12

STANDING COMMITTEE ON PETROLEUM & NATURAL GAS (2015-16)

SIXTEENTH LOK SABHA

MINISTRY OF PETROLEUM & NATURAL GAS

DEMANDS FOR GRANTS (2016-17)

TWELFTH REPORT

LOK SABHA SECRETARIAT
NEW DELHI

April, 2016/ Vaisakha, 1938 (Saka)

CP&NG No.

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(SIXTEENTH LOK SABHA)

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Presented to Lok Sabha on 03.05.2016

Laid in Rajya Sabha on 03.05.2016

LOK SABHA SECRETARIAT
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COMPOSITION OF THE STANDING COMMITTEE ON PETROLEUM & NATURAL GAS (2015-16)

Sl. No.	Name of Members	
	LOK SABHA	
	Shri Pralhad Joshi - Chairperson	
2	Dr. Ravindra Babu	
3	Shri P. K. Biju	
4	Shri Kalikesh N. Singh Deo	
5	Shrimati Rama Devi	
6	Shri Elumalai V.	
7	Shri Naranbhai Kachhadiya	
8	Dr. Thokchom Meinya	
9	Shrimati Pratima Mondal	
10	Shri Ashok Mahadeorao Nete	
11	Shrimati Jayshreeben Patel	
12	Shrimati Anupriya Patel	
13	Shri Arvind Sawant	
14	Shri Raju Shetty	
15	Dr. Bhola Singh (Begusarai)	
16	Shri Ravneet Singh	
17	Shri Kamakhya Prasad Tasa	
18	Shri Rajesh Verma	
19	Shri Om Prakash Yadav	
20	Shri Laxmi Narayan Yadav	
21	Shri A.T. Nana Patil	
	RAJYA SABHA	
22	Vacant[1]	
23	Shri Ishwarlal Shankarlal Jain	
24	Shri Prabhat Jha	
25	Shri Bhubaneshwar Kalita	
26	Shri Mansukh L. Mandaviya	
27	Shri Ahmed Patel	
28	Shrimati Gundu Sudharani	
29	Chaudhary Munvvar Saleem	
30	Shri Sharad Yadav	
31	Shri Praful Patel	
	SECRETARIAT	
1	Shri A.K.Singh	Additional Secretary
2	Dr. Ram Raj Rai	Director
3	Shri H. Ram Prakash	Additional Director
4	Shri Sujay Kumar	Under Secretary

[1] Since Shri Mani Shankar Aiyar retired from Rajya Sabha on 21.03.2016.

INTRODUCTION

I, the Acting Chairperson, Standing Committee on Petroleum & Natural Gas (2015-16) having been authorised by the Committee to submit the Report on their behalf, present this Twelfth Report on 'Demands for Grants (2016-17) of the Ministry of Petroleum & Natural Gas'.

2. The Committee examined the Demands for Grants (2016-17) pertaining to the Ministry of Petroleum & Natural Gas which were laid on the Table of the House on 16.03.2016.

3. The Committee took evidence of the representatives of the Ministry of Petroleum & Natural Gas at their sitting held on 30.03.2016. The Committee considered and adopted the Report at their sitting held on 27.04.2016 with the undersigned in the Chair, having been elected under the Rule 258(3) of the Rules of Procedure and conduct of Business in Lok Sabha for that sitting. I was authorized by the Committee under the Rule 277(3) of the Rules of Procedure and Conduct of Business in Lok Sabha to sign and present this Report on their behalf.

4. The Committee wish to express their thanks to the representatives of the Ministry of Petroleum and Natural Gas for furnishing the material and information in connection with examination of Demands for Grants (2016-17) of the Ministry and for giving evidence before the Committee.

5. The Committee also place on record their appreciation for the valuable assistance rendered to them by the officials of the Lok Sabha Secretariat attached to the Committee.

New Delhi;
***28 April*, 2016**
8 Vaisakha,1938 (Saka)

DR. BHOLA SINGH,
Acting Chairperson,
Standing Committee on
Petroleum & Natural Gas.

REPORT

PART - I

CHAPTER - I

INTRODUCTORY

The country is charting rapid economic growth as a panacea for poverty alleviation to uplift the populations which are below poverty. On the back of its rapid economic growth, India is set to contribute more to the rise in global energy demand - around one-quarter of the total. India, home to 18% of the world's population, uses only 6% of the world's primary energy. Our energy consumption has almost doubled since 2000 and the potential for further rapid growth is enormous. India's economy, already world's third-largest, is growing rapidly. The total crude oil production in the country in 2010-11 was 37.6 million metric tonnes (MMT) against 31.4 MMT in 2014-15 and the production of natural gas came down from 143.1 million metric standard cubic metre per day (MMSCMD) to 91.86 MMSCMD. The production of hydrocarbons has been more or less come to a standstill. As it is, the current production in oil and gas sector can fulfill only 20% of the requirement leaving the country vulnerable to geopolitics in oil producing regions. In this period, India was a US$ 1.71 trillion economy in 2010 while in 2015 it is a US$ 2.2 trillion economy which shows the economy has cumulatively grown more than 25%.

1.2 Oil demand in 2040 is projected to increase approaching 10 million barrels per day. Natural gas consumption will also triple to 175 billion cubic meter (although, at 8% in 2040, it will still play a relatively limited role in the overall energy mix). However, projected energy demand per capita in 2040 for India will be still 40% below the world average even though by that time the total energy demand will be more than doubled and the economy will be more than five times larger.

1.3 Ensuring universal access to affordable, reliable and modern energy services by 2030 is one of the Sustainable Development Goals adopted by the United Nations mandating all countries to achieve the goal. Moreover, the energy demand of the rapidly increasing economy creates its own pulls. To bring this huge segment of deprived people into energy network, and to fulfill the needs of growing economy, there is urgent need to work at multifarious fronts simultaneously.

1.4 The Ministry of Petroleum and Natural Gas has been mandated, *inter-alia* for the following:

I. Exploration and exploitation of petroleum resources, including natural gas.

II. Production, supply distribution, marketing and pricing of petroleum including natural gas and petroleum products.

III. Oil refineries, including Lube plants.

IV. Additives for petroleum and petroleum products.

V. Lube blending and greases.

VI. Planning, development and control of, and assistance to all industries dealt with by the Ministry.

VII. All attached or subordinate offices or other organisations concerned with any of the subject specified in this list.

VIII. Planning, development and regulation of oilfield services.

IX. Public sector projects failing under the subjects included in this list, Engineers India limited and IBP Company. together with its subsidiaries, except such projects as are specifically allotted to any other Ministry/Dept,

X. Administration of certain Acts in the hydrocarbon sector.

1.5 Ministry fulfills its mandate through its 9 oil Public Sector Undertakings, 8 subsidiaries and other companies and 8 organisations, 18 PSU refineries. In addition there are a host of other entities in private sector and Joint Venture (JV) working in the oil and gas sector.

A. ANALYSIS OF DEMANDS FOR GRANTS (2016-17)

(i) Plan Outlays

1.6 The Annual Plan provision of this Ministry predominantly comprises the Internal and Extra Budgetary Resources (IEBR) of Oil PSUs. In 2016-17 BE, the plan outlay is Rs.89264.56 Cr., comprising Rs.2050.00 Cr. as budgetary support and Rs.87214.56 Cr. as IEBR of Oil PSUs. The non-plan BE 2016-17 is Rs.27110.62 Cr. The details are as under:

Budgetary Support:

Sr. No.		(Rs. in crore)
1.	Scheme for LPG connection to Poor Households	2000.00
2.	Rajiv Gandhi Institute of Petroleum Technology	47.00
3.	Setting up Petroleum University in Andhra Pradesh	1.00
4.	Payment to ISPRL for Strategic Crude Oil Reserve	1.00
5.	Payment to ISPRL for O&M expenses	1.00
	Total	2050.00

IEBR

Sr. No.		(Rs. in crore)
1.	Petroleum	84977.15
2.	Petro Chemical Sector	2187.41
3.	Engineering Sector	50.00
	Total	87214.56

Non Plan

Sr. No.		(Rs. in crore)
1.	Secretariat-Economic Services	28.30
2.	DBT for LPG	17020.04
3.	Other Subsidy payable including for N.E Region	2742.75
4.	Project Management Expenditure	40.00
5.	DBT for Kerosene	50.00
6.	Other Subsidy Payable including for NE Region	7094.21
7.	Cash Incentive to State/UTs for Kerosene Distribution Reforms	51.00
8.	Grant-in-Aid to States/UTs for establishment of institutional mechanism for direct transfer of subsidy in cash for PDS Kerosene beneficiaries.	1.00
9.	Payment of differential Royalty to State Governments	61.71
10.	Petroleum Regulatory Board	16.51
11.	Society for Petroleum Laboratories	2.10
12.	Setting up Petroleum University in Andhra Pradesh	1.00
13.	Payment to ISPRL for Strategic Crude Oil reserve- O&M	1.00
	Total	27110.62

(ii) Non-plan outlay

1.7 The Budget have an outlay Rs. 27110.62 crore in BE 2016-17 (Non-Plan). Details of allocation and expenditure during last two years are as under:

Sr. No.		BE 2014-15	RE 2014-15	Actual 2014-15	BE 2015-16	RE 2015-16	Expenditure upto 31.01.2016
1	DBTL for LPG	2500.00	2500.00	2500.00	21140.00	21140.00	19324.15
2	Project Management Expenditure for LPG	1.00	1.00	0.00	200.00	200.00	165.47
3	Other Subsidy payable for LPG including NE region	637.00	661.00	661.00	660.00	1320.00	1245.58
4	DBTL for Kerosene	-	-	-	1.00	1.00	0.00
5	Other Subsidy payable for Kerosene including NE region	-	-	-	7999.00	7339.00	7339.00
6	Subsidy on LPG & Kerosene	2930.00	-	-	-	-	-
7	Compensation for under recoveries	57335.95	57085.00	57085.00	-	-	-
8	Freight Subsidy	23.00	23.00	22.82	-	-	-
9	Direct Transfer of Cash for Kerosene (DTCK) to (States)	20.00	20.00	0.00	20.00	-	-
10	DTCK(UTs)	10.00	8.82	0.00	10.00	-	-
11	PNGRB	15.08	14.92	14.25	16.40	16.40	12.31
12	SFPL	2.01	1.79	1.79	2.09	2.09	-
13	Payment of Differential Royalty to State Governments	-	-	-	-	53.80	-
14	Payment to ISPRL for Strategic Crude Oil	-	-	-	-	47.00	

	Reserve - O&M						
15	Petroleum University in AP	-	0.00	-	0.00	0.00	-
16	Secretariat - Economic Services	25.96	25.69	25.34	27.06	27.06	19.95
	Total (Non-Plan)	**63500.00**	**60341.22**	**60310.20**	**30075.55**	**30146.35**	**28106.46**

(iii) LPG CONNECTIONS TO BPL FAMILIES

One of the important budget announcements for the petroleum sector is the free LPG connection for women in BPL households.

1.8 When asked about the plans by the Ministry/OMC's regarding the budget announcement made to implement the 1.5 crore LPG connections to BPL families in the current financial year 2016-17 and specific financial allocation for the same has been made by the Ministry for the purpose, the Ministry have stated the following in its written reply:

> "Finance Minister in Budget Speech on 29.02.2016 has announced a budgetary provision of Rs. 2000 crore to provide free LPG connections to 1.5 crore women belonging to the Below Poverty Line (BPL) families. Further, Cabinet Committee on Economic Affairs(CCEA) has approved the release of grant of Rs. 8000 crore for implementation of scheme, namely "Pradhan Mantri Ujjwala Scheme" for three years, 2016-17, 2017-18 and 2018-19 to give 5 crore new LPG connections in the name of women of BPL households. This scheme will be implemented from 01.04.2016".

1.9 Asked to elaborate measures being taken by the Government for identification of BPL families who will be offered the LPG connection and whether the targets are state specific also, the Ministry in its written reply have submitted as under:

> "Identification of eligible women belonging to BPL families will be made in consultation with the State/UT governments. Main focus of the scheme is to give new LPG connections to the BPL families in the states where LPG coverage is below the national coverage".

1.10 Further, elaborating on the scheme during the oral evidence, the Ministry officials stated the following:

> "This is implementation mechanism. You must have seen in CSR and Hon'ble Members have said it right. There used to be problem how to identify BPL household. The discussion that took in Ministry there was a data of Social Economic Caste Census from village level to the top. The data was complied in the year 2011 but it was approved by Gram Sabha. It uses the concept of 'Deprivation'. Whoever has mud-house where women is head of the family there is no audlt male, if it is SC/ST household. Total of 8.8 crore households have been identified as deprived. We shall consider these 8.8 crore households as being eligible for this scheme. In case any member of such households applies for LPG connection under this scheme, our data base will identify that household. Data base is available with us. That family therefore, will be getting

connection under this scheme. We also have a system to ensure that no family gets more than one connection per household. This process of de-duplication takes 24 to 36 hours. After completion of this exercise the family will be provided connection within 2-3 days. We are aware that the implementation of this scheme is not easy. Giving connection to 1.5 crore household in 1 year is a huge task. We are adopting top down approach for this. In Chandigarh we have provided 100 per cent LPG coverage. Rather than the beneficiary coming to me, we will go to the beneficiary. We will use SECC data base to identify BPL households not having LPG connection and prepare a list of such households which will then be shared with our distributors and field officers to ensure their coverage".

(iv) LPG CONNECTIONS UNDER CSR OF OIL PSUS

1.11 On being asked as to how many BPL families have been covered so far under this scheme since its inception against the set targets, the Ministry have furnished as under:

"So far, more than 57 lakh new LPG connections have been released to BPL families under this scheme since its conception. No target has been fixed for giving new connections to BPL families and it is linked to CSR funds earmarked by six major oil companies".

1.12 When asked about the details of funds allocated and the utilization thereof for the purpose by OMCs during last three years, the following details have been provided:

"Details of funds allocated and utilised during the last three years are as under:

Year	Funds allocated and Utilised(in crore)
2013-14	39.6
2014-15	224.92
2015-16	523.8 (upto Dec. 15)

(v) CESS ON CRUDE OIL

1.13 Another announcement made in the Budget relating to Petroleum sector is the switch adopted by the Government in the calculation of cess on oil production from fixed rate (rupees per barrel produced) to ad valorem rate or percentage of value. The Committee enquired as to how it will impact the upstream oil companies, namely- ONGC and OIL in view of low global crude prices, the Ministry submitted as under:

"The price of Indian basket of crude oil which averaged US$ 84.16/ bbl during 2014-15 is currently around US$ 35/ bbl. Considering the current crude oil price situation, the Government has modified in the levy of OID cess on crude oil produced from nominated fields from Rs.4500/ MT to 20% ad-valorem. At crude price level of US$ 35/ bbl and exchange rate of Rs.67 per US$, this will result in saving of about Rs.1150/MT (around US$ 2.4/ barrel) to ONGC and OIL for the crude produced from nomination blocks.

While this will provide some financial relief to domestic crude oil producers in the current scenario of low oil prices, once crude oil prices start rising, the burden of cess on ONGC and OIL will keep increasing. In fact when oil prices will exceed about US$50 per bbl, ONGC and OIL will be paying more as compared to Rs.

4500/MT they were paying earlier. While fixing cess at ad-valorem basis is a step in the right direction, this Ministry will be taking the matter with Ministry of Finance to reduce the ad-valorem rate".

1.14 Regarding the steps have been taken by the Ministry to remedy the situation where upstream PSU oil companies like ONGC and OIL are paying a cess on crude oil which is presently at Rs.4500 per tonne which has become a huge financial burden for companies like ONGC and OIL, particularly in view of sharp drop in the crude oil prices, the Ministry have submitted the following:

"Cess is levied as a duty of excise under Section 15 of the Oil Industry (Development) Act, 1974 on crude oil produced in the country. Currently the cess is levied @ Rs. 4500/MT on crude oil production from all the nomination blocks of ONGC and OIL and pre-NELP exploratory blocks. For pre-NELP discovered fields, the cess is fixed @Rs. 900/MT. For NELP Blocks there is no cess on production of crude oil.

The amount of cess has increased significantly over a period of time i.e from Rs. 60 per MT in the year 1974 when the cess was introduced first time to Rs. 4500 per MT from March 2012 onwards. In the year 2012, when the cess was increased to Rs. 4500 /MT, the crude oil prices were in the range of US$ 110 /bbl which works out approximately 10% of the crude oil price. Now a days the price of crude is less than US$ 30/bbl. The cess @ Rs. 4500/MT thus works out to be more than 30% of crude price realization. In addition, the production is subjected to other levies such as Royalty etc.

Such high level of cess is having a serious impact on the financials of ONGC and OIL. It would therefore be advisable to introduce a system to fix cess at a rate commensurate with the crude oil price. It is observed that over the years the cess has been more or less in the range of 6% to 10% of the crude oil realization with some exception. In this background, the Ministry of Petroleum propose fixing the OID cess @ 8% to 10% of the crude price realization on ad-valorem basis. This matter was taken up and is under consideration in the Ministry of Finance.

In the Finance Bill of 2016-17, amendment of the OID (Development) Act, 1974 has been proposed thereby making the cess @20% ad valorem".

(vi) <u>RAJIV GANDHI INSTITUTE OF PETROLEUM TECHNOLOGY (RGIPT)</u>

1.15 When asked for an update on the progress of construction of the campus at Rai Barelli and by when it is expected to complete and also a status update on the RGIPT project at Shiv Sagar, Assam, the Ministry in its written reply stated the following:

"(i) The main academic centre of RGIPT is being constructed on 47 acre of land at Jais, (District Amethi), in Uttar Pradesh. M/s. Engineers India Limited is the Project Management Consultant (PMC) for the project. The completion date as per the revised sanctioned time schedule is 31st March 2016.

As on January 2016, the actual physical progress of construction is 93% and it is expected that the composite construction work will be completed by June 2016, -

subject to the release of funds from GBS. In case the funds are not released urgently, further time and cost overrun is anticipated in the project.

The delay in the progress of the work is mainly due to the inability of RGIPT to make payment of the Contractor's running bills consequent to the delay in release of capital funds from Govt. Budgetary Support during 2015-16.

(ii) The Assam Center of RGIPT is under construction on 100 acres of land which was procured from State Govt. of Assam. The contribution towards capital expenditure for construction is being shared by Assam based oil PSUs – ONGC, OIL, GAIL, IOCL, NRL, EIL and by OIDB. No Government Budgetary Support is involved.

The execution of the project is delayed consequent to site related issues requiring large quantity of earth filling and piling work which has since been completed in April, 2014.

Meanwhile, the project cost has undergone revision from the original estimate of Rs. 143 crore to Rs. 235 crore. In this regard, the Expenditure Finance Committee (EFC) note for sanctioning of the revised cost is under process by MoPNG.

The Sivasagar project at Assam is currently at standstill due to non-release of capital funds for construction. Capital funds will be released by Oil PSUs and OIDB after the EFC for revised cost is approved".

(vii) <u>INDIAN STRATEGIC PETROLEUM RESERVE LIMITED (ISPRL)</u>

1.16 On being asked about the progress made in filling up of crude oil in the strategic storage caverns in Visakhapatnam and how much funds have been allocated during the year 2016-17 and how much was utilized, the following information has been furnished:

"The Vishakhapatnam cavern has been commissioned and filled with crude oil. The total cost of the crude oil is approximately Rs. 2550 crore. In the First Supplementary Demands for Grants 2015-16, provisions of Rs. 1153 crore for filling the crude oil has been made".

1.17 With regard to the quantum of funds allotted for ISPRL during 2016-17 towards filing of crude oil in the strategic caverns in view of the low crude oil prices in the global market, the Ministry stated the following:

"A token provision of Rs. 1 Crore has been made in BE 2016-17".

1.18 Asked about whether any foreign countries have shown interest to utilize the capacities of the three strategic storage caverns, the following details have been furnished by the Ministry:

"In its meeting held on 31.3.2015 Cabinet Committee on Economic Affairs (CCEA) has inter alia decided that MoP&NG would continue to explore alternative models for financing the remaining cost of crude oil to fill the Mangalore and Padur caverns, including commercial utilization by other interested parties. Pursuant to the said decision, MoP&NG is looking at alternative models for filling the caverns at Mangalore and Padur. Negotiation with ADNOC for filling crude oil at ADNOC's cost in one cavern of 0.75 MMT at Mangalore is at an advanced stage. In principle agreement has been reached between ISPRL and ADNOC on MoU terms. However, crude oil by ADNOC or any other MNC will be filled only if the commercial sale of this crude oil from the cavern is put on the same footing with that of import of crude oil. MoP&NG has therefore, raised the issue of tax neutrality with Ministry of Finance, Department of Revenue and Government of Karnataka. Ministry of Finance has responded positively. Government of Karnataka has also decided to exempt the entry of crude cost by ISPRL/ADNOC to fill the cavern. Clarification in respect of VAT exemption is being sought.

Detailed Feasibility Reports for construction of additional strategic storage of crude oil of 12.5 MMT capacity at four locations namely, Chandikhol, Bikaner, Rajkot and Padur have been prepared".

(viii) PETROLEUM UNIVERSITY IN ANDHRA PRADESH

1.19 Asked about the activities that are proposed to be carried out in Petroleum University, Andhra Pradesh and estimated cost of the project, the Ministry gave following reply:

"In terms of the Schedule 13 of the Andhra Pradesh Reorganisation Act 2014 (Education), the Government of India will establish institutes of national importance in the 12th and 13th Plan Periods in the Successor State of Andhra Pradesh, including a Petroleum University. Government of Andhra Pradesh has identified a site measuring 150 acres at Vishakhapatnam at Subbavaran Mandal for the Petroleum University. RGIPT has approached UGC regarding setting up of new University, UGC has opined that university can be opened as a:

a) A Central University
b) An Institute of National Importance

For which necessary steps will have to be initiated for passing an Act in Parliament. RGIPT has submitted a DPR for Rs.855 crore to MoP&NG, but the exact fund requirement will be known only after approval of the project by the competent authority. The University is likely to offer Research, M.Tech, M.Sc., B. Tech and special programmes".

1.20 Asked about how much funds have been budgeted during 2016-17 for setting up of the petroleum university in Andhra Pradesh and how much expenditure was incurred during 2015-16 for the purpose, it has been replied by the Ministry that:

"It is proposed to set up an Indian Institute of Petroleum and Energy (IIPE) at Sabbavaram Manadal, Vishakhapatnam for which nearly 150 acres of land has been allocated by the Govt. of Andhra Pradesh. It is proposed to start the academic session from the year 2016-17. In BE 2016-17, token provision of Rs. 1 crore each under plan and non-plan has been provided.

Presently, the EFC proposal for setting up of Indian Institute of Petroleum and Energy (IIPE) is under process by MoPNG and funds will be allocated during 2016-17 after the Cabinet approval. In order to meet the expenses required for the temporary campus to be set up at engineering college at Vishakhapatnam and for related expenses, OIDB has been requested to make provision of on amount of Rs.23.50 crore as given in detailed project report of the institute for commencing Academic Session from the temporary campus.

During 2015-16, a sum of Rs. 4.50 lakh was incurred towards the payment of fee for signing of a MoU with IIT-JEE (Advanced) to enable student intake at IIPE.

OIDB has provided funds for an amount of Rs. 23.50 crore for temporary campus of IIPE. A token provision of Rs. 1 crore each on Plan and Non-plan has been made in BE 2016-17".

(ix) UNDER RECOVERIES OF OIL PSUs

1.21 When asked to furnish a note on the subsidy on Petroleum products that is presently in vogue, the Ministry have replied that:

i. "The prices of Petrol and Diesel have been made market determined by the Government effective 26th June, 2010 and 19th October, 2014 respectively. Since then, the Public Sector Oil Marketing Companies (OMCs) take appropriate decision on pricing of Petrol and Diesel in line with their international prices and other market conditions.

ii. As regards PDS Kerosene and Subsidized Domestic LPG, the Government continues to modulate the RSP of Subsidized domestic LPG and PDS Kerosene and their basic prices have not been increased after 25th June 2011. After launch of DBTL, its consumers get the Domestic LPG cylinders at market determined price and receive LPG subsidy (up to the cap of 12 cylinders per annum to each household) directly into their bank accounts.

Burden Sharing of the Subsidy

iii. In line with the approval of Department of Expenditure, Ministry of Finance dated 23.06.2015, budgetary support for sharing the under-recovery on PDS Kerosene for first two quarters of fiscal year 2015-16 was approved @ Rs.12/ Litre and the balance under-recovery was borne by the upstream companies through discount on crude oil. For the third quarter of 2015-16, the under-recovery beyond Rs. 12/Litre has been absorbed by the OMCs.

As regards the subsidy under DBTL scheme on Domestic LPG, the Ministry of Finance had conveyed to provide a fixed fiscal subsidy of Rs. 18/KG for financial year 2015-16 which was reduced to Rs.15/kg from November 2015. When the subsidy is lower (as at present), the difference between the approved fiscal subsidy rate and the actual subsidy claim rate would be kept by OMCs in a separate buffer account which will be used for providing an extra subsidy cushion to the beneficiaries when the oil prices rise in future".

1.22 Asked to furnish the total subsidy incurred under sale of subsidized LPG cylinders to customers during last three years and the amount of subsidy being provided on the domestic LPG cylinder during this period, the Ministry submitted as under:

"The total amount of subsidy incurred under sale of subsidized LPG cylinders to LPG consumers since 2012-13 is as follows:

(Rs: Crore)

2012-13	2013-14	2014-15	2015 (April to December)
42,884	52,200	40,551	19,314*

*@ Rs.18 per kg during April - October, 2015 and @Rs. 15 per kg for the period November, 2015 onwards".

1.23 Asked about the subsidy being provided presently per cylinder of LPG and per litre of PDS Kerosene and the under recovery being borne by the OMCs and how much is being contributed from the Government Budget per cylinder of LPG and per litre of PDS Kerosene, the Ministry in a written reply have stated that:

"The present amount of subsidy on PDS Kerosene Subsidized Domestic LPG, as per the Refinery Gate Price (RGP) of 1st February 2016, is as under:

(Rs. per litre/ cylinder)

Particulars	PDS Kerosene*	Sub. Domestic LPG (DBTL)^
Under-recovery incurred by OMCs	5.11	-
Cash Compensation by Govt.	-	108.12
Cash Compensation by OMCs, towards 'Uncompensated Costs' charged in RSP	-	47.66
Total Subsidy to the consumer	5.11	155.78

*at Mumbai. ^at Delhi.

In line with the burden sharing mechanism approved by the Government, as mentioned in reply to Question No. 35, the current under-recovery on PDS Kerosene (i.e. Rs. 5.11/Litre) and the DBTL subsidy on Domestic LPG (Rs. 108.12/Cylinder or Rs. 7.61/KG) is to be compensated from the Government budget".

B. <u>REDUCING IMPORT DEPENDENCE OF CRUDE OIL</u>

1.24 Regarding the specific steps taken by the Government to reduced the oil import dependence by 10 per cent by 2022, the Ministry have informed that:

"In Urja Sangam held on 27th March, 2015 at New Delhi, Hon'ble Prime Minister of India said that "We currently import around 77% in energy sector, in oil, gas and petroleum sector. We can reduce this import by at least 10 percent by 2022." A Committee was constituted to take this vision forward under the Chairmanship of Additional Secretary (P&NG) by Hon'ble MOS (I/C), P&NG. The Committee has deliberated on this subject extensively and has submitted draft report for the consideration of the Ministry in the month of February, 2016.

