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## Accounting For Sale Of Electricity To Household Consumers In Uzbekistan

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### ABSTRACT

For more than a century, human life has been unimaginable without electricity. Electricity is an integral part of our lives and industry. In many countries, enterprises that generate and supply electricity to consumers are natural monopolies. Because electricity is a special kind of commodity. This article reveals that in Uzbekistan, reflection of the supplier's electricity supply to the consumer in the accounting records.

### KEYWORDS

Power supply company, accounting, electricity, buy, purchase, accounting entry.

### INTRODUCTION

Electricity in Uzbekistan is delivered to consumers in 3 stages: producer, wholesale supplier, supplier to end consumers. The main purpose of accounting for the sale of electricity by regional power grids is to obtain accurate information on the transmission, distribution

and consumption of electricity in order to make full and timely settlements for electricity supplied.

According to the decision of the President of the Republic of Uzbekistan, the

“Uzbekenergo” joint-stock company was be liquidated. Instead, various state enterprises have been set up to perform the functions of “Uzbekenergo” joint-stock company. In particular, a joint-stock company "Thermal Power Stations" ("Issiqlik elektr stansiyalari" AJ) was established, which manages thermal power plants and power plants generating electricity and heat energy. In addition, a joint-stock company "National Electric Networks of Uzbekistan" ("Ozbekiston milliy elektr tarmoqlari" AJ) was established, which is responsible for the operation and development of trunk power grids. The newly established JSC "Regional Electric Networks" ("Hududiy elektr tarmoqlari" AJ) is responsible for managing the regional power grid enterprises that distribute and sell electricity to end users.

The development of a competitive environment in the electricity sector and the attraction of investment require a radical improvement of the institutional and legal framework for activities in the field of electricity supply.

A number of foreign scientists have conducted research on the theme and improvement of accounting in electricity generating and supplying enterprises.

A professor at the University of Houston in the United States, Darren Bush, published the results of his research (Bush, 2008, p. 285). Much discussion and effort have been devoted to the use of market power screens to detect market power that might arise from existing generation asset portfolios or utility acquisition of new generation assets. The quest is to find the “Holy Grail”. In this case, the Grail being sought is a market power detection mechanism that minimizes the costs to all parties involved while finding the majority of market power exercises. The expenditures are not trivial. Production of data that might be needed to satisfy an extensive inquiry could be costly in terms of time and money. And the U.S. Federal Energy Regulatory Commission (FERC)

could also spend a great deal of time conducting an extensive investigation—time that might be spent examining other industries or other aspects of the electricity industry.

According to Russian researchers Afanasev D.O., Fedorova Ye.A. va Gilenko Ye.V. (Afanasyev et al., 2020, p. 1915), the modern global trend in electricity market deregulation poses for the scientists and practitioners a whole lot of new challenging problems in risk management, modeling and forecasting of electricity prices. The complexity of these tasks is to a large extent due to the peculiarities of electricity as a commodity, among the latter being: the non-storable nature of electricity; coincidence of the time moments of electricity production and consumption; high price volatility and the presence of spikes; price inelasticity of the short-term demand; the mean-reversion property of electricity price; differences in marginal costs for different power production technologies. All these features of electricity as a commodity are quite expectedly reflected in its pricing, with the latter being a key aspect of the electricity market operation due to high capital intensity of the industry and the long time periods of the establishment and operation of energy facilities.

## MATERIALS AND METHODS

In conducting this research, the current regulatory documents governing the production and supply of electricity in Uzbekistan were scientifically studied. A research of them shows that in the last two years, more than 30 government decisions in this area have been issued in Uzbekistan.

Also, data published by government statistics committee and electricity companies were collected and analyzed statistically. The financial statements of electricity generating and supplying companies in Uzbekistan, in particular their balance sheets, were obtained

from open sources. Horizontal and vertical analyzes were performed on them.

The financial statements of electricity supply companies in Uzbekistan, including the joint-stock company Regional Electric Networks were the object of the research.

## RESULTS

The amount of electricity actually consumed by a household consumer during the accounting period is determined by the metering device of the household consumer.

The difference between the metering of the last two cycles, based on the amount of electricity delivered to the consumer during the billing period, the amount of electricity consumption in the contract or the actual volume of electricity consumption for the previous period before the next recording of meter readings can be calculated based on the average daily consumption determined by multiplying the number of days between them and the number of days in the accounting period.

