

# *Energy Regulatory Development in Bulgaria*

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**DRAFT**

**METODOLOGY TO THE UNIFORM CHART OF ACCOUNTS  
FOR THE PURPOSES OF REGULATORY ACCOUNTING OF  
NEK-AD**

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## Contents

1. INTRODUCTION.....	2
2. IDENTIFICATION OF REGULATED ACTIVITIES AND THEIR INTERNAL STRUCTURE.....	3
3. CLASIFICATION AND STRUCTURE OF OPERATING REVENUES.....	4
4. CLASSIFICATION AND STRUCTURE OF OPERATING EXPENSES .....	10
5. CLASSIFICATION AND STRUCTURE OF ASSETS.....	14
6. CLASSIFICATION AND STRUCTURE OF LIABILITIES .....	15

## 1. INTRODUCTION

The present methodology has been elaborated in compliance with the regulatory accounting requirements. Information carriers for the purposes of regulatory accounting are the balance sheet and the profit and loss statement of NEK in addition to the approved supplementary regulatory reports. The information contained in all these reports must be classified and structured in such a way that the regulator shall have an opportunity to monitor and supervise the status of the respective legal parameters and requirements as objectively as possible.

The uniform Chart of Accounts for regulatory accounting of NEK should be as much as possible in agreement with the accounting practice in this company, including the SAP/R3 system introduced and with the international financial reporting standards (IFRS). The purpose is for the new regulatory framework requirements to be fulfilled in a most expedient way so that efforts for restructuring information to this effect are minimized.

The Uniform Chart of Accounts must cover all sections of the model National Chart of Accounts Group selection must be consistent with the nature of NEK activities. The better part shall keep its inherent content, numbering, section, group and account designation as they exist in the NEK current Chart of Accounts and only further accounts shall be added, or rules of work and account closing shall be changed according to the new requisites.

It is suggested that accounts have three, four digit codes and sub accounts have ten digit codes so that the required level of analysis is secured. Detailed specifications of accounts carrying the information that has prioritized importance for the regulatory body purposes need to be compiled and instructions for their usage must be elaborated.

The content of methodology to be used with the Uniform Chart of Accounts covers:

- Sections and items in the Profit and Loss Statement and the respective accounts as per the Unified Chart of Accounts being carriers of the standardized information for the purposes of regulatory accounting;
- Balance sheet sections and items and financial accounts as per the Unified Chart of Accounts being carriers of the standardized information for the purposes of regulatory accounting.

## **2. IDENTIFICATION OF REGULATED ACTIVITIES AND THEIR INTERNAL STRUCTURE**

In accordance with the clauses of the Energy Act NEK has to keep unbundled accounting for expenses by function.

NEK-EAD main activities, which are object of regulation by the regulating state body and which are subject to licensing as well, are the following:

- Generation of electricity by hydropower plants and pumped storage power plants;
- Public supply of electricity and delivery of HV electricity to customers;
- Transfer and operation of transmission network, including
  - Cross-border wheeling and export/commodity exchange of electricity;
  - Unified management of energy system;
  - Commercial metering
  - Balancing market
- Connection of consumers

NEK AD performs other activities as well, which are not object of regulation by the regulating state body and that are not subject to licensing. These activities need to be accounted separately in a separate group – non-regulated activities. The largest activities might also be kept as separate items:

- Water supply ;
- Investment activity, that is not connected to company operations;
- Recreational services.

With regard to NEK EAD structure development it must be assumed on condition that company services are performed in two separate enterprises: NEK - public supplier and NEK - transmission enterprise.

Major sections of information related to activities generation and public supply of electricity and transfer and operation of transmission network, which shall be subject to monitoring are:

- Operating revenue;
- Revenues from connection of consumers;
- Operating expenses;
- Expenses for support activities;
- Repair expenses;
- Expenses for general and administrative purposes;
- Expenses for capital construction
- Expenses for connection of consumers

### 3. CLASIFICATION AND STRUCTURE OF OPERATING REVENUES

In accordance with the requirements of IAS18 Income, operating revenue of companies shall be reported as revenue, received from the following types of transactions and events:

1. Sales of finished goods;
2. Sales of commodities;
3. Rendering of services;
4. Usage of company assets by other persons, which shall bring about interests, dividends and royalties;
5. Other types of transactions and events.

Services may be rendered during one or more periods of time. Some contracts for service rendering shall be directly related to construction contracts for example designer services. Revenues from these contracts shall be considered to be in compliance with the construction contracts.

Revenue is the gross inflow of economic benefits during the period arising from the ordinary operating activities of a utility where this inflow results in increase of utility net worth other than increases related to shareholders' contributions.

