SERC DIRECTIONS FOR ELECTRIC DISTRIBUTION COMPANY TARIFF SETTING UNDER REVENUE CAP METHOD

CHAPTER ONE

GENERAL PROVISIONS

- **1.1.** These Directions specify the price setting for tariffs subject to regulation by the State Energy Regulatory Commission (the Commission), the type, the format and contents of the information which the Electricity Distribution Companies (the EDCs) are required to provide in a tariff application.
- **1.2.** These directions have been developed on the grounds of Article 36, paragraph 1 of the Energy Law adopted on November 26, 2003, promulg. State Gazette No. 107 from December 9, 2003 and Article 5, paragraph 8 of the Electricity Tariff Ordinance adopted by the Council of Ministers with Decree No. 35 from February 20, 2004.
- **2.** The basic common requirements of the Commission for the purpose of revenue cap price regulation applicable to the EDCs are defined in the Electricity Tariff Ordinance (the Ordinance) while the special requirements of the Commission are provided in this document.
- **3.1.** These Directions contain values of basic price parameters adopted by the Commission for the first three regulatory periods.
- **3.2.** These Directions provide for specific requirements or exceptions to the commonly applicable requirements that are valid for the first regulatory period.
- **3.3.** These Directions provide for rules on price setting for the first year of the regulatory period and for annual adjustments during the regulatory period.
- **4.** The regulatory periods are set as follows:
 - a) First regulatory period from January 1, 2005 till December 31, 2007.
 - b) Follow-up regulatory periods commencing every five (5) years after the first regulatory period.
- **5.1.** These Directions include Attachments with specific table formats which constitute an integral part of the tariff application.
- **5.2.** The tables include the minimum requirements of the Commission with regard to the provision of information.
- **5.3.** The tables contain references of account numbers in the Uniform Chart of Accounts adopted by the Commission.
- **5.4.** The EDCs may provide additional information beyond these tables, but shall not delete any rows or columns in the tables.

- **5.5.** The Commission may require additional information while reviewing the tariff application.
- **6.1.** Every EDC submits individual tariff application. Electricity Distribution Companies privatized in a package pursuant to the Privatization Strategy for the Electricity Distribution Companies adopted in June 2003 by the Parliament of the Republic of Bulgaria shall submit also a consolidated tariff application.
- **6.2.** The prices of electric power and the prices for distribution are uniform throughout the territory of operation of the energy companies falling within one privatization package.
- **7.** The initial tariff application is based on the cost of service.
- **8.** The information provided in the initial tariff application includes test year results, revenue requirements and projected cost of service.
- **9.** The EDCs may propose changes in their revenue requirements and cost of services for each individual licensed activity (distribution of electric power and electric power supply). Each adjustment must be detailed and justified in a written explanation with evidences provided with the tariff application.

CHAPTER TWO

REVENUE REQUIREMENTS

Section I

Basic requirements applicable to the revenue requirements

- **10.1.** The tariff proposals for the initial rate period of the regulatory period (initial prices) are based on the annual revenue requirements for the test year with adjustments described in Section 6.
- **10.2.** The revenue requirements are determined in accordance with Article 10 of the Ordinance and are calculated by the following formula:

$$R_{ev}R = C + (RAB \times RR_c);$$

where:

R_{ev}R are the annual revenue requirements, BGN;

C the allowed annual costs of operation for the licensed activity, described in Section 5, BGN;

RAB the Regulatory Asset Base, described in Section 3, BGN;

RR_c the rate of return on capital for the regulatory period, described in Section 4, %.