Currently, the sale of electricity to domestic consumers in the enterprises of the regional power grid is recorded in the following accounting records: (The 21st National Accounting Standard. (2021):

- a) payments for electricity consumed by a household consumer are reflected in the accounting as follows:

Debit "Cash";

Credit "Advances from buyers and customers".

When the volume of electricity sold to domestic consumers is determined in the manner prescribed by law, the following accounting transfer is made::

- b) Reflecting the cost of electricity sold to domestic consumers in the accounting record:

Debit "Cost of goods sold";

credit "Goods" (in the "Electricity" sub-account) - to the amount of the cost (purchase price) of electricity sold to domestic consumers, calculated on the basis of the calculated amount of electricity consumption in the contract or on the basis of information on the actual consumption of electricity for previous periods and the purchase price of electricity;

- c) Passing revenues from the sale of electricity during the reporting period in the amount calculated in the contract, taking into account the previous payments for the recognition of each household consumer:

Debit "Advances from customers";

Credit "Accounts receivable from buyers and customers".

- d) when subsequently recalculated for electricity actually consumed by domestic consumers:

The amount of electricity actually consumed by domestic consumers in accordance with the indicators of electricity meters in excess of the amount of sales revenue recognized on the basis of the amount calculated in the contract or on the basis of information on actual electricity consumption for previous periods (positive difference):

Debit "Accounts receivable from customers";

Credit "Revenues from the sale of goods";

Credit "Debt on payments to the budget (by type)" - to the amount of VAT calculated from the amount of the positive difference;

Reflecting the positive difference size cost:

Debit "Cost of goods sold";

Credit "Goods" (in the "Electricity" sub-account) - the amount of the positive difference in the recalculation period and the

cost of the positive difference calculated on the basis of the purchase price of electricity (purchase value);

In the presence of the remaining amount of previously received dues, when they are taken into account in the amount of the positive difference in electricity consumed:

Debit "Advances from customers";

Credit "Accounts receivable from customers";

The amount of sales revenue recognized on the basis of the calculated amount in the contract or on the basis of actual electricity consumption for previous periods, in excess of the value of electricity actually consumed by domestic consumers in accordance with the indicators of electricity meters (negative difference):

Debit "Revenues from the sale of goods";

Debit "Debt on payments to the budget (by type)" - to the amount of VAT calculated from the amount of the negative difference;

Dredit "Accounts receivable from customers";

Reflecting the adjustment of the negative difference size cos:

Debit "Goods" (in the "Electricity" sub-account) - to the sum of the amount (amount) of the negative difference in the recalculation period and the cost (purchase value) of the amount of the negative difference calculated based on the purchase price of electricity;

Credit "Cost of goods sold";

Discussion In the absence of indebtedness of the consumer for the consumed electricity calculated on the basis of the calculated amount in the contract or on the basis of data on the actual consumption of electricity for previous periods, or in the presence of indebtedness of the consumer to the advance payments:

Debit "Accounts receivable from customers";

Credit "Advances from customers".

The metering device is damaged due to the fault of the consumer: in case of change of the meter start-up scheme, connection of electric receivers in addition to the metering device or other theft of electricity, the connected power of the electric receivers and recalculation on the basis of the document confirming energy consumption is reflected in the accounting as follows:

Debit "Accounts receivable from customers";

Credit "Revenues from the sale of goods";

Credit 6410 "Debt on payments to the budget (by type)" - to the amount of VAT calculated from the recalculated amount of electricity consumption in addition;

Reflecting the cost of additional recalculated electricity consumption through the fault of the household consumer and / or in other similar cases specified in this paragraph, in case of damage to the metering device:

Debit "Cost of goods sold";

Credit "Goods" (in the «Electricity» sub-account) - additionally recalculated electricity consumption during the recalculated period in the manner prescribed by law, based on the amount of electricity consumption calculated in the contract or on the basis of information on the actual consumption of electricity for previous periods and the purchase price of electricity to the amount of cost (purchase value).

In case of calculation of penalties for late payment by consumers for electricity consumed in the manner prescribed by law, the amount of accrued penalties is reflected in the accounting as follows:

Debit "Accounts receivable on claims";

Credit "Fines, penalties and penalties levied".

