

**Macroeconomics**

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**ANALYSIS OF UKRAINE'S TRANSITION
TO STIMULATING TARIFFS****Abstract**

The current situation in the gas market in Ukraine is quite complicated. Problems of adapting the domestic market to European standards cause a number of inconveniences. The biggest problem is the adaptation of the Ukrainian legislation. Approaches to the existing tariff are outdated. Until recently, Ukraine has used a system of «cost-plus». There is a need to move to a tariff known world system «input-output». It is necessary for national regulatory authorities to adopt measures to ensure the compensation tariffs won't be discriminatory and reflect costs. The article briefly describes the main ideas, thoughts and problems associated with the transition to this system. They are the major moments of the current laws of Ukraine and tariff systems and proposals to change current laws, the regulatory formula for calculating the tariffs and the main points that provide for the formation of tariffs for distribution of natural gas based on years of incentive regulation. Also the result of a pilot project promoting the use of European principles of tariff setting methodology using incentive regulation of gas distribution companies are showed.

Key words:

Tariffs, cost-plus system, input-output system, incentive regulation.

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Introduction

One of steps to the Ukraine's European future is to switch it's energy sector to work on incentive tariff system. This methodology has proved it's effectiveness and successfully operates in the UK, France, Germany, Norway and other EU countries.

The Ukraine's current system determination of tariffs for energy transmission is completely obsoletes itself now. Among of it's shortcomings the main are insufficient investments in the networks, only the possibility of reducing abnormal losses of energy, far from perfect mechanism of establishing the level of costs of energy production activities, the absence of actual incentives to improve quality.

The problem of incentive tariff system in Ukraine is new. Unfortunately, this problem is too little described in contemporary literature. In present time for this problem was dedicated attention by such researchers as O. Kryvenko, A. Yermolenko, L. Unigovska, Ye. Andrianov, A. Yaickyi, S. Makarenko, Y. Dychev.

The purpose of introducing the incentive tariff is primarily activation raising funds for modernization networks. This will reduce the number and duration of outages and thus increase the quality and reliability of power supply, decrease technical losses of electricity. At that consumers do not feel the increase in retail tariffs, reduced fee for joining the networks of new consumers and others. The energy company will be able to attract really large-scale investments in the development of the industry and the government will resolve the issue of regional development without the involvement of funds from the state budget, will eliminate cross-subsidization. So that why the purpose of the article is to show the main ideas, thoughts and problems associated with the transition to this system.

The main material

Speaking about the transition to a tariff system «input-output» is advisable to define regulation acts that regulate tariff system. Introduction of stimulate growth to natural monopolies of Ukraine is regulated by a number of regulation acts and laws:

- Directive 2009/73/EU of the European Parliament and of the Council concerning common rules for the internal market in natural gas (The European Parliament and The Council of European Union, 2009).
- Regulation 715/2009 of the European Parliament and the European Council on conditions for access to the natural gas transmission networks (The European Parliament and The Council of European Union, 2009).
- Law of Ukraine «On Amendments to the Law of Ukraine «On natural monopolies» dated June 24, 2012 №4998-VI (Verkhovna Rada of Ukraine, 2013).
- Action Plan on the implementation of the Programme of the Cabinet of Ministers of Ukraine and the Strategy for Sustainable Development «Ukraine-2020» in 2015, approved by the Cabinet of Ministers on March 4, 2015. №213 (Cabinet of Ministers of Ukraine, 2015).
- Coalition Agreement concluded by the coalition of factions of Verkhovna Rada of Ukraine the VIII convocation and signed by the political party «People's Front», party «Petro Poroshenko's Bloc», political party «United Self Reliance Party», Radical Party by Oleg Lyashko, political party «All-Ukrainian union «Fatherland» (Verkhovna Rada of Ukraine, 2014).
- Law of Ukraine «On the natural gas market» dated April 09, 2015 number 329-VIII (Verkhovna Rada of Ukraine, 2015).

According to Directive 2009/73/EU (The European Parliament and The Council of European Union, 2009) should adopt new measures to ensure transparent and non-discriminatory tariffs for access to transportation. The tariffs must be applied without discrimination to all users. If keeping storage, gas pipeline, which stores gas or extras exposed sufficiently competitive market could be allowed the access through transparent and non-discriminatory market mechanisms.

National regulatory authorities shall adopt measures to ensure that the compensation tariffs were discriminatory and reflect costs. At the same time should be set appropriate incentives to balance the input and output of gas and to not put the system at risk.

