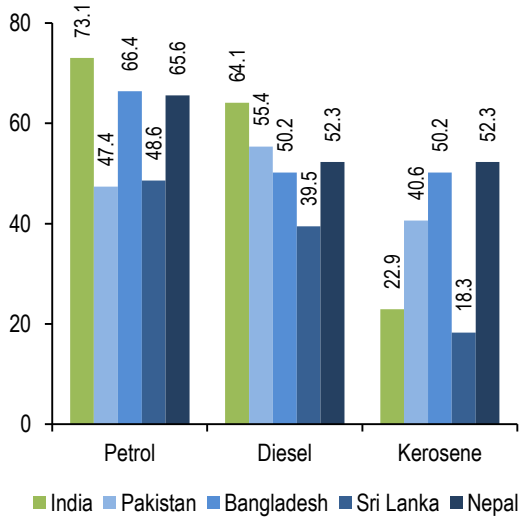
Demand for Grants 2018-19 Analysis

Petroleum and Natural Gas

The Ministry of Petroleum and Natural Gas is responsible for: (i) exploration of petroleum (including natural gas), (ii) supply and distribution of petroleum, and (iii) planning and development of the petroleum industry in the country, among others.[1] It has been allocated Rs 31,101 crore for 2018-19.[2] This note examines the allocations for the Ministry under Union Budget 2018-19.

Petroleum products are used as raw materials in various sectors and industries such as transport and petrochemicals. Further, they may also be used in factories to operate machinery or fuel generator sets. Any fluctuation in the price of petrol and diesel impact the production and transport costs of various items. When compared to other neighbouring countries, India has the highest prices for petrol and diesel. On the other hand, it has the lowest price for kerosene.

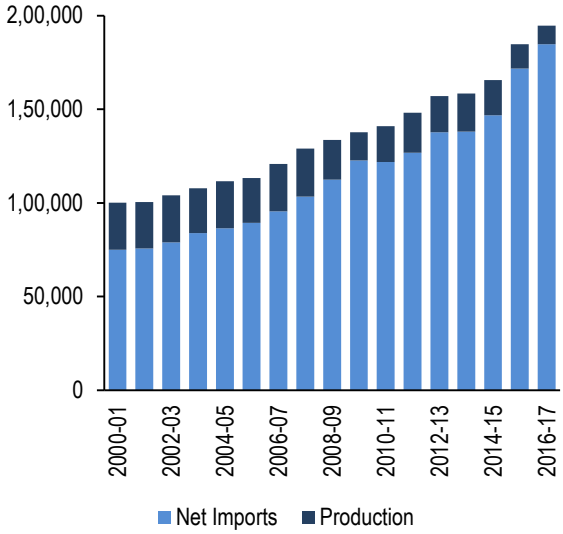
Figure 1: Price of petroleum products in India and neighbouring countries (Rs/litre)



Note: Prices as on February 1, 2018. Prices for India pertain to Delhi for petrol and diesel, and Mumbai for kerosene.
Sources: Petroleum Planning and Analysis Cell, Ministry of Petroleum and Natural Gas; PRS.

Imports: India imports 84% of the petroleum products consumed in the country. This implies that any change in the global prices of crude oil has a significant impact on the domestic price of petroleum. In 2000-01, net import of petroleum products constituted 75% of the total consumption in the country. This increased to 95% in 2016-17. Figure 2 shows the amount of petroleum products consumed in the country, and the share of imports.

Figure 2: Total consumption of petroleum products in India and their source ('000 MT)



Note: Production is the difference between the total consumption in the country and the net imports.
Sources: Petroleum Planning and Analysis Cell; PRS.

The Ministry of Petroleum and Natural Gas provides subsidy on LPG cylinders and kerosene. This subsidy seeks to fill the gap between production cost of these petroleum products, and the price at which they are provided to consumers. The production cost of these items is dependent on the global crude oil price, which the primary input.

The Ministry's expenditure has followed the trend in the global crude oil prices. As seen in Figure 3, the Ministry's expenditure increased in the early 2010s with an increase in the global prices of crude. During this period, the actual expenditure of the Ministry exceeded the budget estimates.

