

LOW BTU GAS PRICING POLICY, 2012

**GOVERNMENT OF PAKISTAN
MINISTRY OF PETROLEUM & NATURAL
RESOURCES**

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1. Introduction

Pakistan is facing big challenge in meeting its ever growing energy requirements due to expanding population and economic growth. Energy demand is projected to grow from 64.91 Million ton of equivalent (MTOE) in 2010 to 147 MTOE by 2022 reflecting a phenomenal increase of 126%. Gas being the largest component of energy supply (48%) is projected to decline from existing 4.2 BCFD to 1.6 BCFD in 2022 reflecting a deficit of 7 BCFD. Serious efforts are, therefore, needed to explore, discover and produce additional oil and gas reservoirs for a long term sustainable energy security of Pakistan. Thus every molecule of energy discovered in any form has to be exploited to bridge the ever increasing demand /supply gap.

2. The Government of Pakistan (GOP) is committed to accelerate exploratory efforts to reverse the decline in crude oil production, increase the domestic gas supplies and reduce the burden of imported energy which otherwise will have serious impact on the balance of payments and trade. In the current global energy price environment, E&P Policy has to be dynamic to meet the new challenges faced in meeting energy needs of the country at least cost option and to minimize the adverse effects on the economy.

3. During the course of oil and gas exploration, the E&P companies come across gas discoveries with energy content (British Thermal Units or BTU) ranging from almost 100 BTU/SCFT to 1200 BTU / SCFT. The normal economy context of the pipeline quality gas is considered to be any thing above 900 BTU/SCFT. If the heating value is lower, the cost of producing energy increases manifolds for

producing the same amount of energy. The producers are required to incur additional cost on drilling of more wells and oversized gas gathering systems. In simple terms, in the case of a normal heating value gas containing 1000 BTU/SCFT, for producing 1 MMBTU energy, it will require production of 1 MCFT gas as against 2 MCFT for 500 BTU/SCFT gas and 5 MCFT for a gas containing 200 BTU/SCFT. **Obviously, the cost of producing and supplying energy from Low BTU Gas fields in any case is much higher than a normal gas field.**

4. In addition to the cost of production, the utilization of Low BTU Gas also poses a big challenge. In most cases, Low BTU Gas contains large volume of undesirable gases like Carbon Dioxide, Nitrogen and Hydrogen Sulfide with low contents of Methane. The adverse composition of gas renders it highly corrosive as well as poisonous and development of such gas fields requires special and costly equipment and materials for well completion/production and gathering systems. The best utilization of Low BTU Gas is for power generation near the gas field. It would, therefore, require a special pricing mechanism which is economically sustainable for the investors as well as the country.

5. The gas fields discovered so far with an average heating value of around 140/250 BTU/SCFT could not be exploited due to poor economic viability and non-availability of low BTU driven gas Turbines for power generation.

The power generation technology is now available, but the economic viability remains an impediment. However, due to heavy capital

investment required for drilling of 10-12 wells and use of specialized materials for handling acidic gases, the cost of producing energy from these fields will be extremely high as compared to a normal gas field.

6. In view of the above, and in line with the Petroleum (Exploration & Production) Policy, 2009 (Para 7.1.5 Schedule III) additional financial incentives are required for the producers of Low BTU Gas to make their investment economically viable and to accelerate the E&P activities in the country.

7. The purpose of this Policy is to establish a reasonable framework of policies, procedures and pricing to accelerate the exploration and production of Low BTU Gas in Pakistan.

2. POLICY OBJECTIVES

The Low BTU Gas Pricing Policy, 2012 is aimed at achieving the following principal objectives:

- 1) Fast track development and production of gas from the existing discovered Low BTU Gas reservoirs which have remained dormant due to poor economics.
- 2) Opportunity for the investors for exploration and production of Low BTU Gas which would help increase the power generation capacity of the country and reduce the energy deficit.
- 3) Additional revenues for the Government in the form of Royalty and Taxes.

- 4) Improving balance of payments position by reducing the need for import of other fuels such as LNG and Fuel Oil requiring massive foreign exchange outflow.
- 5) Producing additional power at affordable tariff for the consumers by using indigenous gas resources.
- 6) Boosting local manufacturing of equipments for production of Low BTU Gas.
- 7) Increasing security of energy supplies.

3. Applicability and Effect of the Policy

The Low BTU Gas Pricing Policy, 2012 shall come into effect from the date of its notification in the official Gazette. The incentives of this Policy shall however, apply to the Low BTU Gas discoveries that qualify and are accepted as “Low BTU Gas” under the existing rights granted in terms of Exploration Licences/Petroleum Concession Agreements (PCA’s) D&P leases but are not in production prior to the notification of this Policy and future exploration licences, PCAs and D&P leases granted under subsequent Petroleum (Exploration and Production) Policy, 2012.