Revenues shall be recognized only wherever possible for the company to gain economic benefits, related to the transaction; wherever the revenue amount can be securely evaluated and the expenses made in relation to the transaction can be securely evaluated.

Revenues include only gross inflow of economic benefits, while amounts collected by third parties like sales tax, commodity and service taxes and value added tax shall not be considered economic benefits received by the utility and do not result in net worth increase. Therefore they are not part of the revenues.

Revenue from sales of finished goods shall be recognized where considerable risk and benefits from ownership of goods are transferred to the purchaser.

Revenue from rendering of services shall be recognized considering the stage of completion of the related service, determined as a percent ratio of services provided at the time and the complete amount of services that is expected to be provided.

Revenues from interests shall be recognized on time proportion principle in relation to the remaining period of time and the effective interest for the maturity period, in cases where it has been determined that such a revenue will be accrued to the company.

#### 3.1. DETERMINATION OF REVENUES BY REGULATED ACTIVITIES FOR THE PURPOSES OF REGULATORY ACCOUNTING

The approach of revenue identification by function is adopted for regulatory mechanism purposes:

NEK - Public supplier revenues include:

1. Revenue from sales of electricity:
  - sales of electricity to ERC;
  - sales of electricity to local customers HV;

- sales of electricity to generators outside NEK
- sales of electricity to foreign customers (export)
- sales of electricity on the balancing market;
- commodity exchange of electricity.

**Note:** For the purposes of management accounting NEK registers separately “revenue from sales of electricity of Pumped Storage Power Plant "Chaira” and “revenue from sales of electricity generated during 72-hour tests”, but it should be noted that at the moment these entries do not represent revenues from the point of view of the accounting standards.

2. Revenue from sales of services
  - sales of water supply services
  - recreational services;
  - sales of contingent services.
3. Revenues from sales of commodities
  - sales of cooked produce;
  - snack bar and cafeteria sales;
  - sales of other products.
4. Revenue from usage of company assets by other persons
  - rents;
  - interests and dividends;
  - participation.
5. Revenues from financial operations
  - foreign currency transactions;
  - financial instruments transactions;
  - financing for acquisition of fixed assets and current services;
  - fines, penalties, etc.;
  - penalties imposed on officers;
  - derecognition of liabilities;
  - insurance compensation;
  - surplus assets;
  - sales and liquidation of fixed assets;
  - sales of current assets;
  - other revenues from financial operations.
6. Other revenue
  - liquidation and insolvency.

Revenues from NEK - Transmission Company include:

1. revenue from sales of electricity:

- sales of electricity from balancing market;
  - sales of reactive energy
2. Revenue from sales of services
    - transmission of electricity ;
    - cross-border wheeling of electricity;
    - sales of cross-border capacity
    - connection of consumers;
    - recreational services;
    - contingent services.

**Note:** For the purposes of management accounting NEK registers separately “revenues from repair of insulators and brakers”, "revenues from chemical laboratories" and “revenue from other support services”, but it should be noted that at the moment these entries do not represent revenues from the point of view of the accounting standards.

3. Revenues from sales of commodities
  - sales of cooked produce;
  - snack bar and cafeteria sales;
  - sales of other products;
4. Revenue from usage of company assets by other persons
  - rents;
  - interests and dividends;
  - participation.
5. Revenues from financial operations
  - foreign currency transactions;
  - financial instruments transactions;
  - Financing for acquisition of fixed assets and current services;
  - fines, penalties, etc.;
  - penalties imposed on officers;
  - derecognition of liabilities;
  - insurance compensation;
  - surplus assets;
  - sales and liquidation of fixed assets;
  - sales of current assets;
  - other revenues from financial operations.
6. Other revenues
  - liquidation and insolvency.

In accordance with the requirements of regulatory accounting the NEK needs to separate the regulated activity results from non-regulated activity results and indicate separate financial performance for each license activity in the regulated services results. For this purpose the revenues from license activities must be entered separately and must be classified by customer groups. In order for the required regulatory process transparency to be achieved it is recommended that separation of regulated and non-regulated activity posting is performed on the account level of regulatory Chart of Accounts, i.e. non-regulated service revenues shall be identified and entered in separate accounts.<sup>1</sup>

The NEK current Chart of Accounts groups company operating income accounts in group 70 "Revenue from sales of the public supplier", group 71 "Revenue from sales in Transmission enterprise" and group 72 "Financial income" of section 7. Group 73 keeps revenues from further valuation of-assets and liabilities, and group 75 keeps deferred income and financing.