National regulatory authorities should be able to set or approve tariffs or the methods of calculation based on the proposal of the operator or operators and the transport or distribution system operators of liquefied natural gas (LNG) or on the basis of agreed proposals of network users. In implementing these objectives, national regulatory authorities should see to it that tariffs for transportation and distribution are non-discriminatory and cost-reflective and should take into account the marginal cost of the network which was avoided thanks to long-

term measures to manage demand (The European Parliament and The Council of European Union, 2009).

According to the Law of Ukraine «On natural monopolies» incentive regulation is a state regulation of prices (tariffs) for goods of natural monopolies and undertakings on the related markets in the combined production of electricity and heat that provides for specified body which state regulation of natural monopolies, regulation parameters with long duration, stimulates natural monopolies and undertakings on the related markets in the combined production of electricity and heat to improve the quality and effectiveness of products regulated under this Law scope of the gradual reduction of inefficient spending and ensuring conditions for attracting investments for sustainable operation and development (Verkhovna Rada of Ukraine, 2013).

The National Commission for state regulation in the energy sector and utilities decided to move for tariffs system «input-output» based on the methodology of RAB (Regulatory Asset Base is stimulating tariff). The essence of RAB-methodology for the gas transportation system is as follows: estimated value of the assets used in the transportation of gas and, based on this value, the rates are set in such a way that the operation of these assets was more profitable than simply storing the equivalent of money on deposit in bank. The rate should stimulate using of gas transport systems as its operator and service customers – the owners of gas. There are primarily gas producing companies and gas traders. Stimulus – profit allowed and controlled regulator. I would like to believe that this count and the interests of gas consumers. This idea itself is progressive, because much of European operators of gas transmission and distribution systems using the same methodology of RAB-especially when it comes to new pipelines (Yermolenko, 2015).

The Law of Ukraine «On natural monopolies» provides that «the introduction of incentive regulation of prices (tariffs) for goods of natural monopolies, which involves the use, regulation parameters with long duration, stimulates natural monopolies to increase product quality and efficiency of regulated activity with a gradual reduction of inefficient spending and ensuring conditions for attracting investments for sustainable operation and development» (Verkhovna Rada of Ukraine, 2013).

The Law of Ukraine «On the natural gas market» provides:

- Stimulation of the natural gas market to improve the efficiency of gas infrastructure and gas market integration.
- Creating economic incentives for investment and maintaining in good condition gas transmission and distribution systems (Verkhovna Rada of Ukraine, 2015).

In order to update the regulatory framework in 2016 envisaged the development and adoption of regulations, including:

- Development documents;
- Approval of the project at a public hearing;
- Publication of projects on the official site;
- Agree with authorities;
- Approval of the draft at a public hearing;
- State registration in the Ministry of Justice of Ukraine and publication (Kryvenko, 2016).

The order of tariffs' formation for distribution of natural gas based on years of incentive regulation provides:

1. Use multi incentive regulation.

2. Determination of the necessary income, the basis of calculation which are the following components:

- Predictable controlled operating costs;
- Uncontrollable projected operating costs;
- Projected costs associated with the purchase of natural gas used for VTV;
- Projected depreciation – calculated on assets, determined according to the results of an independent valuation of assets;
- Projected return on the regulatory asset base (RBA) – calculation of return's rate is carried out separately for RBA, which set the date of transition to incentive regulation and the RBA, which was created after the move to incentive regulation;
- Projected income tax (The Ministry of Justice of Ukraine, 2016).

3. Adjustments required income:

- According perform tasks to achieve the target indicators of quality of services (The Ministry of Justice of Ukraine, 2013);
- Application performance to reduce inefficient operating expenses.

In order to calculate the regulatory formula was developed (Kryvenko, 2015, 2016):

$$IREV_t = COPEX_t + NOPEX_t + RoR \times RAB_t + DEPR_t + COR_{t-1} + COR_{t-2} + COR_{p-1} \quad (1)$$

where, $COPEX_t$ – controlled operating expenses; $NOPEX_t$ – uncontrollable operating expenses; RoR – return on investment; $DEPR_t$ – regulatory amortization; COR_{t-1} , COR_{t-2} , COR_{p-1} – adjustment factors.

It should also consider the following factors:

- Profit is defined as a source of funding for the program distribution systems;
- Take into account the real value of assets at the Methodology State Property Fund of Ukraine;
- Assessment takes into account the replacement cost, depreciation;
- Term depreciation of the old database is 30 years;
- Yield determined to base on the evaluation of the asset base and rate of return on the asset base, which must meet the cost of capital;
- Requires projected income is calculated for each year of the regulatory period (initial requirements for income);
- Initial requirements for income effective take into account operational and capital costs (Kryvenko, 2016).

In order to better understand the system of incentive regulation advisable is to conduct a comparative analysis of the cost-plus system.