Section II

Test Year Results

- **11.1**. The test year can be either the previous calendar year or the last 12 months preceding the submission of tariff application, whichever is considered reasonable by the EDC for the pricing purposes calculations for the next regulatory period.
- **11.2**. The EDC must prove that the test year data is representative of the costs of the company for one-year period.
- **12.1**. The EDC must show the total revenues, expenses, assets, liabilities, other income and losses for the total company and provide a breakdown into regulated operations and non-regulated operations.
- **12.2**. The total operating results for the test year and their allocation into regulated operations (distribution and supply) and non-regulated operations have to be presented in Table No. 1-A.
- **12.3.** The EDC is allowed to propose adjustments to the test year data for the respective regulated operations, as well as the envisaged revenue requirements in Tables 1-B and 1-C.
- **13.1.** Operating revenues include the revenues from the EDC's core activities electric power distribution of electric power and public supply.
- **13.2.** Other income may include, among other, items such as interest earned on deposits in financial institutions.
- **13.3.** Transfer pricing is the internal allocation of distribution services by the network division provided to the retail sales division. The retail sales division includes the cost of distribution in their calculation of revenue requirements in order to calculate the cost of service for energy sales to captive consumers.

Section III

Regulatory Asset Base

14.1. The regulatory asset base (RAB) is determined pursuant to Article 14 of the Ordinance and is calculated according to the following formula:

$$RAB = A - CG - D + WC + INV_{av};$$

where:

RAB the Regulatory Asset Base, BGN;

A the allowed value of used and useful assets, BGN;

CG the value of assets acquired through gratuitous transfer or constructed with financial resources of electricity consumers, BGN;

D the accumulated depreciation for the past period of asset use to perform the licensed activity, BGN;

WC the working capital allowance, BGN;

INV_{av} the forecast average cumulative nominal amount of the net investments approved by the Commission, which will be invested during the regulatory period, BGN.

- **14.2.** The EDC provides information about the test year level of regulatory asset base, the proposed adjustments to the regulatory asset base and the projected regulatory asset base for the next regulatory period in Table No. 2-A as a summary, and in Tables 2-B and 2-C respectively by distribution operations and supply operations.
- **14.3.** The Work In Progress item in Tables 2 includes the value of assets to be commissioned not later than then end of the year which precedes the beginning of the regulatory period.
- **14.4.** The forecast average cumulative nominal amount of the net investments which will be invested during the regulatory period is calculated according to the following formula:

$$INV_{av} = \frac{\left(INV_{t_1} * n + INV_{t_2} * (n-1) + + INV_{t_n} * 1\right)}{n};$$

where:

INV_t envisaged net investments in the year t, BGN;

t sequential year of the regulatory period;

n total number of years in the regulatory period.

- **14.5.** The net investments for every year are equal to the difference between the Investment Plan and the Assets Decommissioning Plan.
- **14.6.** The value of tangible fixed assets in the RAB for the first regulatory period equals the book value of tangible fixed assets by the end of 2003 before revaluation times a factor equal to 2. The value of intangible assets equals the book value as of end 2003, before revaluation.
- **15.** The EDC provides the results of any revaluation of fixed assets which was performed in accordance with the Bulgarian Accountancy Act and the International Accounting Standards and which was completed after the last tariff application. The EDC provides a breakdown of assets, by categories included in the regulatory asset base, before and after the revaluation. Table No. 2-D provides a template for reporting a revaluation of assets relating to the regulatory asset base.
- **16.1.** The regulatory asset base for a separately priced licensed service includes only those assets that support the licensed service. Assets that do not support the licensed service will be disallowed from the regulatory asset base. Examples of disallowed assets include all assets used for non-licensed activities, recreational facilities and assets purchased by the energy company above their market value. Table No. 2-E provides a template for adjusting the asset base for disallowed assets.

- **16.2.** The EDC does not earn return on capital grants, i.e. on the value of assets acquired through gratuitous transfer (grants) or on assets constructed with financial resources of electricity consumers (connection of consumers). Depreciation of these assets is included in the revenue requirements.
- **17.1.** Prudent investment programs, as part of the Business Plan, approved by the Commission are included in the regulatory asset base. Table No. 2-G provides a template for a summary of the investment program. The EDC provides the Commission with written analysis and testimony on the breakdown of the proposed investment program for the regulatory period, providing detailed justification on the results of each major investment in terms of efficiency improvements and/or improvements in the service and energy quality performance.
- **17.2.** The regulatory asset base does not include assets which will be decommissioned during the respective year of the next regulatory period. Table No. 2-H shows a template of Assets Decommissioning Plan on yearly basis.
- **18.** The EDC provides a summary of all investments made during the previous regulatory period and written testimony of the results of these investments. Table No. 2-G provides a template for the purposes of reporting the previous regulatory period investment program. The summary of results must show efficiency improvements and/or improvements in energy and service quality performance.
- **19.1.** The EDC provides information on the accumulated depreciation for all assets in the regulatory asset base as of the end of the current regulatory period, along with depreciation of work in progress and depreciation of investments for the next regulatory period, in summary and by operations as shown in Tables No. 4-A, 4-B and 4-C.
- **19.2.** The average cumulative depreciation amount for investments in Tables 4 is calculated according to the following formula:

