Draft NEPRA Guidelines for determination of consumer end tariff

July 24
2014

(Methodology and process)

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-------------------------:-In exercise of the powers conferred by section 7(2)(i) of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 (XL of 1997) read with rule 3(2)(g) of NEPRA Tariff (Standards and Procedure) Rules, 1998, the National Electric Power Regulatory Authority, hereby issues the following guidelines to lay down the Methodology & Process for Determination/Approval of Consumer-end Tariff.

Part 1

Introduction

1. NEPRA was established under the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 (Act) and one of its functions is to determine, specify or approve the tariffs for the generation, transmission and distribution companies. In accordance with Section 31 read with section 46 of the Act, NEPRA developed the National Electric Power Regulatory Authority (Tariff Standards and Procedure) Rules, 1998 which provides for tariff setting process and broad parameters of tariff setting.

2. Though NEPRA determines the tariff for all the generation, transmission and distribution companies; yet the sum of costs of all the three kinds of tariffs is recovered from the consumers through the distribution companies.

3. As per the existing procedure of tariff determinations for distribution companies; NEPRA determines the consumer-end tariff of each of the companies. The companies file with NEPRA a petition for determination of consumer end tariff whereupon NEPRA invites the public to make comments on the submissions of the companies. NEPRA conducts public hearing after receiving comments from the public where necessary in order to enhance transparency and accountability.

4. Notwithstanding the fact that the tariff of the distribution company is its Distribution Margin yet the fact would remain that beside that margin, the generation cost (of generation companies) as well as the wheeling charges (for transmission company) are also recovered in the bills generated by the distribution companies. Accordingly, for the end-consumers, the tariff for a distribution company may be of much importance, therefore, in order to enhance the public understanding of the tariff setting process of NEPRA as well as to provide guidance to the distribution licensees as to the contents and information to be included in their petitions filed before NEPRA, these Guidelines are hereby formulated and issued.

Part 2

Definitions

5. Short title and commencement:-

(1) These guidelines shall be called NEPRA Determination of Consumer-end-Tariff (Methodology & Process) Guidelines, 2014.

(2) These guidelines shall be applicable for all the distribution licensees and shall be applicable with immediate effect.

6. Definitions:-

(1) In these guidelines, unless there is anything repugnant in the subject or context,

(a) "Act" means the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 (XL of 1997);

(b) "Authority" means the National Electric Power Regulatory Authority (NEPRA);

(c) "Base Year" means the year on which the annual or multiyear tariff projection is being made. It may be a historical financial year, for which the actual results/audited accounts are available. It may be a combination of actual results and projected results for the same financial year or it may be a pure projection of a future financial year.

(d) "Consumer-end Tariff" means a tariff to be charged to the end-consumer comprising of Power Purchase Price, and Distribution Margin adjusted for permissible Transmission and Distribution Losses, Cross-Subsidy (if any) and Inter-Region Subsidy (if any).

(e) "Distribution Business " means the business of distribution of electric power carried on or to be carried on by the licensee pursuant to and in accordance with the terms of the distribution licence granted by NEPRA;

(f) "Distribution System " means the distribution facilities situated within the Service Territory owned or operated by the licensee for distribution of electric power including, without limitation, electric lines or circuits, electric plant, meters, interconnection facilities or other facilities operating at the distribution voltage, and shall also include any other electric lines, circuits, transformers, sub-stations, electric plant, interconnection facilities or other facilities determined by the Authority as forming part of the distribution system, whether or not operating at the distribution voltage;

(g) "Distribution Margin" means the component of revenue requirement comprising of operations & maintenance cost, return on rate base, depreciation, taxes, other regulatory cost including other income determined or approved by the Authority for running the distribution business.

(h) "Investment Program" means the distribution company's proposed investment in equipment, facilities and infrastructure for improved and efficient services.

(i) "Licensee" means the licensee to whom a distribution licence is granted in accordance with the Act and the NEPRA Distribution Rules and shall include its permitted successors and assigns;

(j) "Petition" means an application filed by the licensee or any person/party interested in tariff under NEPRA Tariff Standards and Procedure Rules-1998.

(k) "petitioner" means a licensee of NEPRA which files the petition for determination of its tariff.

(l) "Prudent Utility Practices " means the practices of an operator of an electric power undertaking seeking in good faith to perform its obligations and in the conduct of its undertaking exercising that degree of skill, diligence, prudence and foresight which would reasonably be expected from a skilled and experienced operator and complying with the relevant Laws and codes;

(m) "Power Purchase Price" means the generation cost and transmission cost to be worked out and allocated from CPPA / NTDC pool to distribution companies in accordance with transfer price mechanism approved by NEPRA plus power purchase by distribution companies through bilateral contracts duly approved by NEPRA;

(n) "Region" shall include the geographic area falling within the service and concessional territory of any Distribution Company;

(o) "Registrar" means, a person designated by the Authority to register and record receipt of communications and petitions filed with the Authority and to perform such duties as may be assigned by the Authority from time to time;

(p) "Rules" means NEPRA Tariff (Standards and Procedure) Rules, 1998; and Distribution Licensing Rules 1999.

(q) "Test Year" means the first year of tariff control period in multiyear tariff regime.