The report analyses the current consumption of oil and gas in the country and also the trend of growth in previous years and the same rate of growth has been used for projecting the demand of petroleum products and crude oil in future. In order to achieve 10% reduction in oil and gas by 2021-22, the Committee has recommended five pronged strategy which broadly comprises of following:

1. Increasing production of oil and gas
2. Energy Consumption and Energy Efficiency
3. Demand Substitution
4. Promoting alternate fuels/renewable
5. Improvement in refinery process

The final report of the Committee will be submitted shortly after having some deliberations in the Ministry so that a comprehensive and realistic roadmap for achieving the target may be worked out".

1.25 When asked what specific steps has the Government taken to reduce the dependency of the country fuel on fossil fuel as part of climate change action plan, the Ministry submitted the following:

"Steps taken by Ministry of Petroleum & Natural Gas to reduce the dependency of the country fuel on fossil fuel as part of climate change action plan are as follows:

A. Auto Fuel Policy:

BS-IV auto fuel was introduced in 13 identified cities on 1st April, 2010 and was now extended to 50 more cities, with emphasize on most polluted cities, subject to availability of fuel and logistics constraints. It has also been decided that it will be extended in entire country by 1st April, 2017 in phases.

As per Auto Fuel Vision and Policy 2025 with effect from 1st April, 2015, the whole of Northern India covering J&K, (except Leh/Kargil), Punjab, Haryana, H.P., Uttrakhand, Delhi and the bordering districts and parts of Rajasthan and Western UP have been covered. From 1st April, 2016, all of Goa, Kerala, Karnataka, Telengana, Odisha and the UTs of Daman & Diu, Dadra Nagar Haveli and Andaman & Nicobar will be covered. Part of Maharashtra (Mumbai, Thane and Pune Districts) will be covered. Part of Gujarat (Surat, Valsad, Dangs and Tapi districts) will also be covered. From 1st April, 2017 rest of the cities will be covered.

B. Bio- Fuel Policy:

The Government, through Oil Marketing Companies (OMCs), is implementing Ethanol Blended Petrol (EBP) Programme under which, OMCs sell ethanol blended petrol with percentage of ethanol upto 10%. In order to improve the availability of ethanol, the Government has fixed the delivered price of ethanol in the range of Rs.48.50 per litre to Rs. 49.50 per litre. Further, ethanol produced from other non-food feedstocks besides molasses, like cellulosic and ligno cellulosic materials including petrochemical route, have been allowed to be procured.

Similarly, Ministry of Petroleum and Natural Gas had announced a Bio-diesel Purchase Policy in October 2005, which became effective from 1.1.2006. Government has issued notification on 10th August, 2015 to allow the sale of Bio-diesel (B100) by private manufacturers to bulk consumers like Railways, State Transport Corporations and other bulk consumers. Also, retailing of bio-diesel blended diesel by Oil Marketing Companies has started on World Biofuel Day, i.e., 10th August, 2015.

C. CNG:

In the year 2007, Government of India has established Petroleum & Natural Gas Regulatory Board (PNGRB) under the PNGRB Act 2006. Under the act, PNGRB grants the authorization to the entities for developing City Gas Distribution network in a specified Geographical Areas (GA) of the country. CGD network supplies gas to four distinct segments viz Compressed Natural Gas (CNG) predominantly used as auto-fuel and Piped Natural Gas (PNG) used in domestic, commercial and Industrial segments. At present, only authorized CGD entities under the PNGRB Act, 2006 can set up CNG stations in their respective Geographical Areas. PNGRB has, so far, held 5 rounds of bidding for awarding authorization to develop CGD networks. With these bidding rounds, there are now 58 GAs which have been covered under CGD network in 15 States and UTs of the country. PNGRB has planned to commence the 6th round of CGD bidding, almost all gas in the country having existing natural gas pipeline connectivity would be covered. Country is having 1015 CNG stations catering to approximately 25.5 lakh vehicles. Government has placed CNG (transport) along with PNG (Domestic) on top priority in domestic gas allocation. Presently the entire requirement of CGD entities for PNG (domestic) and CNG (transport) is being met through domestic gas at uniform base price based on preceding six months consumption data. Further, M/o PNG has allowed GAIL to supply 10% additional domestic gas in order to meet the daily fluctuation of PNG & CNG demand.

D. Measures taken by upstream companies:

Natural Gas generates 40% less Co2 as compared to coal, and about 30% less to heavy oil. In the upstream sector, wastage of gas takes place primarily due to (a) gas flared during the production testing in a well; and (b) technical flaring of gas done in oil and gas processing plants. There has been steady decline in natural gas flaring since base year 1990-91. As a result of various corrective measures, gas flaring has considerably come down to 872 million cubic meters of gas per annum flared during 2014-15, as against around 5130 million cubic meters flared during 1990-91.

For minimizing wastage in gas transmission networks, operational parameters of gas network for major global natural gas companies have been studied and benchmarking has been done accordingly. At present the margin of wastage targeted is in the range of +/-0.3%, and strict monitoring is being done.

E. Measures taken by downstream companies:

Solarisation of retail outlets has been taken up by oil marketing companies for lighting their retail outlets: So far, 4822 retail outlets have been powered by solar energy. The target is to increase the number to 7200 retail outlets by 31st March 2017.

All the refineries are certified for Environmental Management System conforming to ISO-14001 standard and are audited periodically for compliance. Specific measures taken by refineries to mitigate pollution and minimize impact on the surrounding environment such as Waste Water Control, Water Conservation, Gaseous Emission Control, Solid Waste Management, Control of noise pollution etc.

F. Measures taken by Petroleum Conservation Research Association (PCRA):

Petroleum Conservation Research Association (PCRA) has been working proactively in the field of conservation and efficient utilization of petroleum products through various Field Activities under Industry , Transport , Domestic and Agriculture sector like Energy Audits; Driver Training Programmes, Technical Workshops & Seminars, LPG Seminars , Kissan Melas and exhibitions etc. It is involved with conservation of petroleum products in the major sectors of economy like transport, industry, households and agriculture through direct technical assistance, research & development, educational & training programs and mass awareness campaigns. Its activities include conservation of various energy sources, evaluation and commercialization of efficient equipment, training of drivers".

1.26 When the Committee enquired how the objective of increasing production of crude oil and natural gas for reduction in oil import dependence is going to be fulfilled when budgetary allocation on exploration as well as production of crude oil & natural gas is declining, the Ministry in a written reply have informed that:

"Government has taken several policy initiatives to give a boost to petroleum and hydrocarbon sector, wherein companies will make investment at their sole risks. Therefore, no direct budgetary support is required from Government side. These policies are likely to enhance supply of crude oil and natural gas from new areas. The recent policy initiatives are as under:

- **Hydrocarbon Exploration Licensing Policy (HELP)** for Award of Hydrocarbon Acreages with New Contractual System and Fiscal Model along-with the open acreage policy.
- **Discovered Small Fields Policy-** 69 oil & gas fields which have been held by ONGC and OIL for many years, but have not been exploited, will be opened for competitive bidding.
- **Marketing and Pricing freedom for new gas production** from Deepwater, Ultra Deepwater and High Pressure-High Temperature Areas with ceiling Price. The gas price ceiling is US$ 6.61 per MMBTU on GCV basis from 1st April 2016 to 30th September, 2016.
- **Policy for grant of extension to the Production Sharing Contracts –** 28 Small sized discovered blocks were granted extension of another 10 years or till the economic life of the field. During the extended period of Contract, the royalty and cess shall be payable at prevailing rates.
- **Monetization of the Ratna offshore field –** ONGC is to initiate necessary action for development of this field.
- **Drill Stem Test (DST) Policy** - Monetization of 10 hydrocarbon discoveries in 5 NELP blocks by resolving this long pending dispute associated with testing requirements.
- **Permission of Extraction of CBM to Coal India Limited (CIL) & its subsidiaries** in coal Mining area.
- **New Domestic Natural Gas price Guidelines, 2014:** Under these guidelines, current natural gas price is US$ 3.06 per MMBTU on GCV basis w.e.f. 1st April 2016, which is revised on 6 monthly basis.
- **Policy Framework for relaxation, extensions and clarifications at the development and production stage under PSC regime for early monetization of hydrocarbon discoveries**: Government approved this policy on 10.11.2014, and the same is being implemented. Under this policy, about 40 pending cases have been resolved.

However, MOPNG has proposed for rationalisation of cess rate and also budgetary support for carrying out survey of un-appraised areas."

C. DIRECT BENEFIT TRANSFER OF LPG (DBTL) & DIRECT TRANSFER OF CASH SUBSIDY FOR KEROSENE (DTCK)

1.27 The Government launched a scheme for direct transfer of LPG subsidy to consumers across 54 districts on 15.11.2014 and in the entire country from 01.01.2015. This scheme is named PAHAL. It will benefit over 15 crore LPG consumers and will be the largest direct cash transfer scheme in the world. Under this scheme, LPG is sold to consumers at the market rate while the subsidy is directly credited to their bank accounts. Aadhaar is no longer mandatory to avail this benefit. The direct transfer of subsidy will reduce the diversion of subsidized LPG cylinders to the commercial and industrial sectors, generate significant savings and reduce the annual LPG subsidy bill.

As on 26.02.2016, out of 16.57 crore active LPG consumers, 15.16 crore have joined the scheme and are getting subsidy in their registered bank account. The scheme aims to rationalise subsidies based on approach to cut subsidy leakages, but not subsidies per-se. New consumers as and when apply and gets new connection, becomes part of the DBTL.

1.28 Under the Direct Transfer of Cash subsidy on Kerosene (DTCK) scheme Kerosene subsidies are transferred in the bank accounts of the PDS-SKO consumers. Asked about the progress made in the project, the Ministry furnished following details:

> "Government has announced implementation of Direct Benefit Transfer (DBT) in Kerosene w.e.f. 01.04.2016 in 33 districts identified by 9 State Governments namely, Chhattisgarh, Haryana, Himachal Pradesh, Jharkhand, Madhya Pradesh, Maharashtra, Punjab, Rajasthan and Gujarat. Many more districts are likely to join the DBTK.
>
> Where the scheme for direct transfer of subsidy is introduced, the consumer will pay the non-subsidized price of kerosene at the time of purchase. Subsequently, the amount of subsidy will be directly transferred to the bank account of the beneficiary. To avoid any inconvenience to the beneficiary during the initial purchase through payment of un-subsidized price, an initial amount of subsidy shall be credited to all eligible beneficiaries.
>
> With a view to incentivize States/UTs to implement DBT in kerosene, it has been decided that the States be given cash incentive of 75 % of subsidy savings during the first two years, 50 % in the third year and 25 % in the fourth year.

1.29 Asked whether any fall in demand of SKO and LPG in the states/districts have been observed, where the schemes of DBTL/DTCK have been launched, the Ministry have stated that:

> "No fall in demand of LPG has been registered in the states where the DBTL scheme has been launched.

In so far SKO is concerned, the DBTK scheme is scheduled to be launched w.e.f. 01.04.2016. Hence, the same can only be assessed after its implementation.

<u>DTCK :-</u>

Direct Transfer of Cash Subsidy on Kerosene (DTCK) was initiated based on ‘in principle’ approval of EGoM dated 8.8.2011.

A Pilot Project for DTCK was launched in the Block Kotkasim, District Alwar (Rajasthan) in December, 2011 by MoP&NG, in collaboration with Government of Rajasthan. During the Pilot, subsidy was transferred into the Bank account of PDS SKO beneficiaries and PDS SKO was moved at full market price at all points of supply.

1.30 Regarding the new initiatives taken by Ministry and OMCs during the last year to enable the LPG consumers to avail the services of OMCs with less difficulties, the Ministry informed that:

"PAHAL

PAHAL (DBTL) Scheme was launched in 54 districts of the country on 15.11.2014. Subsequently, the scheme was extended to rest of the country on 01st January, 2015. Under the Scheme, the LPG cylinders are being sold at non subsidised and subsidy, as admissible, is being transferred to consumers directly into his/her bank account. As on 26.02.2016, out of 16.57 crore active LPG consumers, 15.16 crore have joined the scheme and are getting subsidy in their registered bank account. The scheme aims to rationalise subsidies based on approach to cut subsidy leakages, but not subsidies themselves.

E-SV (Sahaj)

OMCs launched a facility by the name ‘e-SV’ on pilot basis in May 2015. ‘e-SV’ is the electronic subscription voucher emailed to the customer upon release of LPG connection online. Subscription Voucher indicates the number of cylinders and pressure regulators loaned to the customer against the security deposit. The facility enables the customers to register, make payment online for availing LPG connection at his/her doorstep without visiting the LPG distributorship. The Sahaj initiative was formally launched by the Hon’ble Minister of State (I/C), PNG in 12 cities on 30.08.15. Online new LPG connection is released after intercompany de-duplication in all districts where NIC has extended the facility. For the remaining districts, connections will be released as per the existing process of Intra Company de-duplication till NIC extends similar facility to the remaining districts".

1.31 In light of 2016 being declared as ‘Year of LPG consumers’. The Ministry have informed of the initiatives taken in this regard:

"In January, 2016, 149 new LPG distributorships have been opened. Appointment of LPG distributorships is a continuous process and the locations for setting up LPG distributorships are identified based on refill sale potential that will economically sustain the distributorship. In case the location is found as feasible, it is included in the Industry Marketing Plan and advertised subsequently. Also, selection process for more than 1500 locations is presently in various stages of selection.

Details of new initiatives taken by the Ministry in 2016 are as under:

Online Payment facility for Refills

As part of Digital India Initiatives, OMCs have launched the facility for Online New connections (SAHAJ), in which customer is also having an option for making the online payments through Net banking & credit/debit card for release of new LPG connections. By this facility customer can now book & pay online for the refills booked by Net-banking/debit/credit cards.

Emergency Helpline No. '1906'

This LPG Emergency Helpline was dedicated to the nation on 1.1.2016 by the Hon'ble Minister of PNG. This facility is available 24*7 operations with 2 shifts 12 hours each for attending emergency LPG leakage complaints".

1.32 When asked about the budget allocation for LPG subsidies and what would be the actual expenditure during the last Financial Year, the Ministry submitted as under:

"The budget allocation for LPG subsidies in 2015-16 and the actual expenditure against the same are as under:

(Amount in Rs. Crore)

Subsidy Head	**BE 2015-16**	**RE 2015-16**	**Actual 2015-16***
DBTL for LPG	21140.00	21140.00	21140.00
10.00.33 - Payment to OMCs for Project Management Expenditure for implementation of Direct Transfer of Cash Subsidy of LPG Scheme.	200.00	200.00	165.47

*till 21-03-2016".

1.33 Asked to furnish the details of total import of LPG as well as its consumption for the years 2014-15 and 2015-16 (latest), the Ministry stated that:

"The details of total import of LPG as well as its consumption for the years 2014-15 and 2015-16 (April 2015-February 2016) are given as under:

Details of LPG import and consumption during 2014-15 and 2015-16 in MMT			
S. No.	**Year**	**Import**	**Consumption**
1.	2014-15	8.195	19.935
2.	2015-16 (Apr 2015-Feb.2016)	8.75	19.36

1.34 Regarding economic criteria for abolition of subsidized LPG cylinder to the consumers, the Ministry have informed that:

"Government has taken steps to rationalize the subsidy outgo by excluding such LPG consumers or his/her having spouse taxable income of above Rs 10 lakhs from availing LPG subsidy w.e.f. 1.1.2016.

Also, the Government has given call to well-off' LPG consumers to voluntarily give up their subsidy under "Give It Up" campaign. This has resulted in more than 76 lakh LPG consumers voluntarily giving up their subsidy".

1.35 When asked how many consumers have given up subsidy under the give it up scheme launched by the Ministry of Petroleum and Natural Gas and how many new connections have been given by utilizing such subsidy, the Ministry has stated the following:

> "As on 26.02.2016, total 76.62 lakh consumers have given up their subsidy under the "Give It Up" Scheme. During Financial Year 2014-15 and 2015-16 (upto Jan. 2016) more than 51 lakh security deposit free LPG connections have been released to BPL families. Majority of BPL connections have given to rural households".

1.36 Asked about measures being taken to open new LPG distributors in order to achieve the target set by the Government provide 1.5 crore LPG connections, the Ministry submitted as under:

> "Appointment of LPG distributorships is a continuous process. Presently, total 17543 LPG distributors are catering to the LPG demand of the present customers. Selection process for appointment of about 1800 new distributors is underway and would be finalised soon. Fresh advertisement for new distributorship will be undertaken by the OMCs in the Financial Year 2016-17".

1.37 Also, whether the allotment of Rajiv Gandhi Gramin LPG Vitran (RGGLV) LPG distributorship has also started, if so, the details of policy being followed for setting up of distributorships including the criteria followed for selection of locations, the Ministry replied that:

> "Appointment of LPG distributorships is a continuous process. Presently total 5315 Rajiv Gandhi Gramin LPG Vitrak (RGGLV) are operating in the country and process of selection of more than 400 new RGGLV distributorships is underway. Locations for setting up of RGGLVs are identified based on available refill sale potential, which can sustain economically viable operation of RGGLV distributorship. The refill sale potential is based on several factors including population, population growth rate, economic prosperity of the location and the distance from the existing nearest distributor. Locations for setting up of new distributorship are determined by conducting market feasibility studies by OMCs either suo-moto considering business requirement or when the recommendations/references are received from elected representatives, local administration, State Government, etc. The selection of candidate is carried out through a transparent system of draw whereby all eligible and qualified applicants are considered for the draw".

D. <u>SUPPLY OF LPG</u>

1.38 Regarding the total number of LPG distributorship in the country as on 15 February, 2016 and new LPG distributorship opened during the last one year, the Ministry stated that:

> "As on 01.02.2016, total 17,543 LPG distributorships are in the country. Total 2158 LPG distributorships have been commissioned during 2014-15".

1.39 When asked about the net increase in the number of LPG consumers in the country during the last one year and the plans of the Ministry regarding the increase in LPG coverage in the country, the following has been replied:

"Public Sector Oil Marketing Companies (OMCs) have released total 1.63 crore new LPG connections in the year 2014-15. State – wise details of new LPG connections issued during the year 2014-15 are given below:

STATEWISE NEW ENROLMENT (in Lakhs)

	2014-15			
STATE/UT	**IOC**	**BPC**	**HPC**	**IND**
CHANDIGARH	0.127	0.024	0.018	0.169
DELHI	1.709	0.883	0.359	2.951
HARYANA	1.741	1.774	0.736	4.251
HIMACHAL PRADESH	0.818	0.131	0.096	1.044
JAMMU & KASHMIR	0.433	0.198	0.925	1.557
PUNJAB	3.015	1.630	1.070	5.714
RAJASTHAN	4.081	3.022	2.776	9.878
UTTAR PRADESH	13.941	7.610	4.911	26.462
UTTRANCHAL	0.825	0.516	0.099	1.440
SUB TOTAL NORTH	**26.69**	**15.79**	**10.99**	**53.47**
ANDAMAN & NICOBAR	0.046	0.000	0.000	0.046
ARUNACHAL PRADESH	0.216	0.014	0.000	0.230
ASSAM	3.193	0.471	0.110	3.774
BIHAR	4.376	2.171	2.602	9.149
JHARKHAND	1.182	0.399	0.559	2.140
MANIPUR	0.329	0.000	0.000	0.329
MEGHALAYA	0.117	0.004	0.000	0.120
MIZORAM	0.186	0.000	0.000	0.186
NAGALAND	0.134	0.005	0.001	0.140
ORISSA	1.729	1.464	1.557	4.750
SIKKIM	0.094	0.000	0.000	0.094
TRIPURA	0.567	0.000	0.000	0.567
WEST BENGAL	6.746	2.933	2.219	11.898
SUB TOTAL EAST	**18.91**	**7.46**	**7.05**	**33.42**
CHATTISGARH	1.549	0.419	0.860	2.828
DADRA & NAGAR HAVELI	0.000	0.000	0.087	0.087
DAMAN & DIU	0.000	0.029	0.025	0.054
GOA	0.007	0.065	0.100	0.171
GUJARAT	2.265	1.593	1.097	4.955
MADHYA PRADESH	3.677	2.268	1.871	7.816
MAHARASHTRA	2.687	7.373	6.530	16.591
SUB TOTAL WEST	**10.18**	**11.75**	**10.57**	**32.50**
ANDHRA PRADESH	2.944	3.268	3.656	9.867
KARNATAKA	4.104	3.191	3.927	11.223
KERALA	1.531	1.277	0.955	3.763
LAKSHADWEEP	0.001	0.000	0.000	0.001

PONDICHERRY	0.100	0.019	0.053	0.171
TAMILNADU	4.930	3.079	2.055	10.064
TELANGANA	3.233	3.075	2.650	8.959
SUB TOTAL SOUTH	**16.84**	**13.91**	**13.30**	**44.05**
ALL INDIA	**72.63**	**48.91**	**41.90**	**163.44**

1.40 An important announcement in the Budget Speech (2016-17) relating to the petroleum sector pertains to the pricing mechanism for oil and gas discovered in difficult areas such as deep water, ultra-deep water and high temperature and high pressure areas. The Committee sought to know the details about the 'calibrated marketing freedom'. The Ministry in written reply stated the following:

"The Government of India vide notification dated 21.03.2016 has notified the marketing including pricing freedom for the gas to be produced from discoveries in Deepwater, Ultra Deepwater, and High Pressure-High Temperature areas as hereunder:-

i. For all the discoveries in deep water/ ultra deep water/ high temperature-high pressure areas which are yet to commence commercial production as on 01.01.2016 and to all future discoveries in such areas, the producers will be allowed marketing freedom including pricing freedom subject to a ceiling price linked to the landed price of alternate fuels.

ii. If there is pending arbitration or litigation filed by the contractors directly pertaining to gas pricing covering such fields, this policy guideline shall be made applicable only on the conclusion/ withdrawal of such litigation/ arbitration and the attendant legal proceedings.

iii. The landed price-based ceiling will be calculated once in six months and applied prospectively for the next six months. The price data used for calculation of ceiling price in US $ per mmbtu (GCV) shall be trailing four quarters data with one quarter lag.

iv. The ceiling price in US $ per mmbtu (GCV) shall be calculated as, lowest of the (i) landed price of imported fuel oil (ii) Weighted average import landed price of substitute fuels (0.3 x landed price of imported coal + 0.4 x landed price of imported fuel oil + 0.3 x landed prices of imported naphtha) and (iii) Landed price of imported LNG.

Director General of Petroleum Planning and Analysis Cell (DG, PPAC) will notify the periodic revision of gas price ceiling under these guidelines. Accordingly, PPAC has notified gas price ceiling of US $ 6.61/mmbtu on GCV basis for the period 1st April, 2016 to 30th September, 2016.

The phrase 'calibrated marketing freedom' is used as the gas pricing and marketing freedom is not absolute freedom but conditional with a ceiling and applicable to only hydrocarbon discoveries to be developed in Deepwater, Ultra Deepwater, and High Pressure-High Temperature areas".

E. NEW EXPLORATION LICENSING POLICY(NELP)/HYDROCARBON EXPLORATION LICENSING POLICY (HELP)

1.41 Asked about the status of development of exploration blocks awarded under previous rounds of NELP, the following status was provided by the Ministry:

> "So far, nine rounds of NELP bidding have been concluded, under which Production Sharing Contracts were signed for 254 blocks in 19 sedimentary basins awarded to National Oil Companies, Private and Foreign Companies.
>
> NELP-IX round was launched on 15.10.2010 and the bid receiving date was till 28.03.2011. Under this round, 34 exploration blocks were offered for bidding and 74 bids were received for 33 blocks. A total of 19 blocks (4 in Western Offshore, 2 in Assam, 2 in Madhya Pradesh, 1 in Tripura, 1 in Rajasthan and 9 in Gujarat) have been awarded to Public Sector, Private/Foreign Companies.
>
> **Status of Blocks Awarded under NELP bidding Rounds**
>
> At present out of 254 exploration blocks, 87 exploration blocks are operational. The other details are as under:

Bidding Round	Operational	PEL Awaited	Proposed for Relinquishment	Relinquished	Blocks awarded
NELP I	4		2	18	24
NELP II	4		1	18	23
NELP III	5		5	13	23
NELP IV	5		5	10	20
NELP V	6		3	11	20
NELP VI	13		13	26	52
NELP VII	16	1	7	17	41
NELP VIII	23	2	4	3	32
NELP IX	11	6	1	1	19
Total	87	9	41	117	254

1.42 Asked about the status of proposed uniform licensing policy (ULP) that has been proposed in place of NELP and when will be next round of exploration blocks will be awarded for tendering, the Ministry have informed that:

> "A uniform licensing policy to enable E&P operators to explore and extract all hydrocarbon resources covered under the Oilfields Regulation and Development (ORD) Act, 1948, and Petroleum and Natural Gas (PNG) Rules, 1959 under one PEL/PML, and one contractual regime will replace the NELP and CBM regime for the Contracts to be awarded in future. The uniform licence will enable the contractor to explore conventional and unconventional oil and gas resources including CBM, shale gas/oil, tight gas, gas hydrates and any other resource to be identified in future which fall within the definition of “Petroleum” and “Natural Gas” under PNG Rules, 1959.
>
> Present fiscal system of production sharing based on PTIM and cost recovery /production linked payment will be replaced by a revenue sharing model. The earlier contracts were based on the concept of profit sharing. Under the profit sharing methodology, it became necessary for the Government to scrutinize cost details of private participants and this led to many delays and disputes. Under the new regime, the Government will not be concerned with the cost incurred

and will receive a share of the gross revenue from the sale of oil, gas etc. This is in the line of “Ease of Doing Business” philosophy. Currently, Cabinet Note on Uniform Licensing Policy is under circulation for intern-ministerial consultation".

1.43 During the oral evidence for examination of Demands for Grants (2016-17), the Committee was apprised of new Hydrocarbon Exploration Licensing Policy (HELP) for bringing uniform marketing and price mechanism. The Committee asked to explain the broad difference between the NELP and HELP. In this regard, the Ministry replied that:

"As told by the Additional Secretary about Hydrocarbon Exploration Licensing Policy in presentation, there are three changes vis-a-vis NELP. Most important point is that there will be uniform licensing. They can explore all the Hydrocarbons, be it CBM, Hydrate or normal Hydrocarbon in a particular area or block. Whatever was the existing licensing pattern till date, it was different in case of CBM ".

1.44 The Committee further enquired as to how the revenue parameters will be decided under the new revenue sharing mechanism. The officials of the Ministry during the oral evidence submitted the following:

"It is revenue sharing and not production sharing. Based on the appraisal of that area, whatever information is available with the bidder, he will give out his bids and there will be formulae how the revenue will be shared".

1.45 The Committee further enquired if the gas pricing discovery leads to two different prices from the same field, how the revenue sharing of the government will be decided. The officials of the Ministry during the Oral evidence replied the following:

"Once the pricing and marketing freedom is there, when production comes, the things will develop".