$$D_{av} = \frac{(D_{t_1} * n + D_{t_2} * (n-1) + \dots + D_{t_n} * 1)}{n};$$

where:

D_t depreciation in the year t, BGN;

t sequential year of the regulatory period;

n total number of years in the regulatory period.

- **19.3.** Depreciation of assets is based on the most recent deprecation study made by the EDC, that shows the expected useful life of the assets by category.
- **19.4.** The energy company should propose depreciation of the non-tangible assets.
- 19.5. Depreciation is calculated with a linear method depending on the assets' useful life.
- **19.6.** The level of depreciation for the first regulatory period equals the book value of depreciation by the end of 2003 before revaluation times a factor equal to 2.

- **20.1.** The working capital allowance in the regulatory rate base will reflect on a study of the funds required to maintain a suitable level of receivables, material and supplies and the cash required to meet current obligations, as well as payables. Any such study has to be included in the tariff application. In the absence of such study, the EDC will provide an estimate of the working capital allowance with written evidence justifying such an estimate. The final working capital allowance included in the rates will be determined by the Commission. Table No. 2 provides a summary table of the working capital allowance.
- **20.2.** The level of working capital for the first regulatory period equals 1/8 (one eighth) of the Distribution Company's revenue requirements before inclusion of working capital.
- **21.** Tables No. 1-A, 1-B and 1-C provide for a summary table of the RAB and tables of the RAB by licensed services. The proposed RAB must include the proposed investments that will become commercial during the regulatory period as well as the expected level of depreciation expense for all assets included in the forecasted RAB.

Section IV

Return on Regulatory Asset Base

- **22.1.** The Commission will determine the appropriate Return on Equity for the EDC which will be the rate for a riskless security in Bulgaria plus a risk premium related to the risk inherent in an EDC.
- **22.2.** The Commission has initially set the pre-tax rate of return on equity at 16% for the first regulatory period.
- **22.3.** In the future regulatory periods, the Commission will use the Capital Asset Pricing Model or another methodology, where the Commission will use a number of factors for consideration, including: (1) comparisons with other companies with similar risk levels; (2) the attraction of capital; (3) current financial and economic conditions in the country; (4) the cost of capital; (5) the risk of the company; (6) the financial policy and capital structure of the company; (7) the competence of management team; (8) the company's financial history.
- **23.1.** The Commission determines the normalized (market-oriented) Cost of Debt. The calculation is based on interest rates for outstanding debt of the EDC. The interest rates used for determining revenue requirements may or may not be the same as actual interest rates for debt. The EDC must show that the interest rates for debt are within the same range as the interest rates for debt assumed by other companies with similar credit risks. Any debt included in the calculation of average debt interest rate that has an interest rate higher than the current market level will be adjusted downward to the market level.
- **23.2.** The Commission sets the cost of debt as equal to the actual cost of debt for the first regulatory period

- **24.1.** The Commission requires a long-term target capital structure of 50% equity and 50% debt for all EDC. The Commission will expect that each EDC will start using this capital structure starting in the third regulatory period.
- **24.2.** For the first regulatory period the capital structure is the existing capital structure as on June 30, 2004.
- **24.3.** For the second and third regulatory periods the Commission uses the most recent annual balance sheets reflecting the equity to debt ratio plus the expected investment level during the regulatory period to determine the appropriate capital structure.
- **24.4.** The Commission assumes that the EDCs will use 100% debt for all new required investments.
- **25.1.** The Commission approves rate of return on capital (a weighted average cost of capital). The EDC will propose a rate of return on capital for the regulatory period with an appropriate capital structure, rate of return on equity and on debt. The rate of return on capital is estimated on a pre-tax basis from the following formula:

$$RR = C_{EP} \times \left(\frac{RR_{EQ}}{1 - \frac{CPTR}{100}}\right) + C_{DP} \times RR_{D}$$

where:

RR is the rate of return on capital, before taxation, %;

C_{EP} the equity portion of capital, %;

RR_{EO} the rate of return on equity, after taxation, %;

CPTR the corporate profit tax rate in compliance with the Corporate Income Tax Act, %;

C_{DP} the debt portion of capital, %;

RR_D is the rate of return on debt, %.

- **25.2.** The form of the proposed long-term debt is shown in Table No. 5-A.
- **25.3.** The form of the proposed weighted average cost of capital is shown in Table No. 5-B.
- **25.4.** For the second and third regulatory periods the weighted average cost of capital shall not be less than 12%.

Section V

Operating Expenses

- **26.1.** The groups of expenses for regulatory purposes and their analytical levels are defined in a Uniform System of Accounts adopted by the Commission.
- **26.2.** The EDC provides a summary of the expenses by types of operations and grouped by cost centers. Tables No. 6-A, 6-B and 6-C provide the minimum list of expenses that need to be provided as separate cost items.
- **26.3.** The EDCs provide breakdowns of costs in a manner which enables identification of each cost for pricing purposes. EDCs are allowed to present detailed breakdowns of costs, if such are needed to justify the proposed prices or if requested by the Commission.
- **27.** The EDC must provide to the Commission test year results on a monthly basis for the following items:
- a) power purchases, retail sales and technological costs (energy losses) for distribution in BGN, as shown in Table No. 3-A;
- b) power purchases, retail sales and technological costs (energy losses) for distribution in MWh, as shown in Table No. 3- B;
 - c) historical and forecast number of consumers, as shown in Table No. 3-C;
 - d) historical and forecast peak loads, as shown in Table No. 3-D.
- **28.** The Commission assumes technological costs (energy losses) for distribution by regulatory periods, as follows:
- 28.1. For the first regulatory period the losses for distribution are equal to those included in retail rates in force as from July 1, 2003;
- 28.2. For the second regulatory period the allowed losses for distribution are equal to the lower of the two: allowed losses for the first regulatory period minus 3% or actual total losses of the EDC for 2006;
- 28.3. For the third regulatory period the allowed losses for distribution are equal to the average of the allowed losses for the second regulatory period and 12%;
- 28.4. For all regulatory periods after the third one the allowed losses for distribution shall be based upon an investment programme for further reduction of losses negotiated between the EDC and the Commission.

Section VI

Adjustments to Test Year Results

- **29.1.** The EDC is allowed to propose changes to the test year expense results for setting tariffs for the next regulatory period. Any such changes must be both known (a specific item) and measurable (quantifiable) described by types of costs and in numerical values. The Commission may consider adjustments to test year results for items such as:
 - a) demand growth or decreases;
 - b) inflation;

- c) contract price changes;
- d) changes in taxes and insurance;
- e) the number of customers served;
- f) changed levels of the regulatory asset base;
- g) cost of capital;
- h) level of depreciation expense;
- i) efficiency improvement factor.
- **29.2.** The annual revenue requirements may be adjusted by a factor which reflects the uncollectible revenues, provided that the EDC presents evidence on the reasons for their occurrence. The adjustment to the revenue requirements for the first regulatory period is the lower value of either 3% of the RR or the actual level of uncollectible revenues. The EDC must supply a plan for reduction of uncollectible revenues. For the next regulatory periods the initial maximum 3% adjustment factor will be reduced based upon benchmarking studies of the best practices in the region.
- **30.** The EDC must provide justification for each proposed adjustment to the test year results. The adjustments must be specified in the tables attached to the tariff application and be supplied with written testimony providing evidence of the reason(s) for each adjustment and the amount for each adjustment.

