPRA in October 2008 whereby KESC was allowed the status of XWDISCOs resultantly the end-consumers of XWDISCOs were burdened with billion of rupees without any justification
- The Authority needs to modify the transfer price charges mechanism to the original i.e. charging of KESC on marginal cost basis' that the petitioner wrongly and in violation of Authority's determination calculates the peak loads of XWDISCOs
- Under the NTDC license and the power purchase agreement with EX-WAPDA generation companies, NTDC could purchase power from the GENCOs, then how the GENCOs have become power purchasers from Rental Power Projects (RPPs)
- The Petitioner being national grid company under section 17 of NEPRA Act has failed to properly discharge its role as system operator in the load management and the XWDISCOs also failed to follow the load-shedding management order criteria prescribed by the NEPRA Standards and Procedure Rules 2005 and this violation committed jointly by the petitioner and the XWDISCOs has resulted in loss for billions of rupees to the national exchequer
- The Petitioner should develop its capacity to conduct annual capacity and heat rate test of IPPs and GENCOs

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- The Petitioner has failed to discharge its regulatory obligations regarding transition of the then system from single wire to single wire plus and to commercial market operation
- The CPPA of NTDC is functioning inefficiently and manually hence is not capable of exercising proper verification of the Pool Cost/ Price and that since 2002, the Petitioner has failed to automate the CPPA functions to enable it to verify the energy cost with the determined Heat Rate and / or efficiency of plants.
- Increase in the salaries for any reason by the govt. or the NTDC itself it becomes a pass through item to the end user? Is this predictable in the sense that it confirms to the standard reasons of increase in tariff?
- Whether the increase in expenditure for enhancement of the system is justified or prudent or verified in advance from NEPRA? All loans carry a debt burden: the question is whether all the input is going to increase the power condition or just an investment in futility and extra burden on the financial viability of the company? Does the NEPRA approve all such investments?
- No figures exactly to the effect of the increase in security expenses or their details are given anywhere in the petition even in the expenditure table.
- Detailed working must be asked by NEPRA as the financial charges will cross the estimated revenue requirement, which in itself is an alarming thought to begin with irrespective of the viability or otherwise of the investments made through the loans.
- Whether the Petitioner's projected 14.66% Return on Equity for FY 2012-13 against the allowed Return on Equity 12.75% for FY 2010-11 is justified? The main reason of the company should not be to earn money but to facilitate the national economy by its actions. In this regard the present scenario of the proposed ROE seems totally out of synch with the present tough economic conditions and should be rethought.
- What is the positive effect of this increase on the NTDC? Why is this expense not being controlled by better logging of meters of cars being used? It is suggested that this petition should be resubmitted with further details of the causes of the increase of the expenses in the given heads that are absent at the moment.
- NEPRA should look into this more deeply and disapprove this large increase to be paid by the end user in way of increased tariff.
- There seems to be no justification of this sudden rise of travelling and conveyance expenses, there is a need to know why this increase is assumed or is it really necessary and why is this not being controlled within acceptable limits? This increase should be disallowed by the NEPRA as being wrong and impractical.
- What is the logic behind this increase? Does this mean that the legal team at work now is hired at high fees? Does it mean that NEPRA has increased its fee in some way or the NTDC does not seek to reduce its expenses by looking for companies and ways to reduce the expenses to the level last year? In this regard this is a controllable expense and no increase should be allowed to NTDC.
- How did NTDC reach this conclusion that the rates of taxes are going up by the proposed rate? If this is the case then at least the increased rates and the titles of the taxes that have increased must be shown as well.

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- What is the mechanism at present for recording of coincident demand of each DISCO at the time of system/ NTDC peak demand; whereas currently, NTDC is charging by summation of peak demand of CDP's interconnection and Tie-lines points and accordingly pool capacity charges of the all generators are being charged.
- No proper system/ software for calculation of wheeling charge have been deployed.
- NTDC since long has not implemented the secured metering system at all CDP's interconnection and Tie-lines points for instantaneous reading of kWH + kW coupled with software for proper settlement by CPPA.
- Whether the bulk supply tariff for DISCOs is justified?

4.3.2 In view of the above submissions, it is most respectfully prayed that the Authority may graciously dismiss the petition and direct the Petitioner to comply with standards and requirement provided by the Authority.

4.4 Petitioner's Response to the Network for Consumer Protection.

4.4.1 In response to the intervener's queries, i.e. The Network for Consumer Protection, the Petitioner stated that:

- NTDC is falling in Govt Pay Scales, so any increase under this head becomes a legitimate reason to pass through.
- Vehicle running expense has been enhanced to 20%. This increase was assumed on account of hike in fuel prices during first half of this FY 2012-13. Further a 30% hike observed in FY 2011-12 as compared to FY 2010-11. Therefore this is the least sought hike under this head.
- Travelling expense increased to 75% (Avg.) because of 150% increase in mileage allowance i.e. Re. 1/- per Km to Rs. 2.50 per Km. 50% increase in daily allowance accounted for and employees are also entitled to receive an amount equivalent to 2 dailies without production of receipts. Luggage charges on transfer has been increased as well, and conveyance allowance has been increased to 70% (Avg) for BPS 1-15 & 100% increase for BPS 17 & above.
- Financial charges based on loans, and details of loans already submitted to the Authority along with actual loans for FY 2011-12. Increase in financial charges is due to new loans which are committed and will be obtained from GOP for PSDP-foreign component (2012: Rs. 9,362 million) with an impact on financial charges of Rs. 516 million.
- Increase of minimum 10% under the heads ' legal & professional charges and Rent, Rates & Taxes is taken against CPI based on two years i.e. FY 2010-11 (13.9%) and FY 2011-12 (11.0%)
- Substantial work has been done so far on secured metering system (SMS) and that would be completed shortly.
- Bulk tariff is justified as has been developed by NEPRA and is the best suitable for NTDC to ensure recovery of Revenue Requirement.

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- Increase in security cost for improved security measures is inevitable. Keeping in view the sabotage activity of "Sheikh Muhammadi (Peshawar) 500 KV Grid Station, the highly valuable assets have to be safeguarded to avoid further undue crisis.

4.5 Pakhtunkhwa Hydel Development Organization:-

4.5.1 Following comments were submitted by the Pakhtunkhwa Hydel Development Organization.

- **Mechanism for calculation of UoSC/Wheeling Charges:-** No proper system/software for calculation of wheeling charges has been provided.
- **Increase in system reliability and security expenses:-** No exact figures to ensure the security expenses are given in the petition/in the expenditure table.
- The detailed petition contains 500KV and 220KV voltage level for transmission of power, which does not include 132KV and 66KV voltage level for transmission.

4.6 Petitioner's Response to Hydel Development Organization.

4.6.1 The Petitioner replied that its calculations are being made on worksheets/modules of Microsoft Office. NTDC stated that under the current security status, increase in security cost for improved measures is inevitable. Keeping in view the sabotage activity of Sheikh Mohammadi (Peshawar) 500 KV Grid station, the highly valuable assets must be safeguarded to avoid further undue costs. The Petitioner replied that 132 KV and 66 KV transmission lines do not fall in the NTDC jurisdiction.

4.7 Bridge Factor - Commentator

4.7.1 A multi-year tariff structure has been devised for KESC which allows various indexations and escalations to KESC; the structure has been developed assuming that KESC will achieve certain benchmarks with regards to efficiency of its generation and distribution network. In comparison, NTDC is being awarded a transmission tariff on an annual basis. It would be advisable to have a multi-year transmission tariff structure (similar in certain aspects to the structure developed for KESC) for NTDC as well; this would ensure that NTDC's performance and costs are benchmarked as opposed to be pass on in the tariff every year.

4.7.2 As per Article 7 of the Transmission License granted to NTDC, NTDC was required to conduct power procurement services (on behalf of the eight ex-WAPDA distribution companies) only up to the latest envisaged date for commencement of competitive market operations (referred to as Competitive Market Operations Date or CMOD under the Transmission License). Since CMOD i.e. July 1, 2012, has now passed therefore NTDC is no longer permitted to procure power under its Transmission License. However, as the competitive market envisaged at the time of issuance of the Transmission License is still not in existence in Pakistan, it would be suitable to renew NTDC's license (the same is currently pending for renewal with the Authority). This would permit NTDC to continue procuring power from IPPs.

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4.7.3 NTDC's request for allowing an ROE of 14.66% on the equity investments made by NTDC for development of its network is, in our opinion, quite reasonable; especially keeping in view that generation companies are being awarded an ROE of 15%- 18% (along with PKR / USD indexation of the same). Calculation of ROE based on the status of the company i.e. whether it is public or private ,should not be used as a factor for determining the ROE allowed to a company or its investments in the power sector.

4.7.4 The financial cost requested by NTDC under its tariff petition is double of what was incurred in the preceding year. Detailed basis for substantiating NTDC's request should be obtained prior to making any decision on the matter.

4.7.5 NTDC has requested that traveling expenses be increased by 75% year-on-year. To substantiate its claim, NTDC has submitted that the increase is in line with the increase in traveling allowance granted by the Government of Pakistan (GOP). A detailed basis for the requested increase in travel expenses should be obtained from NTDC as simply linking this with the increase permitted by GOP would not be prudent.

4.7.6 An interest rate of 17% has been assumed on the loans considered in the tariff petition, which is significantly higher than expectation since the loans are either being backed by a GOP guarantee or are re-lent by the GOP. During the hearing, NTDC officials had communicated that the higher interest rate is due to GOPs requirement to maintain exchange rate coverage as GOP obtains loans in USD whereas these are offered to NTDC in PKR; however, based on interest rate parity theory, the higher KIBOR (as compared to LIBOR) compensates against any potential exchange rate fluctuations.