Accounts of group 70 "Revenue from sales of the public supplier"<sup>2</sup>are organized in subgroups by the following types of transactions and events:

1. Revenue from liquidation and insolvency
2. Revenue from sales of commodities
3. Revenue from sales of services
4. Revenue from financing
5. Revenue from sales of electricity
6. Other operating income

To realize unbundling of regulated from non-regulated activity and separate processing of revenues and expenses for licensed activities on the level of an account of the regulatory Chart of Accounts it would be sufficient to make small changes in the Chart of Accounts and the rules of work with accounts (debiting, crediting and closing).

#### A. Changes in group 12 "Financial results"

1. All subgroups of group 12 include separate accounts for Profit (loss) from regulated activities (for example 12X0100000) and for Profit(loss) from non-regulated activities (for example 12X0200000)
2. At this stage of NEK reform development subgroup 123-01 may include separate accounts for financial results by function:
  - Profit and loss from sales of electricity of customers HV (for example 1230111000)
  - Profit and loss from sales of electricity to ERC (for example 1230112000)
  - Profit and loss from sales of electricity to generators apart from NEK (for example 1230113000)
  - Profit and loss from sales of electricity to pumped storage power plant "Chaira"<sup>3</sup> (for example 1230114000)
  - Profit and loss from sales of electricity – export (for example 1230115000)

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<sup>1</sup> For management purposes the NEC accounting system SAP R/3 makes possible for revenues to be identified by "revenue center" and by "functional index", but this identification is not recommended for the purposes of regulatory accounting.

<sup>2</sup> Except for sales revenues this group includes other operating revenues. It would be appropriate to rename it to "Public supplier operating revenue"

<sup>3</sup> This account is not used now because the Pumped storage power plant "Chaira" is part of NEC

- Profit and loss from sales of electricity to balancing market (for example 1230180000)
- Profit and loss from sales of services for transfer of electricity (for example 1230121000)
- Profit and loss from Sales of services for connection (for example 1230122000)
- Profit and loss from sales of services for cross-border transfer of electricity (for example 1230123000)
- Profit and loss from sales of services for provision of cross-border capacity (for example 1230124000)

B. Changes in group 70 “Revenue from sales of the public supplier”

1. Accounts of the main subgroup 706 “Public supplier revenue from sales of electricity” shall not be changed, but they are closed to the new account 1230100000 (or the related financial result accounts by function 123011X000, where these have been opened).
2. The name of subgroup 701 shall be changed into “Revenues from sales of goods - non-regulated activities of public supplier” and the subgroup shall be closed to account 1230200000, i.e. accounts in subgroup 701 shall be used only for posting non-regulated activity revenues.
3. The name of subgroup 703 shall be changed into “Revenues from sales of services - non-regulated activities of public supplier” and the subgroup shall be closed to account 1230200000, i.e. accounts in subgroup 703 shall be used only for posting non-regulated activity revenues.
4. The rest subgroups of group 70 shall not be changed but they all correspond to the new account 1230200000, rather than to account 1230000000.

C. Changes in group 71 “Operating Income of transmission enterprise”.

1. Accounts of subgroup 710 “Public supplier revenue from sales of electricity” shall not be changed, but they are closed to the new account 1230100000 (or the related financial result accounts by function 123012X000, where these have been opened).
2. The name of subgroup 711 shall be changed into “Revenues from sales of goods - non-regulated activities of public supplier” and the subgroup shall be closed to account 1230200000, i.e. the subgroup shall be used only for posting non-regulated activity revenues.
3. The name of subgroup 712 shall be changed into “Revenue from sales of services - regulated activity of Transmission Company” and the subgroup shall exclude the account 7120800000 “Revenue from recreational services”. Subgroup 712 accounts (except the accounts related to “revenue from support activities”, which are used only for management purposes) shall be closed to the new account 1230100000 (or the relative accounts reflecting financial results by function 123012X000 in case such accounts have been opened).
4. A new subgroup 713 “Revenue from sales of services - non-regulated activities of Transmission Company” shall be added. The following accounts shall be opened in this subgroup: Revenue from recreation services (for example 7130800000) and 7120900000 Revenue from sales of other services - non-regulated activities of transmission company (for example 7130900000). 713 shall be closed to account 1230200000, i.e. subgroups 713 accounts shall be used only for posting revenues from non-regulated activities.

5. The rest subgroups of group 71 shall not be changed but they all correspond to the new account 1230200000, rather than to account 1230000000.

## 4. CLASSIFICATION AND STRUCTURE OF OPERATING EXPENSES

The Chart of Accounts structure in section Operating expenses must have detailed levels for the purposes of regulatory accounting and where necessary to allow for retrieval of supplementary information apart from reporting classification, included in the Profit and Loss Statement of NEK AD for regulatory mechanism purposes.

