



Ministry of Energy (Petroleum Division)  
Government of Pakistan

# Opportunities in Pakistan's Upstream Oil & Gas Sector





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## Opportunity Landscape

Pakistan is strategically located within the region and has a large sedimentary basin covering over 880,000 Sq. Km and spread over both onshore and offshore. Parts of these sedimentary basins remain unexplored or are under explored, thereby providing ideal investment opportunities to E&P companies. In addition to the conventional oil and gas resources there is a huge potential for unconventional resources, which remain untapped.

Total conventional and unconventional reserves in Pakistan are estimated at about 160 Tcf and this is one

area where the IOCs, especially the US companies with their extensive experience and technical knowhow can play a major role in the exploitation of this resource and in turn reap rich benefits. The Government is eager to attract local and multinational E&P companies in this sector, tapping their operational experience, extensive data base, trained manpower and sound financial position to make this venture a success.

Pakistan has a large offshore basin which largely remains under explored. The Indus offshore is the



second largest submarine fan system in the world and analogous to the prolific oil and gas producing Niger, Mahakam and Nile deltas.

The Indus offshore has experienced only limited exploration and provides another opportunity for big discoveries which can be realized through employing state of the art seismic and drilling techniques.

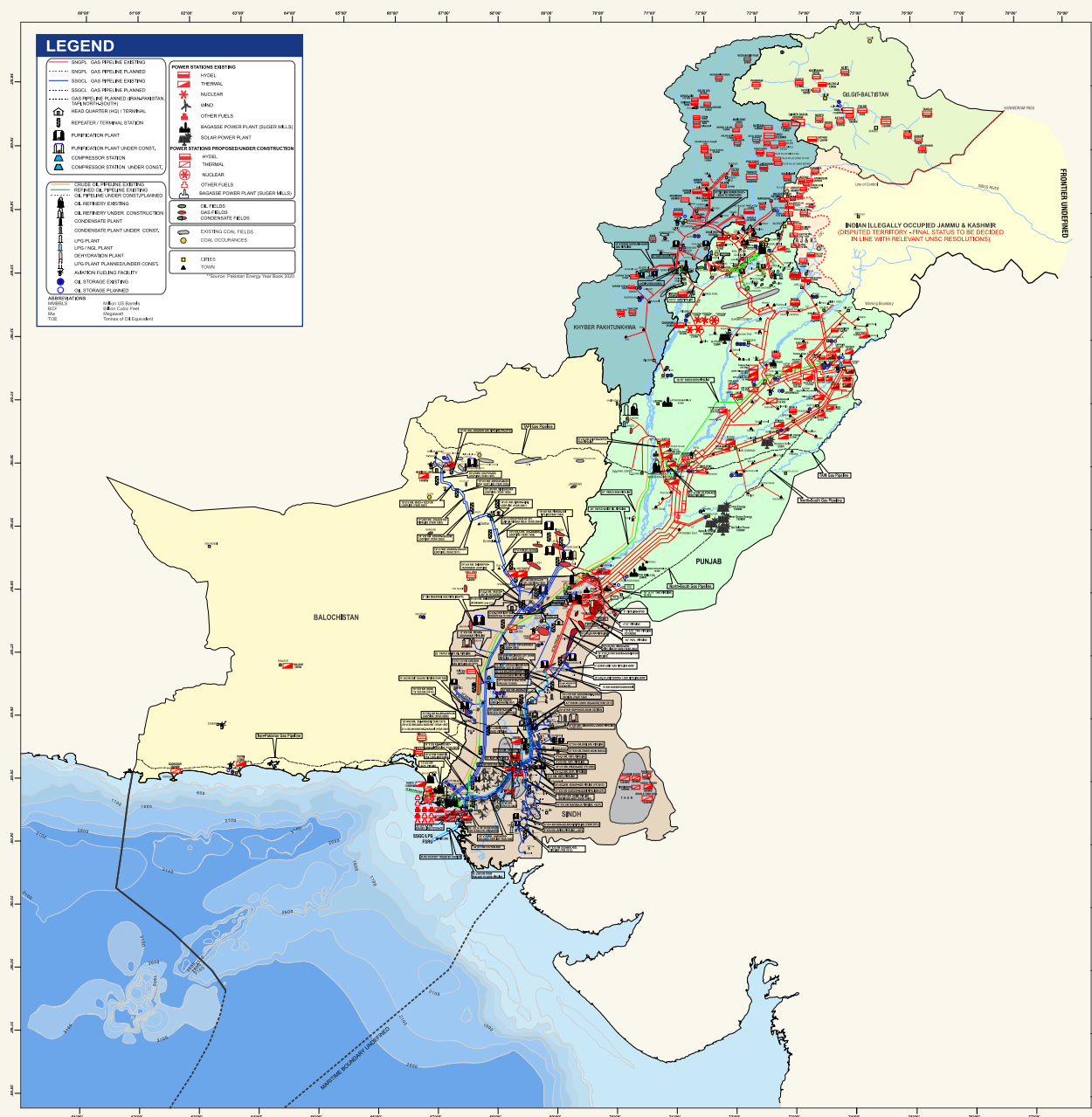
Large areas with the onshore sedimentary basin also remain unexplored or under explored providing yet another opportunity to companies to explore and

develop a number of different types of structural and stratigraphic traps using the latest seismic and drilling technology.

To help facilitate E&P companies exploit these opportunities, the Government has in place an investor friendly Petroleum Policy with attractive Fiscal and regulatory terms. Availability of trained and experienced manpower in Pakistan and presence of one of the most extensive and well developed gas infrastructure would further assist the IOCs to fully exploit these attractive opportunities.



# Energy Infrastructure map 2021







**Upstream Oil &  
Gas Sector**

# Upstream Oil and Gas Sector

Oil and Gas sector in Pakistan has seen phenomenal growth since the independence in 1947 when oil quantities produced were scarce. At that time there was no gas production. Over the past half century the petroleum industry has played a significant role in national development by making large indigenous gas discoveries. These sources are supplying gas to consumption centers through a collective transmission and distribution network of about 165,800 kilometers.