4.7.7 Under the Power Policy 2002 and RE Policy 2005, the power purchaser is obligated to ensure evacuation of power from the site where the IPPs are developed. The interconnection between NTDC and the IPPs is typically on a 132 kV circuit. As NTDC does not operate below 220 kV, therefore, in order to off-take electricity from IPPs at 132 kV, NTDC establishes separate interconnection facilities at 132 kV. These are later taken over by the relevant DISCOs. The cost of construction of such interconnection facility is however not included in the tariff allowed to NTDC.In order to ensure that NTDC is able to continue fulfilling its obligations (as laid out under the Power Policies), the cost of such interconnection facilities should be allowed as part of NTDCs tariff.

5. <u>ISSUES:</u>

5.1 The pleading so available on record were examined by the Authority and it decided to conduct a hearing into the matter so as to arrive at a just and informed decision and following issues were framed for the purpose of hearing.

- Whether the Authority's directions given in the tariff determination for FY 2010-11 are complied with?
- Whether the projected increase in financial charges for Rs.7,262 million for FY 2012-13 based on unaudited financial charges for Rs. 6,419 million in FY 2011-12 showing an increase of 13% by the Petitioner is justified?

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- Whether the financial burden of T&T losses beyond 2.5% approved by the Authority which is swallowing on the average Rs. 3.0 billion per year is justified?
- Whether the Petitioner's projected 14.66% Return on Equity for FY 2012-13 against the allowed Return on Equity 12.75% for FY 2010-11 is justified?
- Whether the Petitioner's projected Transmission Costs for Rs. 11,511 million for FY 2012-13 based on provisional figure of Rs. 8,667 million in FY 2011-12 after accounting for inflation/increments, and showing increase of 32.81 % is justified?
- Whether the petitioner's projected expenditures against Education & Training for Rs.67 million (76% more than FY 2011-12) and Travelling expenses for Rs. 163 million (75% more than FY 2011-12) for FY 2012-13 are justified?
- Whether the proposed new hiring as per expansion in the Transmission Network of NTDC is justified without indicating its financial impact and benefits?
- Whether the projected increase in Repair & Maintenance expenditures for Rs. 939 million for FY 2012-13 based on provisional figure for Rs.544 million in FY 2011-12 showing increase of 73% is justified?
- Whether the Petitioner's proposed allocation of financial charges to Work in Progress for Rs.2,305 million for FY 2012-13 based on provisional figure for Rs. 2,250 million in FY 2011-12 is correctly projected?
- Whether the Petitioner's projected Other Income of Rs. 1,234 million for the FY 2012-13 is reasonable?
- Whether the Petitioner's proposed Investment program under PSDP of Rs 24,157 million for the FY 2012-13, is justified and keeping in view the prospective benefits?
- Whether the proposed Revenue Requirement of Rs. 28,691 million at an average sale rate of Rs 145.87/kW/M for the FY 2012-13 is justified?
- Whether the proposed Monthly Average Peak Demand including KESC 16,391 MW by the petitioner is justified for FY 2012-13.
- Whether the long term loans projected by the petitioner for Rs.43,149 million for FY 2012-13 comparing Rs. 35,722 million for FY 2011-12 are justified along with the status of loans on behalf of GENCOs & Rental power Cos.?
- Whether the proposed accrued markup/interest for Rs.14,442 million for FY 2012-13 is justified?
- Whether the proposed increase in Property, Plant and equipment assets for Rs. 21,845 million for FY 2012-13 are justified with its cost/benefit analysis?
- Whether the proposed trade debts for Rs. 568 million for FY 2012-13 are justified?
- Whether the proposed trade and other payables for Rs. 825 million for FY 2012-13 are justified?
- Whether the Annual Development Program for Rs. 1,480 million for FY 2012-13 is justified with its cost/benefits?

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- Whether the bulk supply tariff for DISCOs is justified?
- Whether the question raised by The Network for Consumer Protection that reason for increase is not substantially justified.
- Whether the question raised by the KESC that increase in tariff will affect the whole power sector and circular debt is justified?

6. PUBLIC HEARING:

6.1 In terms of Rule 9(1) of the Tariff Standards and Procedure Rules 1998, a hearing of the petition was conducted on April 11, 2013 at Jinnah Auditorium, Lahore Chamber of Commerce & Industry, Lahore. NTDC was represented by the following executives including Media and other stakeholders.

• Mr, Khalid Hussain Rai	MD NTDC
• Mr. Zia-ur-Rehman,	General Manager Technical
• Mr.Waseem Saadat,	Finance Director
• Mr. Muhammad Dawood	Consultant Planning
• Mr. Rizwan Ahmed	General Manager (SO)
• Mr. Tahir Mahmood	General Manager (CPPA)
• Mr. Khalid Ali Shah	Additl Manager Finance (CPPA)

7. **Whether the Authority's directions given in the tariff determination for FY 2010-11 are complied with?**

7.1 The Petitioner furnished the compliance report with respect to the Authority's directions given in the tariff determination for FY 2010-11, vide letter No. MD/NTDCL/FD/1792-97 dated 09-04-2013 (received on 11th April 2013). However during the hearing, when NTDC was required to give details with respect to compliance of the Authority's direction, NTDC was unable to respond in the matter. Similarly NTDC was unable to present their case as per the issues framed by the Authority for the said hearing. NTDC was also unable to respond to the queries raised by the Authority.

7.2 The Authority took serious notice of the NTDC poor presentation and non-responsiveness. NTDC was further directed that its affair must be managed with full responsibility and in future care must be taken at every cost as the national economy is suffering from such a poor management at NDTC level. A letter in this regard bearing No. .4059-4060 dated 24th April 2013 was issued to the Secretary, Ministry of Water & Power inviting their attention towards the NTDC's poor management affecting the whole power sector.

8. **Whether the projected increase in financial charges for Rs.7,262 million for FY 2012-13 based on provisional financial charges for Rs. 6,419million in FY 2011-12 showing an increase of 13.13% by the Petitioner is justified?**

8.1 The Petitioner stated that due to increase in the new loans for Rs. 12,407 million financial charges have been requested for Rs. 7,262 million for the FY 2012-13 against actual financial charges for Rs. 6,419 million for the FY 2011-12. This additional loan has financial charges impact of Rs. 843 million. New loans are

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required for completion of ongoing projects as well as new projects under PSDP and Annual Development Programs. Summary of financial charges from FY 2008 to FY 2012 is as follows:-

	Actual 2008-09	Actual 2009-10	Actual 2010-11	Provisional 2011-12	Projected 2012-13
Financial Charges	5,022	4,865	5,569	6,419	7,262

8.2 The petitioner's request has been examined in the light of the information submitted by it.. From the analysis of the accounts it was observed that the interest charges for FY 2010-11 were assessed as Rs. 3,688 (excluding capitalized interest cost). The Authority observed that the financial charges claimed by the Petitioner were substantially on higher side therefore the Petitioner was directed to provide the verifiable documentary evidence in support.

8.3 The information provided by the petitioner was carefully examined in order to make reasonable assessment for claimed financial charges and the proposed debt and repayment for the FY 2012-13. Based thereon the Authority have assessed the financial charges of Rs. 3,729 million for the FY 2012-13 which will be subject to adjustment on the basis of actual information to be submitted by the Petitioner.

9. **Whether the financial burden of T&T losses beyond 2.5% approved by the Authority which is swallowing on the average Rs. 3.0 billion per year is justified?**

9.1 The Petitioner submitted that figure of 2.5% for the "estimated T&T losses" was then based on a hypothesis that the NTDC system losses comprised 1/3rd of the total system losses for which a figure of 7.5% was considered. However, as per actual measurement of losses through accurate meters installed on cut-off / delivery points indicates that the T&T losses varied from 2.04% to 3.85% during FY 2011-12. It was stated that at present, all the energy received by NTDC (CPPA) from GENCOs and its onward transmission and delivery to DISCOs is being measured at receiving points of NTDC and delivery points to DISCOs by precision energy meters and metering equipment of 0.2 accuracy class. According to the petitioner the financial impact of the losses that are actually measured by precision meters is required to be passed on to the respective DISCOs as already determined vide section 58 of Authority's determination of 2004 which explicitly states that 2.5% T&T losses were an assumed figure as there existed no proper metering system. The Metering System has now been put in place and is accurately measuring the actual losses depending upon the natural load flows in the Transmission network according to the load demand of an area. It is pointed out that location of the generating station supplying the load and the location of load determines the extent of T&T loss.

9.2 Previously in support of its claim the Petitioner submitted the load flow studies carried out by the office of GM (Planning) Power in co-ordination with International Consultants, already hired by the NTDC for preparation of National Power System Expansion Plan- 2030 for the NTDC network with respect to peak

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load conditions of August 30, 2010 (high water) and January 09, 2011 (low water) Annex-C). It was also stated that the basis of simulated scenario, line losses were computed and the study was shared with NEPRA as well. The petitioner contended that NEPRA's technical professional objecting the results on the PSS/E software used for calculating the transmission losses was not appropriate because in its opinion it has no provision for so many factors that cause the losses.