Apart from statements related to cash flows NEK AD shall prepare their financial statements on the basis of the accrual concept.

In accounting based on the accrual concept operations and events are recognized in the time of their occurrence, and not in the time of cash or cash equivalents receipt or payment; they shall be posted in accounting registers and reported in the financial reports for the related accounting period.

Expenses are recognized in the Income Statement on the basis of direct connection of expense incurred with income from specific revenue carriers (matching). Application of the principle (concept) of matching however shall not allow to recognize balance sheet items, which do not satisfy the definition of asset or liability; expenses shall not be recognized as assets in cases where they cannot be matched to specific revenue in following accounting periods. Revenues shall not be recognized as liabilities in case that they cannot be matched with specific costs in the subsequent accounting periods.

### 4.1. DETERMINATION OF REVENUES BY REGULATED ACTIVITIES FOR THE PURPOSES OF REGULATORY ACCOUNTING

The following approach has been adopted to calculate expenses by function for the purposes of the regulatory mechanism:

Public supplier service expenses

1. Operating expenses
  - Expenses for electricity generation
  - Expenses for public supply of electricity
  - Expenses for cross-border wheeling
2. Repair expenses
3. Expenses for support activities
  - Expenses for motor vehicle services
  - Expenses for repair/mechanical activity
  - Expenses for repair/construction activity
  - Electrical laboratory costs
  - Expenses for personnel training
  - Expenses for other support activities
    - Expenses for sand and gravel recovery
    - Expenses for storage facilities
    - Expenses for oil regeneration

- Expenses for other support activities
4. Total expenses for allocation
    - Expenses for investment activity related to operations
    - Electricity sales expenses
  5. Administrative expenses
  6. Other expenses
    - Water supply expenses;
    - Expenses for investment activity not related to operations;
    - Expenses for recreational services.

Transmission company operating expenses

1. Operating expenses
  - Expenses for transfer and operation of transmission network
  - Expenses for integrated management of energy system
  - Expenses for commercial metering and providing energy consumption data
  - Expenses for administration of transactions on the balancing energy market
  - Expenses for connection
2. Repair expenses
3. Expenses for support activities
  - Insulator repair expenses
  - High-voltage laboratory expenses
  - Expenses for transport services
  - Circuit breakers repair expenses
  - Repair and maintenance costs of storage batteries
  - Chemical laboratory expenses
  - Expenses for personnel training
  - Expenses for other support activities
    - Expenses for troubleshooting and repair of transformers
    - Expenses for oil regeneration
    - Expenses for other support activities
4. Total expenses for allocation
  - Expenses for investment activity
  - Expenses for sales of electricity
5. Administrative expenses
6. Other expenses
  - Expenses for investment activity not related to operations;

- Expenses for recreational services.

In accordance with the requirements of regulatory accounting the NEK needs to separate the regulated activity results from non-regulated activity results and indicate separate financial performance for each license activity in the regulated services results. For this purpose license activity expenses need to be posted separately and classified by functions. In order for the required regulatory process transparency to be achieved it is recommended that separation of regulated and non-regulated activity posting is performed on the account level of regulatory Chart of Accounts, i.e. non-regulated service revenues shall be identified and entered in separate accounts.<sup>4</sup>

In order to separate license activities NEK AD need to do the following:

1. Identify direct expenses by types of regulated activities. (Calculation arrangement by activity and by project may be used to determine the cost);
2. Identify indirect generation expenses and propose a justified mechanism for their allocation by type of regulated activity;
3. Identify expenses for each regulated activity along the complete production chain, so that their internal structure is built.
4. Identify and book separately expenses for non-regulated activities.

### **Determination of expenses by nature**

The NEK current Chart of Accounts groups company accounts to report expenses by nature in group “60 - Expenses by Nature” of section 6.

600 Expenses for purchased electricity and availability

601 Material expenses;

602 Expenses for hired services;

603 Depreciation expenses;

604 Remuneration expenditure (salaries);

605 Expenses for social securities

606 Expenses for provisions

608 Expenses for alternative and local taxes and charges

609 Other operating expenses.

Analytical reporting in group 60 accounts is organized in compliance with the required information for the purposes of NEK management and our understanding is that it is appropriate and sufficient for the purposes of regulation and monitoring as well.

At the end of accounting period the group 60 accounts shall be closed (credited against debiting) to the accounts of the groups reflecting expenses by function of NEK-AD.