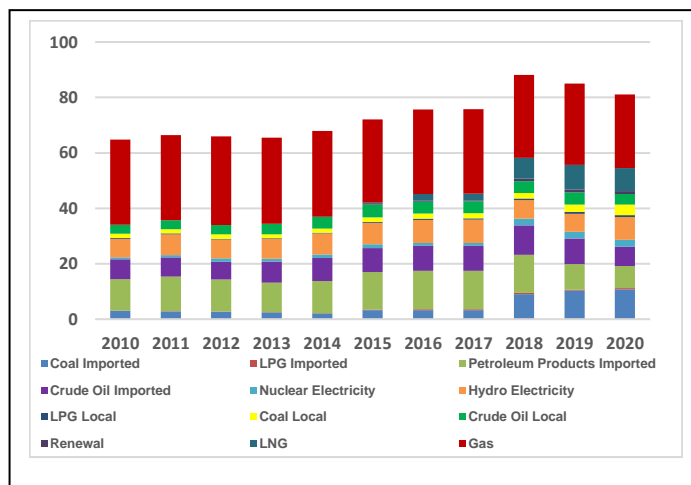
Pakistan meets about 80% of gas and 15 % of oil demand from local sources.

## Policy Focus

Oil and gas are major components of Pakistan's energy mix meeting over 80% of energy needs (Fig.1) and therefore, successive Governments, since independence have attached high priority to this sector. The Governments have adopted consistent policies aimed at promoting foreign investment in upstream petroleum sector with the view to exploit indigenous hydrocarbon resources in an optimal manner for the benefit of the nation while providing adequate return to the investors. Pakistan's commercially exploitable energy resources consist of natural gas, oil, coal and hydropower. The country's current yearly primary energy supply is about 81.12 million tonnes of oil equivalent.

## Investment Protection

Foreign investment is fully protected under foreign investment protection law of 1976 passed by the Parliament, under which the Government guarantees full safeguard to foreign investments in Pakistan. The



Governments have been providing policy package of liberal incentives to enhance exploration activities in the country, the latest of which was introduced in 2012.

## Onshore Areas

The first exploration well in the undivided British India which is now Pakistan, was drilled in 1868 near an oil seep at Kundal in Punjab province by Punjab Oriental State. Later on, wells sunk to about 150 m near Kathian oil seeps produced 800,000 gallons of oil between 1886 and 1892. But the first commercial oil discovery was made in 1915 at Khaur (4.31 MMbo), in Punjab province by Attock Oil Company (AOC).

In 1952, Pakistan Petroleum Limited (PPL) made the largest and most significant gas discovery to date in Pakistan at Sui. The original recoverable gas reserves at Sui were about 13 Tcf. The discovery of Sui Gas Field was the first major milestone in the search for hydrocarbons in Pakistan.





Foreign investment is fully protected under foreign investment protection law of 1976 passed by the Parliament, under which the Government guarantees full safeguard to foreign investments in Pakistan.

Later, other significant discoveries of natural gas were made at Uch (909 MMboe) by PPL in 1955, Mari (1.3 Bboe) by ESSO in 1957 and Kandhkot (299 MMboe) by PPL in 1959. Meyal (95 MMboe) Oil field was discovered in 1968 in Potwar by POL. OGDCL made gas/condensate discovery in 1976 at Dhodak (95 MMboe) in Punjab. Two years later, PPL discovered Adhi Oil and Gas Field (146 MMboe) in Potwar. This was the first commercial oil/gas discovery in the rocks of Paleozoic age in east Potwar area. In 1981, Union Texas Pakistan (UTP) discovered oil at Khaskeli (14 MMbo) in the Lower Indus Basin (Sindh) in early Cretaceous Lower Goru sands. After Sui, the discovery of oil in the Lower Indus Basin was the second milestone in the search for hydrocarbons in Pakistan. This led to a boom in exploration activity in the Lower Indus Basin, resulting in several oil and gas discoveries.

OGDCL made a discovery in the Middle Indus Basin at Qadirpur (4.5 Tcf) in 1989. Following

this, a number of discoveries by Eni and OMV in partnership with PPL, OGDCL and others were made in the same basin. In the Kirthar foldbelt the first commercial discovery was made by Eni in 1998 followed by another discovery by BHP in the same year. In Kohat Basin the first oil and gas discovery was made in 1999 by OGDCL.

Thereafter, nine oil and gas discoveries were made by MOL of Hungary in partnership with PPL, OGDCL and POL and two more by OGDCL. In 2009, POGC and PPL drilled Rehman-01 well in Kirthar foldbelt resulting in the country's first tight sand discovery from Upper Pab sandstone.

Application of modern technology has resulted in several discoveries and confidently point towards additional exploration potential in all basins of the country.

### Offshore Areas

The offshore region of Pakistan consists of two basins: Indus and Makran. The Indus basin constitutes the second largest delta/fan system in the world after the Bay of Bengal. This is analogous to many producing basins of the world in geological terms.

Exploration in the Indus Offshore dates back to 1961 when Sun Oil Company (USA) carried out seismic surveys and based on this, drilled three near-shore wells. Subsequently, Wintershall (Germany) drilled three wells. Husky (USA) also drilled one well. Some of these wells encountered high pressures in Miocene Section, remaining short of target objectives, although gas shows and non-commercial gas quantities were reported in most wells. Occidental (USA), drilled a well Sadaf-1 (1989) after conducting modern seismic survey and TOTAL drilled Pak G-2 up to a depth of 4,750 meters in the water depth of 2,713m during 2004, targeting an Eocene carbonate buildup proving the presence of good quality Eocene carbonate reservoir. In the Makran basin PPL drilled Pasni X-1 in 2006 but remained short of the target objective. Subsequently, Shell drilled Anne-X1 well in deep water (1300m) to a depth of 3,250m during 2007. Later, Eni drilled Shark-01 well up to depth of 3500m in early 2010. Recently Eni has spud-in the Kekra-1 well in Offshore Indus-G block which also went dry.

Pakistan offshore exploration has a challenging history and a promising future. Given present-day

technology, the basins hold considerable potential for hydrocarbon discoveries. Currently, Government Holdings (Pvt) Limited has Production Sharing Agreements in 3 offshore licenses with Eni, and PEL in the offshore Indus.

Offshore Makran has been under-explored with only four wells drilled including one by PPL. A detailed evaluation with application of modern technology, exploration can lead to success in the offshore Makran as well.

### Shale Exploitation

Pakistan has a big potential and is considered a good candidate for shale gas exploration and production. Ministry of P&NR/DGPC with assistance of USAID has completed the study on the shale gas/oil potential in the lower and middle Indus basins, which has indicated presence of huge shale gas and shale oil resources in the country. Results of the study are as under:-

Free Gas in-place (TCF):	3778
Technically recoverable Free Gas (TCF):	188
Risked recoverable free Gas (TCF):	95
Shale Oil in-place (BSTB):	2323
Technically recoverable Oil (BSTB):	58
Risked recoverable Oil (BSTB):	14





### Pakistan Basin Study

Pakistan Basin Study was completed in 2009 covering all the sedimentary basins of the country. The objective of the study was to get a consistent countrywide assessment of the main prospective petroleum play fairways.