9.3 The Petitioner submitted that T&T loss occurs in transmission lines and transformers in operation. The Petitioner further submitted that whenever any addition of transmission lines or transformers as required by system loading is made, the transformers or conductors used have the same loss related parameters that were applicable prior to 2004. Any variation in the loss is due to location of a generating source supplying power to a distantly located load. While justifying the T&T losses the Petitioner stated that during winter hydel generation is less and all loads located in the north of the Country are met from the south which result in higher T&T loss while in summer when the hydel generation reaches the maximum, a reduced loss figure is recorded. Therefore, there is no lapse or negligence on the part of the Petitioner for variation in the loss which has its own mechanism that is beyond the control of the Petitioner, especially during the periods of energy crises when NTDC (NPCC) cannot follow/adhere to a regime based on economic load dispatching, as the location of load and location of generating station determine the load flow and the resultant loss. The Petitioner further submitted that the loss could be reduced only when additional parallel transmission lines and transformers are installed and the generation sources are located near the load centers which require a strategic change besides huge finances entailing thereby additional increase in the Petitioner's tariff, and resultantly DISCOs /consumers' tariff will increase. Except for this, no reduction in the loss could be achieved by the Petitioner under the prevailing situation resulting in the obvious operational consultants. The Petitioner prays to the Authority for allowing the actual measured losses in 500kV and 220kV network of NTDC as has already been provided in its earlier determination of 2004.

9.4 The Authority in its determination dated April 13, 2004 assessed 2.5% transmission and transformation losses for 500 and 220KV system. The T&T losses of 2.5% were maintained in the Authority's determination dated 6.1.2006 & dated 9.5.2011. The issue with respect to T&T losses has been discussed at Para 7.1 to 7.9 of the Authority's determination dated 9.5.2011. The Petitioner was directed to carry out the independent study of its T&T losses and submit for Authority's consideration. The Authority directed the Petitioner to install high accuracy measuring instruments.

9.5 The Petitioner submitted that it is in the process of hiring the services of an independent consultant without wasting any further time. The hiring process would take 2-3 months and the study will take further 3-4 months' time after the award of contract. However NTDC will make best efforts to squeeze the time as far

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as possible and complete the study by 30th June 2013. The GM / Technical Director NTDC proposed to get the subject study carried out by Independent Consultant. The Terms of Reference (TOR) was also submitted by the Petitioner.

9.6 The Authority in this regard constituted a committee and deputed NEPRA professionals to coordinate with the Petitioner. A committee constituted by the Authority also visited some of the grid stations located in Multan and LESCO areas during 08/2011 for verifying installed metering systems with regards to their security and accuracy at different CDP points. The committee submitted the satisfactory report for Authority's consideration. The Authority decided as follows:

"The Transmission & Transformation (T&T) losses of the National Transmission and Dispatch Company (NTDC) need to be based on the actual monthly losses subject to a cap of 3%. This issue will be settled during processing of the petition submitted by the NTDC for determination of their annual tariff determination is already pending adjudication before the Authority."

9.7 During the hearing, the Petitioner was directed to provide cost/benefit analysis with detailed break up of the investment made during the last three years showing impact on T&T losses. A separate letter No. NEPRA/R/TRF-226/3644 dated 17th April 2013 in the matter was also issued to the Petitioner. In response to the direction, the Petitioner stated that prime objective of the investment is to provide adequate and reliable capacity rather the loss reduction. Some of the projects do result in loss reduction. The Petitioner mentioned that the resistive component of average transmission line losses in NTDC 500 KV and 220 KV lines is about 2% (excluding 0.9% for transformation and other losses). The Petitioner submitted that further reduction can be made through huge investment by more lines as increasing size of conductor which can be used in other segments, particularly in distribution system share benefit/cost ratio will be much higher.

9.8 In the instant case the Petitioner requested the Authority to allow the T&T losses on actual basis. The Authority observed that during the year 2011-12 T&T losses of the Petitioner ranged between 2.04% to 3.85%. Average T&T losses during the FY 2011-12 were around 2.78%. While examining the information submitted by the Petitioner and taking into account the previous decision of the Authority it was observed that the actual T&T month-wise losses indicate that the NTDC argument with respect to the impact of the low hydel in winter season due to which the flow of electrons is from south to the load centre is not correct. It was observed that during the month of January with the generation of 6,247, T&T losses were 3.87% whereas in the month of June 2012 when hydel was on the peak, the T&T losses on the generation of 8,003 GWh were 3.29%. This clearly indicates that there are certain other factors due to which the higher T&T losses occur which can be reduced considering the huge investment made by the Petitioner. The Authority considers that the actual figures can be established through conducting the independent study which is in the process. Having considered all the documentary evidence, comments of the interveners / commentators, the Petitioner's contention

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regarding increase in the transmission losses based on its data, the Authority decided to allow T&T losses upto maximum of 3% till the time independent study is carried out. However the generation supplied at 132 kV should not be counted towards losses. Accordingly the cost of units lost in transportation to be recovered from Bulk Power Consumers was determined as Rs. 0.1591 per kWh assuming Rs 5.3027 per KWh as energy charge part of PPP. Due to exorbitant increase in fuel oil prices, the energy part charge of power purchase price has increased to Rs. 7.890 per kWh. Therefore the cost previously determined needs to be revised. Accordingly the revised cost on account of units lost during transportation has been assessed as Rs. 0.2367 per kWh.

10. Whether the Petitioner's projected 14.66% Return on Equity for FY 2012-13 against the allowed Return on Equity 12.75% for FY 2010-11 is justified?

10.1 The Petitioner requested the Authority to allow 14.66% return on equity as against the Authority's allowed ROE of 12.75% in the last determination for the FY 2010-11. The Petitioner while justifying the ROE referred the CAPM model used by the Authority for DISCOs and GENCOs. The Petitioner stated that DISCOs and GENCOs had worked out values of Beta, return on equity and weighted average cot of capital (WACC) however NEPRA did not agree with the companies and determined its own figures. NTDC stated that NEPRA allowed in 2008 constant rate of return on equity of 19.86% to LESCO, GEPCO, MEPCO, IESCO, PESCO and QESCO whereas while approving the tariff for the year 2003 NEPRA allowed the Petitioner ROE of 12.75% as was done for JPCL. The ROE was maintained in 2006 and 2011 although NEPRA in 2006 allowed 13.11% ROE in case of JPCL. While justifying the ROE, the Petitioner stated that NEPRA allowed DISCOs ROE based on the following:

-	Equity Beta	1.33
-	Tax Rate	35%
-	Risk Free Rate	11.40%
-	Market Premium	8.39%

10.2 The Petitioner stated that substituting the above values in CAPM formula the ROE is worked out as under:

K = 11.40 + 1.33 x 8.39 = 22.6%

Rate of Return after tax of 35% = 14.66%

10.3 In accordance with the Rule 7(6) of the NEPRA Act, NEPRA has to strike balance among the consumers and investors. As per Rule 17(3)(iii) of the Tariff Standards & Procedure Rules – 1998 *"tariffs should allow licensee a rate of return which promotes continued reasonable investment in equipment and facilities for improved and efficient service."* For reliable supply of electricity the company has to be made viable for which the Company should be allowed comparable return. The ROE should be reasonable enough, sufficient to assure the confidence in the financial soundness of the company and should be adequate to maintain and

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support its credit and enable it to raise money necessary for transformation of the electricity. The Petitioner stated that the Authority allowed 12.75% ROE in the determination of 2004, 2006 & 2011. In the instant case the Petitioner referred the JPCL's rate of return which was determined in 2006. In the current scenario the Petitioner has requested post tax rate of return on which would guarantee interest payments and return on the assumed optimum capital structure. The Petitioner while justifying the ROE referred the GENCOs and DISCOs. One of the commentator i.e. Bridge Factor have also supported the Petitioner's request with respect to reasonable rate of return on the equity.

10.4 KESC pointed out that the Petitioner has earned excess revenue of Rs. 4,048 in the FY 2010-11. KESC also provided the breakup in this regard. In response to KESC's concerns, the Petitioner clarified that the excess return consists of the other income of Rs. 4,202 (inclusive of CPPA's other income to Rs. 3,075 million as well).

10.5 KESC observation and the Petitioner's response have been examined in light of the given information. It was noted that KESC indicated the ROE with respect to the FY 2010-11 whereas KESC have not taken into account the ROE of the FY 2011-12. The Petitioner's ROE was surplus during the FY 2010-11 however there was a shortfall of Rs. 2,509 million in the FY 2011-12. This clearly indicates that the surplus ROE of 2010-11 has been offset by the negative ROE of 2011-12. It has been further noted that KESC ignored the impact of other income of Rs. 3,075 million of CPPA indicated in the NTDC's balance sheet of the FY 2010-11 which inflated the total ROE of Rs. 4,202 million. NEPRA while determining transfer / wheeling charges of the Petitioner did not account for the other income of CPPA and its financial charges because CPPA being agent of the Distribution Company has to maintain its own financial accounts. In view thereof, the Authority considers that KESC's concern in this regard is not valid.