1.46 The Committee sought to know when the new blocks for exploration will be awarded by the Government which will provide new sources of hydrocarbon. The Ministry in their written reply submitted the following:

"Government has recently approved Hydrocarbon Exploration Licensing Policy (HELP) and notified on 30th March 2016. This policy provides for a uniform licensing system to explore and produce all hydrocarbons such as oil, gas, coal bed methane, etc. under a single licensing framework. Under this policy, exploration blocks will be awarded through international competitive bidding process. On completion of preparatory work for launching HELP, new blocks are likely to be awarded in 2016-17 under Open Acreage Policy”

1.47 The Committee wanted to know if any study was undertaken to find out the efficacy of Hydrocarbon Exploration Licensing Policy (HELP) vis-à-vis NELP. Whether models being followed in other countries in similar situations were studied before the adoption of the policy? Also whether any in-house or otherwise studies have been done to find out possible complications that may arise in the implementation of the policy and the ways to overcome those complications, the Ministry in written reply have given the following details:

"The earlier contracts were based on the concept of profit sharing where profits are shared between Government and the contractor after recovery of cost. Under the profit sharing methodology, it became necessary for the Government to scrutinize cost details of private participants and this led to many delays and disputes.

The fiscal system of production sharing based on Investment Multiple and cost recovery in NELP and production level payment in CBM Policy will be replaced by a easy to administer revenue sharing model in HELP. This model will resolve the issues raised by Ashok Chawla Committee on “Allocation of Natural resources” and CAG. Further, Dr. Rangarajan Committee has also recommended the RSC Model over PSC Model. Hydrocarbon Exploration Licensing Policy (HELP) has been approved in consultation with stakeholders and through inter-ministerial consultation process.

Under the new regime, the Government will not be concerned with the cost incurred and will receive a share of the gross revenue from the sale of oil, gas etc. This is in tune with Government’s policy of “Ease of Doing Business”. The new Hydrocarbon Exploration Licensing Policy (HELP) also provides for Open Acreage wherein the prospective bidder can carve out their own blocks based on the data made available to them through the National Data Repository (NDR). The HELP will also enable the contractor to explore and exploit all kinds of hydrocarbon (conventional as well as unconventional) under a single license.

HELP has some other attractive features such as marketing and pricing freedom for gas, exploration throughout the contract period, reduced royalty for offshore blocks and more operational freedom to operators etc.

The HELP has been formulated after taking into account the experience gained over nine rounds of NELP, inputs from expert committees and international best practices.

A comparison between HELP and NELP is as under:

Parameter	HELP	NELP
Model	Revenue sharing	Profit sharing
Cost recovery	Not applicable	Yes
Cost efficiency	encouraged	neutral
Royalty	Low rates for offshore	Standard rates
Exploration Period	Onland and Shallow Water- 7 years Deepwater- 8 years	Onland and Shallow Water- 8 years Deepwater& Ultra-deepwater - 10 years
Management Committee	More focus on reservoir monitoring; no micro-management	Technical & financials examination
Revenue to Government	On production	On cost recovery or as per biddable conditions

Note: Shallow water blocks upto 400 metre water depth. Deepwater blocks more than 400 metre and less than 1500 metre water depth. Ultra-deepwater more than 1500 metre water depth."

F. PRODUCTION OF CRUDE OIL AND NATURAL GAS

(i) Targets and Actual Production

1.48 When asked to furnish the details the targets and the actual production for oil and natural gas production during the 12th Plan, the Ministry have furnished the Year-wise MoU targets and actual production during the 12th Five Year Plan as under:

	2012-13		**2013-14**		**2014-15**		**2015-16**	
	Target	**Actual**	**Target**	**Actual**	**Target**	**Actual**	**Target (Apr-Jan)**	**Actual* (Apr-Jan)**
Crude Oil (MMT)	40.05	37.86	39.46	37.79	38.76	37.46	30.83	30.99
Natural Gas (BCM)	41.31	40.68	38.45	35.41	36.62	33.66	29.39	27.15

*: Provisional

Reasons for shortfall:

Crude Oil: Production of crude oil was less than the target because of decline in production from the major producing fields of the country particularly in Mumbai High, Gujarat and North-Eastern region that are quite old and ageing fields. Further, no major discoveries have been found in the recent past. Production of crude oil was also affected due to bandhs/ blockades in Assam and delay in commencement of production from wells in Andhra Pradesh.

Natural Gas: The shortfall in natural gas production was mainly due to sharp decline in production in KG deep-water block operated by RIL, natural decline in major gas producing fields like Bassein, M&S Tapti, Gujarat, etc, and delay in commencement of production from eastern offshore fields. Blast in Tatipaka gas pipeline of GAIL in East Godavari District last week of June'14 affected production in Andhra Pradesh. Production was also affected due to consequential effect of bandhs / blockades in the North Eastern region.

1.49 Regarding the expenditure incurred on the import of crude oil and petroleum products during the last 3 years, the ministry have furnished the details of crude oil and POL imported during 2012-13 to 2015-16 (Apr-Dec) (P) with corresponding value in Rs Crore and Million US dollars as under:

"Quantity in MMT:

Details of import of Crude oil and petroleum products, 2012-13 to 2015-16(Apr-Dec) (P)			
			(Million Metric Tonnes)
Year	Crude Oil Import	Products Import	Gross Imports
2012-13	184.8	15.77	200.57
2013-14	189.24	16.72	205.96
2014-15	189.44	21.30	210.74
2015-16(Apr-Dec) (P)	149.29	21.08	170.37
Source: Petroleum Planning and Analysis Cell			

Value in Rs. Crore

Details of import of Crude oil and petroleum products, 2012-13 to 2015-16(Apr-Dec) (P)			
			(Rs. Crore)
Year	Crude Oil Import	Products Import	Gross Imports
2012-13	784652	68363	853015
2013-14	864875	74605	939480
2014-15	687416	74,644	762,060
2015-16(Apr-Dec) (P)	340770	51656	392425
Source: Petroleum Planning and Analysis Cell			

Value in Million US Dollar

Details of import of Crude oil and petroleum products, 2012-13 to 2015-16(Apr-Dec) (P)			
			(Million US$)
Year	Crude Oil Import	Products Import	Gross Imports
2012-13	144293	12506	156799
2013-14	142962	12255	155217
2014-15	112744	12,138	124,882
2015-16(Apr-Dec) (P)	52705	7926	60632
Source: Petroleum Planning and Analysis Cell			

Year-wise expenditure incurred on import of crude oil and petroleum products during 2012-13 to 2015-16 (April-January) is as under:

(₹ crore)

Item/Year	**2012-13**	**2013-14**	**2014-15**	**2015-16* (Apr-Jan)**
Crude Oil	7,84,652	8,64,875	6,87,416	3,64,731
Petroleum Products	68,363	74,605	74,644	57,123

*: Provisional

1.50 Regarding the foreign exchange earned as a result of export of petroleum products during the last 3 years, the Ministry replied the following:

Export details of Petroleum products, 2012-13 to 2015-16(Apr-Dec) (P)				
Products	**2012-13**	**2013-14**	**2014-15**	**2015-16(Apr-Dec) (P)**
Quantity in TMT	**63,408**	**67,864**	**63,932**	**43,779**
Value in Million US$	**58,848**	**60,664**	**47,277**	**21438**
Source: Petroleum Planning and Analysis Cell				

Year-wise foreign exchange earned from exports of petroleum products during 2012-13 to 2015-16 (April-January) is as under:

Item/Year	**2012-13**	**2013-14**	**2014-15**	**2015-16 (Apr-Jan)***
Million US$	58,848	60,664	47,277	23,242
₹ crore	320,090	368,279	288,580	150,982

*: Provisional

1.51 When asked whether overseas oil assets have become cheaper due to lower crude oil prices and the opportunities available for acquiring of such assets in the current situation and the details of oil and gas assets which have been acquired by Indian Oil PSUs during last two years, the Ministry have stated as under:

"Oil prices are cyclical whereas investments in Oil & gas assets are long term investments. There is no direct correlation between oil prices and price/investments in assets.

Price of assets depends upon the market situation based on demand and supply. Assets are acquired based on techno commercial feasibility of an asset.

Details of oil and gas assets which have been acquired by Indian Oil PSUs during last two years are as under:

Sl. No.	Country	Name of Project	Date of Acquisition	Participating Companies
1.	Bangladesh	SS-04	17.02.2014	OVL: 45% OIL: 45% BAPEX: 10%
2.	Bangladesh	SS-09	17.02.2014	OVL: 45% OIL: 45% BAPEX: 10%
3.	Myanmar	Block B-2	08.08.2014	OVL: 97% M&S: 3%
4.	Myanmar	Block EP-3	08.08.2014	OVL: 97% M&S: 3%
5.	Myanmar	Block M-4	04.12.2015	OIL: 60% (op) Oilmax: 10% Mercator: 25% Oil Star: 5%
6.	Myanmar	Block - YEB	04.12.2015	OIL: 60% (op) Oilmax: 10% Mercator: 25% Oil Star: 5%
7.	New Zealand	PEP-57090	PSC signed on 09.12.2014 effective from 01.04.2015	OVL: 100%
8.	Australia	T/L1	03.11.2014	Origin Energy Resources Ltd. – 37.5% (operator) Origin Energy Northwest Ltd.- 5% AWE Petroleum Pty Ltd.- 22.5% AWE (Bass Gas) Pty Ltd. 12.5% Toyota Tsusho Gas E&P Trefoil Pty Ltd.- 11.25% Prize Petroleum International Pte Ltd- 11.25%
9.	Australia	T/18P	03.11.2014	Origin Energy Resources Ltd. – 39% (operator) AWE Petroleum Pty Ltd.- 40% Toyota Tsusho Gas E&P Trefoil Pty Ltd.- 6.25% Toyota Tsusho Gas E&P Otway Ltd.- 6.25% Prize Petroleum International Pte Ltd- 9.75%
10.	Mozambique	Area Rovuma 1 offshore	07.01.2014	BREML: 10% Anadarko: 26.5%(op) BPRL: 10% PTTEP: 8.5% Mitsui: 20% OVL: 10%

				ENH: 15%
11.	Russia	License 61	03.07.2014	OIL: 50% Petroneft: 50% (Jt Operators)

1.52 When asked to furnish the details regarding different heads under which ONGC allocates its budget along with allocation made during the last three years, the Ministry have furnished the following information:

"Allocation made by ONGC under different activities / heads during the last three years are as under:

(Rs. Crore)

Sl. No.	Activity	2012-13	2013-14	2014-15
1	Seismic Survey	1719.64	1260.06	1912.38
2	Exploratory Drilling	7667.49	9320.79	12407.41
3	Development Drilling	5830.58	7976.35	7838.79
4	Capital Projects & Purchases	15606.70	14610.19	11731.15
5	R&D and Institutes	245.93	390.92	543.44
6	JV Domestic	1322.98	640.47	859.08
7	Integration	671.98	850.44	766.82
	Total	**33065.31**	**35049.23**	**36059.07**

1.53 When asked about the target set for expenditure under the head exploration activities during the year 2015-16 for ONGC/OIL and the actual expenditure, the Ministry have informed as given below:

"ONGC

Target set for expenditure under the head exploration activities during the year 2015-16 and actual expenditure till December'15 (9 months) is as under:

(Rs. Crore)

Sl. No.	Activity	2015-16	
		Target (BE)	**Actual (April-Dec)**
1	Seismic Survey	2099.35	1002.27
2	Exploratory Drilling	12169.92	6,006.14
	Total	**14269.27**	**7008.41**

OIL

Expenditure on seismic survey and exploratory drilling in 2015-16 by OIL on domestic exploration is as under:

(Rs. Crore)

Sl. No.	Activity	2015-16	
		Target (BE)	**Actual (April-Dec)**
1	Seismic Survey	345	323
2	Exploratory Drilling	1249	534
	Total	**1594**	**856**

1.54 Regarding the amount of oil and gas production added to the production of ONGC and OIL from new discoveries during the last year, the Ministry stated the following:

"As regards ONGC, majority of the discoveries made by ONGC in the last few years are deep water / small / marginal / NELP discoveries and most of them are under appraisal / approval. ONGC has taken / is taking various initiatives to monetize these discoveries as early as possible.

In this context, it is to mention that there exists a lead-time from discovery to production, which varies depending on the location of the discovery i.e. Offshore (Shallow/deep water) or Onshore, size of the discovery & NELP discovery and the lead time varies from few months to few years. The process of putting new discoveries on production comprises of various steps such as exploratory drilling, field appraisal / delineation, issuance of mining lease, development plan comprising of setting up processing facilities and development wells.

In Onshore areas discoveries are generally put on production immediately except for isolated gas discoveries. It may be mentioned that in offshore many marginal fields which were discovered earlier and were not techno-economically viable on standalone basis are now being developed through cluster concept, induction of the state of art technologies, optimization of facilities, and hub development etc. The contribution from such marginal fields in offshore during 2014-15 is 2.826 MMT of oil and 3.412 BCM of gas.

The contribution from onshore and offshore discovered fields put on production during 2014-15 is as under:

	Crude Oil Production (MMT)	Natural Gas Production (BCM)
Onshore	0.283	0.345
Offshore	2.826	3.412
Total ONGC	3.109	3.757

OIL

Incremental oil and gas production by OIL from new discoveries during the last financial year, 2014 -15 was:

Oil - 15,901.88 Tonnes
Gas - 1.029 MMSCM".

(ii) IOR/EOR SCHEMES

1.55 With respect to the incremental increase in production of ONGC and OIL due to IOR/EOR projects, in written reply, the Ministry have stated that:

"Improved Oil Recovery (IOR) / Enhanced Oil Recovery (EOR) Projects by ONGC

As regards ONGC, the details of Improved Oil Recovery (IOR) / Enhanced Oil Recovery (EOR) and redevelopment schemes of ONGC along with envisaged / cumulative incremental oil and gas gain up to December 2015 are as under:

IOR / EOR / Redevelopment projects

Sl. No.	Name of the scheme	Date of project completion/ Sch. Completion	Envisaged incremental gain		Cumulative incremental gain upto December 2015	
			Oil (MMT)	Gas (BCM)	Oil (MMT)	Gas (BCM)
Completed Projects						
1	Additional development of Heera Part-I	Nov. 2003	3.19 by 2020	0.55 by 2020	1.076	0.228

2	IOR Neelam	June 2005	2.06 by 2020	1.235 by 2020	2.768	1.235
3	Mumbai High North redevelopment	Dec. 2006	23.25 (Revised) by 2030	6.10 (Revised) by 2030	16.935	4.892
4	Mumbai High South redevelopment	May 2007	33.85 (Revised) by 2030	10.26 (Revised) by 2030	28.100	9.115
5	Additional Development of A1 Layer L-III Reservoir	March 2008	3.49 by 2030	0.79 by 2030	3.183	0.563
6	Additional development of Heera Part-II and exploitation of free gas from Bandra formation	Dec. 2008	2.645 by 2020-21	3.753 by 2020-21	2.283	1.753
7	Redevelopment of Heera & South Heera Phase-I	Nov. 2011	10.685 by 2030	2.265 by 2030	5.946	1.530
8	Mumbai High South Redevelopment Project Phase-II	June 2014	18.31 by 2029-30	2.70 by 2029-30	9.181	3.544
9	Mumbai High North Redevelopment Project Phase-II	June 2014	17.354 by 2029-30	2.987 By 2029- 30	6.148	1.624
10	Redevelopment of Heera & South Heera fields Phase-II	August 2015	13.361 by 2034-35	1.665 by 2034-35	0.900	0.252
11	Balol EOR	Nov. 2001	6.520 by 2020	-	2.600	-
12	Santhal Infill	Nov. 2003	0.326 by 2013	-	7.965	-
13	Santhal EOR	Dec. 2001	14.770 by 2020	-		
14	Sanand EOR	Sept.2002	0.624 (Revised) by 2020	-	1.303	-
15	Jotana	Oct. 2004	0.915 by 2020	-	0.563	-
16	Gandhar	June 2005	4.338 by 2020	2.690 by 2020	4.869	3.273
17	North Kadi Ph.II	Nov. 2006	0.363 by 2018	-	0.556	-
18	North Kadi Ph.I	April 2007	1.097 by 2020	-	1.046	-
19	Sobhasan	May 2008	1.194 by 2020	-	0.820	-
20	Kalol	July 2010	2.656 by 2020	0.460 by 2020	2.266	0.420
21	IOR Geleki	August 2013	4.761 by 2023-24 (Revised)	1.589 by 2023-24 (Revised)	2.138	0.721
22	IOR Lakwa – Lakhmani	September 2013	3.061 by 2023-24 (Revised)	0.361 by 2023-24	1.315	0.184
23	IOR Rudrasagar	March 2014	2.507 by 2023-24 (Revised)	0.393 by 2023-24 (Revised)	0.642	0.162

Projects under implementation						
1	Mumbai High North Redevelopment Project Phase-III	May 2017	6.997 by 2029-30	5.253 by 2029-30	0.491	0.075
2	Mumbai High South Redevelopment Project Phase-III	March 2019	7.547 by 2029-30	3.864 by 2029-30	0.167	0.239
3	Development of Western Periphery of Mumbai High South field	May 2016	1.031 by 2029-30	0.214 by 2029-30	-	-
4	Neelam Redevelopment Plan for Exploitation of Bassein & Mukta pay-Neelam field	May 2019	2.76 by 2034-35	4.786 by 2034-35	-	-

Improved Oil Recovery (IOR) / Enhanced Oil Recovery (EOR) Projects by OIL

The contribution of IOR/EOR in crude oil production was about 1.2 MMT by Oil India Limited against the target of 1.26 MMT in 2014-15".

(iii) MARGINAL FIELD POLICY

1.56 Regarding steps being taken in the direction of offering tenders for exploration and production from identified marginal or small fields, the Ministry have informed that:

"On 2nd September, 2015, the Union Cabinet approved the Marginal Fields Policy (MFP), for development of hydrocarbon discoveries made by national oil companies; Oil & Natural Gas Corporation Ltd. (ONGC) and Oil India Ltd. (OIL). These discoveries could not be monetized for many years due to various reasons such as isolated locations, small size of reserves, high development costs, technological constraints, fiscal regime etc.

Salient features of Marginal Field Policy

i. Up to 100% foreign direct investment is allowed.
ii. No Investment by the Government. Hydrocarbon discoveries are to be developed at sole risks of exploration companies.
iii. Single license for conventional and non-conventional hydrocarbons
iv. Bids on a Revenue Sharing Contract (RSC) Model.
v. Freedom to sell the crude oil exclusively in domestic market through a transparent bidding process on arms length basis.
vi. Freedom for pricing and marketing of gas produced from a contract area on arms length basis.
vii. Royalty rates same as applicable under New Exploration Licensing Policy (NELP) regime. No cess on crude oil.
viii. Exemption from custom duty on all machinery, plants, equipments, materials and supplies related to petroleum operations as applicable in NELP.

Though the Cabinet approved 69 marginal fields for offering under Marginal Fields Policy, two fields located in the State of Nagaland has been excluded from the current round of bidding on the request from Government of Nagaland. Now 67 fields are to be offered.

The small sized blocks are likely to be awarded in 2016. The policy has been now renamed as “Discovered Small Field Policy”.

1.57 When the Committee asked about the status of implementation of the Marginal Field Policy for development of hydrocarbon fields and by when the blocks under the policy are likely to be awarded, the Ministry in written reply have stated that:

> "The necessary preparations for launch of Discovered Small Field Policy (Marginal Field Policy) such as legal vetting and approval of Empowered Committee of Secretaries for Notice Inviting Offer, Bid Evaluation Criteria and Model Contract have been completed. The bid for these oil &gas fields is likely to be launched in the current financial year 2016-17."

G. EXPLORATION AND PRODUCTION BY ONGC AND OIL

(i) Performance of ONGC and OIL

1.58 When asked to furnish the details regarding the performances of ONGC and OIL with respect to crude oil and natural gas production during the last three years as against the target set and shortfalls, if any, and measures taken to improve the performance by these companies, the Ministry in its written reply submitted the following:

"ONGC Performance in crude oil and natural gas

As regards ONGC, the details of ONGC's standalone crude oil (including condensate) & natural gas production w.r.t. MOU Target along with percentage achievement during the last three years i.e. from 2012-13 to 2014-15 and the current year 2015-16 (April'15 to December'15) are as under:

Year	Crude Oil Production (MMT)			Natural Gas Production (BCM)		
	MOU Target	Actual	% Ach.	MOU Target	Actual	% Ach.
2012-13	23.980	22.563	94.09	23.690	23.549	99.40
2013-14	24.084	22.247	92.37	23.442	23.284	99.33
2014-15	23.510	22.264	94.70	24.000	22.023	91.76
2015-16*	16.935	16.885	99.70	17.784	16.272	91.50

* 2015-16 (April'15 to December'15) - Figures are provisional.

Major reasons for shortfall in crude oil and natural gas production during the last three years i.e. from 2012-13 to 2014-15 and the current year 2015-16 (April'15 to December'15) are as under:

Offshore

- Less than planned production from D1 field (NBP) due to drilling complications in new wells. However the production has been ramped up from 2014-15 by taking various corrective measures including installation of high capacity Electric Submersible pumps.
- Less than planned production from Vasai East field as few wells could not sustain the continuous production as planned. The wells were worked over with installation of Auto Gas lift.
- Less than planned gain from new wells / side track wells in Western Offshore.
- Delay in commencement of production from WO 16 cluster & B193 cluster fields and less than planned production from B193 cluster due to initial start-up

problems with acid gas disposal unit under Gas sweeting facilities. Also, there has been less than envisaged production from cluster-7 fields.

- Major overhauling of Process Gas Compressors of Heera and Neelam in western offshore.
- Delay in commencement of production from G1 deep water field and one deep water well (S2-AB) in Eastern offshore.

In addition to above, the gas production was also affected due to following unplanned operational constraints:-

- Restricted gas production due to leakage in M/s GAIL's pipe line, downstream of Bhagodia in Hazira sector, during April'2014
- Gas supply from major gas producing Bassein field remained affected in July'2014 for safety / maintenance issues of 42" SBHT (South Bassein Hazira Trunkline) pipeline at landfall point at Umbhrrat. Also re-routing of section of 42" SBHT at Umbhrat Hazira was carried out from 11th July to 1st Aug'15 and 42" SBHT line remained closed during the period.
- Closure of Eastern offshore wells, post GAIL pipeline incident on 27th June 2014. Production could be resumed from 30th Oct'14 onwards.

Onshore

Inconsistent performance of (In-Situ Combustion) ISC schemes in Santhal & Balol fields, gassing off of wells due to early flue gas breakthroughs, increase in water cut.

- Performance of completed horizontal wells has not been satisfactory.
- Unplanned shut down of M/s GAIL gas line from Ahmedabad/Kalol to Ramol has caused closure of wells and loss @ 0.048 MMSCM from Jul'2014.
- Delay in completion of 5 ETPs project for creation of effluent handling facilities in Jhalora, Kalol, Nawagam & Limbodara fields.
- Sharp decline in production of Gandhar and Jambusar fields due to increased water cut and depletion of reservoir pressure.
- Production envisaged from Nadiad/ Vadatal fields from 2013-14 has also not been realized due to delay in approvals. Production has commenced in Vadatal field in Mar-2015 and from Nadiad field from Apr-2015.
- Less than envisaged production of Padra & Kathana fields.
- Inordinate delay in completion of Assam Renewal Project (ARP Group A).
- Loss due to locked up free gas potential in Khoraghat/Nambar fields due to non-availability of consumers.
- Less associated gas production from major fields of Assam.
- Delay in commissioning of OTPC Plant, Palatana.
- Less gas production due to less off-take by downstream consumers.
- Less gas off take by TNEB power plants in Ramnad & Kuthalam areas.
- Loss in gas production due to fire incident in Tatipaka-Lanco GAIL's pipeline and subsequent closure of 98 wells for taking up other gas pipeline for repairs / health monitoring.
- Loss of gas production due to non-availability of compressor/ High pressure at GAIL end. Production from Chinnewala field (33.5 MMSCM) locked up due to non-availability of facilities.

OIL Performance in crude oil and natural gas

As far as OIL is concerned, the targets vs. achievements in its crude oil and natural gas production in last three years are given below:

Year	Crude Oil Production (MMT)		Natural Gas Production (MMSCM)	
	Target (MoU)	Actual (*)	Target (MoU)	Actual
2012-13	3.950	3.661	2,919	2,639.21
2013-14	3.915	3.466	2,740	2,625.81
2014-15	3.599	3.412	2,838	2,722.21
2015-16*	3.595	2.711	3,010	2,365.78

* Actual production from April, 2015 to January, 2016

OIL: Reasons for shortfall in Crude Oil and Natural Gas production:

OIL's Crude Oil production target is planned based on the following resources:

1. Contribution from old wells
2. Potential retrieval by workover efforts
3. Potential build-up by drilling efforts

- Old wells

  Less than planned contribution from Old well:

  The contribution expected from old wells during the last three years were short of expectation primarily for the following reasons:

  - higher than expected rate of decline in production from old wells due to increase water cut, falling of tubing head pressure, reduction in liquid in Shalmari, Dikom, Greater Chandmari and Greater Hapjan Fields.

  - Permanent loss of production from many wells due to closure of the wells for prolonged period in March, 2014/ April 2015 due to agitation by local organisations in connection with recruitment of employees by OIL.

  - Miscreant activities in no. of wells, Oil Collecting Stations (OCS) and Gas Collecting Stations (GCS) affected gas lift operation leading to crude oil production loss.

  - Loss of crude oil production due to environmental reasons like bandhs/ blockades.

  - Disruption in bowser transportation of crude oil during various bandhs and blockades.

- Workover efforts

  Less than planned contribution from workover wells. Retrieval of wellhead potential by workover effort has exhibited a diminishing trend because of ageing of the major oilfields.

- Drilling efforts

  Less than planned contribution from drilling wells. Potential build-up by drilling effort fell short of expectation because of limited structural traps which can be exploited, and plateauing of majority of the established oilfields.

  Natural gas:

- Low upliftment by gas consumers in NE lead to regulated Gas well production
- Unplanned shutdown of power and fertilizer plants of consumers in NE.
- Delay in commissioning of BCPL Plant at Lepetkata, Dibrugarh
- Miscreant Activities in Gas Pipelines of Field Areas other environmental problems.
- In Rajasthan, the old vintage Gas turbines of the sole customer M/S RRVUNL get frequent shutdown and running at restricted plant load.

In order to improve crude oil production, OIL has chalked out following action plans:

1) Installation of ESP

   With an aim to improve production from depleted reservoirs, installation of Electrical Submersible Pumps (ESP) as a means of Artificial Lift Pumps has been planned A total of 10 ESP will be installed in OIL's oilfield which will be carried out in four phases, 2 (two) wells each in 1st& 2nd phase and 3 wells each in 3rd& 4th phase.

2) Hydraulic Fracturing

   In the initial phase of the hydro fracturing campaign, 5 wells across the fields were taken up. The total gain of crude oil and gas production after hydraulic fracturing was 61 KLPD of crude oil and 49500 SCUMD of natural gas. In view of the encouraging results in the campaign, the contract has been extended for another 5 wells. Preparatory job is in progress for the next target wells.

3) Matrix Acidization

   For enhancement of production from wells with formation damage, matrix acidization job has been taken up. For the first phase, only water disposal wells and water injection wells are taken up for acidization which will indirectly help in maintaining crude oil production and reservoir management. A contract has been signed with M/S Assam Petroleum Limited for 4(four) years to execute the stimulation jobs. At present 15 nos. of wells have been selected.