Assessment of petroleum plays and their component elements recognized in these basins comprises reservoirs from the Infracambrian to Pleistocene age, as under:

#### Kohat-Potwar Basin

The basin is located in Northern Pakistan north of Sargodha High. Proven and potentially viable plays range in age from Infra-Cambrian to Miocene.

#### Punjab Platform Basin

The Punjab Platform is separated from Upper Indus Basin by Sargodha High to the north and Mari-Kandhkot High to the south and Sulaiman Foredeep to the west. Proven and potentially viable plays range in age from Infra-Cambrian to Eocene.

#### Lower Indus / Middle Indus Basin

The Lower Indus / Middle Indus basin, located to

the south of Mari-Kandhkot High and to the east of Kirthar Foldbelt. Proven and potentially viable plays range in age from Pre-Cambrian to recent age.

#### Kirthar Foldbelt

Kirthar Foldbelt is the north-south trending tectonic feature. It includes Kirthar Foldbelt, Kirthar Foredeep and southern Axial Belt. Proven or potentially viable plays range in age from Triassic to recent age.

#### Sulaiman Foldbelt

Sulaiman Foldbelt is one of the most prospective regions of Pakistan, which includes Sulaiman Foldbelt, Sulaiman Foredeep and northern part of Axial Belt. Proven and potentially viable plays range in age from Middle Jurassic to Miocene.

#### Balochistan Basin

Balochistan Basin is the least explored basin of Pakistan, having potentially viable plays ranging in age from Paleocene to Oligocene.

#### Indus Offshore Basin

The Indus Fan is bounded by Murray Ridge on the west. Potentially viable plays ranging in age from Lower Eocene- Middle Miocene to Oligocene-Neogene.

#### Makran Offshore Basin

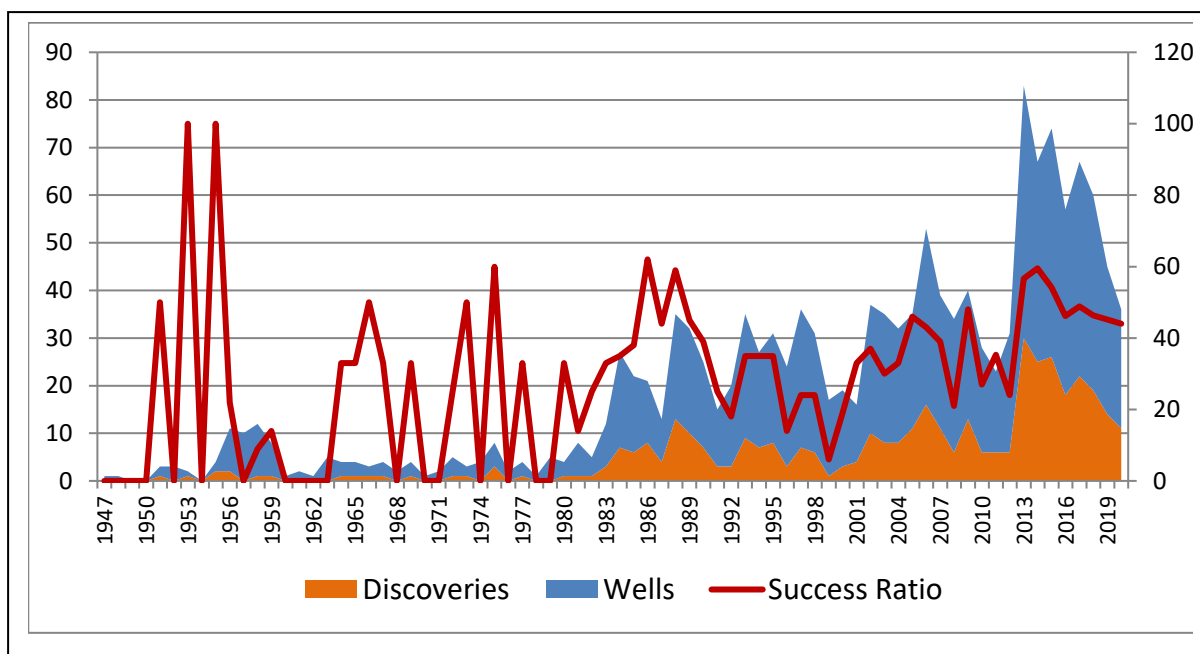
This basin is located along the Makran coast of Pakistan to the west of Murray Ridge. Potentially viable plays ranging in age from Middle – Upper Miocene to Pleistocene.

### Bright Past & Brighter Future

Pakistan's sedimentary basins continue to hold promise for new exciting discoveries particularly in offshore, which are relatively under-explored and have become main areas of focus after improved policy incentives based on production sharing agreement. A commercial discovery in offshore area is likely to bolster exploration activities transforming petroleum landscape of Pakistan in major way.

In order to remain attractive in highly competitive global exploration market, the Government has been making progressive changes in the investment policies and regulations at regular intervals. With first E&P policy of 1991, Pakistan caught the attention of international petroleum industry. Further subsequent

An assessment of Yet-to-Find reserves at an unrisks value for all of the basins studied suggests 3585 MMBO and 66.26 TCF gas.



(Fig. 2)

Improvements through policies of 1993, 1994, 1997 made Pakistan an attractive location for upstream investment. Pakistan over hauled the policy in 2001, 2007, 2009 and then in 2012. On account of combination of factors such as improved returns on investment based on new fiscal incentives, transparent and open regulatory environment, induction of market reforms and technological advances, the Government expects positive influence on local upstream market and hopes that forward momentum will be maintained.

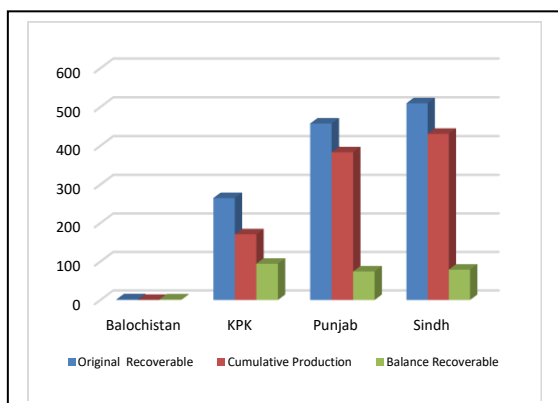
Total 1,158 exploratory wells (since inception) have been drilled till October 2021, (1140 onshore and 18 offshore) in the sedimentary basins of Pakistan covering 880,301 sq. km. upto October 2021, 429 oil and gas fields (92 oil and 337 gas and gas/condensate) have been made in various basins of Pakistan which gives drilling density of 3.1 wells per 1,000 sq. km and success rate of 1:2.7 (Fig 2). Despite lower drilling density as compared to global drilling density of 10 wells per 1,000 sq. km, the success rate of Pakistan compares favourably with international success rate of 1:10.