(r) "Use of System" means the use of the distribution system for the transport of electric power by and for and on behalf of the licensee and, in relation to a second-tier supplier other than the licensee, for and on behalf of such second-tier supplier ;

(s) " Use of System Charges " means the charges made or levied or to be made or levied by the licensee for the use of system for the purposes of the distribution business or the second-tier supply business or in respect of the use of the distribution system by a second-tier supplier but shall not inc1ude connection charges ;

(2) Words and expressions used but not defined in these guidelines shall have the same meaning as in the Act and Rules and Regulations framed there under.

Part 3
Minimum Filing Requirements

7. Any petition seeking determination of tariff filed before NEPRA shall be signed/sealed by the petitioner or its authorized representative and each page of the petition as well as annexure are to be initialed by the person filing the petition,

8. The petition shall be accompanied with copy of necessary authorization in favour of the signatory, if the petition is filed by a legal person other than natural person.

9. The affidavit filed as to correctness of the petition shall also be sealed/countersigned by the person authorized to take oaths.

10. Beside the information required under sub-rule (2) of rule 3 of NEPRA Tariff (Standards & Procedure) Rules, 1998, the information prescribed hereinafter as per Annexes for minimum filling requirements to....... attached with these Guidelines shall also be provided by the Distribution Licensees along-with the petitions filed for determination of consumer-end tariffs. The information incorporated in all such Forms shall be accurate and complete in all respects. Provided that NEPRA may amend any such Form as and when required. Provided also that the distribution company shall be obliged to seek prior approval of all the planning documents which are included in such Forms. Provided further that NEPRA may decline admission of any such petition upon failure of the distribution company to seek prior approval of any such documents from NEPRA or failure to provide any of the given Forms as hereinafter prescribed.

11. Each distribution company shall submit the requisite information as per prescribed Forms along with their tariff petitions in one package, notwithstanding the size of the package.

12. The information to be provided along with the tariff petitions to be filed by Generation and Transmission Licensees may also be prescribed by NEPRA.

13. The checklist of completeness of all the requisite information shall be ensured by the office of Registrar while receiving the tariff petitions. Notwithstanding provision of the information being prescribed through these Guidelines, the Authority may call for any other information to be filed and the admission of the petition could be refused by the Authority owing to non-filing of the requisite information.

14. The information required under clause 10 for a distribution licensee for a petition for the determination of tariff shall be as under:-

(1) General Information

(a) The information required under rule 3(2) of NEPRA Tariff (Standards & Procedure) Rules, 1998.

(b) The information as to the cost of power purchased from different sources through the CPPA, its successors or through other sources, if any, duly approved by NEPRA, and the cost of transmitting said power.

(c) The revenue requirement comprising inter-alia of cost of power purchase, cost of transmitting such power, Distribution Margin (cost of capital for rate base, depreciation of rate base, taxes and fee, and expenses for operation and maintenance)

(d) The details of pass through items

(e) The justifications (e.g. cost/benefit analysis and payback periods) for each of the costs recorded in the prescribed formats.

(f) The distribution facilities expansion plan along with proposed investment required to improve distribution losses, meet the prescribed Performance Standards, rehabilitation and system expansion.

(g) Cost of electric power purchased from the CPPA duly supported with rolling forward three years generation plan indicating the power station wise, fuel wise monthly generation.

(h) Company statistics

(i) Distribution company load factors

(j) Consumer category wise load factors

(k) Average reference monthly fuel cost component, variable O&M component, capacity charge per unit purchased and sold

(l) Actual and estimated monthly demand for electricity

(m) Asset register

(n) A forward rolling 5-year generation plan that is derived from the forward rolling 5-year integrated generation, transmission and distribution expansion plan.

(o) The details of the immediately prior year's monthly and accumulated distribution losses along with break up of technical and administrative losses.

(p) The details of the immediately prior year's monthly and accumulated estimated transmission losses.

(q) The details and explanations of the causes and/or reasons for the distribution and estimated transmission losses.

Part 4
Formulae and principles for determining the revenue requirement

15. Different approaches will be used to determine each required block of costs. The cost of generation will be calculated by the Central Power Purchasing Agency (CPPA) based on the rates determined/approved by NEPRA for each generation company and/or block i.e. Independent Power Producers' (IPPs) and the state-owned generation companies. The cost of generation and transmission service allocated to the distribution licensee in accordance with prescribed Transfer Price Mechanism will constitute the generation and transmission portion of the revenue requirement for the distribution licensee. The distribution licensee will calculate its Distribution Margin separately.