Adjust the quality of service to improve the natural gas market and bringing them to the European level is provided:

- Enable consumers of choice when possible and safe;
- Support and testing market forces to determine the relationship between quality and yield (tariffs) establish and support common quality standards for promoting the idea of quality improving;
- Determining individual compensation in the event of non-compliance;
- Installation and maintenance guaranteed the quality standards;
- Protection of consumers poorly served;
- Publish data on actual quality;
- Establish the regulations reliable measurement of the quality of access to information.

To introduce the incentive regulation is need the follow conditions.

1. Setting the regulation with a long-term action for the purpose of incentive regulation, namely:

- Regulatory rate of return on the regulatory asset base, which was created at the date of transition to stimulating regulation;

Table 1

Comparison of the current methodology and cost-plus incentive regulation
(Kryvenko, 2015, 2016)

Parameters	Cost plus	Incentive regulation
Stimulus to attract of investment	Absent	Stimulates to attract of investment
Stimulus to reduce the natural gas consumption network	Stimulates the reduce of abnormal costs only	Stimulates the reduce of regulatory costs
Operating expenses	Establish of made (actual) level	The annual indexation baseline levels considering the lowering coefficient of efficiency
Stimulus to save (reduction of inefficient spending)	Stimulates to increase spending	Stimulates to controlled optimize costs; During the regulatory period the economy remains in the licensee; Baseline levels for the next regulatory period are set based on previous savings (50% – consumers)
Amortization	Not reflect the real value of the assets, which led to a critical cost reduction currents founds without the possibility of replacement	Take into account the real value of assets at the Methodology of State Property Fund of Ukraine
Profit	Calculated as a residual principle leaving the final growth rates	Accrual the norm of income on the regulatory framework in the amount of 15,13% on investments
Period of adjustment	Lack of the possibility of predicting the future	The first regulatory period (transition) is 3 years The next regulatory period is 5 years
Quality indicators	Absent	Provide the fine for not fulfilling targeted quality indicators (up to 2% of income required)

- Regulatory rate of return on the regulatory asset base, which was created after the transition to stimulating regulation;
- Overall performance indicator;
- Individual performance indicator;
- Target quality indicator of service (The Ministry of Justice of Ukraine, 2013).

2. Approval of regulations limiting income in the distribution of natural gas by the Ministry of Economic Development and Trade of Ukraine

3. Assessment of assets in order to establish the regulatory framework for calculating regulatory asset amortization and income, according to the methodology of asset valuation of natural monopoly entities in adjacent markets in the combined production of electricity and heat, approved by the State Property Fund Ukraine from 12.03.2013 number 293 and the presence of positive reviews the report of the independent evaluation assets reviewed by reviewers who work in government, which performs state regulation evaluation (The Ministry of Justice of Ukraine, 2013).

For the purpose of promote the using of European principles of tariff setting whiz using methodology incentive regulation of gas distribution companies was carried out work on the implementation of the pilot project. The project was attended by six distribution companies.

Under the project Ernst & Young was assessed market value of the assets used in the activity of distribution of natural gas to determine the regulatory basis of such assets in the transition to the incentive tariff regulation and the definition of regulatory and remaining terms of use carried out according to the methodology of asset valuation

As a result of the revaluation of assets their value increased almost in four times compared with the carrying value.

The order of tariffs formation for transportation of natural gas distribution pipelines based on years of incentive regulation has been adapted to European approaches, the laws of EU in part of introducing modern methods of regulation of natural monopolies in the energy sector.

The development of the Order is made by the results of the project Twinning «Regulatory and legal capacity of The National Commission for state regulation to regulate the gas sector», a component of which was the «Long-term incentive regulation and benchmarking of gas distribution companies».

The overall goal of Twinning project was to strengthen the institutional capacity and assist the Commission in part of long-term development and implementation of best management practices in the gas sector which operates in accordance with the best practices of the European Union. Strengthening the ca-

capacity of The National Commission for state regulation is development and implementation of legislation, regulations and regulatory documents, and adaptation decision-making system, including the regulation of many years (Kryvenko, 2016).

Conclusions

The main benefits of the introduction of incentive regulation for energy transmission and energy supply companies are reducing interference controller in operations, conservation benefits (savings achieved) by improving the efficiency of the disposal of the company and, most importantly, provide the necessary funding investment programs through equity and debt capital. For electricity consumers and the economy of Ukraine in general implementation of incentive regulation will ensure the creation of an attractive investment climate for private investment, improve the quality and reliability of electricity supply and efficiency of operating power companies by reducing inefficient operating expenses and return to customers of the achieved benefits (savings) as corresponding tariff reduction.

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