CHAPTER THREE

COST OF SERVICE

Section I

Allocation of costs by licensed operations and services

- **31.** The EDCs should propose and provide to the Commission an allocation of the revenue requirements for first year of the regulatory period between the license types and the separately priced services to be provided within the license types.
- **32.** The EDCs should propose allocation factors for all components of the revenue requirements between the two license types Distribution Network Development & Operation and Retail Sales. Table No. 6 provides an example of the resulting allocation. The EDCs should provide not only the allocation factors, but also the basis and justification for the different allocation factors chosen, such as: number of employees, number of customers, level of energy sales, peak loads. Some revenue requirement components may only be directly related to one license type and therefore all such components should be completely allocated to that license type.

- **33.1.** EDCs should propose services for which separate pricing will be applied within the respective licensed operations. EDCs should propose separately priced services for the beginning of the second regulatory period.
- **33.2.** The services provided under distribution network operation include, without being limited to:
 - a) Distribution of electric power;
 - b) Disconnection/reconnection of consumers;
 - c) Connection of new consumers and producers.
- **33.3.** The services provided under retail sales operation include, without being limited to:
 - a) Energy sales to captive consumers;
 - b) Meter reading, billing and collection of revenues.
- **34.1.** The EDCs should propose allocation factors for all components of revenue requirements for the license types between the various services. The EDCs should provide not only the allocation factors, but also the basis and justification for the different allocation factors chosen, such as number of employees, number of customers, level of energy sales, peak loads. Some revenue requirement components may only be directly related to one service and therefore all such components should be completely allocated to that service.
- **34.2.** The EDC provides the results of its cost of service study divided into its distribution services and its retail supply services in the format shown in Table No. 7-A.
- **35.** EDCs classify and separate their costs into fixed costs and variable costs. Fixed costs are those that do not change with the volume of energy transferred or sold. Variable costs are those that change with the volume of energy transferred or sold.

Section II

Allocation of costs by rate groups

- **36.1.** In its tariff application the EDC is allowed to propose rate groups for each separately priced service.
- **36.2.** For the first regulatory period the Commission assumes the existing rate groups for the individual services. The companies will be allowed to propose another rate group classification at anytime during the first regulatory period.
- **37.1.** The EDC provides the results of its cost of service study for its distribution services, by rate groups in a format shown in Table No. 7-B.
- **37.2.** The EDC provides the results of its cost of service study for its retail supply services and the costs allocated to each of the retail rate groups in a format shown in Table No. 7-C.

CHAPTER FOUR

RATE DESIGN

Section I

Initial Rate Design

- **38.** The initial rate design for the first year of the first regulatory period is based on the rate design existing by July 2004, where the existing rate design includes the following basic groups of prices: retail tariffs for consumers by voltage levels and distribution wheeling tariffs.
- **39.1.** The retail tariffs for consumers serviced by the EDCs within one privatization package are changed based on the change of the sum of the approved revenues for the EDCs within one package for the first regulatory period, as compared to their approved revenues by July 2004.
- **39.2.** The specific change of rates is determined observing the requirement to equalize the average sale prices for consumers at low voltage.
- **39.3.** The rates need to be changed so that they enable recovery of approved revenue requirements for the first year of the first regulatory period.
- **40.1.** The distribution wheeling tariffs are calculated by voltage levels medium voltage and low voltage. Eligible consumers are charged the appropriate distribution wheeling charge based on their connection voltage level.
- **40.2.** The distribution wheeling charge at medium voltage is calculated according to the following formula:

$$P_{D.MV} = \frac{C_{D.MV}}{E_{total}};$$

where:

P_{D.MV} price for distribution at medium voltage, BGN/kWh;

C_{D.MV} fixed costs (return included) and variable costs of the EDC for electric

power distribution operations through HV and MV networks, BGN;

E_{total} forecast demand by consumers at MV and LV, kWh.