16. Formulae for the determination of the revenue requirement for the distribution company

(1) The formula for the determination of the power purchase cost shall be:

$$PPP = PP_{(EC)} * Q_{(P)} + PP_{(CC)} + TC$$

Where

PPP is the power purchase Price

$PP_{(EC)}$ is the energy charge part of PPP

$Q_{(v)}$ is quantity purchased by the company

$PP_{(CC)}$ is the capacity charge part of PPP

TC is the transmission cost

(2) The formula for the determination of the distribution margin for the distribution company shall be:

$$DM_D = RB_D * RORB_D + D_D + E_D + t_D \pm ORC_D$$

Where

DM_D is the eligible distribution company's Distribution Margin

RB_D is the eligible distribution company's rate base

$RORB_D$ is the eligible distribution company's cost of capital

D_D is the eligible distribution company's depreciation expense

E_D is the eligible distribution company's expenses including but not limited to operation, maintenance and human resources

t_D is the eligible distribution company's federal and provincial taxes (allowed as pass through)

ORC_D is the eligible distribution company's other regulatory costs including other income

(3) The formula for the determination of the revenue requirement for the distribution company shall be:

$$RR_D = PPC_D + DM_D \pm PYA_D$$

Where

RR_D is the eligible distribution company's revenue requirement

PPC_D is the power purchase cost for an eligible distribution company

DM_D is the distribution margin for an eligible distribution company

PYA_D is the prior year adjustment for an eligible distribution company

17. Principles governing the determination of the revenue requirements for the petitioner companies.

(1) NEPRA shall choose a base year for the purpose of determining the affected company's revenue requirement for a multi-year tariff. NEPRA may choose a past, current or future financial year as defined "base year" in the definition section of these guidelines for the purpose of determining a revenue requirement.

(2) A financing plan supporting a multi-year facilities expansion plan (Rolling forward five-year) for the concerned company shall be included in the information to be filed along with petition for determination of a multi-year tariff. Any investment and corresponding financing plan would be required to be reviewed annually for making necessary adjustments in the relevant tariff components on the basis of actual results.

(3) The petitioner company shall not earn on any pass-through cost.

(4) The revenue requirement of the petitioner company shall be calculated using the submitted data and information as per NEPRA's direction. The information provided along with the tariff petition should be to complete the determination of a revenue requirement recognizing that additional data and information may be obtained during the conduct of the revenue-requirement phase of a rate case.

(5) "Used and useful" shall govern the determination of the rate base.

(6) Original cost shall be the foundation for the valuation of the rate base

(7) Cost of capital may be uniform across all assets and facilities approved for inclusion in the rate base by NEPRA. Cost of capital may be different for each eligible generation, transmission and distribution company.

(8) Imprudent investments, as deemed by NEPRA, shall not be included in the rate base that is submitted to NEPRA for the purpose of determining a revenue requirement for any petitioner company .

(9) Only actual or estimated cost of technical losses, as deemed proper by NEPRA, shall be included in the revenue requirement of a petition company for either an annual or multi-year tariff.

(10) Cost of non-technical losses may or may not be included in an expense account on case to case basis.

(11) Other regulatory cost as indicated in the formulae shall not be a candidate for "pass-through" status. This cost may not be subject to the used and useful principle.

(12) Cost of incentive-based rewards or penalties may be included in the determination of the affected company's revenue requirement.

(13) Determination of a multi-year or annual electricity end-user tariff shall occur after the determination of the revenue requirement for the petitioner company.

18. Additional Conditions

(1) The tariff petition submitted by the distribution company will contain a request for revenue to fully recover the legitimate costs of delivering high-quality electricity to end users.

(2) NEPRA has the authority to reject the requested revenue requirement in its entirety and require the re-submission of the requisite information.. NEPRA shall not be obligated to guarantee the recovery of the approved revenue requirement. NEPRA shall be obligated to provide the petitioner company with the opportunity to recover the approved revenue requirement *via* the application of the NEPRA-determined tariff.

(3) Expansion, investment and business plans for the petitioner company shall be approved prior to the submission of the tariff petition in separate regulatory proceedings. Regulatory approvals shall be issued prior to the submission of the tariff petition by the affected company.

(4) Costs reported by the petitioner company for a base year selected for the preparation of an annual electricity/multi-year end-user tariff shall be subject to audit and verification.

(5) Technical losses should be recoverable *via* the tariff determined for the petitioner company.

(6) Recovery of non-technical losses shall be subject to the discretion of NEPRA as permitted by the NEPRA Act, the NEPRA Tariff Rules, and other applicable laws in field..

19. Cost Categories

(1) A revenue-requirement approach will be used to determine the Distribution Margin for the distribution company. The data and information for this purpose will be provided by the distribution company complying with the aforementioned provisions.

(2) The information provided by the respondents, interveners, commentators or otherwise available with NEPRA may also be considered during the course of tariff proceedings.

(3) The components of the Distribution Margin will include, but will not be limited to, the post-tax rate of return on rate base, depreciation and the costs of operations, maintenance, repairs, salary, wages, benefits, travel, vehicles and other costs. The distribution company will account for these costs in the following manner.

(a) Post-tax rate-of-return on rate base

(i) Average net fixed assets, construction work in progress (CWIP) and deferred credits including share of deposit works valued at original cost and/or expected cost shall be used to determine the rate base of the affected company.

(ii) The post-tax return on rate base may be the post-tax Weighted Average Cost of Capital (WACC)that may be determined using the principles of comparative risk. For determining return of equity, the Authority may link the tenure of risk free debt instrument with the control period of tariff plus a market premium determined by NEPRA. The equity component of the WACC may be calculated in accordance with Capital Asset Pricing Model (CAPM) or the principles of comparative risk. A minimum of twenty percent (20%) equity will be assumed when there is negative equity. Equity in excess of thirty percent (30%) may be considered as debt.