10.6 The Petitioner's request for allowing 14.66% return on equity has been carefully examined. The question arises that whether with the return of 12.75% already allowed to NTDC, the resources have been utilized efficiently? NTDC is the only transmission company transmitting power to the Distribution Companies. The similarity between the DISCOs and NTDC is to that both provide network facility for transporting electricity therefore the some of the major risks are the same. The interconnection and sustainability of the system demanded to allow reasonable return which will enable the Company to develop, maintain and supply reliable services for distribution of electricity at all levels of transmission lines. In view thereof the Authority has decided to allow ROE of 13.11% which is similar to one which was determined in the case of JPCL (to be fully narrated). The Equity Base (EB) on which the return is worked out is according to the following formula:

(NFAIO+CWIP+S&S+TD+C&BB)- (LTB+OLTL+SDC+ERB+CA&OCL)

Where:

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NFAIO	=	Net Fixed Assets in Operation
CWIP	=	Capital Work in Progress
S&S	=	Stores & Spares subject to a maximum of 3% of Gross Fixed Assets in Operation.
TD	=	Trade Debts subject to a maximum of 30 number of days of outstanding billing.
C&BB	=	Cash & Bank Balances subject to maximum of 1/6th of annual operating expenses other than non-cash items.
LTB	=	Long Term Borrowing
OLTL	=	Other Long Terms Liabilities including inter-company payables.
SDC	=	Security Deposits by Consumers
ERB	=	Employees Retirement Benefits
CA & OCL	=	Current, Accrued and Other Current Liabilities (maximum of 2/3rd of current assets)

Where:

Current Assets = S&S+TD+C&BB

10.7 According to the balance sheet as on June 30, 2012 the Petitioner's net fixed assets in operation were Rs. 65,583 million, stores and spares Rs.6,648 million (including stores held for capital expenditure that could not be identified separately), trade debts were to the tune of Rs.575,906 million, cash and bank balances Rs. 22,055 million and capital works in progress Rs.54,555 million. The long-term liabilities were Rs.35,722 million, employees' retirement benefits Rs. 7,325 million and creditors, accrued and other liabilities Rs.870,111 million. Incorporating the corresponding estimated figures as discussed in earlier paragraphs the EB for FY 13 is assessed as Rs.71,152 million (detailed working indicated as Annexure I & II).

10.8 According to the balance sheet as on June 30, 2012 the Petitioner's net fixed assets in operation were Rs. 65,583 million, stores and spares Rs.6,648 million (including stores held for capital expenditure that could not be identified separately), trade debts were to the tune of Rs.575,906 million, cash and bank balances Rs. 22,055 million and capital works in progress Rs.54,555 million. The long-term liabilities were Rs.35,722 million, employees' retirement benefits Rs. 7,325 million and creditors, accrued and other liabilities Rs.870,111 million. Incorporating the corresponding estimated figures as discussed in earlier paragraphs the ROE for the FY 2012-13 is assessed as Rs.9,328 million and the same is allowed.

11 Whether the Petitioner's projected Transmission Costs for Rs. 11,511 million for FY 2012-13 based on provisional figure of Rs. 8,929 million in FY 2011-12 after accounting for inflation/increments, and showing increase of 29% is justified?

11.1 The Petitioner submitted that transmission cost constitutes four heads i.e. General E&A expenses, Repair & Maintenance, Insurance & Depreciation. The details are as under:

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11.2 General Establishment & Administration Expenses:-

11.2.1 The Petitioner has submitted the following detail for General Establishment & Administration on comparative basis with reasons for justification:-

11.3 Salaries, Wages & Other Benefits

11.3.1 The Petitioner has requested Rs. 4,606 million or 25% increase on the actual amount of Rs. 3,675 million for FY 2011-12. While justifying the demanded increase, the Petitioner stated that GoP granted Adhoc relief increase by 20%. GoP also granted increase in other allowances like, Conveyance by (avg.) 70%, qualification allow: by 100% & One pay on Eid as honorarium announced by the Minister of W&P and avg. 5% impact of annual increments. The GoP has also increased Pension by 15-20%.The pension cost also surged up due to increase in pensioners as well as GoP allowed certain allowances to old pensioners and in some instances even 10 years arrears have been granted like 7% CLA, increments, 20% Secretariat allowance. The rate of family pension & minimum pension has also been increased. GoP also enhanced leave encashment from 180 days to 365 days.

11.3.2 The Authority in the last determination of May 2011 directed NTDC that in future the Petitioner should provide detailed recruitment plan along with justification and additional financial impact. In order to make fair assessment of salaries and wages, audited accounts of the previous years were reviewed. The analysis of the audited accounts of previous years revealed that there was a decline of 13% in the years 2006-07 and 2007-08 and thereafter a sudden increase of 18% in FY 2008-09 under this head. The actual expenses on salaries, wages and other expenses for the FY 2009-10 were Rs.2,681 million which are 26% higher than FY 2008-09. The actual expenses on salaries, wages and other expenses for the FY 2010-11 and FY 2011-12 and projected for the FY 2012-13 are Rs. 3,482 million, Rs. 3,675 million and Rs. 4,606 million. The increase is 30%, 6% and Rs. 25% with respect to the FY 2009-10, 2010-11 and 2011-12 respectively. It is also evaluated that the salaries & wages including employees' retirement benefits are the major component of O&M expenses and contribute around 80%-85% of total GE&A cost. It may be noted that the increase in the instant petition is much higher as compared to the previous year which needs to be rationalized. The rational of the assessment of salaries and wages is prudence rather than actual costs incurred by the Petitioner. Keeping in view the aforementioned reasons, the requested amount of Rs. 4,606 million on account of salaries & wages has been rationalized. Accordingly the Authority in the instant case assessed an amount of Rs. 4,226 million for the FY 2012-13.

11.3.3 Operating expenses other than salaries and wages have been assessed as Rs.599 million thus total General Establishment and Administrative expenses to the tune of Rs.4,825 million for FY 2012-13 are being allowed to the petitioner.

11.4 Miscellaneous Expenses

11.4.1 The Petitioner in the instant case requested the Authority to allow Rs. 896 million on account of extra security, new induction for new vacancies, rent, rate & taxes, power, light, gas, advertisement, legal & professional, educational and training,

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travelling expenses, vehicle running expenses, communications, office supplies, common service, subscription and other items. As per the audited accounts provided by the Petitioner the cost on the aforementioned item was Rs. 645 million. This indicated that the Petitioner demanded 39% increase as against the audited account.

11.4.2 The Petitioner stated that Education & Training includes 10% increase in Compulsory Training for Development Promotion. HR department has introduced a training plan for employees of the Petitioner and half yearly impact has been conceived to the tune of Rs. 25 million for second part of FY 2012-13. On the other hand Travelling expense increased because of 150% increase in mileage allowance i.e. Rs. 1.0 per Km to Rs. 2.5 per Km. 50% increase in daily allowance. Employees of the Petitioner are entitled to receive an amount equivalent to 2 dailies without production of actual receipts. Luggage charges on transfer are also increased in the light of above mentioned facts, therefore it is justified. The Petitioner submitted that new hiring is justified and being done on the vacant positions of retired personnel and financial impact on this account is Rs.78.8 million. Total number of employees being hired is 1380 in different pay scales from BPS-1 to BPS-17. The Petitioner further submitted that the cost of pay & allowances has been calculated for two months only (May 2013 - June 2013).

11.4.3 During the hearing the Petitioner was inquired with respect to the huge expenditure incurred by the Company on advertisement. In response the Petitioner submitted that the amount is due to the 6% share of the Company in advertisement made by the PEPCO. The Authority directed the Petitioner to provide the detailed breakup in this regard. In response, the petitioner informed that the expenditure on advertisement for the FY 2011-12 was Rs. 111.90 million (Rs. 69.70 million plus 6% NTDC's share in PEPCO Advertisement for Rs. 42.20) and projection for FY 2012-13 is Rs.123.10 million (Rs. 12.90 million plus 6% NTDC's share in PEPCO Advertisement for Rs.110.2 million). With respect to expenditure on education & training petitioner replied that projected expense for FY 2012-13 is Rs. 67 million against actual Rs. 38.17 million for FY 2011-12. Projection includes Rs. 25 million as part of cost of training duly approved by HR department as 10% of the total no of officers in NTDCL i.e. 1091 officers.

11.4.4 In accordance with the directions of the Authority the Petitioner provided the year-wise breakup from FY 2007-08 to FY 2011-12 without mentioning the share of PEPCO's directions. Being transmission company the Petitioner has nothing to do with the advertisement campaign with respect to the electricity usage. The Petitioner has to operate and maintain the transmission line for reliable provision of transmission services to IPPs and Distribution Companies. As per the relevant documents provided by the Petitioner only, the cost of Rs. 12.9 million pertaining to the Petitioner's advertisement is justified and the same is allowed.

11.4.5 The Petitioner was directed to provide the detailed breakup with respect to cost benefit analysis with respect to new induction and new vacancies, education and

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training etc. The Petitioner was directed to provide the detail reasoning for increase on this account. However the Petitioner was unable to provide the detailed breakup with respect to the demanded increase. The increase requested by the Petitioner is not justified and need to be rationalized. Accordingly the Authority has decided to allow Rs.42 million against education and training only.