2. Low BTU Gas discovered from the licences granted after promulgation of 18th amendment shall vest jointly and equally in that Province and the Federal Government.

4. Definition of Low BTU Gas

The Low BTU Gas means “Gas produced from the well-heads in raw form which does not contain Methane as its primary constituent and has a gross heating value of less than 450 BTU/SCFT”.

The threshold of 450 BTU/SCFT has been selected on the basis of the definition of natural gas which is contained in various Laws /Rules as explained below:

"natural gas" means hydrocarbons or mixture of hydrocarbons and other gases which at sixty degrees Fahrenheit and atmospheric pressure are in the gaseous state (including gas from gas wells, gas produced with crude oil and residue gas and products resulting from the processing of gas) consisting primarily of methane, together with any other substance produced with such hydrocarbons".

Measurements and Certification of Chemical Composition of Low BTU Gas from a 3rd party

1. In order to become eligible to claim incentives given in this Policy, the producers of Low BTU Gas shall be required to obtain a certificate of the chemical composition of the gas at least from the following three of independent laboratories:-
 - i) HDIP ii) Core Lab iii) Weatherford Lab
 - iv) or any other party having World Class standing and subsequently approved by the Federal Government and the Provincial Government concerned.
2. Each producer of Low BTU Gas shall install online gas chromatograph before the injection of raw gas into any processing facility or any buyer's facility. For purpose of pricing raw Low BTU Gas shall be measured prior to its injection into any processing facility. However, the

producer shall provide necessary processing facilities at his cost for delivery of gas to the buyer as per the specifications agreed between the producer and the buyer.

Allocation of pipeline quality for commingling with Low BTU Gas:

The Government vide policy framework approved by EEC case no: 57 /4/2007 dated 10th may 2007, may allocate pipeline quality gas for the purpose of commingling on case to case basis after giving due consideration to all relevant factors such as availability of gas in the system and infrastructure development by the producer provided the producer commits to contribute at least 50% of gas on heating value basis in commingled gas stream to be supplied to IPP.

Gas Pricing

Gas prices are always calculated on the basis of its BTU contents. The Low BTU Gas of 450 BTU/SCF has been assigned the price of US \$ 6 per MMBTU, which shall be increased by US \$ 0.01/MMBTU for each BTU/SCF reduction below 450BTU/SCF up to 175BTU/SCF for making it pipeline Gas. The maximum price at 175 BTU/SCF shall be US \$ 8.75/MMBTU. Similarly the Low BTU Gas ranging from 450 to 600 MMBTU/SCF would also entail price of US \$ 6 per MMBTU for making it pipeline quality gas.

Royalty

Royalty shall be payable as per Petroleum (Exploration & Production) Policy, 2012.

Retention Period

The E&P companies shall be entitled for a minimum of 5 years retention period to determine various development options and marketing of gas from the date of approval of development plan. The retention period may further be extended for another 5 years to implement the development plan subject to provision of technical justification and milestones to be achieved during the extended period. Such a retention period of 5 years or 10 years as the case may be, shall not form part of total lease period.

Third party sale

The working interest owners after commercial discovery will make a written request to the Government indicating the recoverable reserves, daily supply volumes, quality, pressure as well as relevant information's for purchase of the gas, for which gathering pipelines may be laid by the buyers under mutual agreement with the producer. The Government shall have the First right to purchase 90 % of Low BTU Gas converted to Pipeline Quality Gas by the Producer. However, the producer will be allowed to sell 10 % of the remaining Gas on its own choice of consumer, for which the gas distribution companies will levy tolling charges if pipeline is used. In case indication about the specified buyer is not given within 2 months, the

working interest owners will be free to sale it to the third party for which the gas distribution company will charge tolling charges if any.

Windfall levy

For the sale of Low BTU Gas to parties other than government, windfall levy equal to 25% amount will be paid to government on the difference between the applicable Low BTU Gas policy price & its sale to third party.

Import duties and other levies / taxes:

As per applicable SRO.

Remittance of Proceeds Abroad:

The provisions of Petroleum (Exploration & Production) Policy, 2012 shall be applicable.

Production Bonus:

The first production bonus applicable to the grant of a Development & Production lease of a Low BTU Gas field shall be waived.

Review of Low BTU Gas Pricing Policy:

The Low BTU Gas Pricing Policy, 2012 may be reviewed by the Government every five years in the light of additional information of development of gas fields, Technological advancements and changes in circumstances including change in business dynamics. The existing producers of Low BTU Gas at that point in time may also avail the benefit of any policy review. However, no change shall be made which is detrimental to their existing economic rights.