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Review of the Bulgarian Uniform System of Accounts (USoA)

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USoA and Regulatory Reporting Workshop

**September 12-14, 2007
Zagreb, Croatia**



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The Energy Law and the USoA for Regulatory Reporting

The Energy Law of Bulgaria provides in part as follows:

- Energy companies shall keep separate accounts of:
 - a) Each activity, subject to licensing under this Law;
 - b) Activities, subject to licensing under this Law and other activities;
 - c) Each industrial branch or company; d) Activities in the cases of regulated and freely negotiated prices; and
- The rules for keeping separate accounts by energy companies, including assets for the purposes of pricing by groups of consumers, as well as the form and content of the financial statement for regulatory purposes.
- The Uniform System of Accounts developed by State Energy and Water Regulatory Commission (SEWRC) for the EDC provides the framework for the rules for keeping separate accounts by the EDC, including assets, equity, liability, revenues and expenses for the purposes of pricing by groups of consumers.
- Applicability of USoA
- The system of accounts prescribed in the USoA shall be applicable to all EDC Licensees subject to the Commission's regulatory accounting requirements under the Energy Law.



Accounting Period:

- Each EDC shall keep its books on a monthly basis so that for each month all transactions applicable thereto, as nearly as may be ascertained, shall be entered in the books of the EDC.
- Amounts applicable or assignable to specific EDC functions shall be so segregated monthly.
- Each EDC shall close its regulatory books at the end of each calendar year unless otherwise authorized by the Commission.

Accounting Records:

- Each EDC shall keep its accounting books, and all other source documents, records and memoranda, which support the entries in the accounting books so as to be able to furnish readily full information about any item included in any account. Each entry shall be supported by detailed information to permit easy identification, analysis, and verification of all facts regarding any transaction.
- The EDC shall maintain its accounting books or records for a period of min. 10 years.
- Each EDC may keep in addition to the accounts prescribed in the USOA clearing and temporary accounts, as well as subdivisions of any prescribed account, provided the integrity of the prescribed accounts is not impaired.
- The arrangement of the accounts in the USOA shall not be controlling as to the arrangement of items in the regulatory reporting forms, prescribed by the Commission.



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Accounting Policies for Regulatory Purposes- Grants

- Grants received by the Licensee shall be classified either as Grants Related to Assets or as Grants Related to Income.
- Grants related to assets are resources transferred to the utility under the condition that the utility use them to purchase, construct or otherwise acquire long-term assets. Additional conditions may also be attached restricting the type or location of the assets or the periods during which they are to be acquired or held.
- Grants related to income are grants other than those related to assets.



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Accounting Policies for Regulatory Purposes - Cost of Inventories

- The cost of inventories of items that are not similar, and goods or services produced and segregated for specific projects should be assigned by using specific identification of their individual costs.
- Specific identification of cost means that specific costs are attributed to identify items of inventory. This is an appropriate treatment for items that are segregated for a specific project, regardless of whether they have been bought or produced.
- Specific identification of costs is inappropriate when there are large numbers of items of inventory, which are similar. In such circumstances, the method of selecting those items that remain in inventories could be used to obtain predetermined effects on the net profit or loss for the period.



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Accounting Policies for Regulatory Purposes - Deferred Regulatory Expenses

- For ratemaking purposes the Regulator may ask the Licensees to treat (record and report) some categories of expenses in a way that differs from the way these expenses will be recorded and reported for financial- accounting purposes. Under such procedures such expenses will be classified as deferred regulatory expenses (placed in a special asset account) and will be amortized over a period of time.



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Used and Useful Test & Prudent Investment Test

- The Used and Useful Test is used by the Regulator to determine whether an asset was actually used in service and was useful in providing service. If not the Regulator may decide to exclude the asset (fully or partially) from the rate base. This issue is related to the issues of needed versus excess capacity and consequently to the issue of prudent investment.
- The Prudent Investment Test is used to determine whether the Licensee has exercised prudence in the acquisition or construction of a particular asset based on the information it had and in light of the existing circumstances at the time of making the investment decision. If the asset fails to pass the prudent investment test the Regulator may decide to exclude it (fully or partially) from the rate base



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Property Held for Future Use

- Property held for future use is the amount of property that is not being used currently by the Licensee in the provision of service. In general property that qualifies for property held for future use is limited to land and construction rights acquired by the Licensee when available. The time horizon aspect of the acquisition plays an important role when deciding whether the property can qualify as property held for future use. It is usually limited to 10 years.