11.5 Repair & Maintenance Cost:-

11.5.1 The Petitioner while justifying Repair & Maintenance Cost, stated that NEPRA has allowed the company to calculate the maintenance cost @ 0.75% of the average gross fixed assets since 2003 (Ref: TRF-19-2003) which results in R&M cost for FY 2012-13 for Rs. 939 million. Besides normal maintenance NTDC confronts with uncontrollable factors like terrorist and sabotage activities. The Petitioner further added that assets of NTDC are mostly deteriorated and required heavy maintenance. Due to poor collection from DISCOs and KESC since last couple of years, proper repair & maintenance has not been done. Therefore projected repair & maintenance cost is justified. Break up of repair & maintenance expenses on YOY basis is as follows:-

	Actual 2010-11	Petition 2011-12	Actual 2011-12	Projected 2012-13
Repair & Maintenance Expense	602	658	544	939

11.5.2 The information submitted by the Petitioner has been evaluated in the light of NEPRA benchmarks already established in the previous years. It was noted that the amount calculated by the Petitioner was indicated as Rs. 939 million instead of 935 million. The increase demanded by the Petitioner on this account is much higher as against the actual audited amount of Rs. 602 million and Rs. 544 million for the FY 20101-11 & FY 2011-12. The Authority considers that the demand of the Petitioner on this account is not justified. The increase demanded by the Petitioner was based on the calculation formula of NEPRA wherein the repair and maintenance cost was calculated @ 0.75% of the average gross fixed assets since 2003. Whereas it has been noted that the actual repair and maintenance cost on this account is lesser than the determined by the Authority. The Authority feels that the repair & maintenance cost based on the formula works out on the higher side. Keeping in view the historical trend, the Authority has decided to review the earlier formula. Accordingly the Authority has decided to allow Rs. 595 million based on gross fixed assets @ 0.5% for repair and maintenance as against the projected amount of Rs. 939 million. The following table exhibits estimated expenditure for FY2012-13 as per NEPRA bench mark;

(Mln.Rs.)

Gross Fixed Assets	GSO				Others	Total
	Lahore	Islamabad	Hyderabad	Multan		
2010-11	31,079	18,922	24,699	27,659	4,153	106,512
2011-12	32,797	18,205	25,047	27,586	5,835	109,470

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2012-13	38,921	21,215	36,197	36,396	(4,377)	128,352
(2 year Average)	**35,859**	**19,710**	**30,622**	**31,991**	**6,437**	**118,911**
Repair & Maintenance (R&M) Cost (0.5% of Gross Fixed Assets)						595

11.6 **Insurance**

11.6.1 The Petitioner submitted that grid stations of the Petitioner are insured under WAPDA Equipment Protection Scheme (WEPS). The insurance cost is calculated at (WEPS) rate of 0.30% of book value of grid stations.

11.6.2 During the hearing, the Authority directed to submit details of insurance claims and recovery of amounts for the last five years. In this regard an information direction was sent vide letter no. NEPRA/R/TRF-226/3644 dated 17th April 2013 and the information submitted accordingly. The Petitioner in response submitted the five years insurance details. The information provided by the Petitioner is as under:

Year	Claimed Amount (Rs Mln)	Recovery Amount (Rs. Mln)
2007-08	31.56	31.56
2008-09	29.91	29.91
2009-10	12.44	10.51
2010-11	1.41	1.31
2011-12	3.00	2.30
	78.32	75.59

11.6.3 The above figures indicate that the damages on this account in the Petitioner's system are frequently occurred. Although the grid stations are protected through insurance however the Petitioner needs to review the reasons for frequent damages. The damages on this account also interrupt the sustainable, reliable transmission and transformation services to the Distribution Companies and ultimately to the end-consumer. The Authority accordingly directs the Petitioner to take immediate measures to reduce such kind of incidents. The Authority further directs that the M&E section of NEPRA to coordinate with the Petitioner and devise proper plans in order to reduce such incidents in future.

11.6.4 As regards the cost demanded by the Petitioner on account of insurance the actual amount incurred on this account is Rs. 93 million, Rs. 102 million and projected Rs. 140 million for the FY 2010-11, 2011-12 & 2012-13 respectively. The Authority's determined cost for the FY 2010-11 was Rs. 83 million. Considering the actual cost of Rs. 102 million in the FY 2011-12 the increase of Rs. 38 million on this account appears on higher side which needs to be rationalized. The Authority noted that book value of the grid stations has not been provided by the Petitioner. The

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Authority therefore decided to allow 10% increase on this account. Accordingly the insurance amount on this account has been worked out as Rs. 112 million which is being allowed.

11.7 **Depreciation**

11.7.1 The annual accounts for the FY 2010-11 and FY 2011-12 indicate a depreciation of Rs.3,639 million and Rs. 3,701 million respectively. The Petitioner responded that due to capitalization of WIP into Fixed Assets, depreciation cost is surged up to the tune of Rs. 1,049 million accordingly.

(Amount in millions)

	Actual 2008-09	Actual 2009-10	Actual 2010-11	Audited 2011-12	Projected 2012-13
Depreciation Expense	2,660	3,778	3,639	3,717	4,766

11.7.2 The depreciation allowance of Rs 4,766 requested by the Petitioner for FY 2012-13 is not reasonable as per the history of capitalization of assets in the books of accounts of the Petitioner. The trend of capital expenditures for the last two years, investments indicating an average annual investment of Rs. 15,618 million instead of requested investment under PSDP Rs. 24,157 million. Keeping in view the past trend the Authority considers that the Petitioner will not be able to spend the proposed investment of Rs. 24,157 million. The Authority has accordingly decided to allow the investment of Rs. 15,618 million for the FY 2012-13. In case the Petitioner spends more than the allowed investment, the impact will be accounted for in the next tariff determination. Keeping in view the past trend and assessed investment in fixed assets the Authority has assessed Rs. 4,083 million on account of depreciation allowance for the FY 2012-13.

11.8 Other Income

11.8.1 The Petitioner explained that the other income includes interest income which has been reduced due to declining trend in "Discount Rate" State Bank of Pakistan. As a result thereof the actual other income of Rs. 1,396 million for the FY 2011-12 is expected to decreased to Rs. 1,250 million for FY 2012-13. Other income substantially comprises of Interest income and Material & Inspection Services. Other income is allocated to WIP proportionately.

11.8.2 As per the analysis of actual financial information provided by the Petitioner, other income for the years of FY 2010-11 and FY 2011-12 which remained Rs.1,127 million and Rs. 1,396 million respectively. Keeping in view the past trend the Authority considers that the Petitioner's estimate of other income is on the lower side and needs to be rationalized. Accordingly in the instant case the other income for the FY 2010-11 has been assessed Rs.1,536 million and the same is allowed.

11.9 Pass through Items:

11.9.1 The Petitioner did not estimate any tax liability for the FY 2012-13. However, the financial statements of the previous years indicated that no taxes were required to

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be paid by the Petitioner due to accumulated losses therefore; no provision for income taxes for the FY 2012-13 has been accounted far. However, if NTDC is obligated to pay any taxes, the exact amount paid will be allowed by NEPRA on production of original receipts.

12. **Whether the petitioner's projected expenditures against Education & Training for Rs.67 million (76% more than FY 2011-12) and Travelling expenses for Rs. 163 million (75% more than FY 2011-12) for FY 2012-13 are justified?**

As discussed in Paragraph 11.4.3

13. **Whether the proposed new hiring as per expansion in the Transmission Network of NTDC is justified without indicating its financial impact and benefits?**

As discussed in Paragraph 11.4.3

14. **Whether the projected increase in Repair & Maintenance expenditures for Rs. 939 million for FY 2012-13 based on provisional figure for Rs. 545 million in FY 2011-12 showing increase of 72% is justified?**

As discussed in Paragraph 11.5

15. **Whether the Petitioner's proposed allocation of financial charges to Work in progress for Rs.2,305 million for FY 2012-13 based on provisional figure for Rs. 2,250 million in FY 2011-12 is correctly projected?**

15.1 The Petitioner initially submitted the financial charges were allocated to WIP was Rs. 2,305 million which were subsequently revised to Rs. 2,417 million for the FY 2012-13 out of the projected and requested amount of Rs. 7,262 million.

15.2 The audited account for the FY 2011-12 indicate that out of the amount of Rs. 6,414 million Rs. 3,650 million were allocated to the Work in Progress. The WIP out of Rs, 5,569 million financial charges for the FY 2010-11, Rs. 2,625 million were allocated to WIP.

15.3 Keeping in view the past trend on allocation of financial charges an amount of Rs. 3,137 is being allocated to WIP out of total financial charges has been assessed for the FY 2012-13.

16. **Whether the Petitioner's projected Other Income of Rs. 1,250 million for the FY 2012-13 is reasonable?**

As discussed in Paragraph 11.8

17. **Whether the Petitioner's proposed Investment program under PSDP of Rs 24,157 million for the FY 2012-13, is justified and keeping in view the prospective benefits?**

17.1 NTDC has proposed a development program of Rs. 24,157 million for FY 2012-13. The actual audited investment has been Rs. 16,432 million for FY 2010-11 and Rs. 14,803 million for FY 2011-12. In the last determination Petitioner was directed to

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provide the cost benefit analysis of the investment. However the Petitioner stated that amount is incurred in order to provide the smooth and reliable services. This investment does not mean that the losses on this account will be reduced. The investment is made to maintain the existing capability of providing services as well as increase in the length of the transmission lines. The Petitioner requested the Authority to allow Rs. 24,157 million on account of investment program. The Petitioner further stated that the development projects included in the investment plan which is broadly categorized as:

a. the transmission lines required to interconnect new power plants to the existing network. New power plants are required to meet growing energy demands. So, these lines have to be commissioned six months prior to the COD of the plants.

b. Construction of new stations/lines adding new transformers at the existing grid stations and augmentation of the transformers with higher capacity ones.

17.2 According to the Petitioner, some of the development projects mentioned above also result in appreciable loss reduction in relevant section of the network but the primary objective of the work:-

i. To provide reliability to the system through N-1 contingencies to avoid blackout by providing alternate paths/sources.

ii. To keep the system parameters like voltage drop within permissible limits as mentioned in grid codes.

iii. To expand system to un-electrified area.