The total recoverable reserves of natural gas and oil are estimated at 63.31 trillion cubic feet (TCF) and 1,233.68 million barrels respectively. Allowing for cumulative production, the remaining reserves are 249.05 million barrels oil (Fig. 3) and 20.950 TCF gas (Fig 4). Large areas of Pakistan's petroliferous basins still remain geological frontier and holds promise for the future in view of the multiple habitats for petroleum generation and accumulation. Independent international studies indicate an oil and gas potential that is many times more than these proven reserves.

The production of oil during 2020-21 was 75,530 barrels per day (Fig. 5) while gas production was 3,505 billion cubic feet per day (Fig. 6).

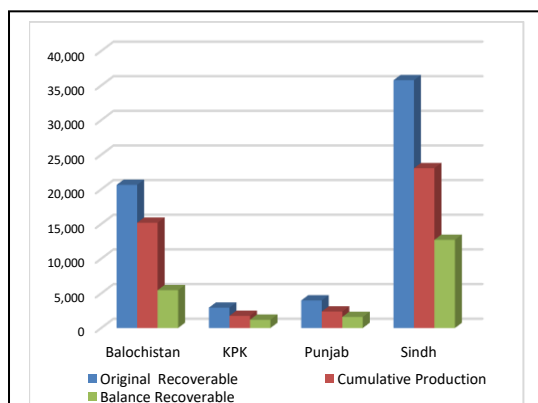
Total 50 wells (24 exploration and 26 development) were drilled during 2020-21 (Fig. 7).





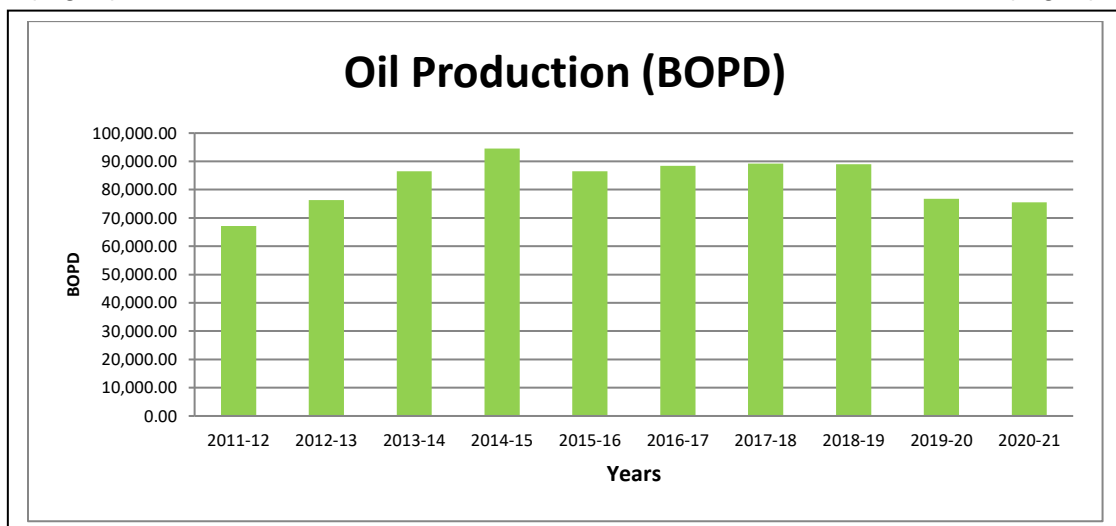
Oil Reserves (Million US Barrels)

(Fig. 3)

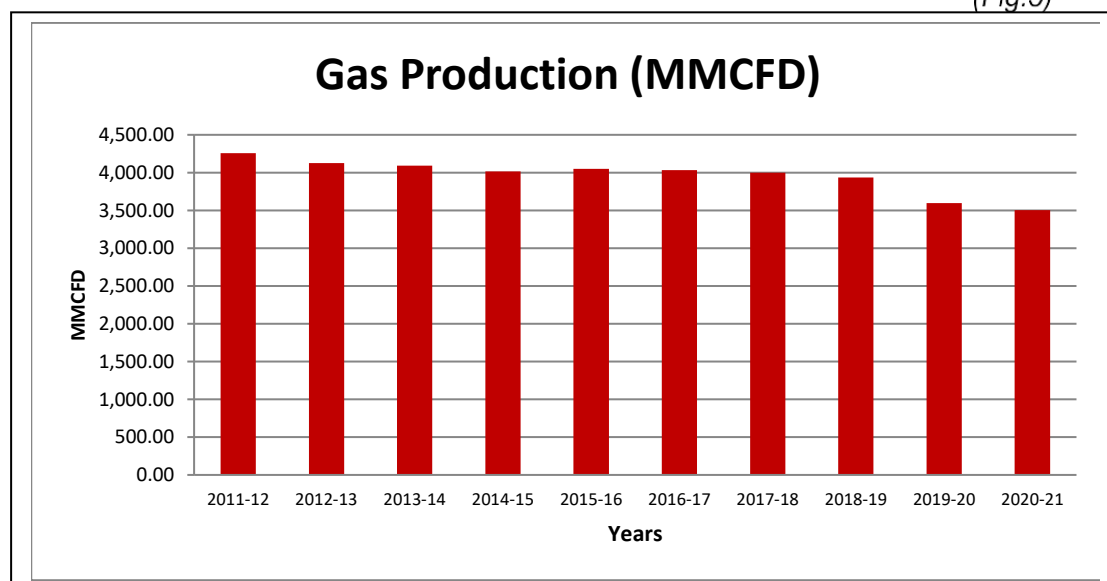


Gas Reserves (Billion Cubic Feet)