4) Radial Drilling

   For enhancement of crude oil production from old fields like Nahorkatiya and Jorajan, Radial Drilling has been planned so that the gain in crude oil could be achieved through testing of higher up sands. LOA has been issued to M/S Radial Drilling Services, USA for 4(four) nos. of wells.

5) Gravel Pack

   Sand ingression has become a major issue in reducing crude oil production in OIL's major oilfield like Makum & Hapjan and gas fields like Lohali, Deohal etc. Gravel pack campaign for total 20 (twenty) nos. of wells has already been initiated. Out of these wells, the gravel pack jobs at 4 (four) wells have already been completed. For next 10 (ten) wells, 4 (four) nos. of oil wells have been earmarked and rest are gas wells.

6) In-house Studies

   In-house studies are also being undertaken for retrieval of oil from un-drained and by passed reservoir areas through in-fill drilling campaigns.

7) Chemical Water Shut-off

   In the recent times, water cut has increased significantly from matureed fields like Naharkatiya, Makum, Bhogpara etc. To arrest the increasing trend of water cut and thus increasing the longevity of the producing wells, implementation of chemical water shut off technology is being envisaged in Bhogpara and a few other Eocene wells. The job will be carried out by IRS, ONGC.

8) Prioritization of wells with high potential for workover

   To compensate old well decline, special thrust has been given on workover operation and wells with high potential have been prioritized in workover schedule. The positive results of the effort could be seen in the form of gain of about 40 MTPD of oil from recent workover wells viz., SLM-9, HJN-4, TMK-6, NHK-489. Extensive periodic reviews are being carried out to find additional oil (quick gain) through workover operations such as Live Condition Perforations, Zone Transfers, isolation repair etc.

9) Setting up of security camps at various strategic locations to prevent environmental losses

Environmental issue like Bandh, Blockades and miscreant activity have adversely affected crude oil production in recent past. To minimize the loss due to environmental reasons, security in oilfields has been intensified by setting up additional security camps in strategic localities.

10) Development drilling candidates are being reviewed to improve realization of higher potential from new wells.

ii) Similarly, efforts are underway to enhance the Gas production from our fields in Assam & Arunachal Pradesh. To enhance gas production, the following steps have been implemented:

a) Drilling campaign of Non-Associated Gas wells in current & coming years.

b) New gas well completion policies have been adopted - Completion of high volume production of gas wells.

c) Focused work over campaign.

d) Infrastructure development as Central Gas Collection Station (CGGS) at Madhuban, Duliajan. CGGS has already been commissioned.

e) Construction of 1 no Field Gas Gathering Station (FGS) at Chabua of 37 km long Gas pipeline from Baghjan to Duliajan. The FGS and the pipeline have already been commissioned.

f) Above actions resulted in increase of production from Assam and Arunachal Pradesh fields to the present level of 8.42 MMSCMD from the production level of 6.90 MMSCMD at the beginning of the year 2015- 16. Necessary activities including surface infrastructures development has been planned to increase the production to a level of more than 9.00 MMSCMD in the coming year in order to meet the existing committed requirement, particularly after commissioning of Brahmaputra Crackers and Polymers Ltd. (BCPL)".

1.59 When asked about the steps being taken by ONGC and OIL to improve crude oil and natural gas production and the increase in crude oil and gas production can be expected in the next two years and also the details of exploration blocks of ONGC and Oil presently awaiting clearances from other Ministries/departments, the Ministry have informed the following:

"ONGC

ONGC is continuously undertaking various initiatives to augment the production of crude oil and natural gas and has chalked out two pronged strategy i.e. Redevelopment of existing brown fields and development of new fields / marginal fields particularly in offshore areas.

ONGC is developing small / marginal fields, which were not viable on standalone basis, through cluster concept. Some of marginal fields put in production in last few years include NBP (D-1), SB-11, C-24 cluster, B-22 cluster, B-193 cluster, Vasai East, B-46 cluster, North Tapti, BHE/BH-35, SB-14, Cluster-7 and WO-16 cluster etc. Further, marginal fields under B-127 cluster, C-26 cluster and Daman Development Project (C-24 Addl. & B-12 fields) are under various stages of implementation and likely to be put on production in the coming years.

Further, ONGC is also giving major thrust to develop discoveries made in the Krishna Godavari basin in Eastern offshore. Production from shallow water field i.e. GS-15 field and deep water G1 field has already commenced and other discoveries like, Vasishtha, S1, GS-29 and KG-DWN-98/2 etc. are under various stages of appraisal/development.

The oil and gas production expected by ONGC excluding JV (ONGC share) for the next two years is as under:-

Year	Crude oil Projection (MMT)	Natural Gas Projection (BCM)
2016-17	22.761	24.657
2017-18	24.809	31.893

The production during FY 2016-17 is as per approved BE (16-17) and for FY 2017-18 as per Long term projections.
The details of major steps/projects undertaken by ONGC to enhance crude oil and natural gas production are as given below

Efforts to enhance Crude Oil and Natural Gas production

ONGC has taken various actions for augmenting/maintaining the crude oil and natural gas production. In addition to focus on repair of existing wells, artificial lift and stimulation of wells, following various efforts are done / being made for enhancing crude oil and natural gas production in the fields being operated by ONGC in the Offshore and Onshore areas of the country.

OFFSHORE:

Projects under Implementation

1. Development of Western Periphery of Mumbai High South field: ONGC Board has approved investment proposal on 25.04.2012. This scheme envisages an incremental production of 1.031 MMT of oil and 0.214 BCM of gas in 15 years. The overall project, including drilling, is expected to be completed by May 2016.
2. Mumbai High North Redevelopment Project Phase-III: ONGC Board has approved the investment proposal on 27.06.2014. The scheme envisages an incremental oil & gas production of 6.997 MMT and 5.253 BCM respectively by the year 2029-2030. The overall project, including drilling, is expected to be completed by May 2017.
3. Mumbai High South Redevelopment Project Phase-III: ONGC Board has approved the investment proposal on 14.11.2014. The scheme envisages an incremental oil & gas production of 7.547 MMT and 3.864 BCM respectively by the year 2029-2030. The overall project, including drilling, is expected to be completed by March 2019.
4. Neelam Redevelopment Plan for Exploitation of Bassein & Mukta pay-Neelam field: ONGC Board has approved the investment proposal on 13.08.2015. The scheme envisages an incremental oil & gas production of 2.76 MMT and 4.786 BCM respectively by the year 2034-35. The overall project, including drilling, is expected to be completed by May 2019.

Marginal Fields

Projects under implementation:

1. Development of WO-16 Cluster fields (WO-5, WO-15, and WO-16 along with B-119/121): The project envisages production of 2.83 MMT of crude oil & condensate and 8.58 BCM of gas by 2025-26. Production commenced from June 2015. The project facilities have completed by January 2016 and production has commenced.
2. Development of C-26 Cluster fields (C-23, C-26 & B-12-1): The project envisaged gas production of 5.94 BCM and 0.644 MMm3 of condensate by 2024-25. The project is likely to be completed by May 2016 except MOPU.
3. Development of B-127 Cluster fields (B-127, B-157 & B-59) and additional development of B-55: Project envisages production of 1.836 MMT of crude oil & condensate and 2.093 BCM of gas in 10 years from B-127 cluster. Also production of 0.155 MMT of condensate & 2.583 BCM of gas in 13 years from B-55 field. The project is likely to be completed by May 2016 except MOPU.
4. Development of B-173A field: The project envisages 0.567 MMT of crude oil & 0.071 BCM of gas by 2025-26. The project is likely to be completed by May 2016.
5. Enhanced recovery from Bassein field through Integrated Development of Mukta, Bassein and Panna Formations: ONGC Board has approved the investment proposal on 14.11.2014. The scheme envisages an incremental production of 18.830 BCM of gas, 1.90 MM m3 of condensate and 0.183 MMT of oil by the year 2027-2028 (as per revised approval in Jan'15). The overall project, including drilling, is expected to be completed by December 2017.
6. Additional Development of Vasai East: The project envisages an incremental oil & gas production of 1.827 MMT and 1.971 BCM respectively by the year 2029-2030. The project is likely to be completed by December 2018.
7. Daman Development Project (C-24 Additional & B-12 fields): The project envisages cumulative gas & condensate production of 27.67 BCM and 5.01 MMm3 respectively by 2034-35. The project is likely to be completed by May 2019.

<u>Development of Eastern Offshore Oilfields</u>

<u>Projects under implementation</u>

1. Development of Vashista & S-1 Fields: The project is expected to result in gas production of 15.96 BCM in 11 years. The project is likely to be completed by December 2017.

<u>ONSHORE:</u>

<u>Initiatives to enhance production:</u>

1. Comprehensive redevelopment of Gamij Field through 'Stage Gate' process is under progress.
2. NELP discoveries in onshore such as Karnnagar, West Patan & Vadatal in March'2015 and Nadiad in April'15 are monetized.
3. Development of Malleswaram field in KG Asset, Nagayalanka JV block of KG onshore and Madanam in Cauvery Asset are in progress.
4. Development of HPHT reservoirs in Cauvery and Rajahmundry Assets through outsourcing of services from International companies / experts.

5. Various projects have been taken up in Onshore Assets with the aim of removing surface bottlenecks to improve productivity, product quality, system integrity and meeting environmental norms.

Other initiatives:

1. Technology Induction/adoption/absorption and engaging international experts in the area of Drilling, Well completion, Artificial lift, Well stimulation, facility construction etc. is being done regularly according to the technical requirement of the wells / fields and feasibility.
2. Considering the importance of sustenance / arresting decline of production from a field, company is always on the lookout for latest technology to minimize cost of new wells, better placement of wells, improve productivity of existing and new wells, revive old or closed wells etc. so that production possibilities from the fields is maximized.

OIL

Oil India Ltd is producing hydrocarbon from its Upper Assam Basin oilfields which is a basket of very old, matured, developed and developing fields. As the fields are ageing, OIL's target would be to arrest decline and thereby to maintain the production levels. For this the following actions are at different stages of implementation:

(i) Installation of Electric Submersible Pumps for artificial lift.
(ii) Hydro-fracking of tight sand reservoirs, to improve flow characteristics of individual wells.
(iii) Gravel pack completion of wells completed in reservoirs which are having unconsolidated sands.
(iv) Radial drilling jobs to produce wells with low productivity to improve production performance.
(v) Water shut off jobs to curtail water ingress into wells in selective manner.
(vi) Water injection in new reservoirs to maintain reservoir pressure like Makum+North Hapjan and ShalmariBarail 3rd sand reservoirs.

The expected crude oil production and natural gas production in next two years is as under:

Year	Crude oil Projection (MMT)	Natural Gas Projection (BCM)
2016-17	3.30	2.906
2017-18	3.50	3.010

1.60 The Committee pointed out that the projected production (ONGC) of crude oil for 2017-18 is the same as the actual figure of 2014-15 which indicates stagnant production whereas for Natural gas, the projected increase is almost 50 per cent. Asked to explain the reasons for increase in production of natural gas, the Ministry in its written reply stated as follows:

"The projected crude oil production by ONGC in 2017-18 is 24.809 million Metric Tonne (MMT) as against 22.264 MMT of actual production in 2014-15.ONGC's standalone crude oil (including condensate) and natural gas production during the financial year 2013-14 to 2015-16, projection for the year 2016-17 and 2017-18 with percentage variation w.r.t. previous year are as under:

Year	Crude Oil		Natural Gas	
	Production (MMT)	% Variation w.r.t previous year	Production (BCM)	% Variation w.r.t previous year
2013-14	22.247	--	23.284	--
2014-15	22.264	0.08	22.023	-5.42
2015-16 *	22.368	0.47	21.180	-3.83
2016-17	22.761	1.76	24.657	16.42
2017-18	24.809	9.00	31.893	29.35

***** 2015-16 (Apr'15 to Mar'16)-Figures are provisional

The projected increase in ONGC oil (inclusive of condensate) and gas production in 2017-18 vis-a-vis FY 2014-15 is 11.4% and 44.8% respectively. The projected figure is based on expected contribution in the next two years i.e. 2016-17 and 2017-18 from ongoing projects.

Majority of ONGC crude oil production is from mature fields which are on natural decline. ONGC is trying to offset the natural decline by way of re-development project and work-over operations. Since no major discovery is likely to be monetized by the year 2017-18, ONGC is not expecting significant increase in the crude oil production by the year 2017-18.

On the other hand, ONGC is expecting significant increase in gas production as a number of ongoing projects are likely to contribute additional production during the year 2016-17 and 2017-18. These projects include (i) Development of WO-16 cluster fields (ii) Development of C-26 cluster fields (iii) Daman Development Projects (iv) Integrated development of Vasishtha and S-1 fields etc".

1.61 Regarding the details of the exploration blocks of ONGC and OIL presently awaiting clearances from other Ministries/departments, the Ministry have replied the following:

"The requisite details pertaining to ONGC as on 01.01.2016 is tabulated below.

Issues pending with other Ministries/Departments			
Sl. No.	Name of the NELP Block	Pending Issues	Status
A. Issues pending with MoEF & CC			
1	CB-ONN-2010/1	ONGC informed DGH about the delay in getting EC from MoEF vide letter dated 24.12.2015 with following details: • TOR submitted to EAC on 11.04.2013 • EIA report submitted of 13.07.2015 • Proposal accepted by MoEF on 04.08.2015	Pending with MoEF since July, 2015.
2	CB-ONN-2010/6		
3	CB-ONN-2010/9		

4	Pre-NELP Block : AA-ONJ/2, Assam	Exploratory drilling of 9 locations (RPAA, RLBK-1, RBK-1,LBAA, RBK-3,RTDN-1,RJDR,RTNG-1 and RTDN-2) in Pre-NELP Block AA-ONJ/2 at district Cachar, Assam. EAC Meeting held on 20.04.2015.	Pending with MoEF & CC since 20.04.2015.
5	Khoraghat ML Extn. Block	Drilling of three development wells viz. KHDD, KHDE and KHDF. First stage of Forest clearance awaited.	
6	Golaghat District PEL	Exploratory location URAA need diversion of the forest land for non-forest purposes prior to drilling. The permissions for the diversion is accorded by MoEF & CC. Awaiting clearance.	
7	Kasomarigaon PML and Kalyanpur ML, Assam	Exploratory locations KSAD in Kasomarigaon PML and KSAE in Kalyanpur ML need diversion of the forest land for non- forest purposes prior to drilling. The permissions for the diversion is accorded by MoEF & CC. Awaiting clearance. Two development & three exploratory locations and construction of GGS including laying of pipeline in Kasomarigaon, Assam.	Waiting for Expert Appraisal Committee (EAC) meeting.
8	Damoh-Jabera Katni PML, Madhya Pradesh	Forest clearance for one exploratory location (RJ-BJ-1) in Damoh-Jabera Katni area is awaited for more than 2 years.	Pending with Govt. of Madhya Pradesh
9	Tamil Nadu	Exploratory Drilling (24 additional wells) of in on-shore PEL Block L-II of Cauvery Basin, Tamil Nadu. EAC Meeting held on 16.03.2015.	Pending with MoEF & CC since 16.03.2015
10		Exploratory Drilling of 35 Wells in L-1 PML, Kuthalam PML, Kali & Greator Kali PML, Bhuvanagiri PML and Neyveli PML in Cauvery Basin, Tamilnadu. EAC Meeting held on 18.05.2015. EC/TOR yet to be received.	Pending with MoEF & CC since 18.05.2015
B. Issues pending with MoD in Nomination Blocks			
11	BB-OS-DW-I, BB-OS-DW-II	Blocks overlap with Naval exercise and firing areas promulgated by IHQ MoD (Navy) and is not cleared for E&P activities.	The nomination blocks, falling in western Offshore, awaiting clearance from MoD/MEA to drill well locations.
12	GK-DW-1	The nomination blocks, falling in western Offshore, awaiting clearance from MoD/MEA to drill well locations.	The nomination blocks, falling in western Offshore, awaiting clearance from MoD/MEA to drill well locations.
13	Andhra Pradesh	Development Drilling of 40 wells at East Godavari, West Godavari and Krishna District Andhra Pradesh. EAC Meeting held on 20.04.2015. EC/TOR yet to be received	Pending with MoEF & CC.

C. Issues under consideration with State Government			
14	Sivsagar District PEL,Panidihing ML,North-Rudrasagar- Disangmukh ML Assam	Exploration activities hampered: Applied for PEL extension for part area of 87 Km2 falling in Eco-fragile limit-Panidihing Bird Sanctuary, awaiting MoEF-statutory wildlife clearance from State Govt. and National Board of Wildlife (NBWL) for 7 exploratory locations viz. DSAE, DSAD, DSAF, RJAA, DHAB, PDAH & PDAG. Out of seven (7) locations of Sivasagar district, two (2) locations (DSAE, DHAB) have been recommended by State Board for Wildlife (SBWL). Requested for expediting wildlife clearance from State Government and National Board of Wildlife for remaining five exploratory locations.	Awaiting clearance: Govt. of Assam / NBWL
15	Assam & Nagaland (DAB area)	Area of Geleki, Namti, SE Geleki, and SE Geleki Extn MLs falls under Disputed Area Belt (DAB) between Assam & Nagaland. Exploratory released locations BSAA, GKBD and GKBI fall in this area could not be taken up for drilling.	Disputed Area Belt (DAB) between Assam & Nagaland.
16	Nagaland	Work suspended following the State Govt. directives received on 13.01.2009, to keep all the exploratory activities in abeyance till signing of MoU.	NO E&P work in Nagaland
17	Tamil Nadu	Grant of PML having GoI approval but awaiting grant from the state Government: Karaikal, Greater Kali, L-I (for 7 Yrs),L II(for 7 Yrs) and Ramanathapuram(for 7 Yrs).	Tamil Nadu Government approval awaited.
		Grant of PEL - awaited from Govt. of Tamil Nadu.	
18	Tripura, Exploratory/ Developmental activities of Tichna field	4 Locations falling in Tichna PML viz.TIAG, TIAF, TIAC and TL are pending for drilling for the want of statutory clearance from SBWL and National Board of Wildlife (NBWL) and six development locations in Tichna Field MoEF. Joint inspection in three exploratory locations Viz. TIAC, TIAG and TIAF has been carried out for resubmission of proposals to obtain clearance from Wildlife Division, Tripura Government and online submission to MoEF. Locations are integral part of the field development plan to sustain gas supply to OTPC Project in Tripura.	Statutory clearances from SBWL, Govt. of Tripura and NWLB
19	West Bengal	LAQ issue for Locations:- Asokenagar-A, Matikumra-A, Garibpur-A (WB-ONN-2005/4), Akbarnagar-A(WB-ONN-2005/2),Raspur-A (WB-ONN-	Land Acquisition problems

		2005/3)are pending since 26.03.2013 and 29.05.2014 etc.	

OIL

PEL and PML is awaited from the State Governments of Arunachal Pradesh and awaiting approval from MOEF and CC. The block wise details are as under:

Area	Remarks
Nominated PEL/ PML	
Deomali PEL (113.5 Sq.Km)	• PEL validity expired on 01.01.2016. • 6th & 7th extension applied on 26.10.2015 which is still awaited. • Drilling locations fall in Reserve Forest, applied for Forest Clearance to Govt. of Arunachal Pradesh on 05.07.2011. Subsequently, as advised by Office of PCCF, Itanagar, submitted revised FC proposals on 17.05.2012 & 29.02.2012. - Waiting for PEL Extension and Forest Clearance from State Govt.
Namchik PEL Area (195 Sq.Km)	• Drilling location falls in reserve forest. Accordingly, applied for Forest Clearance (FC) on 12.09.2008. • First stage of FC received on 15.06.2015. Accordingly, demand letter for payment of CA, NPV etc. received on 04.07.2015. Payment made on 14.07.2015. - Awaiting for FC from Arunachal State Govt.
JairampurExtn. (23.25 Sq. Km)	• Drilling location (Loc. JRB) falls in Nampong Reserve forest. Accordingly, applied for Forest Clearance (FC) on 08.12.2007. PCCF Office, Itanagar, Govt. of Arunachal Pradesh, advised OIL to re-submit the FC proposal and accordingly, the same was submitted on 29.10.2013 & again on 01.08.2014. - Awaiting for FC from Arunachal State Govt.
Ningru PML (540.668 SqKm) & Ningru Extn. PML (75 Sqkm)	• MOEF&CC has approved the payment of 2% NPV. The guidelines issued by Ministry on 24.06.2015. The case has been referred to FAC (Forest Advisory Committee) by Ministry. Ministry wrote to Govt. of AP on 21.07.2015 on the subject advising/seeking certain modifications & clarifications. OIL submitted two separate proposals on Ningru PML (540.668 Sqkm) &NingruExtn. PML (75 Sqkm) to Department of E&F, Itanagar on 28.07.2015 & 29.07.2015 respectively. • FAC meeting held on 31.12.2015. - Awaiting for approval from MOEF&CC

(ii) SEISMIC SURVEY AND DEVELOPMENT DRILLING

1.62 On being enquired about the targets vis-a-vis actual achievements of ONGC and OIL in respect of seismic survey and exploratory and developmental drilling activities during the last three years, the Ministry provided the following details:

"ONGC

As far as ONGC is concerned, targets vis-a-vis achievements of Seismic surveys and exploratory drilling during last three years are as under:

	Target/Actual	Unit	2012-13	2013-14	2014-15
2 D seismic	Target	LKM	12470	185	868
	Actual		3708	475.03	605.93
3 D seismic	Target	Sq. Km	5840	10109	16524
	Actual		11402	8370.99	9176.46
Exploratory Wells	Target	No.	130	153	155
	Actual	No.	103	106	108

Development Drilling	Target	No.	294	311	325
	Actual	No.	268	283	323

OIL

As far as OIL is concerned, targets vis-a-vis achievements of Seismic surveys and exploratory drilling during last three years are as under:

	Target/Actual	Unit	2012-13	2013-14	2014-15
2 D seismic	Target	LKM	470	200	250
	Actual		223.77	499.24	242.68
3 D seismic	Target	Sq. Km	1570	500	2050
	Actual		1795.22	928.48	1234.20
Exploratory Wells	Target	No.	33	31	30
	Actual	No.	19	9	13
Development Drilling	Target	No.	27	38	37
	Actual	No.	19	25	24

1.63 In this connection, the target set for 2016-17 by ONGC and OIL in respect of seismic survey and developmental drilling and the funds ear-marked for this purpose, the Ministry have submitted the following:

"The target for 2016-17 for ONGC and OIL in respect of seismic survey and development drilling as well as fund allocated are as under:

ONGC

The details of exploration activities and fund allocated in 2016-17 by ONGC are as under

	2 D seismic LKM	3 D seismic Sq. km.	Development Drilling Wells
Activities	215	7060	326
Fund Allocated (Rs. Crore)	1969.4		9826.74

OIL

The details of exploration activities and fund allocated in 2016-17 by OIL are as under:

	2 D seismic LKM	3 D seismic Sq. km.	Development Drilling Wells
Activities	130	300	39
Fund Allocated (Rs. Crore)	416.61		824.31

1.64 Asked about the impact of fall in global crude oil prices, the services associated with the exploration and production activities have also become cheaper and whether ONGC and OIL have entered into arrangements for hiring drilling equipments and technologies from private companies, if so, total cost of hiring these during the last three years and how much savings in cost have been achieved by ONGC and OIL due to the lower oil field services cost during the last one year, the Ministry have furnished the following details:

"Normally services associated with exploration and production activities have become cheaper due to fall in Global crude oil prices. This is because of demand and supply gap for the E&P services. However, the benefit of lower prices for the services will be for new contracts signed during low price of crude oil regime.

ONGC

ONGC hires various services from service providers for carrying out drilling operations, viz. hiring of drilling rigs, MWD services, specialized services, etc. Hiring cost of drilling rigs and services in last three years is as below:

Period		Hiring of Drilling Rigs & Services (Rs. in crore)
2014-15	Offshore	9,260.51
	Onshore	343.75
	Total	9,604.26
2013-14	Offshore	10,604.84
	Onshore	379.95
	Total	10,984.79
2012-13	Offshore	8,891.82
	Onshore	656.80
	Total	9,548.62

Due to recent downturn of oil prices, ONGC has realised savings, as brought out in the Table below, during the last one year. The savings have been in the range of 10-40% and vary from service to service. The savings, however, are based on the contracts entered and shall accrue over next 3 years.

	Type	Saving
Onland	MWD services, TPI inspection, rig health check up	Rs. 98.353 Cr
Offshore	Rig hiring	US$ 356.6 Million (Rs.2425 Cr approx.)
	Savings in other services	Rs 198.87 Cr.

OIL

All existing service contracts are prior to change of declining trend of crude oil price, hence saving in cost is not envisaged as of now. The hiring charges of drilling equipment and services in last three years engage by OIL are as under:

Sl. No	Hired Drilling Equipment and Services	Total Cost of Hiring in the Last 03 Years
1	Hiring of Horizontal Drilling Services	USD 4647595
2	Hiring of 02 set MWD-SDMM-Jar	USD 4261709
3	Hiring of Service for Directional wells	USD 8894888
4	Hiring of ETP services	USD 1647462
5	Hiring of cementing service with cementing unit	USD 1225705

(iii) RESERVE REPLACEMENT RATIO

1.65 When enquired into the Reserve Replacement Ratio of ONGC and OIL during the last 3 years, the Ministry have provided the following details:

"As per reporting standard for Reserve Replacement Ratio (RRR) on 2P/1P reserve basis, RRR during last 3 years for ONGC and OIL is as under:

Year	Reserve Replacement Ratio (RRR) based on 2P reserves	
	ONGC	OIL
2012-13	1.47	1.63
2013-14	1.24	1.29
2014-15	1.38	1.395

Year	Reserve Replacement Ratio (RRR) based on 1P reserves	
	ONGC	OIL
2012-13	1.08	1.17
2013-14	0.62	0.80
2014-15	0.70	1.22

Note: Reserve Replacement Ratio on 3P basis will not be relevant".

1.66 When the Committee enquired as to why Reserve Replacement Ratio (RRR) of ONGC has been consistently below 1 for both 2013-14 and 2014-15 while in case of OIL it has a fluctuating trend, the Ministry in their written reply stated the following:

"The Reserve Replacement Ration (RRR) is the ratio between the Ultimate Hydrocarbon Reserve accretion and its production during the year. The RRR by ONGC and OIL in 2P reserves category is consistently more than 1 implying that reserve accretion is more than the production of Oil & Gas in that year.

RRR figures in 2P reserves category of ONGC and OIL are given below:

	2012-13	**2013-14**	**2014-15**
ONGC	1.47	1.24	1.38
OIL	1.63	1.29	1.39

RRR figures will vary depending upon reserve accretion and oil and gas production in a year. Further, in exploration business, inputs in terms of survey and exploratory drilling are deterministic however, results in terms of hydrocarbon discoveries and reserve accretion thereof in a year are probabilistic in nature. Consequently, there will be variation in RRR figures. The RRR value more than one is considered progressive for the company as reserve accreted is higher than the oil and gas production.

1.67 When asked to furnish company-wise details of idle time of rigs with cost of hiring these rigs for the span of last three years and reason thereof, the Ministry have submitted the following:

"The major contributors to Idle Time in Drilling Operations are equipment breakdowns/ repairs and waiting on weather, etc. The rig contracts have express provisions for dealing with such situations and have laid down norms for payments. For e.g. Equipment breakdown day rate is payable for 32 hours in a month, after which nil rate is payable. This is normally a standard provision in the rig contracts in view of round the clock drilling operations.