17.3 The information provided by the Petitioner with respect to PSDP investment is as under;

<u>Public Sector Development Program (PSDP)</u>

Description	Expense (P) (Mln.Rs.) 2011-12	PSDP Proposed 2012-13
Foreign Component	9,280	9,236
Local Component	7,230	14,921
Total	**16,510**	**24,157**
Description	Expense (P) (Mln.Rs.) 2011-12	PSDP Proposed 2012-13
On-Going Projects	16,510	18,882
New Projects	-	5,275
Total	**16,510**	**24,157**

17.4 The Petitioner submitted that the economic and financial implications of each project are provided in the respective PC-1. However, it can be said broadly that expansion

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in transmission network is first necessitated by introduction of new power plants into system. The least cost interconnection fulfilling the applicable NTDC Grid code is to be completed before the start of the power plant operations. To transport evacuated power to each delivery point in all the load centers, the strengthening and enhancing the capacity of grid station/substation and lines is the next logical step. There may be cases of certain transmission system projects which may not be financially beneficial if considered in isolation. The transmission project for disposal of power from Neelum-Jhelum is one of the examples. If the project is not materialized then one can imagine the impact of cost of energy not served to the economy (GDP) growth, employment and electrical prices.

17.5 The Petitioner has explained that ADP has revised from Rs. 1,316 million to Rs.1,480 million with an additional impact being procurement of material/civil work for sabotage activities and procurement of security equipments. Another Rs.710 million is required for Rehabilitation of Sheikh Muhammadi Grid Station. Apart from PSDP, following is the Annual Development Program (ADP) of NTDC for its local capital needs.

DESCRIPTION	GSO REGIONs				Total	OTHER FORMATION	G.Total
	Lahore	Islamabad	Hyderabad	Multan			
Procurement of Material / Equipment for Emergent purpose	-	-	-	-	450.00	-	450.00
Procurement of Material, Civil Works for Sabotage Activity	-	11.00	38.00	10.00	59.00	52	111.00
Procurement of Security Equipment	60.16	40.42	46.63	27.69	174.89	104.99	279.89
Civil work for security measures	73.92	11.55	0.56	5.32	91.35	-	91.35
Civil work for Office buildings, quarters etc.	98.50	103.40	-	-	201.90	-	201.90
Infrastructural Requirements	-	-	-	-	-	21	21
Hardware Requirement for NTDC	-	-	-	-	-	25.21	25.21
Enterprise Resource Planning (ERP)	-	-	-	-	-	300.00	300.00
Total	232.58	166.37	85.19	43.01	977.13	503.2	1,480.35

REHABILITATION OF SHIEKH MOHAMMADI GRID STATION 500 KV

Description	Amount
Procurement of Material, Security Equipments and Vehicles	694.65
Civil works for Security	15.35
Grand Total	710.00

17.6 The Authority directed the Petitioner to provide cost-benefit ratio of investment made and being projected for FY 2012-13 in terms of investment, energy saved and its value etc. During the hearing no detail or working was shared by the Petitioner. Accordingly NEPRA vide letter dated 17th April 2013 directed the Petitioner to provide the information with respect to the investments.

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17.7 On the query of the Authority with respect investment for FY 2011-12, the Petitioner replied that there was Rs.16.5 billion spending against Rs. 23 billion approved investment for FY 2011-12. The Authority directed the Petitioner to provide the justifications with respect to under spending of amounts. The Petitioner stated that due to liquidity crunch full investment amount was not spent. Non-recovery of the Petitioner's receivables was one of the main reason of the financial crunch. While providing the details with respect to the receivables, the Petitioner stated that CPPA has to pay Rs. 26 billion. Total receivable of the company are Rs. 480 billion and almost the same amount is required to be payable. The Authority directed the Petitioner to approach GOP for resolution of the issues as it is contributing to the increase in circular debt. It was further directed that the Petitioner should inform NEPRA regarding clearance of receivables and payables.

17.8 The Authority observed that the delay in interconnection would affect the overall economy of the country since the stakeholders would be affected through the delay in interconnection Being cognizant of the fact that the demand supply gap requires to be mitigated through the upcoming power projects, the Authority directed the Petitioner to make timely connectivity of the upcoming power projects before achieving their COD. The Authority directed the Petitioner to ensure that all available power of the upcoming projects be evacuated timely and no delay on account of interconnection of the power plants should be made. The Petitioner in response stated that Fauji Fertilizer Company Energy Limited, and Jhimpir Wind Power Plant projects are fully functional and other three projects are being worked on.

17.9 The Petitioner was asked about Energy Purchase Agreements (EPAs) for purchase of electricity and its status. It was replied that five agreements have been made i.e. Fauji Fertilizer Company Energy Limited, and Jhimpir Wind Power Plant, Foundation Wind Energy Ltd., Foundation Wind Energy II (Pvt) Ltd.,and TGA. The Authority directed NTDC to finalize EPAs well within time because there are serious issues which needs to be resolved.

17.10 The Petitioner stated that the cost incurred on 132 KV network is not being reflected in the tariff of the Petitioner but receivables stand against expenditures on behalf of DISCOs which badly affected the liquidity of the company and few investments are also sacrificed as well. The Petitioner's stance was supported by the commentator i.e. Bridge factor. According to the commentator, the Petitioner has the right to claim the cost incurred on establishing the 132 kV network. The Authority directed the Petitioner to prepare a complete case of such transactions and submit it before NEPRA for resolving this issue prudently.

17.11 The Authority showed concerns with respect to the system compatibility of the upcoming renewable power projects with the Petitioner's system due to technical issues with existing and upcoming RE projects especially wind power plants. The Authority stated that before NEPRA issues a generation license to wind power plants, they have to obtain NOC from NTDC in four weeks time. The Petitioner

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will be responsible for non connectivity and other technical issues after issuance of NOC.

17.12 The analysis of investment in fixed assets over the last three years revealed that the Petitioner's could spend around Rs. 9.8 billion, Rs. 13.5 billion, Rs. 16.4 billion and Rs. 14.8 billion for the FY 2008-09, FY 2009-10, FY 2010-11 and for the FY 2011-12 respectively. The Authority allowed Rs. 13.9 billion investment program to the Petitioner in the determination dated May 2011 as against the actual amount incurred as per audited accounts of Rs. 16.4 billion.

17.13 Based upon the analysis and above assessment, the investment plan of Rs.15,618 million with estimated internal resources of around Rs. 6,507 million has been allowed. In order to finance its investment programme, the Petitioner will have to borrow from foreign as well as local lenders. The source wise estimated financing plan is indicated as under:

Foreign Banks	Rs. 9,111 Million
Internal resources	Rs. 6,507 Million
Total Financing	**Rs. 15,618 Million**

17.14 The Authority having considered all the relevant information and financing plan decided to approve the investment plant of Rs. 15,618 million for the FY 2012-13. Any variation on the basis of actual investment will be adjusted under the relevant head in the subsequent years.

18. Whether the proposed Revenue Requirement of Rs. 28,691 million at an average sale rate of Rs 145.87/kW/M for the FY 2012-13 is justified?

18.1 The Petitioner estimated its Revenue Requirement (RR) as Rs. 28,691 million for FY 2012-13, which is 59.24% higher than the Revenue of Rs.18,017 million for FY 2011-12. The Petitioner submitted that proposed revenue requirement is based on actual amount of Rs. 18,017 million for the FY 2011-12. The average sale rate worked out by the Petitioner on the basis of revenue requirement of Rs. 28,691 million is Rs. 145.87/KW/M owing to 2% decline in demand (MDI).

18.2 RR mainly covers general establishment and administrative expenses, insurance, repair & maintenance, CPPA cost, NEPRA license fee, depreciation, debt servicing and self-financing for its capacity expansion program and return on equity. This also includes the requirement related to the role of CPPA. The final accounts for FY 2011-12 were examined to assess the RR for FY 2012-13. After adjusting the adjustments made in the preceding paragraphs the RR in the instant case has been worked out as Rs.21,433 million and the same is allowed.

19. Whether the proposed Monthly Average Peak Demand including KESC 16,391 MW by the petitioner is justified for FY 2012-13.

19.1 The Petitioner stated that the load growth of 3% was projected as compared to last year but the same has been revised to 2% while observing a downward trend of 2.1% in the rest of the periods (i.e. March – June).

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19.2 During the hearing the Petitioner was inquired to justify the reason for lesser projection of monthly average peak demand as comparing FY 2011-12. The Petitioner replied that due to lack of payment for fuel the low demand is being projected for FY 2012-13. The Authority noted that 2,200MW energy was not being accounted for in the projection, but capacity charges are being regularly paid to those units which are not generating electricity at all. The Petitioner must ensure that capacity payments are not made to units which are not producing electricity at all. The Petitioner referred Supreme Court Order for not deducting capacity charges from IPPs. The Authority directed the Petitioner to ensure full capacity is being utilized for capacity payments which will result in enormous reduction in the load-shedding which will provide relief to the end-consumers.

19.3 The Authority directed the Petitioner to coordinate with KESC for working out the exact demand i.e. Generation Capacity, Load shedding factor and units to be delivered, and NTDC should export accordingly. It must conform to the Petitioner's system. The Petitioner was further directed that the formula for working out the demand of KESC made available to NEPRA within fifteen days time. On the direction it was pointed out by the KESC representative that this decision would increase subsidy amount to be received from GOP. The Authority expressed its opinion that provision of subsidy is the prerogative of GOP and is not in the domain of NEPRA. The Authority further directed that the Petitioner must improve its efficiency because inefficiency will burden the end-consumer.