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<sup>4</sup> For management purposes the NEC accounting system SAP R/3 makes possible for expenses to be identified by "expense center" and by "functional index", but this identification is not recommended for the purposes of regulatory accounting.

#### 4.1.2. Determination of expenses by function

In the NEK AD current Chart of Accounts the accounts for reporting operating expenses are in group 67 Public supplier service expenses and group 68 Operating expenses of transmission enterprise.

To realize group 20 Tangible fixed assets it is sufficient to make minor changes in The Chart of Accounts and the rules of work with accounts (debiting, crediting and closing).

##### A. Changes in group 67 Public supplier operating expenses

Subgroup 670 Public supplier operating expenses contains accounts keeping direct expenses by all types of regulated and the better part of the non-regulated activities – water supply.

1. The name of subgroup 678 is changed into “Public supplier expenses for non-regulated activities” and its accounts are used to book only direct expenses by all other types of non-regulated activities:
  - Expenses for production of cooked produce;
  - Expenses for recreation services;
  - Expenses for snack bars and cafeterias;
  - Expenses for investment activity not related to operations;
  - Expenses for other non-regulated activities

The rules of work with accounts in this subgroup are subject to changes and these accounts shall be closing only to the accounts for revenue from non-regulated activities 701, 703 and 709.

2. Where necessary a new subgroup 679 shall be added and its accounts shall be used to book social security and welfare allowance expenses, for which the regulator or other legislative regulations have granted a permission to be allocated as expenses for licensed activities:
3. NEK AD must propose for approval a justified mechanism for allocation of indirect production expenses booked in subgroups 671 Public supplier support expenses, subgroup 672 Repair expenses of public supplier, subgroup 674 Total public supplier expenses for allocation and subgroup 675 Public supplier administrative expenses by types of regulated and non-regulated activities.<sup>5</sup>

##### B. Changes in group 68 Operating expenses of transmission enterprise.

Changes in group 68 Operating expenses of transmission enterprise are the same as the changes in group 67 Public supplier service expenses/

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<sup>5</sup> A good part of these subgroups accounts are easily allocated if one takes into consideration the nature of expenses booked in.

## 5. CLASSIFICATION AND STRUCTURE OF ASSETS

An asset is classified as current asset when:

1. it is expected that the asset shall be sold or it will be held with the purpose to be sold or used during the normal operating cycle of company or;
2. it is held mostly for a commercial purpose or for a short period of time and it is expected to be sold within 12 months of the balance sheet date; or
3. it represents cash or cash equivalents with no restrictions on its spending.

All other assets are classified as non-current.

Current assets comprise inventory and trade receivables, which are sold, used or brought into effect during the normal operating cycle of utility, even if it is not expected for them to be brought into effect within the following 12 months after the balance date.

Trading securities are defined as current assets if it is expected for them to be brought into effect within the following 12 months after the balance sheet date; otherwise they are defined as non-current assets.

### CLASSIFICATION AND STRUCTURE OF FIXED ASSETS

The classification of tangible fixed assets group 20 Tangible fixed assets and group 21 Intangible assets in the current Chart of accounts of NEK AD satisfies completely the requirements of regulatory accounting for separating regulated from non-regulated activity results and for reporting the financial result from each licensed activity.

### CLASSIFICATION AND STRUCTURE OF TANGIBLE CURRENT ASSETS

#### Classification and structure of inventory

Classification of inventory in group 30 Inventory in the current Chart of Accounts of NEK AD does not include accounts for materials related to non-regulated activities.

Irrespective of the fact that this does not prevent unbundling of regulated from non-regulated activity and presenting financial results from each licensed activity it is recommendable that such accounts are included for the purposes of monitoring NEK AD working capital.

#### Classification and structure of receivables

The classification of receivables in group 41 Customers and subgroups 402 Advances to suppliers of the current Chart of accounts of NEK AD does not contain Customer accounts - non-regulated activities and Advances to suppliers - non-regulated activities.

Irrespective of the fact that this does not prevent unbundling of regulated from non-regulated activity and presenting financial results from each licensed activity it is recommendable that such accounts are included for the purposes of monitoring NEK AD working capital.

## **6. CLASSIFICATION AND STRUCTURE OF LIABILITIES**

The classification of liabilities in group 40 Supplier accounts and subgroup 412 Advances to customers of the current Chart of Accounts of NEK AD does not contain Supplier accounts - non-regulated activities and Advances from customers - non-regulated activities.

Irrespective of the fact that this does not prevent unbundling of regulated from non-regulated activity and presenting financial results from each licensed activity it is recommendable that such accounts are included for the purposes of monitoring NEK AD working capital.