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Asset Valuation Methodologies

- The Historic or Depreciated Cost of Acquisition (DCA) methodology values assets at their original cost of acquisition. It has the advantages that it is administratively efficient and can be easily audited because the data should be available from financial statements; it is relatively inexpensive since it does not require experts to determine costs; and it is objective because it relies on actual data rather than judgment. There is also extensive regulatory



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Asset Valuation Methodologies

- The Replacement Cost methodology calculates the cost of replacing an asset with another asset (not necessarily the same) that will provide the same services and capacity as the existing asset. Advantages of this method are that assets are valued in current prices and it may provide an incentive for efficient investment decisions as it allows the regulator to reduce the value of the asset once it becomes aware a more efficient low cost alternative asset is available.
- The disadvantages of replacement cost valuation are that it involves estimation and judgment. Secondly, the information is more expensive to collect than historic cost data because it requires expert advice (e.g. from engineers). Thirdly, assets may be overvalued. Finally, it may lead to price instability if the technology and input prices are unpredictable.



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Asset Valuation Methodologies

- Optimized (Depreciated) Replacement Cost (ODRC) is a variant of the replacement cost valuation methodology. It measures the cost of the most efficient method of providing the services of the current asset.
- Optimized replacement cost has the advantage that asset values can be adjusted where, for example, the service capacity of current assets is excess to requirements as a result of changes in demand or over investment in the past (e.g. from gold plating or poor decisions). A disadvantage of this method is it involves a greater degree of judgment and expert advice than replacement cost approach.
- Deprival Value (DV) is the minimum loss that would result if the business were deprived of the asset. For example, where the asset can and should be replaced, the deprival value is the replacement cost. If the asset would not be replaced, then the deprival value is the greater of the net present value of expected cash flows from continued use of the asset or the net realizable value of disposing the asset. In other words, it is the minimum of an asset's replacement cost or its economic value.



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Asset Valuation Methodologies

- The Scrap Value approach attaches to an asset the value of the asset in its next best alternative use. The scrap value of sunk assets with no alternative use, will be close to zero. If an asset is valued below scrap value, it will be economic to transfer the asset to this alternative use.
- Scrap value provides a useful lower limit to asset valuation. However, it may be considered unfair as the return on the investment may be below the opportunity cost of capital. Another disadvantage of this approach is it may not provide incentives for future investment.

The probable and residual useful life of each asset submitted by the applicants shall be considered inappropriate by the Commission if:

- Estimates do not correspond to industry standards;
- Estimates notoriously differ from international guidelines, or
- Estimates are contrary to previous decisions of the Commission in similar cases.



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Doubtful (un-collectible) Accounts Receivable

- Bad debt shall be viewed as expense of selling on credit. The reason for that is that granting credit is believed to increase sales and revenues and the companies are willing to incur bad debt losses from extended credit accounts that will prove un-collectible if the net effect to the business is increasing sales and profits. On the other hand the EDC's are generally forced to sell on credit because of technical and customer relationship constraints, and therefore for EDC's bad debt is a necessary sales expense.



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Doubtful (un-collectible) Accounts Receivable

Recording the bad debt expense

- According to the allowance method the adjustment entry to record bad debt expense involves a contra asset account called Allowance for Doubtful Accounts. The adjusting entry is recorded with a debit to a bad debt expense account and a credit to the Allowance for Doubtful Accounts account.
- Bad debt Expense xxx,xx
- Allowance for Doubtful Accounts xxx,xx
- It should be noted that a contra asset account is used not only because it is always better to disclose the original amount of receivables but also because at the time of the adjusting entry the specific customer accounts and amounts in default are not known.