(b) Depreciation Expense

(i) Depreciation expense may be determined on the basis of Gross Fixed Assets in Operation, including new investment, in a manner consistent with the base year.

(c) Operations, Maintenance and Repairs Expenses

(i) Operations, maintenance and repair expenses shall be determined in accordance with the principle of " prudence" and will include the costs of scheduled maintenance and operations' performance enhancement. This cost of repairs will be adjusted up or down during the control period in accordance to the mechanism attached with these guidelines.

(d) Salary, Wages & Other Benefits

(i) The cost of salaries, wages and benefits may be determined in accordance with the principle of " prudence". Known budgeted increases and automatic annual increments in salaries, wages and other benefits shall be included in the revenue requirement. Trends in salaries, wages and benefits will be monitored continuously regardless of the selection of the base year. Specific procedures will be applied to the treatment of salaries, wages and benefits for new recruits.

(e) Travel Expenses

(i) Travel expenses may be determined in accordance with the principle of " prudence". Monetary allowances provided for travel, accommodation and daily expenses during official visits will be allowed as long as these allowances are in accordance with the principle of 'Prudence". Travel expenses will be monitored to identify trends.

(f) Vehicle Expenses

(i) Vehicle expenses may be determined in accordance with the principle of " prudence" . These expenses shall include, but not be limited to, the costs of fuel and maintenance. Vehicle expenses will be monitored to identify trends in vehicle expenses.

(g) Other Expenses

(i) Other expenses may be determined in accordance with the principle of " prudence". These expenses may include, but not be limited to, bill collection, office supplies and stationary, other utilities expenses, rents, taxes, postage, insurance, overhead expenses, auditor remuneration, fees and charges, advertisement, publicity, provision for obsolete stores and miscellaneous expenses. Other expenses will be monitored to identify trends.

(h) Other Income

(i) Other Income may be determined in a manner that is consistent with the base year. Other income may be considered to be a negative other cost. Negative other cost may include, but not be limited to, amortization of deferred credit, meter and rental income, late-payment surcharges, profit on bank deposits, sale of scrap, income from non-utility operations, commission on PTV fees and miscellaneous income. Other income will be monitored to identify trends.

Part 5

Schedule of petition and tariff determination Process

20. Scheduling will establish and maintain a detailed timeline for the submission, determination and notification of an annual and/or multi-year tariff.

21. Scheduling shall conform to and be consistent with the NEPRA Act and the NEPRA Tariff Rules.

22. Scheduling should assure that a quorum is present to take evidence and make decisions according to the administrative procedures and statutory requirements in force.

23. The following is the schedule for the submission and processing of the tariff petition.

	Schedule of Regulatory Proceedings	
A. Regulatory Proceeding for approval of Planning Documents		
	Description	**Date**
1	Submission of Integrated Generation, Transmission and Distribution expansion and Investment Program (IGTDP) by NTDC and distribution companies relevant portion	September 01 each year
2	Submission of assessment of Transmission and Distribution losses by distribution companies	September 01 each year
3	Submission of Data for Generation Plan or Procurement Plan by NTDC and distribution companies	September 01 each year
4	Approval of IGTDP by NEPRA	30th November, each year
5	Approved Generation plan and Power Purchase Cost by NEPRA	30th November, each year
6	Approved Target of Transmission and Distribution Losses by NEPRA	30th November, each year
B. Regulatory Proceeding for Rate case and Tariff Determination		
1	Submit minimum filing requirements by distribution company	January 31st each year
2	Revise minimum filing requirements (if necessary)	As required from time to time
3	Accept minimum filing requirements (delegated to NEPRA staff)	As required from time to time
4	Submit tariff petition by distribution (Complete in all respects)	January 31st each year
5	Admit tariff petition based on minimum filing requirements and appointment of Case Officer as well as decision as to conduct of hearing.	Within 15 days from date of submission
6	Issuance of decision of admission/minutes of meeting	Within 04 days from date of meeting considering admission
7	Publication of notice of admission /hearing	Within 03 days from date of admission
8	Receipt of replies, comments or intervention requests	Within 07 days of publication
9	Filing of rejoinder, if any,	Within 07 days of filing of reply, comments etc
10	The Case Officer to (a) thrash legal, financial and technical issues with help of NEPRA professionals, frame draft issues for hearing and submit initial case officer report to Authority	Within 21 days of receipt of input from in-house NEPRA professionals and from other stakeholders
11	Authority meeting to decide on items under srl. No. 7 and to Suggest holding of this meeting by one of the designated members of the Authority instead of the whole Authority, with each member acting as presiding officer for a number of tariff cases so that the work load is divided between the Authority members before it is ready for the determination of the full Authority	Within 04 days of submission of Case Officer Report as per Serial No. 7
12	Decision/minutes of the meeting at S.No. 11	Within 04 days of the meeting at S.NO. 11