40.3. The distribution wheeling charge at low voltage is calculated according to the following formula:

$$P_{D.LV} = \frac{(C_{D.TOTAL} - R_{D.MV})}{E_{IV}};$$

where:

P_{D.LV} price for distribution at low voltage, BGN/kWh;

C_{D.TOTAL} fixed costs (return included) and variable costs of the EDC for electric power distribution operations through HV, MV and LV networks, BGN;

 $R_{D.MV}$ revenues from consumers for electric power through HV and MV network

for the distribution service, BGN;

E_{LV} forecast sales to LV consumers, kWh.

- **40.4.** The costs for wheeling are included in the retail tariffs for the captive consumers.
- **40.5.** The distribution wheeling rates are one-part tariffs until the EDC files for a new tariff application providing justification for a multi-part tariff.

Section II

Future Rate Design

- **41.1.** The EDC may file an application to revise the rate structure within the first regulatory period if the EDC provides a rate design study based on customer usage patterns and cost of service for the various retail electricity rate groups.
- **41.2.** For future rate periods the EDC may propose a revised rate design for approval by the Commission. The revised rate design will be used to calculate the annual revenue requirements for the test year for each rate group and must be presented in a format similar to the one in Table No. 8. This table shows, for each rate group, the revenues for the test year with the current tariffs and with the proposed tariffs, and also indicates the percentage change.
- **41.3.** The results obtained using the initial rate design which are presented in Table No. 9 must indicate the return on rate base, as calculated from the cost of service study for each rate group.

Section III

Equalizing the Rate of Return and Finalizing Rate Design

42. The rate of return on rate base shown on Table No. 9 should, insofar as it is possible, be made equal and levelized for each rate group. This may be accomplished by adjusting the proposed rate designs for each rate group. The EDC may propose and the Commission may allow for adjustments according to mitigating circumstances for a particular rate group.

CHAPTER FIVE

ANNUAL ADJUSTMENTS DURING THE REGULATORY PERIOD

43. Within the regulatory period the EDC's revenue requirements will be adjusted annually as described below. All other changes in the revenue requirements will be made at the next

regulatory review and will be reflected in the EDC's revenue requirements for the next regulatory period.

44.1. The annual adjustment to the revenue requirements for the first regulatory period is calculated according to the following formula:

$$\operatorname{Re} vR_{t} = \operatorname{Re} vR_{(t-1)} + O \& M \times I + Z - Y;$$

where:

RevR annual revenue requirements of the EDC, BGN;

O&M operation and maintenance costs, BGN;

I inflation for a 12-month period preceding the submission of application;

t rate period;

Z adjustment for differences between forecast and actual power purchase costs for the previous year, BGN;

Y service and energy quality adjustment for the previous year performance, BGN

44.2. The annual adjustment to the revenue requirements for the second regulatory period and all future regulatory periods is calculated according to the following formula:

$$\operatorname{Re} vR_{t} = \operatorname{Re} vR_{(t-1)} \times (1 + I - X) + Z - Y;$$

where:

RevR annual revenue requirements of the EDC, BGN;

I inflation for a 12-month period preceding the submission of application;

t rate period;

X efficiency improvement factor;

Z adjustment for differences between forecast and actual power purchase costs for the previous year, BGN;

Y service and energy quality adjustment for the previous year performance, BGN.

- **44.3.** The inflation factor representing the inflation for a 12-month period preceding the submission of application (I) is the official inflation rate that is published by the National Institute of Statistics.
- **44.4.** The efficiency improvement factor (X) is calculated on the basis of improved efficiency achieved by the EDC during the previous regulatory period and based upon benchmarking studies for other EDC in Bulgaria and in the region.
- **44.5.** The adjustment for differences between forecast and actual power purchase costs for the previous year (Z factor) represents un-anticipated and uncontrollable purchase power costs that have been incurred by the EDC to provide continued service for the consumers.
- **44.6.** The service and energy quality adjustment for the previous year performance (Y factor) reflects the calculation of target versus actual energy and service performance indicators in accordance with the license conditions.