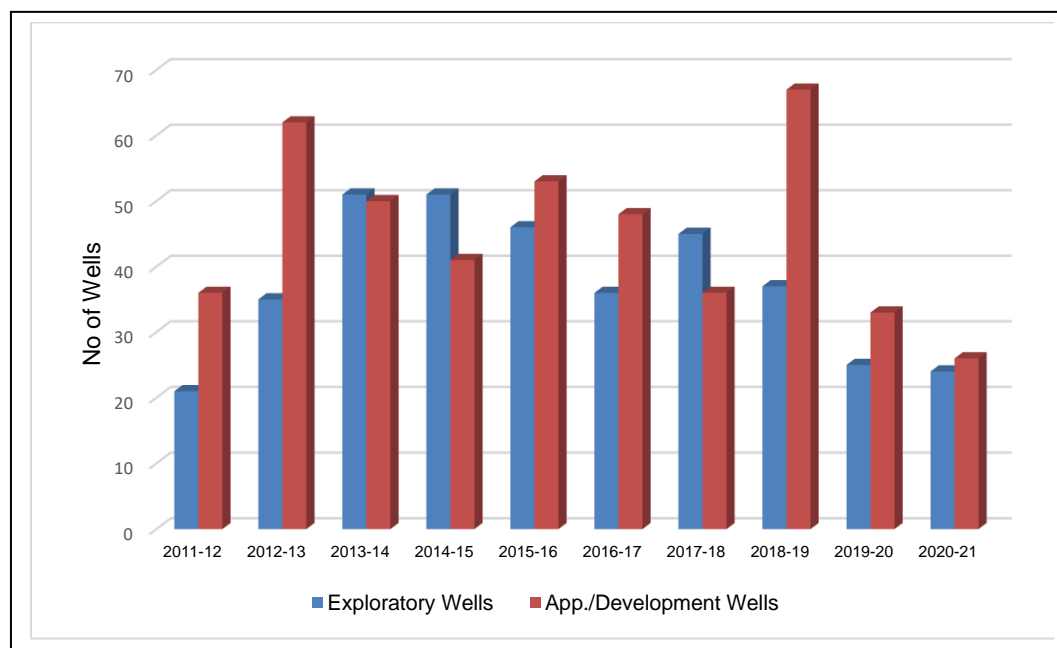
(Fig. 4)



(Fig.5)



(Fig.6)



(Fig.7)

Oil and gas production has registered a steady increase over the last few years on the back of successful exploratory efforts of the companies.

During the last eight fiscal years, 69 concession agreements were signed. These agreements covered an area of almost 137,229 sq. km and attracted a financial commitment of at least US \$ 491.67 million during exploration phase.

Pakistan remains an active and prospective exploration country. Significant finds continue to be made in the existing producing areas as well as in less-explored regions. The proven rate of exploration success and a sizeable domestic oil and gas market present promising investment opportunities.

Pakistan needs to explore, develop and exploit its petroleum resources to achieve greater self-reliance in energy supplies. Attractive terms and conditions for investors are, therefore, being offered by the Government to accelerate the exploration and development of oil and gas. The

basic law that regulates the upstream sector is the Regulation of Mines and Oil Fields and Mineral Development (Government Control) Act, 1948. Current legal framework for upstream sector is given in Fig 8.

The upstream activities in the oil and gas sector are administered and regulated through the Directorate General of Petroleum Concessions (DGPC) of Policy Wing, Ministry of Petroleum and Natural Resources. Policy Wing has three more directorates namely, Directorate General of Gas (DG Gas), Directorate General of Oil (DG Oil) and Directorate General Special Projects (DGSP) to provide support to the Government in formulation of policies for midstream and downstream oil and gas sector. With the formation of Oil and Gas Regulatory Authority (OGRA), midstream and down-stream oil and gas sectors are regulated by OGRA.

## LEGAL FRAMEWORK

### Laws

- Mines Act 1923
- Regulation of Mines and Oilfields and Mineral Development (Government Control) Act 1948, including Amendment of 1976
- Territorial Waters and Maritime Zones Act 1976
- Pakistan Environmental Protection Ordinance 1997
- Income Tax Ordinance 2001 (Fifth Schedule)

### Rules &

- Pakistan Petroleum (Production) Rules 1949
- Oil and Gas (Safety in Drilling & Development) Regulations 1974
- Pakistan Petroleum (Exploration & Production) Rules 1986
- Pakistan Petroleum (Exploration & Production) Rules 2001
- Pakistan Offshore Petroleum (Exploration & Production) Rules 2003
- Pakistan Onshore Petroleum (Exploration & Production) Rules 2009
- Third Party Access Rules 2011
- Pakistan Onshore Petroleum (Exploration & Production) Rules 2013

### Policies

- Petroleum (Exploration & Production) Policies 1994 to 2012
- Low BTU Gas Pricing Policy 2012
- Tight Gas (Exploration & Production) Policy 2011
- Marginal/ Stranded Gas Fields: Gas Pricing & Criteria and Guidelines 2013

(Fig. 8)

Upstream activities in the oil and gas sector are administered and regulated through the Directorate General of Petroleum Concessions (DGPC) of Policy Wing, Ministry of Petroleum and Natural Resources.

# Upstream Sector Procedural and Regulatory Measures

## Zoning

The country has been divided into zones based on their relative prospectivity and geological risk. Onshore areas are sub-divided in four zones; ZONE-I, ZONE-I(F) high risk - high cost areas, ZONE-II medium risk - high to medium cost areas and ZONE-III low risk-low cost areas. Offshore areas are also sub-divided in three zones; Shallow, Deep and Ultra Deep. (Fig. 9). Separate incentives have now been provided for the onshore and offshore areas of the country.

## Concession Award Process

Onshore and Offshore E&P rights will be awarded via three distinct procedures:

- The granting of Petroleum Exploration Licences for entering into PCA or PSA in relation to onshore and offshore blocks offered through competitive bidding.
- The granting of Petroleum Exploration Licences for entering into PCA or PSA in relation to onshore and offshore blocks without competitive bidding to Strategic Partner Companies on Government to Government basis.
- The granting of non-exclusive Reconnaissance Permits for undertaking studies and multi-client surveys after direct negotiation.