13	Case Officer to communicate the "issues" to the parties for information and preparation of their case	Within 2 days of the meeting at S.No. 11
14	Conduct of hearing	Within 48 days from the date of advertisement
15	Close of Evidence, interrogatories, information directions etc.	Within 10 days of the conduct of last hearing
16	Case Officer Report with recommendations	Within 25 days of close of evidence
17	Authority meeting to discuss Case Officer's Report	Within 05 days of submission of case officer report at S.No. 16
18	Issuance of decision of Authority upon Case Office report at S.No. 17	Within 05 days of meeting at S.No. 17
19	Authority's draft determination based on the recommendations of Case Officer	Within 10 days of decision taken vide S.No. 18
20	Vetting by Legal Section	Within 5 days of circulation of draft determination
21	Signature and issuance of determination	Within 5 days of legal vetting
22	Intimation of determination to Federal Government for notification	Within 3 days of signatures upon determination
23.	Notification of the determination in official gazette	Within 15 days upon receipt from NEPRA

24. Additional Conditions

(1) Scheduling should minimize the time required to determine and notify an annual and/or multi-year electricity end-user tariff. NEPRA shall schedule the time required to complete the determination of the revenue requirement and the electricity end-user tariff within the four-month flexible constraint as per the NEPRA Tariff Rules.

Part 6
Schedule of Tariff

25. The Schedule of Tariff will assure the full recovery of the revenue requirements based on regulatory targets and distribution licensees and will provide for the full payment of the generation licenses that are not subject to rate base/rate-of-return regulation. These criteria may be violated when the GoP decides in advance to supplement the NEPRA-approved rate levels via the distribution of the tariff differential subsidy and/or an inter-regional subsidy. The tariff differential subsidy may be used to maintain cross-subsidies.

26. The tariff petitioner shall be granted an annual or multi-year tariff that provides an opportunity to the petitioner to fully recover the NEPRA approved revenue requirement as indicated in the Schedule of Tariff.

27. An annual or multi-year tariff shall be based on a cost-of-service study and revisions thereto as required to meet objectives set by NEPRA.

28. The Schedule of Tariff for an annual or multi-year tariff shall indicate the cross-subsidy and/or inter-region subsidy, if any, for the respective class of consumers.

29. Order of the Authority along with relevant Annexes shall be intimated to the Government of Pakistan for notification in the official gazette in terms of section 31(4) of NEPRA Act, 1997.

30. The Schedule of Tariff, once notified, shall remain effective until superseded by the new Schedule of Tariff notified by the Government of Pakistan.

31. The Schedule of Tariff may be subject to periodic review as provided therein.

32. The existing Schedule of Tariff shall be closed at the time that the existing annual or multi-year tariff has been superseded by a new annual or multi-year tariff for electricity end-users.

33. Schedule of Tariff shall contain readily identifiable a rate structure, (2) customer classes, cross-subsidies, if any, and the inter-regional subsidy, if any.

34. The order of the Authority to be notified will contain all the directions issued by NEPRA to be implemented by its licensees.

Part 7

Tariff Methodology

35. Tariff methodology imposes a structure on the preparation and determination of a tariff petition. Collecting and collating the required data and information are essential pieces of the methodology. Tariff-making principles provide the "means" for the design of the methodology.

36. Tariff methodology is supported by a fully distributed, cost-of-service study. Adjustments in response to norms and constraints are permissible under the rubric of a cost-based tariff methodology. Cross-subsidies do not have an adverse effect on cost recovery. The methodology rests upon the full recovery of costs with or without subsidies in order to provide proper price signals to electricity end users.

37 Intent of the Tariff Methodology

(1) An annual or multi-year tariff should recover the prudebtly cost incurred by the petitioner company.

(2) An annual or multi-year tariff should contain proper economic signals while recognizing existing engineering, social and cultural environments.

38. Design Principles

(1) Without the direction that would be provided by statute(s), regulatory order(s) or other documents with the force of law, the tariff petitioner shall be required to design an annual or multi-year tariff in accordance with Rule 17 of NEPRA Tariff Standards and Procedure Rules 1998.

(2) Without the direction that would be provided by statute(s), regulatory order(s) or other documents with the force of law, the tariff petitioner shall be required to pursue the gradual elimination of the cross subsidies.

(3) Without the direction that would be provided by statute(s), regulatory order(s) or other documents with the force of law, the tariff petitioner may include cross-subsidies.

(4) An annual or multi-year tariff shall contain lifeline rates.

(5) An annual or multi-year tariff shall have a cost-of-service study as its basis.

(6) An annual or multi-year tariff shall be filed pursuant to Rule 3 of the NEPRA Tariff Standards and Procedure Rules 1998 and shall be compatible with these guidelines.

39. Tariff Petition Procedures

(1) The tariff petitioner may choose from among a past, current or future financial year as base year.

(2) The tariff petitioner shall submit its petitions for the determination of an annual or multi-year tariff alongwith the information as prescribed in these Guidelines

(3) The tariff petitioner shall submit a complete financial analysis for the test year alongwith the information already prescribed in these guidelines..

(4) The tariff petitioner shall determine the financial impact on a class of customers that is affected by a change in the rate structure, change in the rate levels or a change in the annual or multi-year tariff terms and conditions..

40. Data and Information Procedures

(1) The tariff petitioner shall submit the required information as being prescribed through these Guidelines.

(2) The tariff petitioner shall submit the monthly power purchases through the CPPA and its successors or purchases through other sources duly approved by NEPRA and other costs with as part of the information to be provided..