20. Whether the long term loans projected by the petitioner for Rs.43,149 million for FY 2012-13 comparing Rs. 35,722 million for FY 2011-12 are justified along with the status of loans on behalf of GENCOs & Rental power Cos.?

20.1 The Petitioner requested the Authority to allow Rs.4,844 million on account of financial charges for FY 2012-13. From the analysis of the accounts it was observed that the interest charges for the FY 2010-11 were assessed as Rs. 3,688 million against actual for FY 2010-11 as Rs. 2,945 based on the weighted average cost of debt of 11.60%. Keeping in view the proposed additional debt and repayment during the FY 2012-13, the financial charges for the FY 2012-13 have been assessed at Rs.3,729 million which turn out as 12.90% of debt.(excluding capitalized borrowing cost of Rs.3,137 million).

20.2 The Petitioner requested to allow long term debt of Rs. 43,149 million for the FY 2012-13 as against the amount of Rs. 35,722 million for the FY 2011-12. The petitioner stated that the long term loan includes existing loans as well as new loans. As far as existing loans are concerned they consist of Govt. loans and local bank loans. New loans consist of foreign committed loans followed by PSDP-Foreign component for FY 2012-13 and balance requirement of the financial needs are met from local new loans to the tune of Rs.3.2 billion.

20.3 Based on the allowed investment in the instant case, the total loans have been assessed as Rs. 53,328 which consists of Rs. 48,533 million as long term loan and Rs. 4,796 million as current portion of long term loan which is supposed to be repaid in FY 2012-13.

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21. Whether the proposed accrued markup/interest for Rs.14,442 million for FY 2012 -13 is justified?

21.1 The Petitioner requested to allow accrued markup / interest of Rs. 14,442 million for the FY 2012-13. The Petitioner while justifying the requested amount stated that due to the liquidity crunch the Company has to pay the accrued markup/interest on the loan amount. The Petitioner requested the Authority to allow the same.

21.2 The Petitioner's request have been examined based on the last two years accrued mark up/interest status as Rs. 6,942 million and Rs. 12,036 million for FY 2010-11 and FY 2011-12 respectively. In the light of above and as per history of the accounts the Authority has assessed Rs. 14,442 million for FY 2012-13 on account of accrued mark up and the same is allowed. (markup up GoP loans could not be booked in the books of accounts of NTDC-this para needs to be reviewed accordingly. Otherwise, the details of loans qua the revenue requirements of NTDC may be elaborated)

22. Whether the proposed increase in Property, Plant and equipment assets for Rs. 30,297 million for FY 2012-13 are justified with its cost/benefit analysis?

22.1 The Petitioner stated that the cost of those projects which have been completed, is to be taken into the books of accounts and capitalized. Since, it is actual and sunk cost so it has to be taken and cannot be altered or modified at this stage. Further as elaborated previously, NTDCL system expansion/augmentation work is done in the National Interest. The transmission system investment is unavoidable to allow smooth addition of power in to the system its flow to each node of the system network to satisfy electricity demand. If enhancement in assets leads to return on equity (ROE), the same is ploughed back in implementing new projects.

22.2 The assessment of the property, plant and equipment has been discussed in the investment portion.

23. Whether the proposed trade debts for Rs. 575.698 million for FY 2012-13 are justified?

23.1 The Authority observed that the Petitioner proposed debts comprise mostly pertaining to the Govt receivables which are prolonging due to Govt. liquidity issues. The Authority therefore directs the Petitioner to prepare recovery plan and submit the periodical update to the Authority.

24. Whether the proposed trade and other payables for Rs. 824.911 million for FY 2012-13 are justified?

24.1 The Petitioner stated that payables are due owing to delay in recovery of receivables from Govt. Any better liquidity position of Govt may console NTDC bringing payables down.

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24.2 The Petitioner is directed that the receivables and payables must be settled at the earliest and there must be a concrete plan to improve the liquidity of the company since it is becoming a reason for increase in circular debt and ultimately the consumers are suffering because of load shedding. The issue has been discussed in detail in the above paragraphs.

25. Whether the Annual Development Program for Rs. 2,190 million for FY 2012-13

As discussed in Paragraph 17.5

26. Whether the bulk supply tariff for DISCOs is justified?

26.1 The Petitioner stated that its current structure of bulk supply tariff is justified and has been worked out of best practice. Fixed costs are passed through under the bulk supply tariff accordingly.

26.2 The Authority considers that the bulk supply tariff of DISCOs is as per the prescribed mechanism. The Authority therefore considers that the Petitiner's response in the matter is justified.

27. Whether the question raised by The Network for Consumer Protection that reason for increase is not substantially justified.

27.1 Queries raised by The Network for Consumer Protection explained in Petitioner's reply.

28. Whether the question raised by the KESC that increase in tariff will affect the whole power sector and circular debt is justified?

The Petitioner responded during the hearing that circular debt arises due to non-payment of receivables. At present, KESC receivable is Rs. 43 billion.

29. Based on the assessment in the preceding paras the revenue requirement for FY 2012-13 is estimated as follows:

Revenue Requirement

	Rs. Million
GE&A (including CPPA)	4,825
Repair & Maintenance	595
Insurance	112
Depreciation	4,083
Financial Charges	3,729
Return on Equity	9,329
Income Tax	-
	22,673
Less: Other Income	(1,536)
Total Revenue Requirement	**21,137**

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30. Transmission Charge/Use of System Charges

30.1 The Petitioner projected 17,264 MW with load growth of 3% as compared to last year MDI of 16,736 MW but after having the actual results of FY 2012-13 (July 2012- Feb 2013) a downward trend of 3% has been observed. For the remaining period, assessment has been made on the basis of demand recorded last in the years corresponding period.

30.2 The issue with respect to MDI calculation has been deliberated by the Authority in detailed from Para 9.1 to 9.14 of the determination dated May 2011. The Authority in the instant case has decided to opt the same mechanism till the time the consultative process is completed and a mechanism is prescribed in the light of the input of the stakeholders. Accordingly MDI for the FY 2012-13 has been calculated on the existing mechanism. For making fair assessment in the instant case the determination made in the cases of DISCOs were also considered. The transmission fixed charge has been calculated on the basis of coincidence demand of 16,378 (excluding KESC demand of 818 MW).

31. ORDER

31.1 The National Transmission and Dispatch Companay (NTDC) is allowed to charge such tariff and on such terms and conditions as provided hereunder:

Use of System Charges

NTDC shall charge its users for provision of transmission and allied services the following two-part tariff i.e. a fixed and variable charge:

Fixed charge (USCF)	=	**Rs. 102.43/kW/month**
Variable charge (USCV)	=	**Rs. 0.2367 per kWh X LAL factor.**

Where:

LAL Factor is a factor for Adjustment of Losses and Load imposed on the transmission system by a user. LAL Factor of unity will be applied till benchmarks are defined by NEPRA.

the variable charge shall be applicable to the energy in kilowatt-hours (kWh) recorded during a billing period. Recording of the maximum demand in kW and energy delivered in kWh shall be carried out at meters installed at the delivery metering points i.e. inter-connection point between:

a) NTDC transmission system (NTDC System) and the bulk power consumer.

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(b) NTDC system and the transmission system of a special purpose transmission licensee.

(c) NTDC system and the transmission system of another country connected under an arrangement approved by the Federal Government.

(d) NTDC system and a distribution company receiving power in bulk either for sale to its own consumers or on behalf of another distribution company or a BPC located in another distribution company.

31.2 Transfer Price or Transfer Charge to XWDISCOS

31.2.1 NTDC shall charge the DISCOS, a transfer charge for procuring power from approved generating companies and its delivery to DISCOs for a billing period as under:

TP = CTP + UOSC + ETC

Where:

TP = Transfer Price to DISCOs/KESC

CTP = Capacity Transfer Price to DISCOs/KESC in Rs./kW/Month

UOSC = Use of System Charge to DISCOs/ KESC in Rs./kW/ Month

ETP = Energy Transfer Price to DISCOs/KESCin Rs./kWh

$$CTC = \frac{GenC}{PD(sys)}$$

$$UOSC = \frac{USCF}{PD(sys)}$$

Where:

GenC = Summation of the Capacity Cost pertaining to generation in Rupees for a billing period minus the amount of liquidated damages received during that billing period.

USCF = NTDC transmission charge in Rupees for a billing period.

PD(sys) = Peak Demand of the System recorded during a billing period in kW.

Note : To calculate the CTC and UOSC in Rupees for each DISCOs/ KESC for a

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billing period, the rate of CTC and UOSC will be further multiplied by the particular DISCO/ KESC's demand recorded at the time of system peak in kW.

$$ETC = \frac{GenE}{EUs}$$

Where:

GenE = Total Energy charge in Rupees during a billing period.
EUs = Energy units (kWh) recorded at the Common Delivery Metering Points of all the DISCOs/KESC during a billing period.

31.2.2 NTDC shall, for the purpose of clarity intimate to all DISCOs/KESC the generation part of the Transfer Charge during a billing period by deducting from the Transfer Charge the Transmission Charge or Use of System Charges.

31.2.3 The following generation entities and extraneous sources of import of electricity stand approved who would be providing electric power to CPPA within NTDC for onward delivery to the DISCOs/KESC:

i) All Hydroelectric Generating Stations owned and operated by WAPDA.

(ii) Chashma Nuclear Power Generating Station.

(iii) All IPPs selling power to WAPDA under a long-term contract for which sovereign guarantees have been provided by the Federal Government.