The idle time of drilling rigs during last three years has been calculated as 1207.56 days with the following break up:

- Onshore : 1146 days
- Offshore – Shallow Water : 52.56 days
- Offshore – Deep Water : 9 days

The reasons thereof are as under:

Drilling Services- Onshore:

The Idle time for onshore drilling operations for last three years has been about 1146 days.

It may be noted that Idle Time of 1130 days was on account of the contracts operated by M/s Shiv-Vani. The main reasons for rig idling were equipment repair, waiting for men & material, etc., which was attributable to the Contractor. Nil payment is payable to Contractor in such cases.

Eventually, on account of non-performance, several contracts of the contractor were terminated and the Contractor was put on holiday.

Drilling Services- Shallow Water:

The Idle time for offshore rigs for last three years has been only 52.56 days, out of which 49.35 days were mainly due to evacuation during cyclone. The rig contractor was paid as per the provisions of the contract at Non-operating day rate/ Force Majeure Rate etc., as the case may be.

The estimated hiring cost works out to be US$ 4,312,312.23.

Drilling Services- Deep Water

In Deep-water offshore, in last three years total Idle time has been only 9 DAYS due to mandatory hull inspection of rig Platinum Explorer. The contractor was paid USD 1,681,585.00 for 2.8 days only (includes Rig move rate and repair rate) as per contract provisions.

OIL

As far as Oil India Limited (OIL) is concerned, the details for cost of hiring chartered gire drilling rig are as under:

Sl. No.	Name of the Rig with HP capacity	Name of Contractor	Cost of Hiring
1	CH-1, 1400 HP Rig with Top Drive	M/s Essar Oilfield Services India Ltd.	USD 12374847
2	CH-2, 1400 HP Rig	M/s Simplex Infrastructure Ltd.	USD 3178212
3	CH-3 , 1400 HP Rig	M/s JayBee Energy Pvt. Ltd	USD 12100307
4	CH-4, 1400 HP Rig	M/s Simplex Infrastructure Ltd.	USD 3002763
5	CH-5 , 2000 HP Rig	M/s Shiv-Vani	USD 9401843
6	CH-6 , 2000 HP Rig	M/s. Shiv-Vani	USD 10273116

It may be noted that there was no idle time for the above rigs during last three years period".

1.68 Information regarding new rigs purchased by ONGC and OIL in last three years and the details of purchase made provided by the Ministry is as below:

"ONGC

The details of onshore rigs purchased by ONGC in last three years are as below:

Description	Supplier	Total Cost
2000 HP AC-VFD Rigs Type-III Onland rig Quantity - 6 rigs	BHEL	Rs. 774.37 crore

OIL

As far as Oil India Limited (OIL) is concerned, details of new rigs purchased in the last 03 Years are as under:

Sl. No	Name of the Rig with HP capacity	Name of Supplier	Total Cost of the Rig (FOB Value)
1	750 HPRig: M1	M/s CPTDC, China	USD 6317532
2	2000 HP VFDRig No: 1	M/s CPTDC, China	USD 15580386
3	2000 HP VFDRig No: 2	M/s CPTDC, China	USD 15580386

Note: Order has been placed for 05 Nos of Workover rigs to M/s DrillMec S.P.A. Italy with P.O. dated 05.09.2015 for total FOB value: USD16,050,410.72 which are expected to be commissioned by October' 2016".

H. <u>NATIONAL GAS GRID</u>

(i) Present Status of Construction of Pipeline Projects

1.69 On being enquired into the present status of the construction of upcoming gas pipeline projects under National Gas Grid and the details of time and cost overruns incurred, if any, the Ministry have submitted following:

"Details are as under:

Authorized Natural Gas Pipelines Under Construction					
S.No.	Name of the Pipeline	Name of the Entity	Date of Authorization	Authorized length (Km)	Status as of date
1	Mallavaram-Bhopal-Bhilwara-Vijaypur	M/s GSPL India Transco Limited	07.07.2011	2042	• Pipeline laid–Nil • The scheduled completion period of 36 months for the said pipeline project has expired on 06.07.2014. • Time overrun – 1 year 7 months • Cost overrun can only be established when the project is completed. • Approx Cost : INR 8806 Crore
2	Mehsana-Bhatinda	M/s GSPL India Gasnet Limited	07.07.2011	2052	• Pipeline laid–Nil • The scheduled completion period of 36 months for the said pipeline project has expired on 06.07.2014. • Time overrun – 1 year 7 months • Cost overrun can only be established when the project is completed. • Approx Cost : INR 6864 Crore

3	Bhatinda-Jammu-Srinagar	M/s GSPL India Gasnet Limited	07.07.2011	2112	• Pipeline laid–Nil • The scheduled completion period of 36 months for the said pipeline project has expired on 06.07.2014. • Time overrun – 1 year 7 months • Cost overrun can only be established when the project is completed. • Approx Cost : INR 1520 Crore
4	Surat-Paradip	M/s GAIL (I) Limited	25.04.2012	2112	Pipeline laid -Nil • Time overrun – 3 year 10 months • Cost overrun can only be established when the project is completed. • Approx Cost : INR 10281 Crore
5	Shahdol-Phulpur	M/s Reliance Gas Pipelines Limited	11.07.2013	312	As per latest Quarterly Progress Report, Welding and trenching 98% completed, lowering and backfilling 97% completed, hydro-testing 41% completed. No time overrun reported, Cost overrun can only be established when the project is completed Approx Cost:INR 1302 Crore
6	Kakinada-Srikakulam	M/s Andhra Pradesh gas Distribution Corporation Ltd.	16.07.2014	391	Pipeline laid -Nil (No time or cost overrun reported till date, Scheduled date of completion July-2017 Approx Cost: INR 1013 Crore
7	Ennore-Nellore	M/s Gas Transmission India Pvt. Ltd	02.12.2014	430	Pipeline laid -Nil (No time or cost overrun reported till date, Scheduled date of completion December-2017 Approx Cost: INR 729 Crore
8	Ennore-Tuticorin	M/s Indian Oil Corporation Limited	10.12.2015	~1385	Recently Authorized, Scheduled completion December 2018 Approx Cost:INR 3966 Crore

(ii) <u>GAS PIPELINE IN PPP MODE UNDER VIABILITY GAP FUNDING (VGF)</u>

1.70 Regarding the status of the three pipeline sections with total length of about 2500 km for implementation through PPP mode with Viability Gap Funding (VGF), the Ministry have stated that:

> "Ministry has identified following three pipelines of total length of about 2500 Km for implementation through PPP mode with viability gap funding (VGF) under National Gas Grid.-

a. Bokaro-Ranchi-Talcher-Angul pipeline (previously Ranchi-Talcher-Paradip Pipeline)
b. Barauni-Guwahati-Agartala Pipeline
c. Haldia-Paradip/Srikakulam Pipeline

As a pilot project, MoP&NG approved Bokaro-Ranchi-Talcher-Angul pipeline section for implementation through PPP mode by VGF. Other two pipelines could be considered after successful implementation of the identified pilot project through PPP mode.

MoP&NG appointed GAIL as the ‘Sponsoring Authority’ to implement the pilot PPP project. GAIL has made progress in completing the route survey and Detailed Feasibility Report for the pilot PPP project. Over the period of implementation of Pilot Project, it is observed that there is a need to review the implementation of gas pipeline projects in PPP mode through VGF scheme as gas pipelines do not specifically meet the criteria of PPP projects under VGF scheme. It is envisaged to approach Ministry of Finance to consider direct budgetary support for meeting the “viability gap” for gas pipeline".

1.71 The Committee wanted to know at what stage did the unsuitability of the PPP route under VGF become clear to the Ministry, in a written reply the Ministry have stated that:

“The detailed feasibility study of the project covers the aspect on the demand for gas along the identified route of pipeline. Subsequent to the study, the details of the project was submitted to the Department of Economic Affairs for evaluation and way forward for execution of the project under the extent VGF scheme of the Government. In the opinion of DEA, the gas pipeline projects are not covered under the extent VGF scheme.”

1.72 The Committee wanted to know how much fund will be required for the Viability Gap Funding (VGF), the Ministry have replied that:

“The Government identified a pipeline section i.e. Bokaro-Ranchi-Angul (Paradeep) of about 520 km to be developed as a pilot PPP project through VGF funding. Route survey and Detailed Feasibility Report (DFR) works of the pilot PPP project was completed by GAIL. In the process of evaluation of the gas pipeline project under VGF scheme, Department of Economic Affairs has opined that the VGF scheme of the Government does not cover the funding for the development of gas pipelines. Accordingly, Government has decided to develop Bokaro-Ranchi-Angul (Paradeep) section as a part of under construction Jagdishpur-Haldia pipeline project of GAIL and there is a proposal under consideration to fund this gas pipeline project through an alternate suitable funding mechanism. MoP&NG has forwarded a proposal of GAIL to MoF to suitably consider the required funding of Rs.3200 crore for implementation JHPL Phase-I.”

I. ALTERNATE SOURCES OF ENERGY

(i). <u>Ethanol Blended Petrol (EBP)</u>

1.73 Asked about the plan of Ministry/OMC's to ensure that Ethanol Blended Petrol (EBP) programme is implemented during 2016-17 and whether any targets regarding blending percentage have been fixed to be achieved, the Ministry replied the following:

"The Government, through Oil Marketing Companies (OMCs), is implementing Ethanol Blended Petrol (EBP) Programme since 2003. For the year 2016-17, Ministry / OMCs are planning for effective implementation of EBP Programme by selling ethanol blended petrol with percentage of ethanol upto 10%, as per BIS specifications. The estimated ethanol requirement for the period December, 2015 to November, 2016 is 266 crore litres for which the tender was floated during August, 2015. Against this tender, 103.65 crore litres of ethanol has been allocated. In order to garner additional volumes, an Expression of Interest (EOI) was floated during December, 2015 against which, 16.52 crore litre of additional quantity has been allocated. One more round of EoI has been floated during February 2016 against which 15.73 crore litres of ethanol is being allocated. In total 135.61 crore litres of ethanol has been allocated".

1.74 Further, asked about the Status of tenders for procurement of EBP for the year 2016-17 by different OMCs, the Ministry stated the following in its written reply:

"For the sugar year 2015-16, OMCs have floated tender for the requirement of 266 crore litres of ethanol. This was followed by EOI's in the Month of December, 2015 and February 2016 to see additional quantities. Against these tender / EOI, 135.61 crore litres of ethanol have been finalised".

1.75 Also, asked about how much additional storage capacity have been created by OMCs during last one year, the Ministry in its written reply stated the following:

"Oil Marketing Companies (OMCs) have storage tankages in line with the Petroleum, Oil and Lubes (POL) storage requirements. As informed by OMCs additional ethanol storage capacity of 90 lakh litres has been created during the last one year".

(ii) <u>COAL BED METHANE</u>

1.76 On being asked about the progress made in the direction of exploration of coal bed methane on various sites in the country, the Ministry replied that:

"CBM Resource in the Country

India, having the fourth largest proven coal reserves in the world, holds significant prospects for exploration and exploitation of CBM. Ministry of Coal has given NOC for total 26,000 sq. Km of coal basinal areas for CBM exploration. The estimated CBM Resources in identified area made available (26000 sq km) is about **2600 BCM (91.8 TCF).**

CBM Policy Initiative

In order to harness CBM potential in the country, the Government of India formulated CBM Policy in 1997 wherein CBM being Natural Gas is explored and exploited under the provisions of Oil Fields (Regulation and Development) Act 1948 (ORD Act 1948) and Petroleum & Natural Gas Rules 1959 (P&NG Rules 1959) administered by Ministry of Petroleum & Natural Gas (MoP&NG). Director General of Hydrocarbons (DGH) was designated as the agency for implementing the CBM Policy.

Implementation of CBM Policy

To facilitate implementation of CBM policy, a MoU was signed between Ministry of Petroleum and Natural Gas (MoP&NG) and Ministry of Coal (MOC). Giving due consideration for future coal mining areas, several potential CBM blocks were carved out by DGH in close interaction with MoC and Central Mine Planning & Design Institute Limited (CMPDIL). Till date, four rounds of CBM bidding have been undertaken by MoP&NG under the CBM Policy resulting in award of 33 CBM Blocks spread over 16,613 sq. km., out of the total available coal basinal areas for CBM exploration of 26,000 sq. km.

Exploration under CBM Policy has been undertaken by national and international companies. The total prognosticated CBM resource for 33 awarded CBM blocks, is about 62.4 TCF. Of this only 9.9 TCF has been established as Gas in Place (GIP), due to several constraints in exploring and developing CBM resources. Out of these 33 Blocks, one Block is under production Phase, seven in Development Phase, five are under exploration Phase, Contract of three Blocks yet not effective due to non-grant of PEL by State Governments. Contract of one Block was terminated for non-compliance of CBM Contract provisions. Rest sixteen Blocks, after initial assessment by Exploration activities found to be having poor CBM potential, are under relinquishment/relinquished.

CBM Production in the Country

Commercial CBM production in the country started from 14th July 2007 from Raniganj (South) CBM Block operated by M/s GEECL. Total CBM production in the country in last Financial Year 2014-15 was 228.239 MMSCM (0.6253 MMSCMD) and current per day CBM production is 1.1 MMSCMD (January 2015). DGH's estimated Projection of Production has indicated that by 2017-18 CBM production may reach 5.77 MMSCMD in the country from present level of 1.1 MMSCMD.

Recent Initiative to enhance CBM production in the country:

In order increase areas under CBM exploration Govt. has issued notification on 3.11.2015 granting right to exploration and exploitation of CBM to Coal India Limited and its subsidiaries on nomination basis from coal bearing areas for which they possess mining lease for coal. Initial meeting for operationalization of notification was held on 23.11.2015.

In pursuance of decision in the meeting of Committee of Secretaries held on 23.11.2015 a Core Group was constituted under the Chairmanship of Additional Secretary (Exploration) comprising of representatives of Ministry of Coal, SAIL, ONGC and DGMS to examine the possibility of simultaneous yet safe extraction of CBM as well as coal from the same Block in cases wherever there is overlap of CBM Block with the coal Block. First meeting of the Core Group in this respect was held on 18.01.2016".

(iii) UCG

1.77 Further, enquired about the whether any policy framework prepared for development of UCG in coal and lignite bearing areas in the country, if so, the details thereof along with the role of various agencies and the timeframe fixed, the Ministry stated that:

"The development of UCG is being looked after by the Ministry of Coal. A policy on the lines broadly similar to the existing policy for Coal Bed Methane (CBM) development on revenue sharing basis will be adopted for offering the blocks through competitive bidding. An Inter-Ministerial Committee under the Ministry of Coal with members from concerned Ministries will be responsible for identification of the areas, deciding about blocks to be put to bidding or awarding them to PSUs on nomination basis.

Ministry of Coal may engage a consultant for development of the contract document. For development of bid documents, work programme, conducting the bidding process, evaluation of bids, monitoring and process protocols etc. Central Mine Planning and Design Institute Limited (CMPDIL) will be the nodal agency".

(iv) NATIONAL GAS HYDRATES PROGRAMME (NGHP)

1.78 When asked to furnish a status note on the National Gas Hydrate Programme (NGHP), the Ministry in its written reply stated as under:

"Gas Hydrates are considered as vast resources of natural gas. Worldwide, work on Gas Hydrates is at an R & D stage and no commercial exploitation has, so far, been reported. Gas Hydrate resources in India are estimated at 1894 TCM and these deposits occur in western, eastern and Andaman offshore areas.

Gas hydrate exploratory activities/ research in India is being steered by the Ministry of Petroleum & Natural Gas under National Gas Hydrate Program (NGHP). The Program was initiated in 1997 with participation from Directorate General of Hydrocarbons (DGH), National E&P companies (Oil and Natural Gas Corporation Ltd, Oil India Limited, GAIL India Ltd, & Indian Oil Corporation) and National Research Institutions (National Institute of Oceanography, National Geophysical Research Institute and National Institute of Ocean Technology).

The Steering Committee for NGHP is headed by Secretary, P&NG with the concerned Joint Secretary as convener. The Technical Committee is chaired by DG, DGH and has participation from all NOCs like OIL, ONGC, GAIL, IOC & EIL, and National Institutes like the NGRI, NIO & NIOT. Several initiatives have been taken by NGHP for gas hydrate exploration in Indian offshore. Geophysical, geological and geochemical data have been collected from East and West Coasts and Andaman areas for identification of gas hydrate prospective areas. NGHP Expedition 01 was carried out in 2006 in four Indian Offshore areas (KG, Mahanadi, Andaman and Kerala-Konkan). With the completion of NGHP Expedition 01, 2006, it has been established that huge amount of gas hydrate deposits are present in the Indian deep water areas particularly in K. G. and Andaman Deep Offshore areas. However, the discovered gas hydrates in NGHP-01 are not producible with the current technologies as they exist in fractured shale and clay dominated reservoirs. Therefore, studies were carried out from 2007 to 2014 to identify the gas hydrate occurrences in sand dominated reservoirs in the Eastern Offshore. Total of 83 locations were identified in K. G. and Mahandi Offshore areas and 25 most prospective sites have been identified for NGHP Expedition 02.

The NGHP Expedition-02 started on 3rd March 2015 and was completed by 28th July 2015. NGHP Expedition 02 is completed in the deep water areas of Krishna Godavari and Mahanadi offshore with water depths in the range from 1550 m to 2764m. The well depths were about 300 to 500 meters below seafloor. NGHP Expedition-02 operational program is completed in 147 days against estimated 150 days excluding the number of days for mobilization and demobilization time. The NGHP Expedition-02 involved Drilling/LWD/ MWD/Coring/ wireline logging program at 25 sites in 42 wells (25 wells for Logging while drilling (LWD), and 17 wells for coring/pressure coring and drilling of all wells, wireline logging & VSP). As per the International Expert attached to the Expedition, the initial results of NGHP-02 are very encouraging and gas hydrates have been discovered in KG deep offshore areas in sand reservoirs which are the thickest known gas-hydrate-bearing reservoir system in the world. It is stated that the two areas in KG deep offshore contain important world class gas hydrate accumulations and represent ideal sites for future gas hydrate production testing.

Based on NGHP-02 data, sites for pilot production testing will be identified and pilot production testing of Gas Hydrate deposits are planned to be carried out under Expedition -03".

1.79 Regarding the outcome of NGHP R&D expeditions and levels of development through actual indigenous technology and the achievements made so far in the direction of self-sufficiency in this field, the Ministry have informed that:

"As a follow up of NGHP-01 of 2006, NGHP-02 campaign was taken up in 2015. In NGHP-02 campaign two areas in KG deep offshore were identified to contain important world class gas hydrate accumulations and can be taken up for future gas hydrate production testing. The detailed interpretation and collation of results of NGHP-02 are in progress. National Research Institutions like National Institute of Oceanography, National Geophysical Research Institute and National Institute of Ocean Technology, Geological Survey of India, Institute of Technology are Involved and carrying out various studies on the collected samples during NGHP expeditions. The studies are carried out on Gas hydrate properties, kinetics which will be useful in firming up a strategy and way forward for exploitation of gas hydrates in future.

Based on results of NGHP-01 and NGHP-02, the areas have been identified in KG offshore for further studies on reservoir characterization, delineation and potential producibility. Based on these results the identified sites for pilot production testing will be located and pilot production testing of Gas Hydrate deposits are planned to be carried out under Expedition -03".

(v) <u>SHALE OIL</u>

1.80 Asked to comment in view of low global oil prices, whether Government intends to continue exploring alternative sources of energy-especially shale oil and the assessment of Government as to the prospects of discovery and exploitation of shale oil in India, the Ministry stated that:

"Government of India intends to continue exploring alternative sources of energy like CBM, Gas hydrate and shale gas/oil. Recognizing the importance of the Shale gas and Oil resources in India, Government of India announced the "Policy Guidelines for exploration and exploitation of shale Gas and oil by National Oil Companies (NOCs) viz. ONGC & OIL under nomination regime" on 14.10.2013. In pursuance of this Policy, ONGC and OIL have identified and initiated shale gas exploration in 50 & 6 PEL/ML Blocks respectively in their on-land PEL/ML areas awarded under nomination regimes. The identified shale gas/oil Blocks are currently in exploration Phase and production potential can be ascertained after the completion of exploration, appraisal and establishing commerciality. Under the new Hydrocarbon Exploration and Licensing Policy (HELP), approved by the Government recently E&P operators will be able to explore and extract conventional as well as un–conventional hydrocarbon such as CBM, shale gas / oil, tight gas and gas hydrate.

Following assessment has been made in respect of availability of Shale Gas/oil in India:

i) US Energy Information Administration (US Department of Energy) in association with Advanced Resources International, INC, in May 2013, estimated a total of 584 Tcf (Trillion Cubic Feet) of shale gas in-place for India in four Basins viz. Cambay, Krishna –Godavari, Cauvery and Damodar Valley. The technically recoverable shale gas resource is estimated at 96 Tcf in these four Basins. In addition, it was estimated that shale oil in-place in these four Basins in India is 87 billion barrels. The technically recoverable shale oil resource is estimated at 3.8 billion barrels.

ii) ONGC in August 2013 has estimated Shale Gas resources of 187.5 Tcf for 5 Basins viz. Cambay, Krishna –Godavari, Cauvery, Ganga& Assam.

iii) CMPDI in July, 2013 has estimated Shale Gas resources of 45.8 Tcf for one Basin Viz. Gondwana.

Since the exploration of shale gas and oil in India is at a preliminary stage, these efforts are not linked with low oil prices at this juncture".

1.81 The Committee asked why out of 87 billion barrels of shale oil in four basins of India, only 3.8 billion barrels is technically recoverable? Whether such recoverability rate is in line with international standards, the Ministry in written reply have stated that:

“The figures of 87 billion barrels of Shale oil and only 3.8 billion barrels technically recoverable are based on the report published by Energy Information Administration (EIA, USA) June, 2013. As per this report, four Indian basins namely, Cambay, KG, Cauvery and Damodar are estimated to hold 87.3 billion barrels of shale oil in-place, out of which, 3.75 billion barrels is the technically recoverable component.

Shale oil and gas reservoirs are unconventional i.e. they are tight reservoirs having low porosity and very poor permeability. Hence the recovery factor for a shale oil reservoir is expected to be very low compared to the conventional sandstone / carbonate reservoirs. The recovery factors for shale oil are typically lower than that of shale gas and range from 3% to 7% of the oil in-place. In exceptional cases it can be as high as 10% or as low as 1%. For the Indian basins, EIA has taken up a recovery factor of 3.7% which falls in the above mentioned range. However, it is important to note that the above in-place and recoverable shale oil figures are unproven and need to be established with drilling and the factual data.”

1.82 When asked whether India possesses the technology for 'Fracking', if not, what will be the cost implications for importing this technology and its impact on the pricing of shale oil vis-à-vis traditional oil products, the Ministry submitted that:

"National oil companies viz. ONGC and Oil possesses the technology for “Fracking” and regularly carry out Fracking in vertical/inclined wells utilizing in-house resources. ONGC on an average, carry out hydro-fracturing jobs in 130-140 wells every year.

For exploring and exploiting shale oil & gas successfully, two things are required:

(i) Drilling of Inclined/Horizontal wells

(ii) Large volume high rate - Multistage fracturing

ONGC has the expertise and resources for drilling inclined and horizontal wells. However, multi-stage fracking experience is presently not adequate. The Shale reservoirs would require multi-stage fracking (in excess of 20 stages per well). Presently ONGC will have to depend on Foreign Service providers for massive, multistage hydro-fracturing. There are number of international service providers who can be roped in as and when there is requirement for such services in future once some good shale oil discoveries are established. ONGC has planned hydro-fracturing in two of the wells drilled under the ongoing campaign in Cambay basin. Recently, a joint Research & Development Project on “Shock Wave Assisted Fracking Technology (SWAFT)” has been undertaken with M/s Shock Wave Technology Private Limited, Bangalore".

J. CNG/PNG NETWORK

1.83 Asked about the progress achieved in extending network of CNG and PNG in the country and actual achievements in this regard, the Ministry furnished following details:

"Piped Natural Gas (PNG) forms part of the City or Local Natural Gas Distribution (CGD) network. As on date, PNGRB has granted authorization to entities to lay, build, operate or expand CGD networks in 67 Geographical Areas (GAs) where PNG is being provided or is likely to be provided in the near future. PNGRB has envisaged a phased roll out plan for development of CGD networks in several Geographical Areas (GAs) (Districts) in various States, depending on the natural gas pipeline connectivity/ natural gas availability and feasibility. The GAs will be included in bidding rounds in a phased manner for grant of authorization to develop CGD networks.

PNGRB has bid out 34 GAs in 6th round of CGD bidding and they have received 56 bids for 24 GAs and are under evaluation. PNGRB has further identified 105 GAs, which may have natural gas pipeline connectivity, through Natural Gas Pipelines (upcoming / under implementation).

Authorization for 9 GAs under 4th round of CGD bidding has been granted by PNGRB. 5 GAs did not receive bids. Details are as under:

S.No	Geographical Area (State)	Status of Authorization	Date of Award
1	Bengaluru Rural and Urban Districts (Karnatka)	Awarded	18.02.2015
2	Ernakulam District (Kerala)	Awarded	14.10.2015
3	Pune District (Maharashtra)	Awarded	18.05.2015
4	Raigarh District (Maharashtra),	Awarded	01.04.2015
5	Thane District (Maharashtra)	Awarded	01.04.2015

6	UT of Daman	Awarded	01.04.2015
7	UT of Dadar & Nagar Haveli	Awarded	01.04.2015
8.	Panipat District (Haryana)	Awarded	01.04.2015
9.	Amritsar District (Punjab)	Awarded	05.05.2015
10	Shahjahanpur District (UP)	No Bid received	
11	Guna District(MP)	No Bid received	
12	Ranga Reddy & Medak Districts (AP)	No Bid Received	
13	Nalgonda District (AP)	No Bid Received	
14	Khammam District (AP)	No Bid Received	

1.84 Asked about progress made in the implementation of CNG projects in the country and the expansion targets vis-à-vis actual achievements in this regard during last two years, the Ministry furnished the following reply:

"In year 2007, Government has established Petroleum and Natural Gas Regulatory Board (PNGRB) under the PNGRB Act 2006. Under the Act, PNGRB grants the authorization to the entities for developing a City Gas Distribution (CGD) network in a specified Geographical Area (GA) of the country. CGD network supplies gas to four distinct segments – Compressed Natural Gas (CNG) predominantly used as auto-fuel, and Piped Natural Gas (PNG) used in domestic, commercial and Industrial segments. With the development of CGD networks in the country, implementation of CNG projects has also been envisaged.

In the year 2014 and 2015, PNGRB conducted 4th and 5th round of CGD bidding to grant authorization to entities for developing CGD projects (including CNG projects) for 34 new districts/GAs. In total, 23 new Geographical Areas (GA) of CGD network comprising CNG and PNG have been added in the calendar year 2015 and 5 new GAs added in the calendar year 2014.

In total, 23 new Geographical Areas (GA) of CGD network comprising CNG and PNG have been added in the calendar year 2015. With regard to PNG connections, the concerned CGD companies have connected 3.27 Lakh new households with PNG supplies in FY 2014-15. In the current Fiscal Year i.e. FY 2015-16, about 1.53 Lakh new PNG connections have been provided till 31st January 2016. At present, about 30.93 Lakh households in 11 states are availing the benefit of PNG supplies".