45.1. The annual adjustments for differences in forecast and actual cost of purchased power for the previous year (Z) will be calculated according to the following formula:

$$Z_{t} = (E_{sale}^{forecast} * P_{sale}^{forecast} - E_{purchase}^{forecast} * P_{purchase}^{forecast}) - (E_{sale}^{actual} * P_{sale}^{actual} - \frac{E_{sale}^{actual}}{1 - TC_{distr}} * P_{purchase}^{actual})_{t-1} \pm C_{pr.per.(t-2)}$$

where:

 $E_{sale}^{forecast}$ forecast electric power sales, kWh;

 $P_{sale}^{forecast}$ forecast average sale price of electric power, BGN/kWh;

 $E_{purchase}^{forecast}$ forecast electric power purchases, kWh;

 $P_{purchase}^{forecast}$ forecast average purchase price of electric power, BGN/kWh;

 E_{sale}^{actual} actual electric power sales, kWh;

 P_{sale}^{actual} actual average sale price of electric power, BGN/kWh;

 TC_{distr} approved technological costs for distribution for the regulatory period, %;

 $P_{purchase}^{actual}$ actual average purchase price of electric power, BGN/kWh;

 $C_{pr.per.(t-2)}$ adjustment for under- or over-recovered expenses for purchase of electric power in the year preceding the current adjustment, BGN;

t rate period.

- **45.2.** The actual electric power sales include the sales reported for the months starting from the beginning of the year till the end of the month which precedes the submission of adjustments proposal, and a forecast sales till the year end.
- **45.3.** The actual average electric power sale price includes the reported average sale price for the months starting from the beginning of the year till the end of the month which precedes the submission of adjustments proposal, and a forecast average sale price till the year end.
- **45.4.** The adjustment for under- or over-recovered expenses for purchase of electric power in the year preceding the current adjustment (year t-2), reflects the difference between forecast and actual quantities and prices for the period between submission of the previous adjustments proposal and the end of the previous year (year t-1). This adjustment will be applied starting from the third year of the first regulatory period. The adjustment will be applied for each year of the following regulatory periods.
- **46.1.** The EDC's revenue requirements for the next year will be reduced in case of non-performance of the EDC in meeting its service and energy quality targets for the previous year. These performance indicators are specified in the license conditions for distribution services and retail supply.
- **46.2.** The performance indicators for the energy companies reflecting achievement of preset targets are as follows:

- a) Indicators for the quality of delivered electric power;
- b) Continuity of supply indicators;
- c) Written response time to a written complaint from a consumer;
- d) Time to check, and if necessary –replace, a commercial meter upon customer request;
- e) Time to correct meter reading errors;
- f) Time to correct errors in bills for consumed electric power;
- **46.3.** The indicators under paragraph 46.2., a) and δ) above are set for each regulatory period with a decision of the Commission, depending on the available statistical information.
- **46.4.** The application of energy and service quality indicators will not start before January 1, 2006.
- **47.1.** The Commission sets maximum negative adjustment to the revenue requirements in BGN for each individual indicator. The maximum adjustment amount is linked to the return the EDC is expected to earn on investments made during the regulatory period to improve the performance.
- **47.2.** The Commission sets annually a target range for each indicator. The EDC must meet or exceed the lower limit of the range in order not to incur a decrease in the revenue requirements for the following year. The higher limit of the range (upper threshold) is the value for which the maximum penalty will be applied.
- **47.3.** The maximum negative adjustment is multiplied by a factor reflecting the ratio of the differences between 1) the actual performance and the target level and 2) the upper threshold and the target level.
- **47.4.** Adjustment is not applied whenever the actual performance level is equal or less than the target.
- **47.5.** Whenever the actual performance level exceeds the target, the adjustment is either of the following two, whichever is lower: 1) the maximum negative adjustment, or 2) the maximum negative adjustment times the adjustment factor.
- **47.6.** Calculation of the adjustment for performance is made according to the following formula:

$$APQI = A_{\text{max}} * \frac{AP - T \operatorname{arg} et}{UT - T \operatorname{arg} et};$$

where:

APQI adjustment to the revenue requirements for performance of quality indicators, BGN:

A_{max} maximum adjustment to the revenue requirements, BGN;

Target target value for the given indicator;

AP actual performance for the indicator;

UT maximum upper level of the indicator for which applies the preset maximum penalty (upper threshold).