With a fall in crude oil prices from 2014 onwards, the expenditure has gradually reduced. During this period, the Ministry has also sought to plug leakages in the delivery of LPG subsidy by directly transferring the subsidy to the bank account of the beneficiary under the PAHAL scheme (discussed later). It has also sought to weed out duplicate and ghost beneficiaries under the PAHAL scheme. Between 2010-11 and 2018-19, the Ministry's expenditure reduced by 3% annually, on average.

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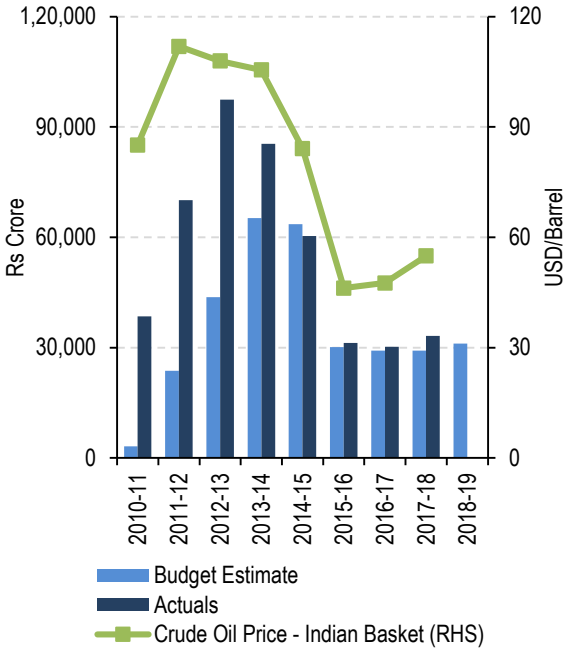
February 26, 2018

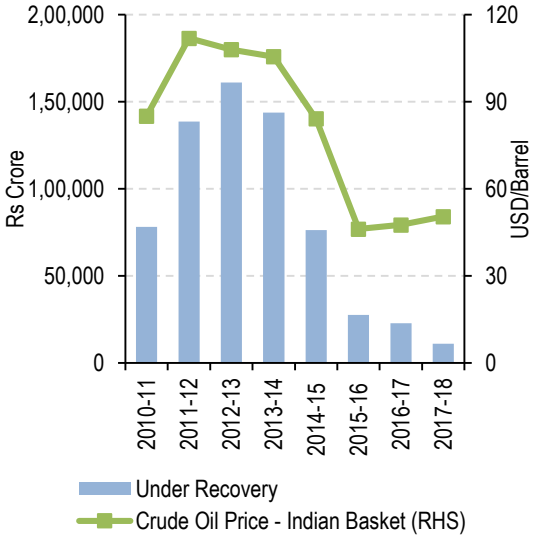
Figure 3: Expenditure trend of the Ministry



Note: 'Actuals' for 2017-18 are revised estimates.
Sources: Union Budget documents (various years); PRS.

Under-recoveries: Under-recovery refers to the difference in the cost of producing petroleum products, and the price at which they are delivered to consumers. They indicate the loss incurred by oil marketing companies while supplying these products. This difference is shared by the central government and the oil companies. Figure 4 shows that under-recoveries have reduced with a fall in global prices of crude oil.

Figure 4: Trend in under-recoveries of oil companies and global crude oil prices



Note: Data for 2017-18 till September 2017.
Sources: Petroleum Planning and Analysis Cell; PRS.

Developments in Union Budget 2018-19

Road and Infrastructure Cess: Currently, the government levies the road cess on the import and production of petrol and diesel. The Union Budget 2018-19 renames this to the road and infrastructure cess. It also proposes certain changes in the excise and customs duty levied on petrol and diesel.

Table 1: Changes in taxes and cess on petroleum products (Rs/litre)

	Petrol		Diesel	
	Before	After	Before	After
Customs	6.48	4.48	8.33	6.33
Cess	6.00	8.00	6.00	8.00
Total	**12.48**	**12.48**	**14.33**	**14.33**
Excise	7.66	5.66	10.69	8.69
Cess	6.00	8.00	6.00	8.00
Total	**13.66**	**13.66**	**16.69**	**16.69**

Sources: Memorandum, Union Budget 2018-19; PRS.

The total tax incidence on the consumers remains unchanged. However, there is Rs 2/litre shift from excise and customs duty towards the cess. Note that unlike customs and excise duty collections, proceeds from cesses do not form part of the divisible pool of taxes share with states. This means that Rs 2/litre of petrol and diesel imported or produced will move from the divisible pool to the cess which is entirely with the centre. Given that 42% of the divisible taxes are shared with states following the 14th Finance Commission, this would mean a loss of 84 paise per litre of petrol/diesel to states.