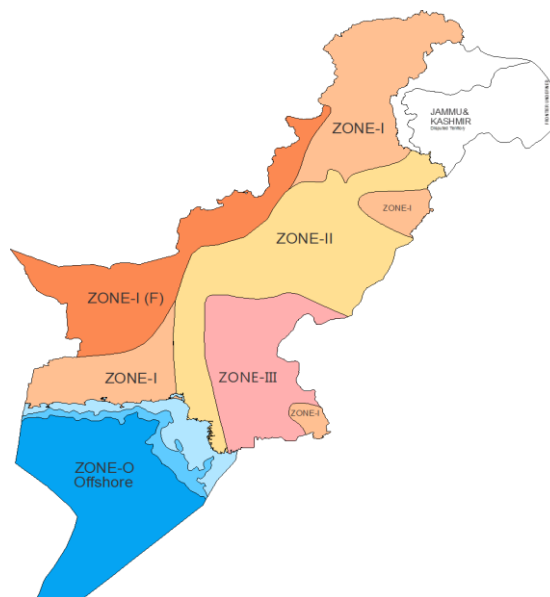
## Invitation to Bid

DGPC issues an Invitation to Bid in national newspapers & the MPNR website. Invitation to Bid may cover the nominated blocks and such additional blocks as DGPC may deem appropriate. An Invitation to Bid will remain valid for at least 60 days and all companies providing the requisite information would be eligible to contest Invitation to Bid.

Within 15 days of bid opening date, the bidders offering the equal number of the highest Work Units will be asked to re-bid the Work Units and the bidder offering the higher Work Units in the re-bidding will be declared the winner, provided however, bidders cannot offer Work Units lower than the one previously offered.

## Execution of Agreement

DGPC will make every effort to conclude and sign a Petroleum Concession Agreement or Production Sharing Agreement as the case may be strictly based on the model provided with the bid documents.



## Gas Market

(Fig. 9)

E&P companies operating in Pakistan will be allowed to construct and operate pipelines for local requirements and for exports of their share of petroleum which shall be regulated by the regulator concerned in accordance with applicable laws, rules, regulations and the policy based on an open-access (third party) regime. E&P Companies constructing such pipelines would be allowed priority access based on a firm utilization plan.

Whether a connecting pipeline from outlet flange to the nearest transmission system, is constructed and operated by a producer, a third party or a government nominated entity, the producer will be required to confirm the requisite gas supply volumes, pressures, reserves and other technical parameters on standard supply term contract basis for a period to be agreed between the parties.

The basis of the tariff allowed and paid monthly for delivery from outlet flange into the transmission system will be determined by the regulator based upon a 'rate of return on equity' basis at the rate of 12% with the capital cost being amortized over a minimum of 15 years.

Allowable costs will include operating cost and interest payable on the initial capital over the minimum 15 year amortization period.

For more detailed information, please refer to Petroleum (Exploration and Production) Policy 2012 by visiting:

<http://www.mpn.gov.pk/policiesDetails.aspx>



# Onshore Package

The main features of the package for the four onshore zones which is available for all new awards to the E&P Companies, are enumerated in the following paragraphs:

## Royalties

Royalty is payable @ 12.5% of the value of petroleum produced and saved at the field gate.

## Corporate Income Tax

Corporate income tax is capped at 40% of profits and gains with royalty payments allowed as expense item.

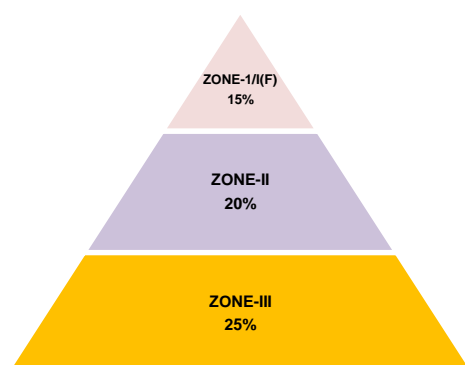
## Prospectivity Zonation

Onshore area is divided into three prospectivity zones based on risk and investment as follows:

<b>ZONE-I</b>	<ul style="list-style-type: none"> <li>• High Risk</li> <li>• High Cost</li> </ul>
<b>ZONE-I(F)</b>	<ul style="list-style-type: none"> <li>• High Risk</li> <li>• High Cost</li> </ul>
<b>ZONE-II</b>	<ul style="list-style-type: none"> <li>• Low Risk</li> <li>• Low to Medium Cost</li> </ul>
<b>ZONE-III</b>	<ul style="list-style-type: none"> <li>• Low Risk</li> <li>• Low to Medium Cost</li> </ul>

## State and Local Companies' Mandatory Participation

In case of Joint ventures with foreign companies, local E&P companies including GHPL shall have working interest on full participation, as mentioned below:



## Production Bonuses

Production Bonuses are payable as follows:

CUMULATIVE PRODUCTION (MMBOE)	AMOUNT (USD)
At start of commercial production	600,000
30	1,200,000
60	2,000,000
80	5,000,000
100	7,000,000

## Work Unit Concept

For the purpose of providing flexibility to the contracts in discharge of work obligations under the petroleum concession agreements, a new concept of work units has been developed which enables the petroleum right holder to finalize the Work programmes based on the best technical judgment as compared to the previous system of firm obligation of seismic coverage and number of wells.

## Import Duties And Taxes

In accordance with SRO 678(I)/2004 dated 7<sup>th</sup> August, 2004, import duties and sales tax are payable @ 5% on the import of equipment not locally manufactured. The import duty is 10% for items locally manufactured other than wellhead on which import duty is 15%.

Moreover, no import duties, sales tax or license fees is applicable on machinery, equipment and materials etc. imported or exported by the companies providing technical services to petroleum exploration and production companies.

## Training Contributions

Training fee is applicable as follows:

US\$ 25,000 per year	- Exploration phase
US\$50,000 per year	- Development and Production Phase

## Social Welfare Contributions

The following minimum expenditure shall be incurred on welfare projects:

During Exploration Stage Until Commercial Production	USD 25,000 Per License Year
During Commercial Production Phase (BOE/d)	Amount/Lease Year (USD)
Less Than 2,000	50,000 (Zones O & I); 37,500 (Zones 11 & 111)
2,000 - 5000	100,000 (Zones O & I); 75,000 (Zones 11 & 111)
5,000 - 10,000	200,000 (Zones O & I); 150,000 (Zones 11 & 111)
10,000 - 50,000	400,000 (Zones O & I); 300,000 (Zones 11 & 111)
More Than 50,000	700,000 (Zones O & I); 525,000 (Zones 11 & 111)

### Windfall Levy

Windfall Levy (WLO) will be applicable on crude oil and condensate using the following formula:

$$WLO = 0.4 \times (M-R) \times (P-B)$$

Where:

- WLO - Windfall Levy on crude oil and condensate;  
 M - Net production (petroleum produced & saved);  
 R - Royalty;  
 P - Market Price of crude oil and condensate  
 B - Base Price, which will be as under:
- The base price for crude oil and condensate will be USD 41 per bbl.
  - This base price for crude and condensate will escalate each calendar year by USD 0.5 per barrel starting from the date of first commercial production in contract area.