(3) The tariff petitioner shall submit its distribution expansion plan, the associated portions of the generation and transmission expansion plans and the capital-expenditures-for-operations plan along with the tariff petition.

41. Power Purchase Price Procedures

The Power Purchase Price shall include the following components ;

(1) Fuel Component

(2) Variable O&M

(3) Capacity Charges

(4) Transmission Charges

42. The Authority would include each component of PPP in the revenue requirement of the petitioner company on the projected basis for the test years. These projected figures would be subject to adjustment as per actual being pass through.

43. Forecasts and/or projections of fuel expense may reflect the trend in international oil prices, the trend in local fuel market prices and the trend in rupee devaluation, as appropriate and determined by the selection of the test year for the determination of the revenue requirement.

44. Variable O&M of generation companies are affected by inflation , rupee devaluation in case of foreign component. The same relevant parameters are used to project the later in line with the decisions of the Authority in the matter of respective generation company.

45. Forecasted and /or projected Generation Capacity Charge Component of the power purchase price shall be the NEPRA approved rates and the contracts between CPPA or its successor and the IPP and shall be allocated to the DISCO according to the Authority's approved Transfer Price Mechanism as per **Annex-1**. The Capacity charges are affected by inflation , rupee devaluation in case of foreign component and are allocated to DISCOs on monthly maximum demand . The same parameters are used to project the later.

46. The Transmission charges are also used as per the latest decision of NTDC in this regard.

47. The quantum of generation is also projected from each generation plant for each test year keeping in view the upcoming generation facilities and ongoing power sector constraints such as circular debts etc.

48. Generation Plan

(1) NTDC shall submit the generation expansion plan by month by power station and by fuel that is appropriate for an annual or multi-year tariff to NEPRA for three years NEPRA staff shall review the generation expansion plan and provide analysis and recommendations prior to an approval by the Authority. NEPRA staff shall review the generation expansion plan annually and may provide analysis and recommendations to the Authority to revise the remaining years of the generation expansion plan.

(2) The generation expansion plan approved by NEPRA will be used to determine the Reference (monthly) PPP for a current or future test year.

(3) DISCOs petitions requiring the determination of the rate base for an annual electricity end-user tariff or a multi-year electricity end-user tariff may include a rolling forward 5-year generation plan that is derived from the rolling forward 5-year integrated generation, transmission and distribution expansion plan.

(4) The rolling 5-year generation plan shall be analyzed by the NEPRA Technical Division in consultation with stake-holders during a regulatory proceeding in order to prepare an evaluation report. As part of the same regulatory proceeding, the NEPRA Technical Division shall analyze power procurements and their allocation to DISCOs, which shall be included in the aforementioned evaluation report.

(5) The evaluation report prepared by the Technical Division of NEPRA along with the Technical Division's recommendations shall be submitted to the Authority prior to the submission of a petition for an annual electricity end-user tariff or a multi-year electricity end-user tariff.

(6) NEPRA shall approve the 5-year rolling Generation Plan prior to the submission of an annual or multi-year electricity end-user tariff.

(7) Since PPP as whole is a pass through item , hence would be subject to some periodic adjustments mentioned as hereunder;

49. Quarterly/Bi-Annual PPP Adjustments

(1) The scope of quarterly/Bi-Annual adjustments would be limited to;

i. The adjustments pertaining to the capacity and transmission charges.

ii. The impact of T&D losses on the components of PPP.

iii. Adjustment of Variable O&M as per actual.

50. Monthly Fuel Adjustments .

(1) The adjustments on account of variation in fuel cost component of PPP would be done on monthly basis. This adjustment reflects in the consumers' monthly bill as Fuel Adjustment Charge.

(2) In view of any abnormal changes the Authority may review these references along with any quarterly adjustment. Here it is pertinent to mention that PPP is pass through for all the DISCOs (variable cost) and its monthly references would continue to exist irrespective of the financial year, unless the new Schedule of Tariff (SOT) is notified by the GOP. The recovery of fixed cost Distribution Margin & Prior Year Adjustment (DM & PYA) would also be done on the currently notified regulated sales.

51. Investment Plan Procedures

(1) NEPRA shall approve an investment plan for the expansion of the integrated generation, transmission and distribution assets and facilities.

(2) NEPRA approved investment plan for the expansion of the integrated generation, transmission and distribution assets and facilities shall contain the complete details of the construction, financing and other activities for the tariff control period.

(3) NEPRA shall approve an investment plan for the expansion of operations assets and facilities in order to improve the efficiency and/or performance of the DISCO.

(4) NEPRA approved investment plan for the expansion of the operations assets and facilities contain the complete details of the activities to be performed during the tariff control period. The DISCO shall submit to NEPRA an investment plan that fulfills the operations goals that NEPRA has ordered in the prior determination of the most recent electricity end-user tariff

(5) Cost/benefit analyses and payback periods for the operations investment plans shall be included in the MFRs as per the provisions of NEPRA Performance Standards (Distribution) Rules, 2005 and other applicable documents

(6) The integrated 5-year generation, transmission and distribution expansion and investment plan shall be analyzed by the Technical Division of NEPRA in consultation with stake-holders during a regulatory proceeding.