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Doubtful (un-collectible) Accounts Receivable

Estimating bad debt

- Income Statement method (Percentage of Sales)
- The method assumes that there is a fairly stable relationship between previous period's sales and bad debt. This relationship is converted to a percentage and used to determine the year's bad debt expense.
- Balance Sheet method (Percentage of Outstanding Receivables)
- The method assumes that there is a fairly stable relationship between the age of outstanding receivables and bad debt. This relationship is converted a series of percentages for the different age groups (30, 60, 90 and 180-day receivables) and used to determine the year's bad debt expense as the sum of the un-collectible amounts calculated using these percentages. The percentage for each age group shall be based on statistical information. In General the percentage of un-collectable amounts increases with the age of the receivables.



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Working Capital

- In general the **working capital** represents the capital investment provided by the owner during the interval between incurring expenses of providing service and receipt of revenues from customers.
- The rate base shall include working capital in the form of a Working Capital Allowance (WCA) covering such elements as cash and minimum bank balances, materials and supplies, prepayments, and tax offsets. The working capital allowance shall be enough to bridge the gap between the time when costs in providing the service are paid for and the time the utility is paid for that service.
- Cash WCA is an estimate of the investor-supplied cash to finance the pre-defined *Allowance for Utility Operating Costs (AUOC)* in the period in which revenues are collected. The best way to determine Cash WCA is through a lead-lag study. AUOC is usually defined as operating and maintenance expenses adjusted for the actual net lags for fuel and purchased power expenses. The lead-lag study usually ignores the lag in recovery of non-cash expenses (depreciation, etc.) deferred taxes etc.



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Working Capital

- The Licensee shall submit a study justifying his working capital requirements. The working capital allowance shall be determined based on the average amount of investor-financed capital (debt and equity securities or earnings retained in the business) necessary to finance the utility's working capital requirements.
- The most accurate, and therefore the most complex method of determining working capital requirements is the performance of a lead/lag study. This is a comprehensive task conducted to compare the difference in the timing lead or the timing lag between cash inflows and outflows. The study requires detailed analysis of company expenditures to determine the point at which the enterprise actually must pay for its expenses and compares this with the point at which it receives payment for those expenses. The difference between the lead and lag is then multiplied by the average daily operating expenses to arrive at the required level for inclusion in rate base.



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Cost Allocation

- The methodology for classification of costs by functions in accordance with the functional expense accounts prescribed in the USoA shall be based on engineering, economical and statistical analysis. EDC shall assign costs to certain services or certain rate classes, so as to secure that the total expense or a share of an expense is assigned to the function or the class. In the absence of detailed timesheets (tracking job costs) EDC shall propose certain type of allocation of labor and shall be prepared to justify it to SEWRC.



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USoA Numbering System

The account numbering plan used in USoA consists of a system of three-digit whole numbers as follows:

- 101 - 123 Equity
- 131 - 132 Grants and Subsidies
- 151 - 159 Borrowings
- 201 - 209 Non-Current Tangible Assets
- 211 - 219 Non-Current Intangible Assets
- 221 - 230 Long term Investments
- 242 - 249 Depreciation and Amortization
- 251 - 254 Un-collectable accounts receivable
- 261 - 262 Goodwill
- 301 - 312 Inventories
- 401 - 499 Settlement accounts
- 501 - 515 Cash and cash equivalents
- 601 - 609 Elements of Cost



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USoA Numbering System

- Each of these accounts has three-digit sub-accounts
- In certain instances, numbers have been skipped in order to allow for possible later expansion or to permit better coordination with the numbering system.
- Each EDC may adopt for its own purposes a different system of account numbers provided that the USoA account numbers shall appear in the descriptive headings of the ledger accounts and in the various journals and source documents. If the EDC is using different account numbers for its own purposes shall keep readily available a list of these account numbers and a reconciliation (mapping) of these account numbers with the account numbers prescribed in the USoA. Also EDC's records shall permit analysis by USoA accounts and permit preparation of regulatory reports directly from EDC records according to the accounts prescribed in USoA.



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