All the benefit of windfall levy may be equally divided between the Federal Government and Provincial Government concerned. The ceiling would be reviewed as and when pricing dynamics significantly change in the international market.

- 10% of the royalty will be utilized in the district where oil and gas is produced for infrastructure development.
- For sale of natural gas to parties other than GOP, Windfall Levy (WLG) will be applicable on the difference between the applicable GOP Zone price and the 3rd party sale price using the following formula:

$$WLG = 0.4 \times (PG-BR) \times V$$

Where:

- WLG - Windfall Levy on share of natural gas;  
 PG - Third Party Sale Price of natural gas;  
 BR - Base Price;  
 V - Volume of gas sold to third party excluding royalty.

The Base Price will be the applicable Zone price for sale to GOP as outlined in section IV (10) below. Where the 3rd party sale price of gas is less or equal to the base price, the windfall shall be zero. The windfall levy shall not apply on sales of natural gas made to Government of Pakistan and the Provincial Government.

### Oil, Gas, LPG and Condensate Producer Price

The Producer Policy Price for crude oil delivered at the nearest refinery gate shall be equal to C&F price of a comparable crude oil or a basket of Arabian/

Persian Gulf crude oils (Reference Crude or RC) plus or minus a quality differential between the RC and the local crude oil. No other adjustment or discount will apply other than Windfall Levy. C&F price will be arrived at on the basis of FOB price of imported crude oils into Pakistan plus freight on AFRA, which is deemed chartered rate.

### Condensate

The Producer Policy Price for condensate will be the FOB price of internationally quoted comparable condensate delivered at the nearest refinery gate plus or minus a quality yield differential, based on the value in the Arabian Gulf spot products market of the crude oil/condensate. No other adjustment or discount will apply other than Windfall Levy.

### Liquefied Petroleum Gas

For new projects, the LPG producer price will be a deregulated subject.

### Gas Pricing

The price for Associated or Non Associated Gas will be indexed to the C&F price of a basket of Arabian/Persian crude oil import in Pakistan during the first six months period of the seven months period immediately preceding the relevant price notification period (import Basket) as published in an internationally recognized publication acceptable to the parties for various zones.

C&F Price will be arrived at on the basis of FOB price of imported crude oils into Pakistan plus freight on AFRA, which is deemed chartered rates.

The RCP ceiling of USD 110/barrel would be reviewed after every five years or as and when the pricing dynamics significantly change in the international market, as provided in the applicable rules. Current gas prices offered to the producers are as under.

Producers Gas Pricing (\$/MMBTU)					
Reference Crude Price \$/BBL	40	60	80	100	110
Zone-III	3.9	4.8	5.3	5.8	6.0
Zone-II	4.1	5.0	5.6	6.1	6.3
Zone-I	4.3	5.3	5.9	6.4	6.6
Zone-I(F)	4.5	5.6	6.2	6.7	7.0

### Transmission Tariff

E & P companies are allowed transmission tariff for the gas pipeline connecting the field gate to the main transmission system, if such system is constructed and operated by them.

### Exploration Period

Exploration period consists of an initial term of 5 years comprising Phase-I of three years and Phase-II of two years together with two subsequent renewals of one year each, for a total period of 7 years.

### Retention Period

A maximum retention period of upto 5 years is allowed on a case by case basis to enable the companies

to evaluate commercial aspects of the discovery and to make market arrangements for disposal of discovered gas.

#### **Total Lease Term**

Total term of the lease is up to 25 years plus five years renewal.

#### **Relinquishments**

Maximum 2,500 S.Km with subsequent progressive area relinquishment of 30% of the original area after Phase-I of initial term, 20% of the remaining area after Phase-II of the initial term and 10% of the remaining area on or before the start of second one year renewal.



# Offshore Package

## ROYALTIES

Following Royalty schedule will be applied:

<ul style="list-style-type: none"> <li>First 48 Calendar Months after Commencement of Commercial Production</li> <li>Months 49 to 60 inclusive</li> <li>Calendar Months 61 to 72 inclusive</li> <li>Calendar Months 73 and greater</li> </ul>	<p>No royalty</p> <p>5% of field gate price</p> <p>10% of field gate price</p> <p>12.5% of field gate price</p>
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## Corporate Income Tax

Corporate income tax is capped at 40% of profits and gains with royalty payments allowed as tax expense item.

## Depreciation

The following depreciation rates will apply: Carry forward of any unabsorbed depreciation until such depreciation is fully absorbed.

<ul style="list-style-type: none"> <li>On successful exploration and development wells</li> <li>On dry holes (exploratory wells)</li> <li>Non-commercial well (exploration wells)</li> <li>On facilities and offshore platforms</li> </ul>	<p>33% on Straight Line</p> <p>Will be expensed immediately upon commencement of commercial production or relinquishment whichever is earlier.</p> <p>Expensed upon relinquishment of licence</p> <p>25% Declining Balance</p>
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## Direct Government Participation

A sliding scale production sharing arrangement will be used instead of direct government participation.

## Production Sharing

The production sharing agreement will be executed by the Contractor with GHPL who will be granted the Exploration Licence and Development and Production Lease. The Contractor will therefore initially receive the profit oil and profit gas shares and will be responsible for the management of the production sharing agreements.

## Cost Limit

Cost limit is 85% including the royalty of 12.5%. The Contractor can recover 100% of the costs from up to a maximum of 85% of the gross revenues.

## Production Bonuses

Production Bonuses will be as outlined in the table below.

## Work Unit Concept

For the purpose of providing flexibility to the contracts in discharge of work obligations under the production sharing agreements, work units will be used instead of firm obligation of seismic coverage of wells.

## Marine Research Fee

A marine research and coastal area development fee will be applicable as per the following schedule:

## Training Contributions

Training fee is applicable as follows:

- US\$ 50,000 per year during Exploration phase
- US\$250,000 per year during Development and Production phase

## Gas Transmission Pipeline

The first pipeline connecting a field to onshore gas transmission system is allowed as cost recoverable, if such system is constructed and operated by the E & P Companies.





#### **Import Duties And Taxes**

As is also applicable for onshore areas, import duties and taxes for areas located in offshore is determined in accordance with SRO 678(I)/2004, dated 7th August 2004.

#### **Exploration Period**

Exploration period consists of an initial term of 5 years and two subsequent renewals of one -years each, for a total exploration period of 7 years.

#### **Retention Period**

In case of Gas discovery a maximum retention period of upto 10 years is allowed on a case by case basis to enable the companies to evaluate commercial aspects of the discovery and to make market arrangements for disposal of discovered gas.