(7) The evaluation report prepared by the Technical Division of NEPRA along with the Technical Division's recommendations shall be submitted to the Authority prior to the submission of a petition for an annual electricity end-user tariff or a multi-year electricity end-user tariff.

(8) Annual Investment Plans shall be reviewed by NEPRA staff for the purpose of the determining allowances or disallowances in the determination of the revenue requirement.

(9) Distribution licensees shall submit quarterly reports describing and justifying their actual investment for the purpose of monitoring subject to milestones submitted to and approved by NEPRA.

(10) Distribution licensees shall submit details of the actual investments made during the year and the actual transfer of assets from Capital Work In Progress (CWIP) to Gross Fixed Assets in Operation (GFAIO)) for making adjustments to the relevant components of the DM

52. Losses Plan Procedures

(1) The tariff petitioner shall submit the details of the immediately prior year's monthly and accumulated distribution losses. These data shall be included in the information to be provided alongwith the tariff petition.

(2) The tariff petitioner shall submit the details of the immediately prior year's monthly and accumulated estimated transmission losses. These data shall be included in the information to be provided alongwith the tariff petition.

(3) The tariff petition shall include details and explanations of the causes and/or reasons for the distribution and estimated transmission losses.

(4) The details and explanations of the causes and/or reasons for the distribution and estimated transmission losses submitted by the tariff petitioner shall be analyzed by the Technical Division of NEPRA in consultation with stake-holders during a regulatory proceeding.

(5) The evaluation report prepared by the Technical Division of NEPRA along with the Technical Division's recommendations shall be submitted to the Authority prior to the submission of a petition for an annual electricity end-user tariff or a multi-year electricity end-user tariff.

(6) Eligible non-technical and technical losses for an annual or multi-year tariff shall be based on the Annual Performance Report filed under NEPRA Performance Standard (Distribution) Rules, 2005.

(7) Data and information pertaining to eligible non-technical and technical losses suffered by the transmission and distribution licensee obtained *via* monitoring and technical evaluation by NEPRA and/or independent consultant's study shall be the basis for establishing targets for the reduction of both categories of transmission and distribution losses.

(8) NEPRA Technical Division shall review and evaluate the data and information submitted by the transmission and distribution licensees during any regulatory proceedings, upon the request of the NEPRA Technical Division or in response to show cause order issued by the Authority that has been prepared by an independent consultant in accordance with the Authority's approved Terms of Reference for setting improvement targets the technical losses with or without consultation with the stakeholders.

(9) NEPRA Tariff Division shall provide analysis and recommendations to the Authority for adjustments to an annual or multi-year tariff on the basis of the evaluation report.

(10) The Authority may adjust the annual or multi-year tariff after a regulatory proceeding wherein the analysis and recommendations of the NEPRA Tariff Division are examined and decided upon.

(11) A petition submitted is supported by a historical financial year shall include only audited and verified technical and eligible non-technical losses.

(12) A petition submitted is supported by a historical test financial year shall not include losses due to theft or pilferage.

(13) A petition submitted shall include as required audited/verified and forecasted/projected technical and eligible non-technical losses for test years.

53. Under/Over Recovery Procedures

(1) Under-recovery or over-recovery of the cost-of-service incurred during the previous year shall be accounted for going forward during the current year under the head of prior period adjustment. This may also include impact of delayed notifications and impact of consumer mix variance.

Part 8

Multiyear Tariff Methodology

54. The determination of a multi-year tariff relies on forecasts and projections when the under supporting regulatory paradigm is rate base/rate-of-return regulation. Several of the attributes of a multi-year tariff support this additional complexity. A multi-year tariff has the potential to yield more predictable rate levels over time. A multi-year tariff may be less volatile and subject to fewer intra-period adjustments. A multi-year tariff may reduce the frequency of NEPRA's determination of the rate base and cost of capital.

54. Planning will be the foundation of the multi-year tariff. Additional capacity induction through private as well as public power generation in the Pakistan power market will be governed by the 5-year integrated generation, transmission and distribution expansion plan. Meanwhile, the cost of generation would depend on forecasts or projections of the expected *contract price* for electric power.

55. Because the cost of generation for the future test year is dependent on an expansion plan and, in addition, an investment plan for government-owned generation companies the multi-year tariff may separate performance into standards for the generation, transmission and distribution licensees.

56. The objectives of the Multiyear Tariff may be as under:-

(1) To increase the stability and predictability of the future revenue streams of the generation, transmission and distribution licensees.

(2) To rationalize increases in the demand for electric power and/or electricity.

(3) To rationalize the expansion of facilities and assets of generation, transmission and distribution licensees.

(4) To rationalize expenditures on operations- based facilities and/or assets.

57. A petition for a multi-year tariff must include the following information ;

a. The future power purchase cost as discussed above;

b. The future Transmission Cost (i.e. rates for transmission services)

c. All future costs and future cost of capital for future rate bases, which shall be consistent with the rolling 5-year Integrated Generation-Transmission-Distribution Expansion Plan.

d. The associated rolling 5-year generation expansion plan, rolling 5-year transmission expansion plan, rolling 5-year distribution expansion plan, and the 5-year capital-expenditures-for-operations plan..

e. The forecasted or projected costs, as appropriate, of the 5-year generation investment plan, the 5-year transmission investment plan, the 5-year distribution investment plan and the 5-year capital-expenditure-for-operations plan.