(iv) The thermal generation companies formed out of unbundling of WAPDA for a period upto 01.07.2009 or till the Competitive Market Operation Date determined by the Authority (whichever is later).

(v) Other generation entities (in the public sector, private sector or under public-private partnership, initiated, sponsored or developed by the Federal Government or any Provincial Government) approved by NEPRA to provide power to NTDC for onward delivery to the DISCOs/KESC for a specific period.

vi) Sources of electricity imported from another country or the territory of Azad Jammu and Kashmir under an approval of the Federal Government for provision of power to meet the demand of any or all of the DISCOs/KESC as approved by NEPRA.

(vii) Electricity purchased by NTDC from any generation company within Pakistan through Power Purchase Agreement pursuant to NEPRA Interim Power Procurement Regulations, 2005.

32 Terms and Conditions:

32.1 Definitions:

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1. Bulk Power Consumer (BPC) means a Bulk Power Consumer as defined in NEPRA Act.

2. Billing Period means a period determined by NEPRA for the purpose of charging the transfer charge to DISCOs in respect of power delivered. The billing period for the purpose of applying a transfer charge shall be on a one month basis (starting 24:00 hrs of the 1st day of the month and ending 12:00 hrs on the last day of the month) till a shorter billing period is specified by NEPRA through a Competitive Trading Arrangement Transitional Order.

3. Competitive Market Operation Date = The date as defined under article 7(2) of the License granted to NTDC.

4. CPPA = Central Power Purchase Agency as required under Article 8(a) of the License granted to NTDC.

5. Delivery metering point means the interconnection point at the grid stations where power is delivered by NTDC to DISCOs, BPCs connected directly to the transmission system or other users of the transmission system and where relevant meters are installed to measure such power delivered.

6. IPPs = Independent Power Producers established under the Federal Government's Power Policy of 1994 or earlier (listed as Annexure-III).

7. System Peak Demand = The highest system peak demand recorded during a billing period measured over successive periods of 30 minute interval at the receiving metering point of the DISCOs or user of the transmission system. Maximum demand measuring apparatus used for recording the maximum system peak demand during a billing period shall be based on a 30 minutes interval reset basis.

8. Month means a calendar month according to the Gregorian Calendar.

9. Power Factor: the rate expressed as a percentage of the kilowatt hours to the kilovolt hours consumed during a billing period.

10. Use of System Charge means any charge (fixed or variable) payable by a Distribution Company, BPC or any other user of the transmission system for Transportation of Power from Generator to Delivery Metering Point and delivery to a distribution company, BPC or any other user and as required under Article 13 and 14 of the NTDC License.

33. <u>Other Terms and Conditions</u>

- Power Factor Penalty: The DISCOs shall maintain an average power factor during a billing period at the delivery metering point of at least 85% lagging. In the event of the said Power Factor falling below 85% in a billing period the concerned DISCO shall pay to NTDC a penalty as determined by the Authority for general applicability on the recommendation of NTDC and after consultation with the generation and distribution licensees.

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- In order to ensure least cost generation, NTDC shall strictly follow the merit order while operating the power plants.

34. <u>Directions of the Authority</u>

The directions of the Authority in the proceedings of the instant petition have been reproduced as under:-

- The Petitioner to carry out independent study with respect to T&T losses.
- The Petitioner to indicate the cost & benefit analysis of the new recruitment.
- The Petitioner to indicate the cost benefit analysis of new investment programme.
- The Petitioner to develop the mechanism in consultation with the KESC for supply of electricity and submit for Authority's consideration.
- The Petitioner is required to interconnect all upcoming renewable energy power projects before achieving their COD on priority basis from investment allowed.
- The renewable projects are required to obtain NOC from the petitioner in four weeks time and after issuance of NOC the interconnectivity will be responsibility of the petitioner.
- The Petitioner is required to finalize the Energy Purchase Agreements with the renewal energy projects.
- To provide detailed analysis/impact of the 132 KV system to NEPRA with the proposal that whether the petitioner will take over this system or cost has to be accounted for in DISCOs accounts.
- Provide details with respect to transmission and transformation agreements with DISCOs/BPC.
- Develop a strategy/plan to recover its receivables and settle payables and updating Authority periodically.
- Grid stations book values to be worked on accurately for claiming expenditures thereon.

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National Transmission and Despatch Company
Calculation of Capital Base and Reasonable Return

Annex - I

(Rs. MLN)

	Description		Actual 2007-08	Actual 2008-09	Actual 2009-10	Actual 2010-11	Actual 2011-12	Estimated 2012-13
A	**Fixed Assets**							
a)	Original Cost of Fixed Assets in Opertaions		75389	85,148	98,660	106,512	109,470	128,352
	Less: Consumers' Capital Contribution		(0)	(0)	(0)	(61)	(58)	(55)
	Accumulated Depreciation		(30,092)	(32,752)	(36,531)	(40,170)	(43,887)	(47,970)
	Assets writen/ Disposed off							
b)	Capital Work in Prgress		23223	28,514	29,390	37,594	54,556	51,291
	Net Operating Fixed Assets		**68,520**	**80,910**	**91,519**	**103,875**	**120,081**	**131,618**
		Total - A	**68,520**	**80,910**	**91,519**	**103,875**	**120,081**	**131,618**
B	**Current Assets**							
a)	Stores & Spares (3% of the gross fixed assets in operation)		**7193**	2,554	2,960	3,195	3,284	3,851
b)	Accounts Receiveables (equal to 30 no. of days outstanding of annual billing)		**257541**	1,446	1,531	1,600	1,481	1,737
c)	Cash & Bank Balance (1/12th of sum of cash and bank balance whether deposits at the end of each month of the year subject to the maximum of 1/6th of annual operating expenses other than non-cash items)		**12193**	0	0	1,673	1,735	526
		Total B	**276,927**	**4,000**	**4,491**	**6,468**	**6,500**	**6,114**
C		Total A+B	**345,447**	**84,910**	**96,010**	**110,343**	**126,581**	**137,732**
D	**Less:**							
b)	Foreign Loan - Direct			712	-			-
c)	Foreign Loan - Relent			20,362	26,525	28,622	30,949	48,021
d)	Federal Government Loan			1,424	1,424	920	888	1,424
e)	Borrowing from Government's approved Organizations/ institutions			128,006	13,990	4,843	3,884	5,307
f)	Government's approved Bonds/ Instruments etc. issued by the Licensee							
	Local Loans							
g)	Security Deposits by the consumers				-	82	69	62
h)	Employees Retirement Benefits			5,367	5,986	6,585	7,325	7,691
i)	Dividends payable at the beginning of							
j)	Creditors, accrued and other current liabilities (2/3rd of current assets)			2,667	2,994	4,314	4,336	4,076
	Total		**310203**	**158,537**	**50,919**	**45,366**	**47,451**	**66,580**
	Capital Base (C-D)		**35,244**	**(73,627)**	**45,091**	**64,977**	**79,130**	**71,152**
	Reasonable return on Capital Base %			**12.75%**	**12.75%**	**12.75%**	**12.75%**	**13.11%**
	Reasonable return on Capital Base (E*F)			**(9,858)**	**5,749**	**8,285**	**10,089**	**9,328**

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National Transmission and Despatch Company
ESTIMATION OF TRANSMISSION COSTS

Annex-II

		Description	Actual 2007-08	Actual 2008-09	Actual 2009-10	Actual 2010-11	Actual 2011-12	Estimated 2012-13
1		**Transmission Costs:-**						
	a	General Establishment and Admin (Include CPPA)	2,588	2,497	3,092	3,482	4,320	4,825
	b	Repair & Maintenance	322	350	577	602	544	595
	c	Insurance	83	79	75	93	102	112
	d	Depreciation	2,729	2,660	3,771	3,639	3,701	4,083
		Total Transmission Costs	**5,721**	**5,586**	**7,515**	**7,816**	**8,666**	**9,615**
2		**Financial Charges**				2,916	2,331	-
	a	Foreign Direct Loan	160	126	113			
	b	Foreign Relent Loan	1,980	2,620	3,249		5,394	5,902
	c	Central Govt. Loan	**260**	**237**	**237**		**237**	237
	d	Wapda Bonds	152	-	-			-
	e	Local Currency Loan	831	1,214	1,266		782	726
	f	Others	303	824	-			-
		Total Financial Charges	**3,686**	**5,021**	**4,865**	**-**	**6,414**	**6,865**
		Allocated to Work in Progress	(1,003)	(1,494)	(1,872)		(3,650)	(3,137)
		Net Financial Charges	**2,683**	**3,527**	**2,993**	**-**	**2,764**	**3,728**
3		**Total Costs (1+2)**	8,404	9,113	10,508	7,816	11,430	13,343
4		Other Income	(538)	(1,990)	(1,469)		(1,396)	(1,536)
5		**Net Costs (3-4)**	**7,866**	**7,123**	**9,039**	**7,816**	**10,034**	**11,807**

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Annex-III

List of Independent Power Producers (IPPs)

1. Liberty Power Limited
2. Habibullah Coastal Power (Pvt) Ltd
3. Fuiji Kabirwala Power Company Limited
4. Uch Power Limited
5. Kot Addu Power Limited
6. Rousch (Pakistan)Power Limited
7. The Hub Power Company Limited
8. Kohinoor Energy Limited
9. Southern Electric Power Company Limited
10. Japan Power Generation Company
11. Saba Power Company Limited
12. AES Lalpir Limited
13. Aes Pak Gen (Pvt) Company
14. Altern Energy Limited