#### **Total Lease Term**

Initial term of 25 years based on production profile plus one possible renewal of 5 years.

#### **Policy For Grant Of Lease After Expiry Of Lease Term**

1. For grant of petroleum rights after the expiry of lease period, DGPC can renew the lease term for another five years term in case the existing lease holder agrees to pay an amount equivalent to 15% of the wellhead value to the Government otherwise DGPC will invite bids using the call for bids one year before the end of the lease period from pre-qualified companies seeking to have a petroleum right over the lease area, in relation to any producing field for an additional ten years. The bids will be evaluated on the basis of Signature Bonus, which would be spent for social welfare of the area in which the field is located.
2. Each bidder(s) shall provide a bid bond of 10% of the offered signature bonus at the time of bidding.
3. DGPC shall be under no obligation to grant any extension.

## Low BTU Gas

Low BTU Gas is gas which does not contain methane as its primary constituent and has the gross heating value of less than 450 BTU/ SCFT.

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. 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.
4. Producing additional power at affordable tariff for the consumers by using indigenous gas resources.
5. Boosting local manufacturing of equipments for production of Low BTU Gas.
6. Increasing security of energy supplies.

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.

### 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 and Production lease of a Low BTU Gas field shall be waived.

# Tight Gas

Tight gas refers to gas that is trapped in unusually impermeable hard rock or in a sandstone or limestone formation that is unusually impermeable and non-porous.

Promulgation of the “Tight Gas (Exploration & Production) Policy”, is based on achievement of the following principle national objectives.

1. Start of fast track development and production of gas from the existing tight gas reservoirs that are not being produced due to non-commerciality.
2. To open new frontiers for exploration of tight gas which would help increase the production level for reducing the energy deficit.
3. Raising additional government revenues.
4. Improving balance of payment position by reducing the need for import of alternative fuels (LNG/Fuel Oil) which requires massive foreign exchange.
5. Reducing recourse to sovereign debts by saving foreign currency.
6. Keeping the local gas prices at affordable level to the consumers by producing cheaper gas vis-à-vis imports.
7. Generating employment for the nationals.
8. Boosting local manufacturing industry for supply of equipments for production of tight gas by international collaboration and transfer of technology.
9. Increase dependability and security of supply and its sustained availability.

## Gas Pricing

In order to exploit Tight Gas Reserves, 20% premium would be given over the respective zonal price of Petroleum Policy 2012.

However in order to encourage the companies to fast track development & production of tight gas, an additional 10% premium would be given for those volumes that are brought into production within 2 years of announcement of this policy. For example if a field “A” produces 300MMCFD within two years of the announcement of this Policy, it would be entitled to 50% premium for 300 MMCFD gas only. Any subsequent addition in volumes after expiry of the two years period would be entitled to 40% premium only.

The working interest owners shall have the right to sell the gas to third parties within Pakistan at mutually negotiated prices between the Seller and the Buyer.

## Royalty

Royalty shall be payable as per Petroleum Policy 2009.

## Tax Loss Carry Forward

Operating loss can be carried forward to a period not exceeding fifteen (15) years.

## Abandonment Costs

As per Finance Act 2010.

## Windfall levy

No windfall levy will be applicable to the tight gas production.

# Marginal/ Stranded Gas Fields

Additional financial incentives are required for E&P companies to attract them in developing and producing from the Marginal Fields discoveries making their investment economically viable to accelerate the E&P activities in the country.

The purpose of these Guidelines is to establish policies, procedures and pricing mechanism to accelerate the development and production from Marginal Field discoveries and from re-development efforts from such discoveries in Pakistan.

## Applicability & Effect of the Guidelines

The Marginal Field Guidelines, 2013 shall come into effect from the date of its notification in the official Gazette. The incentives of this Guidelines shall however, apply to discoveries that qualify and are accepted as "Marginal Fields" under the existing and future exploration licences, PCAs, D&P leases and Mining leases but are not in production prior to the notification of these Guidelines.





A blue-tinted photograph of a library or computer lab. In the foreground, three people are seated at a long desk, viewed from behind, working on computers. The background shows bookshelves filled with books. Overlaid on the image is a network diagram consisting of numerous thin, light-blue lines connecting various points, suggesting a global or interconnected network. The overall atmosphere is technological and academic.

**Open Access to  
Public Domain Data**

## Open access to public domain data

The Government has made efforts to facilitate access to Pakistan's Oil & Gas E&P data for both foreign and local companies. Under applicable laws, the ownership of all geological, geophysical and other data acquired by E&P companies operating in Pakistan rests with the Government.

DGPC, being the regulatory agency, is the custodian of all such data and is responsible to make public domain data available to other interested E&P companies when required. Keeping in line with international trends and realizing the value as well as critical role of proper data management solutions in bolstering exploration activities, the government established a national data repository called Pakistan Petroleum Exploration & Production Data Repository (PPEPDR).

The PPEPDR web portal provides convenient online access to interested local and foreign parties that hold interest in acquiring Pakistan's oil and gas E&P data. The website offers many services amongst which one of the most noteworthy offering is online access to the national data repository. This has been achieved through the implementation of a state-of-the-art data management solution by LMK Resources.

The data management solution is a high-level enterprise system that has around 20 terabytes of quality assured petro technical data archived that can be accessed online or downloaded. It is a centralized digital database for all seismic, well and physical data. The solution incorporates cutting-edge data management, archival hardware and software technology.

The National Data Repository is equipped with a state of the art data management solution with the capability to manage E&P data online, near-line and offline. The highly scalable architecture is an integrated system, accessible through a web based GIS enabled interface. It provides an integrated view of information from multiple external databases. The process of reviewing, purchasing and transferring data uses simple subscriptions for online access via a high bandwidth connection enabling clients to view,

select, and after necessary approvals, download data to their desktops.

PPEPDR has been setup to save precious time and cost while providing reliable and fast web-based access to E&P data. Since its inception, the Pakistan National Data Repository has improved speed, ease of accessing and sharing geotechnical data.

The launching pad for easy, swift and cost effective access to public data is now set and E&P companies can make full use of this cutting-edge facility. Pakistan is one of in the pioneering implementation of national data repositories in the world. Through subscription, any interested company can get online access of data falling in public domain for new blocks as well as open area.

For further information regarding online data access, please visit: [www.ppepdr.net](http://www.ppepdr.net).



**Ministry of Energy (Petroleum Division)**  
**Government of Pakistan**

**Contact for Investment Opportunities**

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