In case of unauthorized connection of their electrical equipment to the power grid of the power grid enterprise, the calculation of the amount charged by the volume of electricity consumed by the household consumer is reflected in the accounting as follows:

Debit "Accounts receivable from customers";

Credit "Revenues from the sale of goods";

Credit "Debt on payments to the budget (by type)" - to the amount of VAT calculated from the amount collected;

Write-off of the cost of electricity used by a domestic consumer in case of unauthorized connection of their electrical equipment to the power grid of the enterprise:

Debit "Cost of goods sold";

Credit "Goods" (in the "Electricity" sub-account) - in the case of unauthorized connection of their electrical equipment to the electricity grid of the enterprise during the period of collection, the amount of used electricity (purchase value) calculated by domestic consumers based on the volume (amount) of electricity used and the purchase price.

The calculation of fines for violation of the rules of use of electricity to domestic consumers in the manner prescribed by law is reflected in the accounting as follows:

Debit "Accounts receivable on claims»;

Credit "Fines, penalties and penalties levied» - to the amount of penalties imposed on domestic consumers for violation of the rules of use of electricity in the manner prescribed by law.

Electricity accounting is carried out on the basis of the average daily consumption in the previous accounting period before the accounting violation or in the period after the restoration of accounting, according to the decision of the enterprise, and the following entries are made in the accounting records:

a) In case of temporary violation of electricity metering through no fault of the consumer, the calculation of the amount of electricity sold to the consumer on the basis of the act of enterprise and the payment document attached to the payment on the average daily consumption for the previous billing period:

Debit "Accounts receivable from customers";

Credit "Revenues from the sale of goods";

Credit "Debt on payments to the budget (by type)" - from the amount of additional accrued volume to the amount of VAT accrued;

b) Reflecting the cost of the additional calculated volume of sold electricity:

Debit "Cost of goods sold";

credit "Goods (in the "Electricity" sub-account) - the cost of electricity (purchase) calculated in the manner prescribed by law, based on the calculated amount of electricity consumption in the contract or on the basis of information on the actual consumption of electricity for previous periods, based on sales (amount) and purchase price of electricity the value of the acquisition).

## CONCLUSION

The main reasons why enterprises in the power supply system in many countries are natural monopolies are followings:

1. Electricity is a commodity that must be delivered to the consumer within a second of its production;
2. Electricity is a commodity that cannot be stored in large quantities;
3. The construction of infrastructure for the sale (supply) of electricity (goods) to consumers requires a lot of resources, which complicates the entry of new sellers into the market.

4. The demand for electricity is constant and uninterrupted, but it is variable throughout the day.

The above characteristics of electricity also have an impact on the accounting of its sale to consumers. In the past, regional power lines were used by the company's employees to periodically inspect consumers' electricity metering equipment. The purpose was to determine the amount of goods (electricity) actually sold and recognize the income on the basis of metering equipment. Currently, an automated system of metering and control of electricity is being introduced throughout Uzbekistan. This automated system is called ASKUE and its implementation is expected to be completed in 2021.

The bulk of these modern meters are supplied by local manufacturers. These counters differ in that they can perform more functions than their predecessors (аскуэ тизими нима? - auz.uz, 2019).

First, consumers do not go to the power supply company or banks and stand in line. They also don't have to prove anything in the Enforcement Bureau (Enforcement Bureau) by taking pictures of electricity meters. No one bothers to say, "Let me record your meter reading."

Second, once the counter is set up, it connects to the system, enters the code, and the account is opened. All information is automatically delivered to consumers via SMS. Connection to a mobile phone number allows you to make payments online without leaving home. Most importantly, through the "personal cabinet" each consumer will be able to keep track of how much electricity they consume.

Third, in the new system, the data in the counter is controlled by a computer. Employees of the power supply company spend their time going from house to house to improve the technical condition of the networks. It also reduces the impact of the

human factor in collecting data on energy consumed.

It is known that electricity cannot be stored in a warehouse. Therefore, electricity consumption was usually estimated for each region and a "limit" was set. In the new system, there will be no supply restrictions, as all data will be clearly visible.

Another feature of this "smart" system is that it immediately shuts down and sends a message to the system in the event of an attempt to falsify data, that is, to interfere with the counter. It also has the feature of remote shutdown in case of non-payment of energy bills. Most importantly, modern meters are inspected by the power supply company once every 10 years (аскуэ тизими нима? - auz.uz, 2019).

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