Annex-I

Transfer Price Mechanism

The generation cost will be transferred to the DISCOs according to the Transfer Price Mechanism (TPM) as prescribed by the Authority in its determination with respect to NTDC.

XTC = XCTC + XETC

Where:

XTC	=	Transfer charge to XWDISCOs & KESC
XCTC	=	Capacity Transfer Charge to XWDISCOs & KESC
XETC	=	Energy Transfer Charge to XWDISCOs & KESC

$$XCTC = \frac{CpGenCap + USCF}{XWD}$$

Where:

CPGenCap	=	the summation of the capacity cost in respect of all CPGencos in Rs for a billing period minus the amount of liquidated damages received during the month.
USCF	=	the fixed charge part of the use of system charges in Rs per kW per month.
XWD	=	the sum of the maximum demand of the XWDISCOs & KESC in kW recorded during a billing period at all the delivery metering points at which power is received by the XWDISCOs & KESC.

$$XETC = \frac{CpGenE\ (Rs)}{XWUs\ (kWh)}$$

Where:

CPGenE	=	the summation of the variable charge rate (Rs per kWh) approved for each of the CPGenCOs times the energy in kWh procured from the respective CPGENCO during the billing period.
XWUs	=	the summation of the energy units (kWh) recorded at the delivery metering point of all the XWDISCOs & KESC during a billing period.

Energy transfer charge shall be calculated on the basis of units delivered after adjusting target transmission losses up to a maximum of 3%.

Annex-II

Regulatory Asset Base

Description	Rupees in Million	
	FY ----- Actual	**FY ---- Forward Looking**
Opening fixed assets in operation		
Assets Transferred during the year		
Closing Fixed Assets in Operation		
Less: Accumulated Depreciation		
Net Fixed Assets in operation		
+ Capital Work in Progress (Closing)		
Total Fixed Assets		
Less: Deferred Credit		
Total		
Average Regulatory Assets Base		

Annex-III

Mechanism for Monthly Fuel Charges Adjustment

In accordance with Proviso to Section 31(4) of the Act, the mechanism for monthly fuel charges adjustment will be as under:

Fuel Price variation	=	Actual Fuel Cost Component	-	Reference Fuel Cost Component

Where:

Fuel Price variation is the difference between actual and reference fuel cost component

Actual fuel cost component is the fuel cost component in the pool price on which the DISCOs are being charged by CPPA in a particular month; and

Reference fuel cost component is the fuel cost component for the corresponding month projected for the purpose of tariff determination;

Annex-IV

O&M Expense Adjustment

The O&M part of Distribution Margin shall be indexed with CPI subject to adjustment for efficiency gains (X factor). Accordingly the O&M will be indexed every year according to the following formula:

$$O\,\&\,M_{(\mathrm{Rev})} = O\,\&\,M_{(\mathrm{Ref})} \times \left[1 + \left(\Delta CPI - X\right)\right]$$

Where:

$O\&M_{(Rev)}$	=	Revised O&M Expense for the Current Year
$O\&M_{(Ref)}$	=	Reference O&M Expense for the Reference Year
ΔCPI	=	Change in Consumer Price Index published by Pakistan Bureau of Statistics latest available on 1st July against the CPI as on 1st July of the Reference Year in terms of percentage.
X	=	Efficiency factor

Annex-V

RORB Adjustment

RORB adjustment will be made in accordance with the following formula/mechanism:

$$RORB_{(\mathrm{Rev})} = RORB_{(\mathrm{Ref})} \times \frac{RAB_{(\mathrm{Rev})}}{RAB_{(\mathrm{Ref})}}$$

Where:

$RORB_{(Rev)}$	=	Revised Return on Rate Base for the Current Year
$RORB_{(Ref)}$	=	Reference Return on Rate Base for the Reference Year
$RAB_{(Rev)}$	=	Revised Rate Base for the Current Year
$RAB_{(Ref)}$	=	Reference Rate Base for the Reference Year

Annex-VI

Depreciation Expense

Depreciation expense for the current year will be assessed in accordance with the following formula/mechanism:

$$DEP_{(Rev)} = DEP_{(Ref)} \times \frac{GFAIO_{(Rev)}}{GFAIO_{(Ref)}}$$

Where:

$DEP_{(Rev)}$	=	Revised Depreciation Expense for the Current Year
$DEP_{(Ref)}$	=	Reference Depreciation Expense for the Reference Year
$GFAIO_{(Rev)}$	=	Revised Gross Fixed Assets in Operation for the Current Year
$GFAIO_{(Ref)}$	=	Reference Gross Fixed Assets in Operation for the Reference Year

Annex-VII

Other Income

Other income for the current year will be assessed in accordance with the following formula/mechanism:

$$OI_{(\mathrm{Rev})} = OI_{(1)} + \left(OI_{(1)} - OI_{(0)}\right)$$

Where:

$OI_{(Rev)}$	=	Revised Other Income for the Current Year
$OI_{(1)}$	=	Actual Other Income as per latest Financial Statements.
$OI_{(0)}$	=	Actual/Assessed Other Income used in the previous year.