1.85 Regarding the present status of laying of pipeline from **Kochi terminal** of Petronet LNG Limited, the agency responsible for not completing the work relating to pipeline before commissioning of the terminal, the Ministry have submitted the following:

"41 Km. of Kochi-Koottanad-Bangalore-Mangalore Pipeline Project envisaged for evacuating the R-LNG from Petronet LNG Ltd., Kochi Terminal is commissioned under phase-I of this pipeline project in Aug'2013. Presently, 8 nos. of consumers are drawing gas from this pipeline.

Work in phase-II of the aforesaid project is suspended since Apr'13 in Tamil Nadu due to court case in Hon'ble Supreme Court for Tamil Nadu section and progressing at very slow pace due to severe resistance against RoU opening in Kerala section; pipeline laying & associated work contracts were awarded in Feb'2012 for 8 sections (5 sections in Kerala-Karnataka and 3 sections in Tamil

Nadu-Karnataka) covering the entire pipeline length of 879 Km and subsequently work contracts were terminated in all 8 sections due to the above mentioned reasons.

Hon'ble Supreme Court has given Judgment dated 02.02.2016 in favour of GAIL on the SLP of Govt. of Tamil Nadu against GAIL. Hon'ble Supreme Court dismissed the SLP filed by Govt. of Tamil Nadu and other associated SLP's filed against the judgments / orders passed by Hon'ble Madras High Court.

However, Govt. of Tamil Nadu have filed review petition on 08.02.2016 in Supreme Court against the above judgment. Review petition has been dismissed. Now, there is no court case.

With the intervention of Government of Kerala, the Survey and Panchnama activities for RoU opening activities in Kerala resumed since 1st June 2015. Panchanama activity completed for 170 Km after restart of activities from June'2015 onwards (cumulative 367 Km panchnama completed out of 503 Km in Kerala State).

Tender for laying & construction work of 5 sections in Kerala-Karnataka region has been floated in August 15 and GAIL is presently considering award of two sections out of live (i.e. 206 km out of 544 km) keeping in view of the panchnama progress in Kerala state. Matter is being taken up with Govt. of Kerala for extending all support in clearance of ROU/panchnama in Malappuram & Kozhikode Districts where maximum resistance is being faced so as to award Laying Work Contracts for balance three sections also at the earliest".

1.86 With respect to the landed cost of LNG in the country as of now and whether this gas can be used for PNG purposes in the country and if imported LNG is fully used for expansion of PNG coverage in the country what will be the cost to consumers for one stranded cubic metre, the Ministry have furnished the following reply:

"Liquefied Natural Gas (LNG) is being imported from International market through LNG tankers in the country by multiple entities. GAIL (India) Ltd, Petronet LNG Ltd, GSPC Ltd, IOCL, SHELL and BPCL are importing LNG on different terms and conditions as per their techno-commercial. LNG Imports is under Open General License (OGL) and establishment of LNG terminals is permitted as an infrastructure Project and eligible for 100% Foreign Direct Investment (FDI).

As informed by GAIL, the Delivered Ex-Ship (DES) price at Dahej Terminal for Long term LNG from RasGas is in the range of $6.5/MMBTU to $7.0/MMBTU and Spot LNG is in the range of $5/MMBTU to $5.5/ MMBTU excluding custom duty. PLL has informed that it has been purchasing LNG from various suppliers. The landed cost of LNG currently is in the range of US$ 5-6/MMBTU. The above price works out to approximately Rs.17-20/Standard Cubic Meter at Dahej LNG Terminal. Depending upon the location of the Consumers, pipeline transportation charges and taxes and duties would be added extra.

Based on the current international gas market prices, the consumer price of PNG (Domestic) in Delhi on the imported RLNG will be approximately Rs 35.00 per SCM.

The quantum of LNG imported from other countries during last two financial years are as under:

Period	Quantity of LNG imported (in MMTPA)	Countries from which imported
FY 2013-14	13.02	Qatar, Nigeria, Yemen, Egypt, Norway and Algeria
FY 2014-15	13.29	Algeria, France, Guiena, Korea Republic, Malaysia, Nigeria, Norway, Oman, Qatar, Spain, Trinidad, UAE and Yemen

LNG Imports is under Open General License (OGL) and LNG is being imported by multiple entities. GAIL (India) Ltd, Petronet LNG Ltd, GSPC Ltd, IOCL, SHELL and BPCL are importing LNG on different terms and conditions as per their techno-commercial. Petronet LNG Limited (PLL) has purchased a total quantum of 8.64 MMT of LNG during Year 2013-14 and 8.584 MMT during year 2014-15 from various countries across the world. On an average, landed cost of LNG was USD 12.50-13.50 / MMBTU and USD 13.50-14.00 / MMBTU in the year 2013-14 and 2014-15 respectively".

1.87 When asked about the details of LNG regasification and storage installations/capacity available in the country and capacity added during last one year, the following information has been furnished by the Ministry:

"The details of LNG regasification and storage installations/capacity available in the country are as below:

Location	Owner	Existing Capacity
Dahej	PLL	10
Hazira	SHELL	5
Kochi	PLL	5
Dhabol*	GAIL	1.24
Total Capacity (MMTPA)		**21.24**
Sub-total (MMSCMD)		**76.5**

(*Name plate capacity is 5 MMTPA but in absence of the breakwater, the terminal can only operate at 1.24 MMTPA)

No capacity has been added for LNG regasification and storage installations since February, 2015".

K. TAXES ON CRUDE OIL / PETROLEUM PRODUCTS

1.88 On being asked about the fall in prices of crude oil basket for India, the fall in the retail price of petrol and diesel and the increase in taxation of both state and centre governments, the Ministry furnished the following details:

"The prices of crude oil and petroleum products in the international markets started declining from July 2014. A comparative statement of price of Indian basket crude oil and Retail Selling Price (RSP) of petrol and diesel in four metro cities from July 2014 is given below:

Particular	Unit	July 2014	February 2016	Change
Indian basket of crude oil	$/bbl.	106.30	30.33*	(75.97)
Petrol				
Delhi	Rs./ Litre	73.54	59.68	(13.86)
Mumbai		81.68	65.76	(15.92)
Chennai		76.87	59.08	(17.79)
Kolkata		81.37	64.61	(16.76)

Diesel				
Delhi	Rs./ Litre	57.84	44.98	(12.86)
Mumbai		66.01	51.50	(14.51)
Chennai		61.70	45.65	(16.05)
Kolkata		62.64	48.30	(14.34)

*average up to 25.2.2016

Note - RSP for July 2014 is as on 1.7.2014 and for Feb 2016 is on 18.2.2016 as per HPCL.

A comparative statement showing changes in the taxes included in the RSP of petrol and diesel by the Central as well as State Governments at Delhi, Mumbai, Chennai and Kolkata from July 2014 is given below:

Particular	July 2014	February 2016
Excise duty levied by Central Government in Rs./Litre (Specific Tax)		
Petrol	9.48	21.48
Diesel	3.56	17.33
Sales tax/ VAT etc. levied by State Governments in percentage (Ad-Valore Tax)		
Petrol		
Delhi	20 %	27 %
Mumbai	27.60 %	32.22 %
Chennai	27 %	27 %
Kolkata	26.6 %	29.15 %
Diesel		
Delhi	13.06 %	18.81 %
Mumbai	24 %	29.19 %
Chennai	21.43 %	21.43 %
Kolkata	18.37 %	22.01 %

1.89 On being further questioned about the increase in demand in the following petroleum products during April, 2015 to February, 2016 compared to the same period one year back, the Ministry furnished the following reply:

"Increase in demand of the petroleum products is given below:

(in TMT)

Product	**2014-15 (Apr 2014-Feb 2015)**	**2015-16 (Prov.) (Apr 2015-Feb 2016)**	**% Growth**
Petrol	17391	19799	**13.8**
Diesel	63523	67861	**6.8**
ATF	5206	5673	**9.0**
- LPG Domestic	14618	15572	**6.5**
- Commercial LPG	1382	1761	**27.4**

1.90 When asked to explain the cost structure of petrol, diesel, LPG and kerosene giving details of various duties, taxes and cess, if any, levied over these products, the following information have been furnished:

"The prices of Petrol and Diesel have been made market determined by the Government effective 26th June, 2010 and 19th October, 2014 respectively. Since then, the Public Sector Oil Marketing Companies (OMCs) take appropriate decision on pricing of Petrol and Diesel in line with their international prices and other market conditions.

The Government continues to modulate the RSP of Subsidized domestic LPG and PDS Kerosene and their basic prices have not been increased after 25th June 2011. After launch of DBTL, its consumers get the Domestic LPG cylinders at market determined price and receive LPG subsidy directly into their bank accounts".

L. INTERNAL AND EXTRA BUDGETARY RESOURCES (IEBR)

(i) ONGC

1.91 As per outcome budget 2015-16, the annual plan outlay for ONGC during 2015-16 was fixed Rs. 36249.37 crore. The Ministry have furnished the following details of the actual expenditure incurred against the budgeted account under different heads of the annual plan during 2015-16:

"Annual plan outlay for 2015-16 & actual expenditure incurred till December 2015, under different activities / heads is as under:

(₹ crore)

Sl. No.	Activity	2015-16	
		BE	Actual Expenditure* (April-December)
1.	Seismic Survey	2099.35	1002.27
2.	Exploratory Drilling	12169.92	6006.14
3.	Development Drilling	8924.95	5082.79
4.	Capital Projects & Purchases	10744.74	6521.72
5.	R&D and Institutes	773.95	431.05
6.	JV Domestic	1276.38	583.27
7.	Integration	260.08	1441.5
	Total	**36249.37**	**21068.74**

*: Provisional".

1.92 When asked by the committee to furnish the annual plan outlay for ONGC along with the allocations for different heads during 2016-17, the Ministry have supplied the following information:

"Annual plan outlay of ONGC under different heads during 2016-17 is as under:

(₹ crore)

Sl. No.	Activity	Annual Plan Outlay 2016-17
1.	Seismic Survey	1969.41
2.	Exploratory Drilling	7181.15
3.	Development Drilling	9826.74
4.	Capital Projects & Purchases	9137.79
5.	R&D and Institutes	607.50
6.	JV Domestic	565.97
7.	Integration	18.64
	Total	**29307.20**

Reasons for decline in BE 2016-17 vis-à-vis BE 2015-16:

ONGC:

- Survey budget has declined marginally on account of reduction in physical targets of 2D and 3D Survey by 320 Ground Line Kms. (GLK) and 1353 Square Kilometer(SKM) respectively.
- The decline is on account of NIL target for deep-water exploratory drilling in BE 2016-17, as against a target of 7 wells in BE 2015-16.
- The BE has reduced for shallow water exploratory drilling in 2016-17, mainly due to anticipated reduction in oil field services cost (rigs, etc.), due to persistent decline in global crude prices.
- The outlay for onland exploratory drilling has also been reduced on account of reduction in input costs of resources for 93 wells.

Reasons for low utilization of funds during April- to Dec.'2015:

ONGC:

- 3D seismic work awarded to the company could not be initiated/ completed due to bankruptcy of the firm.
- Lower utilisation in exploratory drilling is on account of less wells drilled during the period due to low availability of rig months.

(ii) <u>Oil India Ltd. (OIL)</u>

1.93 Regarding details of the actual expenditure incurred against the budgeted account under different heads of the annual plan during 2015-16, the Ministry have informed that:

"Annual plan outlay of OIL during 2015-16 & actual expenditure incurred till December 2015, under different activities / heads is as under:

(₹ crore)

Sl. No.	**Activity**	**2015-16**	
		BE	**Actual Expenditure* (April-December)**
1.	G&G	345	323
2.	Exploratory Drilling	1249	534
3.	Development Drilling	807	615
4.	Capital Equipments& projects	697	496
5.	Overseas ventures & Investment	819	500
	Total	**3917**	**2468**

*: Provisional".

1.94 Also, the annual plan outlay for OIL along with the allocations for different heads during 2016-17 is as under: (Prelim LOP Q. 59)

(₹ crore)

Sl. No.	**Activity**	**Annual Plan Outlay 2016-17**
1.	G&G	417
2.	Exploratory Drilling	1377
3.	Development Drilling	824
4.	Capital equipments & projects	747
5.	Overseas ventures & Investment	655
	Total	**4020**

(iii) <u>GAIL</u>

1.95 When asked about the details of annual plan outlay for GAIL along with the allocations for different heads, the Ministry have submitted the following details:

> "The annual plan outlay for 2015-16 of GAIL was Rs. 2704.51 crore for major projects like replacement of pipelines in KG basin, Jagdishpur Haldia Pipeline, Kochi, Koottanad Pipeline, City Gas Distribution project, etc.

1.96 When asked to furnish details of the actual expenditure incurred against the budgeted account under different heads of the annual plan during 2015-16, the Ministry have stated that:

> "The actual expenditure in FY 2015-16 till January 2016 was ₹1293.75 crore against Plan outlay of ₹ 2704.51. Activity-wise detail of expenditure is given in table below:

(₹ crore)

Sl. No.	Activity	2015-16	
		BE	Actual Expenditure* (April-January)
1.	Pipeline	1532.97	778.47
2.	City Gas Distribution	274.00	102.00
3.	Business Development and Diversification Projects	199.60	8.92
4.	Exploration & Production	147.94	53.20
5.	Petrochemicals	550.00	351.15
	Total	**2704.51**	**1293.74**

*: Provisional".

1.97 Also, GAIL has an annual plan outlay of ₹1637.03 crore for the year 2016-17. The details of annual plan outlay for GAIL along with the allocations for different heads are as follows:

(₹ crore)

Sl. No.	Activity	Annual Plan Outlay 2016-17
1.	Pipeline	1333.40
2.	City Gas Distribution	104.00
3.	Business Development and Diversification Projects	69.08
4.	Exploration & Production	77.55
5.	Petrochemicals	53.00
	Total	**1637.03**

Reasons for decline in BE 2016-17 vis-à-vis BE 2015-16:

The BE for 2016-17 is based on the projected expense as per production sharing contract of various fields.

Reasons for low utilization of funds during April to January, 2016:

GAIL:

The progress in utilization of funds during 2015-16 under exploratory activities has been slow due to difficult site working conditions and meagre construction time window, delaying jobs in KG basin.

1.98 When the Committee asked for the reasons for very low utilisation of Budget available for City Gas Distribution and Petrochemicals by GAIL in 2015-16 and why very small allocation for Petrochemicals has been made in 2016-17, the Ministry in written reply have stated that:

"Reasons for low utilization of budget available for City Gas Distribution and Petrochemicals by GAIL in 2015-16 are as under:

(₹crore)

Segment	BE 2015-16	Actual expenditure 2015-16 (April-January)	Actual 2015-16	Reasons for very low utilization of budget available
City Gas Distribution	274	102	136	Budgetary allocation kept by GAIL for its Subsidiary did not materialize due to delay in Floating Storage and Regasification Unit (FSRU) project at Kakinada.
Petrochemicals	550	351.15	430	PBR project is on hold in view of uncertainty in the availability of feed stock from M/s OPaLTechno-economic viability of Phenol Acetone Project needs to be reassessed in the current meltdown of prices.

Reasons for lower allocation for Petrochemicals in BE 2016-17 as compared to BE 2015-16 are as under:

(₹crore)

Particulars	BE 2015-16	BE 2016-17	Reasons for lower allocation for Petrochemicals in 2016-17
PBR Project	150	1	PBR project is on hold in view of uncertainty in the availability of feed stock from M/s OPaL
Phenol Acetone Project	150	1	Techno-economic viability of Phenol Acetone Project needs to be reassessed in current meltdown of prices.
Pata Expansion Project and Modification Scheme for Petrochemical Plant	250	51	Pata expansion project has been commissioned; major allocations not required for this project.
Total Petrochemicals	550	53	

(iv) <u>IOCL</u>

1.99 As per outcome budget 2015-16, the annual plan outlay for IOCL during 2015-16 was fixed at Rs.10409 crore which includes expenditure in Paradip Refinery Project, Pardip-Sambalpur-Raipur-Ranchi Pipeline, Distillate Yield Improvement Project at Haldia Refinery etc.

"IOCL has incurred an expenditure of Rs.7937.24 crore for the period April 2015-January 2016. The details of actual expenditure incurred by IOCL for the period April 2015-January 2016 is as follows:

(₹ crore)

Segment	2015-16	
	BE	**Actual Expenditure* (April-January)**
Refining & Marketing	9432.70	6821.06
Exploration & Production	655.30	1061.11
Petrochemicals	452.00	55.07
Total	**10540**	**7937.24**

*: Provisional".

1.100 Also, IOCL has an annual plan outlay of Rs. 13772.87 crore for the year 2016-17. The details of annual plan outlay for IOCL along with the allocations for different heads are as follows:

(₹ crore)

Segment	Annual Plan Outlay 2016-17
Refining & Marketing	10083.19
Exploration & Production	1997.75
Petrochemicals	1691.93
Total	**13772.87**

1.101 When the Committee sought to know the reasons for excess utilisation by IOCL of funds available for Exploration & Production in 2015-16 while the utilisation for Petrochemicals in the year has been very low and also justify for huge increase in outlay for Exploration & Production and Petrochemicals in 2016-17, the Ministry in their written reply have submitted that:

“Expenditure on Exploration & Production

IOCL has spent ₹1222.83 crore during 2015-16. The excess expenditure is due to investment in overseas projects in order to have enhanced equity in oil & gas. In line with the efforts to strengthen its upstream presence, for 2016-17, IOCL has kept ₹1997.75 crore as Plan BE for E&P in various domestic and overseas E&P projects.

Expenditure on Petrochemicals

IOCL has spent ₹203.03 crore in various petrochemical projects during the year 2015-16. In 2015-16, utilization in petrochemicals is low mainly due to shortfall in new projects, which are yet to be approved. In addition to this, some allocation was made for inorganic acquisition which could not materialize during the year. During the year 2016-17, IOCL has kept a budget provision of ₹1691.93 crore.

The increased allocation is mainly due to following projects:

Sl. No.	Name of the Project	BE 2016-17 (₹ crore)	Reasons for variation
1.	Paradip petrochemicals phase-I,	1156.47	Project was approved in March, 2014 with an approved cost of ₹3150 crore. As project is in ongoing stage and considering the project’s physical progress schedule,

Sl. No.	Name of the Project	BE 2016-17 (₹ crore)	Reasons for variation
	Polypropylene project		higher BE is kept in 2016-17.
2.	Recovery of Styrene from Naphtha Cracker at Panipat	38.60	Project was approved in 2015-16 with approved cost of ₹246.00 crore. As project is in ongoing stage and considering the project's physical progress schedule, higher BE is kept in 2016-17
3.	Ethylene derivative complex at PDRP	36.15	Project has received in-principle approval and final investment approval is yet to be accorded. Considering various activities related to project approval, higher BE is kept in 2016-17.
4.	LAB plant acquisition of M/s TPL	400.00	Kept for inorganic acquisition of asset.
5.	Other projects	60.71	Kept for completed projects and other new projects under consideration

(v) <u>BPCL</u>

1.102 As per the outcome budget 2015-16, the annual plan outlay of BPCL for 2015-16 was Rs.6501.32 crore towards expenditure on projects such as replacement of CDU-VDU at Mumbai refinery, Integrated Refinery Expansion project at Kochi Refinery and cross country products pipelines etc.

(₹ crore)

Segment	2015-16	
	BE	**Actual Expenditure* (April-January)**
Refining& Marketing[2]	5101.32	5358.18
Exploration & Production	1400.00	1119.00
TOTAL	**6501.32**	**6477.18**

*: Provisional

Sector-wise Annual Plan Capex of BPCL for 2016-17 is given below:

Segment	Annual Plan Outlay 2016-17
Refining& Marketing[3]	9797
Exploration & Production	800
Total	**10597**

1.103 The Committee sought to know the reasons for utilisation by BPCL of funds budgeted for the whole year for Refining and Marketing in only 10 months and explain why the Budget estimate for the year 2016-17 in the same head has been doubled, the Ministry have in a written reply furnished to following details:

"Reasons for utilizing fund for Refining and Marketing in 10 months only

BE for 'Refineries& Marketing' head including JVs, during 2015-16 was ₹5101.32 crore and expenditure incurred up to January 2016 was ₹5358.18 crore. The budgeted expenditure had to be utilized fast, in order to ensure that the projects related to BS IV production of MS/HSD were expedited to meet the target date set by Government.

Reasons for higher budget allocation for Refining & Marketing head including JVs in BE 2016-17

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[2] Includes JV projects

[3] Board approval for scheme-wise expenditure is yet to be taken.

During 2016-17, major projects are planned under ‘Refining’ head to meet the Government directive and deadline for ensuring production of BS V / VI fuels and also Petchem project.

Integrated Refinery Expansion Project in Kochi refinery would be completed in May / June, 2016 and for ensuring evacuation of additional 6 MMT petroleum products, capex expenses under Marketing sector (major pipelines and infrastructure) have been planned in the southern region.

This head also includes Joint Venture projects. Capex investment of ₹1857 crore has been planned under Joint Ventures during 2016-17 as against ₹226 crore in 2015-16. Capex details of JV projects, planned during 2016-17 areas under:

- Bharat Oman Refinery Ltd (BORL) – ₹1500 crore (Proposed capacity expansion)
- Gas Pipelines / City Gas projects - ₹220 crore
- Pipeline projects with other OMCs - ₹137 crore

In view of above the above, the BE 2016-17 for ‘Refining and Marketing’ including JV projects, has increased to ₹9797 crore from ₹5101.32 crore in 2015-16.”

(vi) <u>HPCL</u>

1.104 The Committed wanted to know the details of the actual expenditure incurred out of the annual plan outlay of HPCL for 2015-16 which was Rs.1791.85 crore. The Ministry have submitted the details as under:

"The details of actual expenditure (April -Jan 2016) incurred against the budgeted account under different heads of the Annual Plan by HPCL during 2015-16 are given below:

(₹ crore)

Segment	**2015-16**	
	BE	**Actual Expenditure* (April-January)**
Refining & Marketing	1636.64	1159.86
Exploration & Production	150.71	29.22
Petrochemicals	4.50	0
Total	**1791.85**	**1189.08**

*: Provisional.

Also, the details of Annual Plan outlay for HPCL along with the allocations for different heads during 2016-17 are given below:

(₹ crore)

Segment	**Annual Plan Outlay 2016-17**
Refining & Marketing	1907.24
Exploration & Production	67.02
Total	**1974.26**

1.105 The Committee enquired as to the reasons for HPCL has been able to utilise just 20% of the allotted amount for exploration and Production in the first ten months and explain reasons behind BE 2016-17 being less than half of the BE 2015-16. The Ministry have in their written reply stated that:

"Reasons for lower utilization of funds under exploration and production head during 2015-16:

HPCL has non-operating minority Participating Interest (PI) in consortium with other oil PSUs and E&P companies in 20 Exploration Blocks, all of which were allotted under NELP rounds. BE 2015-16 was made based on work programs received from the Operators and the expected expenditure proportionate to HPCL's PI. The actual expenditure in some blocks was less than expected due to the following reasons:

(a) non-drilling of one well each in CY-DWN-2004/3 and CY-PR-DWN-2004/1 (Operator - ONGC) due to poor prospectivity (₹103 crore) and

(b) shifting of plan for drilling one well in MB-OSN-2010/2 (Operator - Oil India Ltd.) (₹30 crore).

Reasons for keeping lower BE under exploration and production head during 2016-17 as compared to 2015-16.

The consortium has carried out various activities like 2D, 3D seismic surveys& drilling of exploration wells in some of the blocks. Due to poor hydrocarbon prospectivity, currently 18 blocks are under relinquishment and no further seismic/drilling activity is planned in these blocks. Consequentially, lower allocation has been made under exploration and production head during BE 2016-17."

(vii) OIDB

1.106 When asked about the total budgeted expenditure of OIDB during 2016-17 and details of the allocation under different heads by the OIDB, the Ministry have submitted the following:

"The total BE 2016-17 as approved by OID Board is Rs 2614.44 crore. The allocations under different heads is as below:

Grant	:	Rs 467.58 crore
Loan	:	Rs 1844 crore
Equity in ISPRL	:	Rs 250 crore
Admn. & other expenses	:	Rs 52.86 crore
Total BE (2016-17)	:	Rs 2614.44 crore"

M. MAKE IN INDIA

1.107 With respect to the initiatives launched by the Oil PSUs/Government under the ambitious 'Make in India' campaign to give fillip to oil sector, the Ministry stated that:

"Initiatives taken/launched are as under:

a) The Prime Minister of India has launched the 'Make in India' initiative to place India on the world map as a manufacturing hub and give global recognition to the Indian economy. Hydrocarbon sector has been identified as one of the 25 priority areas for promotion of manufacturing under the Make in India initiative. The main focus behind the concept is to invite global firms across the value chain – Upstream, Midstream & Downstream, create jobs and improve the skills set, improve economic growth and reduce our country's trade deficit. The clarion call to make things in India is not only limited to big industrial houses, but also for scores of SMEs that form the backbone of manufacturing in the country.

b) ONGC and IOC have already aligned their procurement processes to provide preferential market access to domestically produced electronic products.

c) In new material manuals of ONGC have come into force from 1.2.2015. The Ministry has set a target of increasing indigenization in upstream sector from existing level of 32% to 50%.

d) IOC R&D has successfully developed INDMAX (Indane maximization) technology.

e) Ministry has also invited comments from stakeholders through a consultative paper from stakeholders on Policy to provide Purchase Preference linked with local content.

f) All the oil PSUs have instituted a special 'INDEG' cell to promote indigenization

g) The oil & gas invests large amounts every year to create assets across upstream, midstream and downstream segments. To give impetus to "Make in India" campaign, GAIL has decided that out of 9 LNG ships that will manufactured for charter hire by the company in the next five years, 3 will be built in Indian shipyards".

N. CROSS COUNTRY GAS PIPELINES PROJECTS

(i) Turkmenistan – Afghanistan-Pakistan – India (TAPI) Pipeline Project

1.108 The Ministry of Petroleum and Natural Gas is presently pursuing two cross border gas pipeline projects to bring in gas from the gas rich neighbouring countries Iran and Turkmenistan through these pipelines. These projects are Turkmenistan – Afghanistan – Pakistan – India (TAPI) and Iran- Pakistan – India (IPI). When asked for the current update on these projects, the Ministry in a written reply furnished following information:

India is pursuing the Turkmenistan – Afghanistan – Pakistan – India (TAPI) Pipeline project to receive Natural Gas supply from the Yolotan Osman (Galkynysh) fields in Turkmenistan. The 1814 kms of pipeline will carry 90 MMSCMD of natural gas, of which India and Pakistan will receive 38 MMSCMD each and Afghanistan's share is 14 MMSCMD. Afghanistan has indicated that it will be taking volumes of the tune of 1.5 – 4 MMSCMD. Volumes not taken by Afghanistan may be equally shared between India and Pakistan. The landfall point of the pipeline in India will be at Fazilka (Punjab).

With ADB support, preliminary feasibility study was carried out by M/s Penspen, U. K. in 2003 and a desktop update was done in April 2008. The cost of the project was estimated to be around USD 7.6 billion.

Two Government level agreements have been signed for the TAPI Project namely Gas Pipeline Framework Agreement (GPFA) and Inter Governmental Agreement (IGA) among the four member countries in Dec.' 2010. Bilateral Gas Sales and Purchase Agreement (GSPA) have already been signed among the three gas buyers and the seller for supply of natural gas for 30 years. Further, an Operations Agreement detailing metering, allocation and nomination aspects have been signed among the parties in Jul’ 2014. The Transit Fee payable to the transiting countries has been broadly agreed.

GAIL India Limited has conveyed its willingness to Turkmengas to hold bilateral negotiations for taking up additional gas not contracted by Afghan Party and discussions in this regard are being held.

As per the project structure, the 4 TAPI Parties will select and induct a technically competent and financially capable Consortium Leader.

Asian Development Bank (ADB) was appointed the Transaction Advisor (TA) on 19th November, 2013. The scope of TA includes formation of TAPI Ltd., selection of the Consortium Leader (CL) and undertaking certain project development activities such as Detailed Feasibility Study and Route survey.

In the 18th SCM, it was informed by the Turkmen party that M/s. TOTAL, a French Company, has expressed interest in becoming the Consortium Leader provided both Turkmen party and TOTAL are able to agree on a suitable upstream model within the framework of Turkmen law. During the 19th SCM, Turkmen party shared an update on its discussions with TOTAL. Further, it was also decided to initiate a dialogue with other potential consortium leaders for the TAPI project. Recently, 20th SCM was held in Feb’ 2015 wherein timelines were discussed for identification and selection of consortium leader.

TAPI Pipeline Company Limited (TPCL), the pipeline consortium has been incorporated on 11.11.2014 in ‘Isle of Man’, a British Crown dependency located in the Irish Sea. Formed by the nominated entities of four TAPI countries with equal shareholding, TPCL would be responsible for building, owning and operating the TAPI Pipeline. Currently, all the four TAPI entities have committed to invest USD 5 million as initial equity in the TAPI Pipeline Company Limited.

The first gas flow from the pipeline is expected to start within 3 years from the date of the induction of Consortium Leader, which is likely to materialize by March 2016.

Turkmengas has been selected as the Consortium Leader by the TAPI Pipeline Company Limited (TPCL). Turkmen Government held a ground breaking ceremony on 13th December, 2015 for commencing laying of the pipeline within Turkmenistan. The project will be executed by contractors having the relevant experience, who would be selected by TPCL via competitive bidding.

1.109 When the Committee asked about the expected completion date of the Turkmenistan-Afghanistan-Pakistan-India (TAPI) pipeline and whether GAIL has been provided sufficient funds for the project, the Ministry have stated the following in its written reply:

“With the Ground Breaking ceremony for the Turkmen leg of the project held on 13th December 2015 work has begun on the pipeline. Investment Agreement for the TAPI project was signed on 7th April 2016 in Ashgabat in Turkmenistan. The Technical Study of the TAPI project has estimated the start of Front End Engineering Design (FEED) process from July 2017 and the project completion 6 years and 9 months from this date i.e. by April 2024. GAIL has conveyed that sufficient funds are available for the project.”

(ii) Iran- Pakistan – India (IPI) Pipeline Project

Iran-Pakistan-India (IPI) pipeline was planned for transportation of natural gas from South Pars gas fields of Iran to Pakistan and India. The pipeline would have capacity to transport 60 MMSCMD of Natural Gas which would be equally (30 MMSCMD each) supplied to India and Pakistan. The total length of the pipeline up to Indian border would be approx. 2135 KMs (1100 KMs within Iran and the rest within the territory of Pakistan). The pipeline would enter India in Rajasthan near Barmer. As per past estimates, investment required for this pipeline would exceed USD 7 Billion.

Various Trilateral and Bilateral Joint Working Group (JWG) meetings were held between Iran, Pakistan and India to finalize the issues like transportation cost, transit fee, price review, and governing law/seat of arbitration & delivery point. Inter-Government Agreement & Joint Co-operation Declaration were also discussed. However, due to certain unresolved contractual issues and in light of the US/ UN sanctions on Iran, the IPI project has not moved forward".

1.110 Asked to furnish the progress made on the Iran-Pakistan-India pipeline and whether removal of international sanctions on Iran is likely to boost the progress on the pipeline by the Committee, the Ministry in a written reply furnished following information:

“The issue of supply of gas from Iran to India was discussed with the Iranian side during the visit of Hon’ble Minister of State (I/C) Petroleum and Natural Gas Sh. Dharmendra Pradhah to Iran from 9-10 April 2016 and earlier during the 1st India-Iran Joint Working Group held on 26 December 2015. Both sides agreed to continue examining various means of evacuation of gas, including through the proposed Iran-Pakistan-India pipeline. The issues that need to be addressed are project structure, pricing of gas, safety and security of the proposed pipeline and delivery period of gas. The completion of the pipeline project will depend on finalisation these critical issues between all the stake holders. Both sides have noted that the lifting of sanctions has provided opportunities for strengthening the bilateral relations, including in the field of hydrocarbons.”

1.111 Whether the crude oil purchases were made from Iran during the current year, if so, the details thereof and the steps taken by the Ministry/Oil PSUs to engage Iran as a new market after the recent lifting of sanctions, the Ministry submitted that:

"The details of purchase made from Iran during the current year i.e. 2015-16 (April – February) is given as under.

Details of crude oil imports during 2015-16 (Apr-Feb)(P)	
Company	**Qty (TMT)**
IOCL	833
MRPL	4535
EOL	5209
Total	**10577**

International sanctions on Iran were lifted w.e.f. 16th Jan. 2016. Prior to the lifting of sanctions, the meeting of 1st Joint Working Group (JWG) between India and Iran was held on 26th December, 2015 in New Delhi during which discussions were held on the following issues:

i) Export of crude from Iran to India

While expressing satisfaction on the current cooperation between Indian Oil Companies and National Iranian Oil Company (NIOC), both sides underlined the need to further develop the existing oil business between the two Countries, subject to commercial considerations, as soon as Sanctions are lifted.

ii) Development of Farzad B gas field

With reference to the proposal submitted by the Indian consortium to NIOC/IOOC (Iranian Offshore Oil Company) for development of Farzad-B, both sides agreed to discuss the submission with a view to concluding the contract expeditiously.

iii) Petrochemical and Fertilizer Projects at Chabahar

Indian side expressed interest that a number of petrochemical industries may be setup at Chabahar FTZ if reasonable and competitive rate of rich gas is offered by Iran on long term basis. The Indian side requested the Iranian side to identify around 1000 hectares of land for allocation to Indian Petrochemical SEZ at Chabahar, to provide hinterland connectivity and to identify Joint Venture partners with Indian companies interested to invest in chemicals and petrochemicals at Chabahar. Indian Side expressed willingness to explore the possibility of investing and constructing a fertilizer plant in Chabahar free zone. The Indian side also sought positive response on favorable treatment in the pricing of natural gas and assured supply during the life of the project.

iv) Pipeline projects

Both sides discussed evacuation of gas from Iran through various means including Iran-Pakistan-India (IPI) and subsea pipelines. The Iranian side appraised the India side of their current discussions with Pakistan on IPI.

A delegation is scheduled to visit Iran from 9-10 April, 2016 to have joint discussions with National Oil Company of Iran for enhancing supply of Iranian crude oil to India".

(iii) India-Africa Hydrocarbon summit

1.112 On being asked about the main outcomes of the recent India-Africa Hydrocarbon Summit (held in January 2016) and whether the Government aims to increase investment in P&NG sector in Africa, the Ministry submitted that:

"During 4th India- Africa Hydrocarbon Summit the mutually beneficial issues in the hydrocarbon sectors were discussed. Government of India expressed its willingness to further increase our hydrocarbon trade and investments in African countries. Indian Central Public Sector refineries are in consultation with their African counterparts regarding future oil and gas purchase, which, however, will depend on prices and terms agreed between these companies. On the sidelines of the Conference, Equatorial Guinea and ONGC Videsh Ltd. (OVL) signed an Memorandum of Understanding on exploring potential investment opportunities within the hydrocarbons sector in Equatorial Guinea. Hon'ble MoS announced additional 250 fully funded scholarships for African nationals for technical and professional courses in the Hydrocarbons sector in Indian institutes. This will be a part of Hon’ble Prime Minister’s announcement made during the 3rd India Africa Forum Summit held in October 2015 to offer 50,000 scholarships to African students.

Overall, the conference aimed to give a renewed thrust to India’s engagement with African nations in the hydrocarbon space with a resolve to strengthen the relations between India and Africa in all its dimensions, particularly in the Hydrocarbons sector. Our Public Sector Oil and Gas companies are in touch with their African counterparts for further deepening our collaboration in the hydrocarbon sector.

During the Conference, two panel discussions on “Emerging challenges and mitigating measures in hydrocarbon sector and beyond” and “Regulatory and Fiscal Regime challenges and potential solutions to stimulate investment in Upstream and Downstream sectors” were also held".

1.113 The Committee wanted to know the present status of India-Africa relations in hydrocarbon/petroleum sector and details about the ongoing projects Indian companies are undertaking in Africa, the Ministry in written reply have provided the following details:

“The 4th India- Africa Hydrocarbon Conference was held in New Delhi on 21-22 January, 2016. Government of India has expressed its willingness to further increase hydrocarbon trade and investments in African countries. Indian public sector oil and gas companies are in consultation with their African counterparts regarding future oil and gas purchase, subject to finalization of price, terms and conditions. Details of the ongoing projects being undertaken by Indian public sector oil and gas companies are as under"

OVERSEAS PROJECTS/ASSESTS IN AFRICA

Sl. No.	Country	Name of the Project	Participating Companies and their Share
1.	Sudan	GNPOC, Block 1, 2 & 4, Sudan	ONGC Videsh – 25% CNPC – 40% Petronas – 30% Sudapet – 5% (Jointly Operated)
		Khartoum-Port Sudan Pipeline (741 Km), Sudan	ONGC Videsh-90% (Operator) OIL-10%
2.	South Sudan	GPOC, Block 1, 2 & 4, South Sudan	ONGC Videsh – 25% CNPC – 40% Petronas – 30% Nilepet – 5% (Jointly Operated)
		SPOC/Block 5A, South Sudan	ONGC Videsh– 24.125% Petronas–67.875% Nilepet – 8% (Jointly Operated)
3.	Mozambique	Rovuma Area-1	ONGC Videsh - 16% Anadarko - 26.5% (Operator) OIL - 4% ENH - 15% Mitsui - 20% BPRL - 10% PTTEP - 8.5%

Sl. No.	Country	Name of the Project	Participating Companies and their Share
4.	Libya	Block 43, Libya	ONGC Videsh- 100%
		Area 95-96	Sonatrach – 50% Indian Oil – 25% OIL – 25%
5.	Nigeria	OPL- 205 OML – 142	Summit Oil 30% Suntera Nigeria 205 Ltd – 70%* * Suntera 50%, Indian Oil 25%
6.	Gabon	Shakthi	Old PSC: OIL – 45% Indian Oil – 45% Marvis Pte Ltd - % New PSC: OIL – 50% Indian Oil – 50%

PART - II

OBSERVATIONS / RECOMMENDATIONS

In pursuance of Rule 331E (1) (a) of Rules of Procedure and Conduct of Business in Lok Sabha, the Demands for Grants (2016-17) in respect of different Ministries/Departments stand referred to concerned Departmentally related Standing Committees. Thus Standing Committee on Petroleum and Natural Gas (2015-16) have examined the Demands for Grants (2016-17) of the Ministry of Petroleum and Natural Gas under its jurisdiction. This Report of the Committee deals with examination of Demands for Grants (2016-17) of the Ministry of Petroleum and Natural Gas. The recommendations/observations of the Committee are in succeeding paragraphs.

Recommendation No. 1

Utilisation of Budget Allocations

The Committee note that the total budget of the Ministry of Petroleum and Natural Gas for the year 2016-17 is Rs. 29160.62 crore out of which plan outlay is Rs. 2050 crore and non-plan outlay is Rs. 27110.62 crore. The non-plan outlay consists mainly of subsidies on LPG and Kerosene. Of the plan outlay of Rs. 2050 crore, Rs. 2000 crore has been earmarked for scheme for LPG connection to 1.5 crore poor households. The Committee note that in the year 2015-16, RE under plan and non-plan were Rs. 1203 crore and Rs. 30146.35 crore, respectively and the actual expenditure under plan and non-plan head was Rs. 1201 crore and Rs. 30085 crore, respectively. The BE 2016-17 figures show 10% decline in non-plan expenditure when compared to RE 2015-16. The Committee further note that the Annual plan for 2016-17 of the Oil PSUs, which pre-dominantly comprises the Internal and Extra Budgetary Resources (IEBR) of Oil PSUs, is Rs. 87214.56 crore compared to Rs. 75565.46 crore in 2015-16. The Committee appreciate that the Ministry could fully utilise the RE budget allocations during 2015-16.

The Committee observe that the Ministry has allocated Rs. 2000 crore for a plan scheme to provide free LPG connection to 1.5 crore BPL households during 2016-17. The Committee further note that within plan outlay of MoPNG for 2016-17, Rs. 47 crore has been allocated to the Rajiv Gandhi Institute of Petroleum Technology (RGIPT). A token amount of Rs. one crore each has been allocated to

Indian Strategic Petroleum Reserves Limited (ISPRL), setting up Petroleum University in Andhra Pradesh and for ISPRL Phase-II.

The Committee are concerned that the RGIPT project relating to setting up the Petroleum University in Andhra Pradesh has failed to take off so far. The Committee are also concerned that the outlay budgeted by the PSUs from their internal resources are not being properly utilised. The Committee, therefore, recommend that the Ministry should exercise suitable monitoring in order to ensure that the outlays are utilised properly.

Recommendation No. 2

Exploration and Production Scenario of Crude oil and Natural Gas

The Committee note that strengthening 'Energy Security' is one of the mandates of the Ministry of Petroleum and Natural Gas (MoPNG) and exploration and production of crude oil and natural gas is one of the most important ways of providing this security. The fortuitous circumstance of the low international prices of crude oil and gas has given some respite. But it cannot be a substitute for domestic sources of energy developed through exploration and bringing them online. As the nation moves forward on the high growth trajectory and prosperity levels of the citizens increase, the demand of crude oil and gas is going to increase rapidly. At current levels of consumption, about 80% of our crude oil requirements are being met through imports. The Committee note that the production of crude oil is stagnant in the last few years while the natural gas production has actually gone down.

The Committee further note the recent initiatives of the Ministry to simplify the rules involving exploration of crude oil and natural gas in the country including formulation of the Hydrocarbon Exploration Licensing Policy (HELP). The Committee, however, find that from discovery of oil fields to production is a long drawn process involving substantial time frame and capital expenditure. Moreover, clearances from various Ministries/Departments are also required. Therefore, the Committee feels that it is very important to lay down a consistent and predictable licensing environment in the country in order to attract interest from national as well as global players who can bring much needed capital and technology to invest in the sector. The Committee, therefore, recommend that the Ministry should make focused effort to increase exploration and production by stimulating investment in the sector and prescribing a stable and transparent licensing/regulatory regime geared to face challenges of the sector and ensure increase in crude oil production.

The Committee also desire that the Ministry should make sincere efforts to obtain all necessary clearances from different agencies for the blocks that have been stalled due to various reasons for initiating E&P activities.

***Recommendation No.*3**

Levy of cess on Crude Oil

The Committee observe that the Government has modified the levy of Oil Industries Development (OID) cess on domestically produced crude oil from oil PSU's from 4500/MT to 20% ad-valorem. This measure will result in saving of about Rs. 1150/MT at the crude oil rate of US$ 35/bbl and at exchange rate of Rs.67 per US dollar. However, if the crude oil rates in the international markets rise, the burden of cess on the upstream oil companies like ONGC and OIL will increase. At the price point of US$ 50/bbl and at exchange rate of Rs. 67 per US$, the burden will be even more than the previously fixed cess of 4500/MT, which will defeat the purpose of rationalizing the cess and give relief to upstream oil PSUs. Keeping this fact in view, the Ministry have decided to take up the matter with the Ministry of Finance for reduction of the cess from the current 20% to reasonable levels. They have also requested for transfer of part of the funds collected as cess from the oil companies to the OIDB for taking up initiatives like appraisal of unappraised areas, for national data repository as well as for the development of gas pipeline infrastructure.

The Committee fully support the lowering of *ad valorem* rate making it more practical and simpler to administer the cess. The Committee, therefore, strongly desire that the issue of present ad valorem cess of 20% proposed in the budget should be raised by the Ministry with the Ministry of Finance so that the oil cess is brought down preferably in the range of 10%. The Committee may be informed about the outcome in this regard.

***Recommendation No.* 4**

LPG connection for households below poverty line

The Committee note that Government has announced a scheme as a part of 'Pradhan Mantri Ujjwala Scheme' which will be implemented in three years (2016-17, 2017-18 and 2018-19) to give 5 crore new LPG connections in the name of women members of BPL households. An amount of Rs. 2000 crore has been allocated for the scheme to provide free LPG connection to 1.5 crore BPL households during 2016-17. The Committee note that the Socio- Economic Caste Census (SECC) 2011 will be used to identify the BPL households and the States which are below the national average in the LPG coverage will be given preference. The Committee however, desire that the LPG connections surrendered under 'Give it Up' scheme should also be brought into the ambit of this scheme and targets be revised suitably.

The Committee appreciate launching of this pro-poor measure of the Government and hope that if the new scheme is successfully implemented, it can go a long way in providing clean energy to the poor households and also contribute to empowerment and health care of women. The Committee, however, note that the implementation of the scheme may face difficulties due to lack of adequate infrastructure including LPG dealerships, bottling plants, pipelines across the country, availability of adequate quantity of LPG in the country, supply of reasonably priced LPG stoves, etc.

The Committee, therefore, desire that Ministry should fine tune the processes linked to implementation of the Scheme particularly the development of delivery infrastructure in the remote and border areas. The Committee suggest that the services of public representatives may be utilised in implementation of the scheme.

***Recommendation No.* 5**

Hydrocarbon Exploration Licensing Policy (HELP)

The Committee observe that the Government has formulated a Hydrocarbon Exploration Licensing Policy (HELP) with simplified rules governing exploration and production of all hydrocarbons in the country. The new policy will govern all hydrocarbon fields which will henceforth be brought under production under a single licensing framework. This special dispensation will be available to future discoveries as well as existing discoveries which have not commenced commercial production as on 1/1/2016.

The Committee also note that to address the issue of lack of interest in investment in the previous years in difficult areas such as deep water and ultra-deep water areas, a calibrated marketing and pricing freedom has been provided for incentivizing oil and gas production in the deep water, ultra deep water, high temperature-high pressure areas to the entities subject to a ceiling based on prices of alternate fuels.

The Committee desire that the Ministry should leave the least scope for misinterpretation of the policy so that situations leading to disputes may not arise.

***Recommendation No.* 6**

Indian Strategic Petroleum Resolve Limited (ISPRL)

The Committee note that ISPRL was formed as a Special Purpose Vehicle (SPV) in order to address the oil supply security concerns of the country. The strategic caverns were planned to be established initially in Vishakhapatnam, Mangalore and Padur under Phase-I with a capital cost of Rs.3985 crores. The Committee are happy to note that while Vishakhapatnam cavern has been commissioned and the other two caverns in Mangalore and Padur are likely to be commissioned in May 2016.

The Committee also note that in the second phase, four more caverns are to be established in Chandikhol, Bikaner, Rajkot and Padur. Detailed feasibility report for the second phase has been prepared. A token amount of Rs. 1 crore has been allocated to ISPRL as BE 2016-17. The Committee desire that Phase-II of the project needs to be started without any delay along with adequate allocation of funds.

The Committee further note that the Government is exploring alternative options of financing part of the cost of crude oil to fill the Mangalore and Padur caverns which include commercial utilisation by other interested parties. The Committee understand that negotiations with Abu Dhabi National Oil Company (ADNOC) are underway in this regard. The Committee, desire that strategic interest of the country behind construction of caverns should be protected and recommend that Ministry may ensure that oil stored in those caverns should always be available for the nation in emergency situations.

Recommendation No. 7

Rajiv Gandhi Institute of Petroleum Technology (RGIPT)

The Committee note that the Rajiv Gandhi Institute of Petroleum Technology (RGIPT) is in the process of being set up on 47 acres of land at Jais in Rai Bareli district of Uttar Pradesh (UP) as an Institute Of Excellence in the petroleum sector to cater to national and global educational and training requirements. Although it is operating from makeshift campus in the same district since 2008, there has been inordinate delays in the project. The new completion date for the project has been stated as June 2016. The total estimated cost for the Institute is Rs. 695.58 crore against the initial estimate of Rs. 435 crore in the year 2007. The Committee note that the progress in March 2015 was 86% while the progress in January 2016 is reported to be 93%. Thus in 11 months, the progress has been a mere 7% in the project which has been already suffering from substantial time and cost overruns.

The Committee also note that RGIPT Assam Project is under construction on 100 acres of land in Sivasagar district of Assam and very little progress has been made in the project with the estimates already gone up from Rs. 143 crore to Rs. 235 crore. The work of RGIPT Assam is at a standstill due to non-release of capital funds for construction. The capital funds are to be released by the oil PSUs and OIDB after the approval of expenditure by the Expenditure Finance Committee (EFC).

The Committee are concerned about the poor progress being achieved in the two RGIPT projects at Raibareli and Sivasagar and would like to know the reasons for such long delays causing significant cost overruns in both the projects. The Committee, however, recommend that the Ministry should closely monitor the progress of both the projects so that these are completed without any further time or cost overruns. The Committee also desire that the Ministry should ensure to provide adequate financial allocations and timely release of funds for these projects.

***Recommendation No.* 8**

Petroleum University in Andhra Pradesh

The Committee note that an Indian Institute of Petroleum and Energy (IIPE) is to be established in a 150 acre land in Subhavam Mandal in Vishakhapatnam in accordance with the Andhra Pradesh Reorganisation Act, 2014. The objective of the University is to meet the quantitative and qualitative gap in the supply of skilled manpower in the petroleum sector and promote research activities. Total capital expenditure for the project is estimated at Rs. 855.46 crore. A token provision of Rs. one crore each under plan and non-plan has been provided in BE 2016-17.

The Committee also observe that the land identified for the project is being acquired and until the campus is ready, arrangements have been made with the Andhra University to use their resources for starting classes. The Committee also note that Rs. 23.50 crore has been provided by the OIDB to start the academic session from the temporary campus.

The Committee, however, are not satisfied with the progress made so far in setting up the Institute only through a token amount and recommend that work on the construction should be taken up expeditiously after completing land acquisition work of the site in consultation with the State Government and allocation of more funds. The Committee also desire that the Institute should start functioning from its own campus at the earliest and availability of funds should not be a constraint for the project.

Recommendation No. 9

Marginal Fields Policy

The Committee note that the Marginal Fields Policy has been formulated by the Ministry in order to monetize oil blocks lying unutilised with ONGC and OIL because of reasons such as remote locations, small size, financial unviability and technological constraints. The policy aims at involving private sector including global players in the field for increasing domestic production in short-term. The Committee observe that the operators will be provided single license to explore and extract hydrocarbon resources alongwith pricing and marketing freedom. The operators will also be exempted from oil cess and custom duty on machinery and equipments. The aim is to simplify procedures in order to attract investment in exploration and production.

The Committee note that there are about 67 fields which are to be offered under this policy and the bids for these oil and gas fields are likely to be launched in the current year. The Committee recommend that the bids for the blocks should be launched so that the discoveries can be brought into production at the earliest.

The Committee appreciate the policy which aims to evacuate oil and other hydrocarbons from the discoveries made by ONGC and OIL which were not monetized for reasons including viability. However, the Committee feel that the policy needs to remove any subjective interpretation of rules and guidelines. The Committee recommend that the Ministry should issue clarifications in order to remove any scope of disputes.

Recommendation No. 10

Construction of pipelines under National Gas Grid through PPP & Viability Gap Funding (VGF)

The Committee note that 15000 kms of pipelines were to be added to the existing pipelines as part of National Gas Grid. Out of these, three pipelines of the length of about 2500 kms were to be executed through PPP mode with Viability Gap Funding (VGF) option. GAIL, which was the 'Sponsoring Authority' to implement the pilot PPP project completed route survey and Detailed Feasibility Report (DFR). The Committee observe that work on these three pipelines has been stalled as gas pipeline projects do not meet the criteria of the PPP projects under the VGF scheme.

The Committee are concerned that such an important project has been handled in a lackadaisical manner by the Ministry resulting in substantial time and cost overrun of the projects and in completion of National Gas Grid. The Committee note that the Ministry is considering to approach Ministry of Finance for direct budgetary support for meeting the viability gap for the gas pipelines. The Committee, therefore, recommend that the Ministry should take urgent measures to finalise the funding pattern and ensure that work on these pipelines under the National Gas Grid is completed at the earliest.

Recommendation No. **11**

National Gas Hydrate Programme (NGHP)

The Committee note that the NGHP was initiated in 1997 with participation from institutions/agencies such as Directorate General of Hydrocarbons, Upstream oil PSUs such as ONGC, IOL, GAIL and IOC and National Research Institutions like National Institute of Oceanography, National geophysical Research Institute and National Institute of Ocean Technology. The Committee observe that second phase of NGHP expedition was completed in July 2015 in Krishna-Godavari (KG) and Mahanadi offshore basin.

The Committee are happy to note initial results of the NGHP-02 expedition are very encouraging and gas hydrates have been discovered in KG deep offshore areas in sand reservoirs which are reported to be the thickest gas hydrate reservoir system in the world. The Committee note that based on data obtained during the expedition, sites for pilot production testing are to be identified and pilot production of gas hydrate deposits are planned to be carried out under the third phase of expedition. The Committee note that while the prospects of Gas Hydrates are encouraging, there has to be a cost benefit analysis before committing investments. The Committee, therefore, recommend that the Ministry should conduct a thorough review through an independent agency before carrying out further works under NGHP.

Recommendation No. 12

Ethanol Blended Petrol

The Committee note that the Ethanol Blended Petrol (EBP) programme is being implemented since 2003. Selling of Petrol blended with ethanol upto 10% has been envisaged for the year 2016-17. For achieving 10% blending, the requirement of Ethanol would be approximately 266 crore litres against which only 136 crore litres is available for blending within the country. Despite repeated rounds of floating Expression of Interest (EoI), the required additional Ethanol supply is not available in the country so far.

The Committee are concerned that the Ministry has not been able to procure sufficient quantity of Ethanol even though India is one of the largest Sugarcane producing countries of the world. The Committee note that unless concerted efforts are made by the Ministry, it would be difficult to attain the target of 10% EBP, particularly in those states which are not major sugarcane producing areas.

The Committee desire that the Ministry has to focus on the issue of availability of Ethanol in the country so that the targeted blending of Ethanol in petrol it has envisaged for could be achieved. The Committee would advise the Ministry to work sincerely on alternate sources for ethanol including the production of ethanol directly from sugarcane juice so as to incentivize farmers. The Committee recommend that a comprehensive plan be made by the Ministry for increasing availability of Ethanol for blending with petrol.

***Recommendation No.* 13**

Coal Bed Methane (CBM)

The Committee note that India possesses world's fourth largest proven coal reserves and holds substantial prospects for exploration and exploitation of CBM. It also notes that the Ministry of Coal has given No-Objection Certificate for a total of 26,000 sq. km area of coal basins for CBM explorations. The estimated CBM resources in the identified area is about 91.8 Trillion Cubic Feet (TCF). The Committee observe that, till date, four rounds of CBM bidding have been undertaken by the MoP&NG under its CBM policy which resulted in awarding of 33 CBM blocks in the total identified area. Out of the 33 awarded blocks, only one is in production phase while seven and five are in development and exploration phase, respectively. 16 blocks are in the process of being relinquished on the ground of having poor CBM potential.

The Committee are concerned about poor progress achieved so far in the exploration and exploitation of the CBM. Even after nearly a decade of start of commercial production, only one block is under production. The Committee note that Government has issued notification on 3.11.2015 granting rights to Coal India Ltd. and subsidiaries for exploration and exploitation of CBM in coal basins on nomination basis for which the CIL possess lease for mining coal. The Committee note that DGH has estimated that CBM production in 2017-18 may reach 5.77 MMSCMD from present level of 1.1MMSCMD in the country. The Committee recommend that the exploration and exploitation activities of CBM should be expedited in order to maximize production of this source.

***Recommendation No.*14**

Pricing of Oil and Diesel

The Committee note that the crude oil prices have come down in the international market. However the Committee also note that the reduction in petrol and diesel prices in India have not been commensurate with the fall in international oil prices. In July 2014 when the Indian basket of crude oil used to cost US$ 106.3 /bbl, the retail cost of petrol and diesel in Delhi was Rs. 73.54/litre and 57.84/litre, respectively. In February 2016 the cost of Indian crude oil was US$ 30.33 which means the international prices fell by about 76%. However, during the same time-frame the retail prices of petrol and diesel were reduced only by 13.86% and 12.86% respectively (in Delhi).

The Committee observe that the retail prices of petrol and diesel in the country have not been reduced to the extent of the reduction in international prices as a result of increase in central and state taxes' component on petroleum products. The Committee note that in February 2014 the excise duty levied by the Central Government on per litre petrol was Rs 9.48 which was increased to 21.48 in February 2016. In case of diesel, the increase during the same period was from Rs. 3.56 to Rs. 17.33. Some of the State Governments also increased sales tax/VAT etc. during the same period which caused less than expected reduction in retail petrol and diesel prices.

The Committee appreciate the efforts of the Government to maintain stability in the retail prices of petrol and diesel and keep a cushion in anticipation of future price increases in the international market.

Recommendation No. 15

Reserve Replacement ratio

The Committee note that Reserve Replacement Ratio is an important parameter for Exploration & Production companies. This indicates that amount of oil added to the reserves vis-a-vis production. It is generally expected that the ratio to be more than 1 which indicates that more reserves are being added than being taken out through production. The Committee note that in 2012-13, RRR based on 1P (1P = proven reserves) reserve for ONGC was 1.08 while in the years 2013-14 and 2014-15 the figure was 0.62 and 0.70 respectively. In case of OIL, the corresponding figures were 1.17, 0.80 and 1.22 respectively. The Reserve Replacement Ratio (RRR) on 1P basis has been consistently below 1 in case of ONGC and about 1 in case of OIL.

The Committee are concerned that the RRR of the Nation's Oil Companies (NOC's) are about 1 or less than 1. This indicates these companies are producing crude oil from their existing reserve without adding new reserves. The Committee apprehends that the exploration activities are not being undertaken as intensively as is required in a energy-deficient country like India. The Committee, therefore, recommend that the oil companies undertake exploration of promising areas more intensively so that the crude oil production remains sustainable and recommend allocation of sufficient funds by NOCs for undertaking such activities. The Committee also desire that the Ministry should explore all the overseas acquisition opportunities to augment the reserves and improve RRR.

Recommendation No. 16

City Gas Distribution (CGD)

The Committee note that the City Gas Distribution (CGD) network supplies gas to four separate segments- Compressed Natural Gas (CNG) for automobiles, Piped Natural Gas (PNG) in domestic, commercial and Industrial segments. The Committee also note that further rounds of bidding for expansion of CGD network to 34 GAs were conducted by PNGRB and have received 56 bids for 24 GAs which are under evaluation. The Committee note that 28 new GAs in the CGD network have been added in the last two years. At present about 30.93 lakh households in 11 states are availing the PNG supplies.

The Committee observe that the Ministry had targeted that by the year 2015-16, the total number of PNG customers would be about 50 lakhs, whereas the actual number is about 31 lakhs which indicates substantial shortfall in the target and need to scale up its effort to increase the number of connections. The Committee desire that the PNGRB/Ministry should complete the evaluation of the bids received under sixth round at the earliest and also ensure that the work already awarded under earlier rounds are monitored regularly and commissioned.

The Committee note that , therefore, feel that the expansion efforts of the CGD network has to increase expeditiously and recommend that Government/PNGRB should make more coordinated efforts to expand the CGD network to more States and GAs.

Recommendation No. 17

Internal Extra Budgetary Resources (IEBR)

The main activities relating to petroleum sector are carried out by the Oil PSUs out of funds generated from their own resources known as Internal and Extra Budgetary Resources (IEBR). The PSU's BE 2016-17 has been pegged at Rs. 87214.56 crore showing about 15% increase from the BE 2015-16. At the RE stage of 2015-16, the total outlay of PSUs was Rs. 68536.52 crore showing under-utilisation to the tune of 10%. Even out of this amount, only Rs. 45028.24 crore were utilised in the first three quarters.

The Committee note that budget for exploration activities of upstream oil companies like ONGC, OIL and GAIL has been going down substantially over the years. Moreover, the PSUs are not able to utilise even the reduced allocations. In case of ONGC, the BE 2015-16 for exploration activities was Rs. 14269.27 crore out of which they could utilise only about Rs. 7000 crore. BE for 2016-17 has been kept at Rs. 9150.56 crore. Similarly for GAIL the BE 2016-17 has been kept at Rs. 77.55 crore which is about half of BE 2015-16. GAIL could utilise less than 40% of the amount in the first three quarters of the previous year.

As regards downstream oil PSUs, the Committee note that 09 refineries under Indian Oil Corporation Ltd. (IOCL) achieved the crude throughput of 53.59 MMT during 2014-15 while during first three quarters of 2015-16 the crude throughput was 41.68 MMT. The estimates for 2016-17 has been fixed at 57.51 MMT while the target for 2016-17 is 62.5 MMT. Therefore, the total increase from 2014-15 to 2016-17 is about 20%. The plan outlay of IOCL in 2014-15 (actual) was Rs.14314 crore while RE for 2015-16 is Rs.11503 crores. The Committee note that in the first three quarters of 2015-16 the actual expenditure is Rs.6962 crores which is is only about 65% of the annual estimates. The BE for 2016-17 has been fixed at Rs.13773 crores an increase of almost 20% over the previous year figures.

In case of HPCL, its total refinery throughput in 2014-15 was 16.18 MMT. In first three quarters of 2015-16 it achieved refinery throughput of 12.53 MMT. the target for 2016-17 is 16.27 MMT. The Committee note that HPCL refineries are working at more than 100% capacity. Plan outlay for 2014-15 (actual) in case of

HPCL was Rs.1767 crores against the BE of Rs.1792 crores. The RE for 2015-16 is Rs.1540 crores while in the first three quarters Rs.1084 crores has been utilised. The BE for 2016-17 is fixed at Rs.1974 crores which indicates more than 25% increase from the previous year.

The Committee note that BPCL has two refineries with combined capacity of 21.5MMTPA. During 2013-14, the BPCL refineries processed 23.35 MMTs which is more than 100% of their capacity. During 2014-15 in the first six months the total of 11.23 MMT crude oil was produced in two refineries. The target for refining throughput for 2015-16 is to 22.50MMT. The Committee observe that refineries in case of BPCL are also operating at more than 100%. In 2014-15 RE at Rs.5794 crores was about 10% higher than BE of Rs.5250 crores. RE for 2015-16 was fixed at Rs. 7250 crores and BE for 2016-17 was Rs. 10597 crore which indicates substantial increase.

The Committee are concerned that the upstream oil PSUs are going slow on the exploration and development works even when the need is to work on exploration and development work intensively. The Committee recommend that the Ministry should direct PSUs to increase exploration activities in various parts of the Country and to allocate adequate funds for that purpose. The Committee note that the downstream oil PSUs show significant variation in their estimates and actual utilisation of funds. The Committee would expect the oil PSUs to prepare their estimates with utmost care and stick to it. Ministry may monitor the actual utilisation of outlay by the PSUs regularly and suggest periodic course corrections.

Recommendation No.18

3-D Seismic Survey and Drilling

The Committee note that the upstream PSUs such as ONGC and OIL have not performed as per expectations in exploratory activities in petroleum sector. In 2012-13 the 3-D seismic survey was undertaken in 11402 sq. km area against the target of 5840 sq. km. In 2013-14 and 2014-15, 3-D Seismic survey was undertaken by ONGC in 8371 & 9176 sq. km, respectively, while the targets set were higher. In 2016-17, the target area is fixed much lower at 7060 sq. km. Similarly the number of exploratory wells drilled were 106 against the target 153 in 2013-14 and 108 against the target of 155 in 2014-15.

In case of OIL, the 3-D Seismic survey was undertaken in 1796 sq. km area in 2012-13 which was more than 30% in excess of target fixed. However, in 2014-15, the 3-D Seismic survey could be undertaken only in 1234 sq. km against the target of 2050 sq. km which is about 60% of the target fixed. In 2016-17, 3-D Seismic survey is to be undertaken only in 300 sq. km.

The Committee observe that exploration activity by oil PSUs needs to be stepped up significantly in order to achieve increase in production. The Committee, therefore, desire that ONGC and OIL should increase oil exploration activities including 3-D Seismic survey and digging of exploratory wells with deployment of latest technologies and recommend that adequate budget for the same may also be allocated and the performance of PSUs in oil exploration should be closely monitored by the Ministry.

Recommendation No. 19

Oil and Natural Gas Commission (ONGC)

The Committee note that the ONGC was incorporated in 1993 under Companies Act and is the largest company in the country engaged in exploration and exploitation of hydrocarbons. The Committee note with concern that the production of crude oil by ONGC is stagnant for the past several years and at a standstill. The production of natural gas has also registered a decline. The BE target of crude oil production in 2016-17 has been fixed at 22.76 MMT which is about same as in 2015-16, i.e., 22.68 MMT. The BE target of natural gas production for 2016-17 is 24617 MMSCM which shows about 15% increase over RE 2015-16 (21840 MMSCM). The Committee also note that the plan outlay for 2016-17 has been kept at Rs. 29307 crore. During 2015-16 the plan outlay at BE stage was Rs. 36249 while at RE stage it was reduced to Rs. 31467 crore.

The Committee feel that the target for crude oil production in the year 2016-17 shows that the ONGC is not expecting any increase in the production. However, the target for natural gas production shows that about 15% increase is expected. It is not clear from where this increase is being expected as the plan outlay (BE) for the next year is kept at a lower level than the corresponding figures for the previous year by about 20%. The Committee feel that the target for natural gas production has been kept unreasonably high. Similarly, the budgeting of plan outlays show that ONGC is not expecting any expansion of its operations in the next year. Rather the plan outlay has been reduced from the previous year.

The Committee, therefore, recommend that ONGC should evolve a better system of setting targets so that realistic figures are projected. The Committee are concerned at the lack of increase in production of crude oil planned for the next year and desire that for energy security of the country, exploration and production activities are intensified by making more allocations for it. The Committee also recommend that the ONGC should improve its budgeting so that the allocation and utilization of financial resources are more accurate. The Committee further recommend that ONGC should develop a monitoring mechanism to ensure that funds are adequately allocated to the priority areas and properly utilized.

Recommendation No. 20

Oil India Limited (OIL)

The Committee note that OIL is a PSU engaged in exploration of hydrocarbons, extraction of LPG by fractionalization of natural gas and transportation of crude oil produced by itself and ONGC in north-east region to the refineries located in that region. It also transports crude oil to Bongaigaon refinery. The Committee also note that the production of crude oil by OIL in the last two years was about at the same level of around 3.5 MMTs. The production has been reported to be affected because of local issues such as bandhs and blockades and ageing of old wells. The production of natural gas and LPG has also more or less stagnated. As regards financial outlays, the Committee note that plan outlay for 2016-17 is kept at Rs. 4020 crore which is about 15% more than the RE 2015-16. The Committee note that during the BE 2015-16, the plan outlay was Rs. 3918 crore but the OIL could utilize only Rs. 3537 crore.

The Committee are concerned that there has been no increase in production of crude oil in the last two years and the production target has been kept at roughly the same level for the current year. The total plan outlay for OIL during 12th plan was Rs. 19003 crore out of which Rs. 16015 crore (84%) have been utilized in the first three years suggesting overutilization. The Committee note that Rs. 6413 crore has been used for acquiring overseas assets. The Committee also note that higher outlay by about 15% (BE 2016-17 compared to RE 2015-16) has been kept in the current year because of higher targets of exploratory drilling.

The Committee recommend that OIL should take all necessary measures for increasing production of crude oil. While appreciating higher outlay in BE 2016-17 for undertaking exploratory activities including developmental drilling, the Committee are unhappy to note that in previous years, the target for drilling has not been met. The Committee recommend suitable monitoring to ensure that the targets of exploratory and developmental drilling for the current year is fulfilled.

Recommendation No. 21

Gas Authority of India Limited (GAIL)

The Committee note that GAIL is the Country's principal natural gas transmission and marketing company. GAIL has expanded its presence in power, LNG re-gasification, City Gas Distribution and exploration and production through equity and Joint Venture (JV) participation.

The Committee are concerned that the figures relating to natural gas marketing, natural gas transmission, Liquid Hydrocarbon and LPG transmission has either remained static or gone down during the last three years. Only the polymer production has increased in the last three years. The production which was 440 MMT in 2013-14 increased to 490 MMT at RE stage in 2015-16 against BE of 580 MMT. The BE 2016-17 for production is 670 TMT. The Committee are also concerned that the turnover of the Company has gone down from Rs. 57245 crore in 2013-14 to Rs. 56569 crore in 2014-15. The turnover for the first three quarters of 2015-16 is Rs. 39987 crore. This is accompanied with decrease in gross margin. Against the gross margin of Rs. 5620 crore in 2014-15, it was Rs. 3681 crore in the first three quarters of 2015-16. These decreases have been attributed to low product prices. The Committee feel that the reasons cited for decline in the figures are not justified as India is still an under-penetrated market and any fall in product price should have been adequately made up by expansion in operations.

The Committee desire that the expansion of GAIL operations need to be undertaken on priority basis and the implementation of projects such as National Gas Grid need to be expedited. The Committee recommend that GAIL, in consultation with the Ministry, develop a consultative mechanism to engage with local people and agencies to redress the issue of local disruptions to its work.

Recommendation No. 22

Indian Oil Corporation Limited (IOCL)

The Committee note that the Indian Oil Corporation Limited (IOCL) which was formed in 1964, is the largest downstream oil PSU of the country. It is a diversified, transnational, integrated energy company with activities in refining, pipelines, marketing and cryogenics and explosives. There is an full-fledged R&D Centre in Faridabad for improving the refining process to conserve oil and for development/improvement of lubricants/petroleum products. It owns 11 refineries including those located in Guwahati, Barauni, Vadodara, Haldia, Mathura, Digboi, Panipat, Bongaigaon and Paradip. The Committee also note that the Paradip refinery was finally inaugurated in March 2016 after long delays resulting in huge cost overruns.

The Committee note that the total crude throughput of the refineries in 2014-15 was 53.59 MMT while the projected throughput for 2015-16 and 2016-17 are 57.51 MMT and 62.25 MMT respectively. Total throughput during first 3 quarters of 2015-16 was 41.68 MMT which is about 72% of the projected throughput. The Committee observe that pipeline throughput in 2014-15 was 75.68 MMT which is projected to marginally increase at 76.65 MMT in 2015-16. The pipeline throughput stood at 77.5% of the total during the first three quarters of 2015-16. BE 2016-17 for refinery throughput has been kept lower by 5% from the previous year at 73.33 MMT. The sales figures of the Company stood at 76.51 MMT in 2014-15. Projected figures for 2015-16 and 2016-17 are 75.43 MMT and 75.60 MMT respectively. In the first three quarters of 2015-16 the sales figure stood at 59.15 MMT which is about 79% of the projected figure for the year. The Committee note that the plan outlay for 2014-15 was Rs. 14314 crore which decreased by about 20% in 2015-16 to Rs. 11503 crore. However, in the first 3 quarters the expenditure was Rs. 6962 crore which is only 60.5% of the outlay. The plan outlay figures for BE 2016-17 is projected at Rs. 13773 crore showing an increase of almost 20%. The Committee feel that the figures for 2016-17 appears highly ambitious because the IOCL has been able to utilize only about half of this amount in three quarters of previous year.

The Committee recommend that budgeting practices of IOCL needs improvement to ensure that realistic figures are projected keeping in view the

capacities of the Company. The IOCL also needs to monitor its financial utilization so that the funds available are actually used by the Company and not kept idle. The Committee further recommend that the state-of-the-art refinery at Paradip may be operated to the maximum extent of its capacity at an early date.

***Recommendation No.* 23**

International Gas Pipeline Projects

The Committee note that in order to address the growing energy needs of country's economy, Government has embarked upon projects aimed at bringing gas from gas-rich Central Asian countries to India. The Turkmenistan-Afghanistan-Pakistan-India (TAPI) -1814 km long pipeline project-to be built at a cost of US$ 10 billion is one such important project. The Committee are happy to note that the project has finally taken off with the ground breaking ceremony held in Turkmenistan after resolution of all the major issues between the participating countries. The Committee also note that consortium leader for the TAPI project has already been selected and work has started in Turkmenistan. As per project report, the pipeline is likely to be completed by 2019. The Committee recommend that the TAPI project which aims at bringing much needed gas to the country should be pursued with a focused approach so that there is no time or cost overrun in the project.

The Iran-Pakistan-India (IPI) was planned for transportation of natural gas from Iran to India through Pakistan. The Committee note that about 30 MMSCMD natural gas will be supplied to India through the project after completion. The Committee also note that Iran has completed the pipeline (2700 km) up to its border with Pakistan and the onus is now on Pakistan to start work in their territory. The Committee desire that the project should be pursued to resolve outstanding issues and recommend that the project needs to be monitored closely as international conditions have become favourable following lifting of sanctions against Iran.

***Recommendation No.* 24**

India-Africa Cooperation in Hydrocarbon

The Committee note that Fourth India-Africa Hydrocarbon Summit was organised in New Delhi where the issues relating to increase in Hydrocarbon trade and investments in African countries were discussed. Africa has become an important source of crude oil for India and we are currently importing about 26 per cent of our crude oil requirements from African countries. The Committee note that Africa is blessed with vast hydrocarbon resources, substantial areas of which remain unexplored and the potential for future collaborations with Africa is very high. This opens substantial exploration and production opportunities for Indian companies. While Africa can be reliable source of our hydrocarbon needs, India is in a good position to offer its expertise in capacity building and other related fields in hydrocarbon sector. India can also develop other ancillary industries in African countries such as fertilizer factories which can then be exported to India leading to mutual prosperity.

India's demand for hydrocarbons and Africa's supply of the same is expected to grow and it is possible to harness the complementarities in this sector to ensure economic development in both India and Africa. The Committee, therefore, recommend that the Government should prioritize its bilateral cooperation with African countries in the hydrocarbon sector with emphasis on exploration and production activities in unexplored areas specially in sub-Sahara Africa.

***Recommendation No.* 25**

Reduction of Oil Import dependence

The Committee note that the Government has embarked upon the target of reducing imports in energy sector particularly the crude oil and gas by at least 10% by 2022. The Committee note that the Committee constituted by the Ministry, after deliberating on the subject, has submitted draft report for the consideration of the Ministry. The Committee has recommended five pronged strategy comprising of increasing production of oil and gas, energy consumption and energy efficiency, demand substitution, promoting alternate fuels/renewable and improvement in refinery process.

The Committee appreciate the initiative of the Government for reducing our import of petroleum products. However, it is surprised to note that energy conservation has not been included in the strategy for attaining the objective. Energy conservation should be an important part of any such strategy in a country having the size of population like India. The Committee recommend that energy conservation should be included in the strategy for reducing import of petroleum products in the country.

New Delhi;
***28 April*, 2016**
8 Vaisakha,1938 (Saka)

DR. BHOLA SINGH,
Acting Chairperson,
Standing Committee on
Petroleum & Natural Gas.

<u>MINUTES</u>
STANDING COMMITTEE ON PETROLEUM AND NATURAL GAS
(2015-16)

ELEVENTH SITTING
(30.3.2016)

The Committee sat on Wednesday, the 30 March, 2016 from 1100 hrs. to 1430 hrs. in Committee Room 'D', Parliament House Annexe, New Delhi.

PRESENT

Sh. Pralhad Joshi - Chairperson

<u>MEMBERS</u>

LOK SABHA

2 Dr. Ravindra Babu Pandula
3 Shri P.K. Biju
4 Shri Kalikesh N. Singh Deo
5 Smt. Rama Devi
6 Shri Elumala V.
7 Shri Naranbhai Kachhadiya
8 Dr. Thokchom Meinya
9 Smt. Pratima Mondal
10 Smt. Anupriya Patel
11 Shri Arvind Sawant
12 Shri Raju Shetti
13 Dr. Bhola Singh (Begusarai)
14 Shri Ravneet Singh
15 Shri Rajesh Verma
16 Shri Om Prakash Yadav
17 Shri Laxmi Narayan Yadav
18 Shri A.T. Nana Patil

RAJYA SABHA

19 Shri Ishwarlal Shankarlal Jain
20 Shri Prabhat Jha
21 Shri Mansukh L. Mandaviya
22 Smt. Gundu Sudharani
23 Shri Praful Patel

SECRETARIAT

1.	Shri A.K.Singh	-	Additional Secretary
2.	Dr. Ram Raj Rai	-	Director
3.	Shri H.Ram Prakash	-	Additional Director
4.	Shri Sujay Kumar	-	Under Secretary

Representatives of the Ministry of Petroleum & Natural Gas

1	Shri Kapil Dev Tripathi	-	Secretary
2	Shri A.P Sawhney	-	Additional Secretary
3	Shri Anant Kumar Singh	-	AS & FA
4	Shri U.P Singh	-	Additional Secretary
5	Ms. Urvashi Sadhwani	-	Senior Advisor
6	Shri Sandeep Poundrik	-	JS (R)
7	Shri Ashutosh Jindal	-	JS (IC/GP)
8	Shri Sanja Sudhir	-	JS (IC)
9	Ms. Sushma Rath	-	JS (Gen.)
10	Shri Alok Chandra	-	Advisor (IFD)

Representatives of Public Sector Undertakings and other Organisations

1	Shri A.P Sawhney	-	DG, DGH
2	Shri U.P Singh	-	C&MD, OIL
3	Shri D.K Sarraf	-	C&MD, ONGC
4	Shri B.C Tripathi	-	C&MD, GAIL
5	Shri S. Varadarajan	-	C&MD, BPCL
6	Shri B Ashok	-	Chairman, IOCL
7	Shri Sanjay Gupta	-	C&MD, EIL
8	Shri Gautam Roy	-	MD, CPCL
9	Shri P. Padmanabhan	-	MD, NRL
10	Shri Narendra K. Verma	-	MD, OVL
11	Shri H.Kumar	-	MD, MRPL
12	Shri Prabal Basu	-	C&MD, Balmer Lawrie & Co. Ltd.
13	Shri K.Dev Choudhury	-	MD, Biecco Lawrie Ltd.
14	Shri Upamanu Chatterjee	-	Secretary, PNGRB
15	Shri Brijesh Kumar	-	ED, CHT
16	Shri K.J Rao	-	ED, OISD
17	Shri Nilkanth Avhad	-	Director, PCRA
18	Shri Rajan K Pillai	-	CE & MD, ISPRL
19	Shri C. Shankar	-	ED, SFPL
20	Ms. Atreyee Das	-	DG, PPAC
21	Shri Sanjiv Mittal	-	Secretary, OIDB
22	Shri P.K Bhattacharya	-	Director, RGIPT
23	Shri Ramaswamy	-	Director, HPCL

2. At the outset, Hon'ble Chairman welcomed the Members and officials of the Ministry of Petroleum and Natural Gas/PSUs to the sitting of the Committee. Thereafter, a representative of the Ministry of Petroleum and Natural Gas made a power point presentation on "Demands for Grants (2016-2017)".

3. The representative of the Ministry thereafter, elaborated on budgetary allocations of the Ministry along with various policies and programmes that have been initiated in the petroleum sector. Members then sought clarifications on issues related to the sectors such as Hydrocarbon Exploration Licensing Policy (HELP) negotiations on

agreements related to Production Sharing Contracts (PSCs), revenue sharing aspects, inordinate delays in finalisation of contracts and production, awarding and execution of contracts, procedure for resolution of disputes and declining production of domestic crude oil and natural gas etc. Further, development and production of Ratna series of hydrocarbon fields, crude storage caverns at Vishakapatnam, Mangalore and Padur, their location, connectivity to refineries, cost of maintenance of caverns, participation of foreign companies in caverns were also discussed. Members also deliberated on the acquisition of assets by ONGC Videsh Ltd., Petronet Complex at Cochin, its capacity utilisation and losses suffered and need of transparent mechanism for pricing of gas. In addition, ethanol blending of petrol, availability of ethanol and bio-diesel in the country, Prime Minister's Ujjwala Scheme, measures for effective implementation of LPG sheme for BPL beneficiaries, LPG transportation issues and status with regard to the progress of National Gas Grid also came up for discussion during the sitting of the Committee.

4. A verbatim record of the proceedings of the sitting has been kept.

The Committee then adjourned.

MINUTES
STANDING COMMITTEE ON PETROLEUM AND NATURAL GAS
(2015-16)

FOURTEENTH SITTING
(27.04.2016)

The Committee sat on Wednesday, the 27 April, 2016 from 1500 hrs. to 1600 hrs. in Committee Room 'E', Parliament House Annexe, New Delhi.

PRESENT

Dr. Bhola Singh - Acting Chairperson

MEMBERS

LOK SABHA

2 Dr. Ravindra Babu Pandula
3 Shri Kalikesh N. Singh Deo
4 Shrimati Jayshreeben Patel
5 Shri Arvind Sawant
6 Shri Laxmi Narayan Yadav
7 Shri A.T. Nana Patil

RAJYA SABHA

8 Shri Ishwarlal Shankarlal Jain
9 Shri Prabhat Jha
10 Shri Bhubaneshwar Kalita
11 Shri Mansukh L. Mandaviya

SECRETARIAT

1.	Shri A.K.Singh	-	Additional Secretary
2.	Dr. Ram Raj Rai	-	Director
3.	Shri H.Ram Prakash	-	Additional Director
4.	Shri Sujay Kumar	-	Under Secretary

2. In the absence of the Chairperson Shri Pralhad Joshi, the Members of the Committee chose Dr. Bhola Singh to chair the sitting under Rule 258(3) of the Rules of Procedure and Conduct of Business in Lok Sabha.

3. At the outset, the Hon'ble Acting Chairperson welcomed Members to the sitting of the Committee. The Committee then took up for consideration the Draft Report on 'Demands for Grants (2016-17) of MoPNG'. Members suggested minor changes in some of the recommendations and authorised the Chairperson to do the necessary changes in the Report.

4. The Committee then authorised the Acting Chairperson to present/lay the Report in both the Houses of Parliament.

The Committee then adjourned.