Increase in coverage under Pradhan Mantri Ujjwala Yojana: Under the scheme, the Ministry provides LPG connections in the name of the women of the household. The scheme had a target of giving five crore connections between 2016-17 and 2018-19. Union Budget 2018-19 proposes to increase this target to eight crore.

Overview of Finances

Budget Estimates 2018-19
(Details in Annexure)

Table 2: Allocations for the Ministry (Rs crore)

Head	Actual 2016-17	Revised 2017-18	Budget 2018-19	% change
LPG Subsidy	18,678	15,656	20,378	30.2%
Kerosene Subsidy	8,861	8,804	4,555	-48.3%
Royalty to States	35	7,005	2,326	-66.8%
PDH Pipeline	450	400	1,674	318.5%
National Seismic Programme	-	10	1,300	13260.7%
Strategic Oil Reserves	2,031	1,141	781	-31.6%
Others	177	179	87	-51.4%
Total	**30,231**	**33,195**	**31,101**	**-6.3%**

Sources: Expenditure Budget, Union Budget 2018-19; PRS.

LPG Subsidy: The Ministry provides subsidy on LPG cylinders to beneficiaries. Prior to 2013, this subsidy was provided in the form of subsidised cylinders. Following the launch of the PAHAL scheme in 2013, this subsidy is directly credited to the bank accounts of the beneficiary.[3] In 2018-19, the Ministry is estimated to spend Rs 20,378 crore on LPG subsidy, which is 30% higher than the revised estimates of 2018-19.

Kerosene Subsidy: The Ministry provides subsidised kerosene through the Public Distribution System (PDS). In 2018-19, the Ministry has allocated Rs 4,555 crore for the subsidy, which is 48% lower than the revised estimates of 2017-18.

Royalty to States: The central government grants mining leases under the Oilfields (Regulation and Development) Act, 1948 and receives royalty and licensing fee for exploration and production of petroleum. The central government has estimated to raise Rs 9,877 crore as royalty during 2018-19.[4] It will pay Rs 2,326 crore to the states.

PDH Pipeline: The Phulpur-Dhamra-Haldia (PDH) Pipeline is being developed by GAIL India to transport natural gas.[5] The project will connect five states – Uttar Pradesh, Bihar, Jharkhand, Odisha and West Bengal – to the National Gas Grid. In 2018-19, the project has been allocated Rs 1,674 crore.

National Seismic Programme: The Ministry is conducting a seismic survey of all sedimentary basins of India, where limited data is available. The Programme was launched in October 2016 with an estimated expenditure of Rs 5,000 crore.[6] It is expected to be completed by 2019-20. The Programme has been allocated Rs 1,300 crore for 2018-19. This is significantly higher than the allocation of Rs 10 crore in 2017-18.

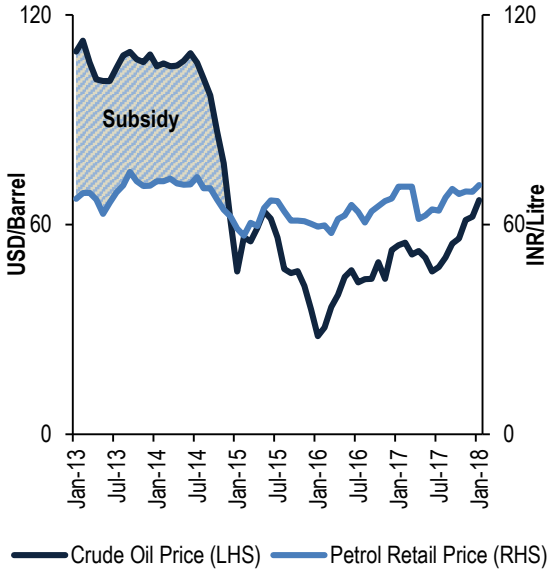
Key issues and analysis

A. Trend in crude oil and retail prices of petrol and diesel

Over the last five years, the global price of crude oil (Indian basket) has come down from USD 110 in January 2013 to USD 67 in January 2018, having touched a low of USD 28 in January 2016.

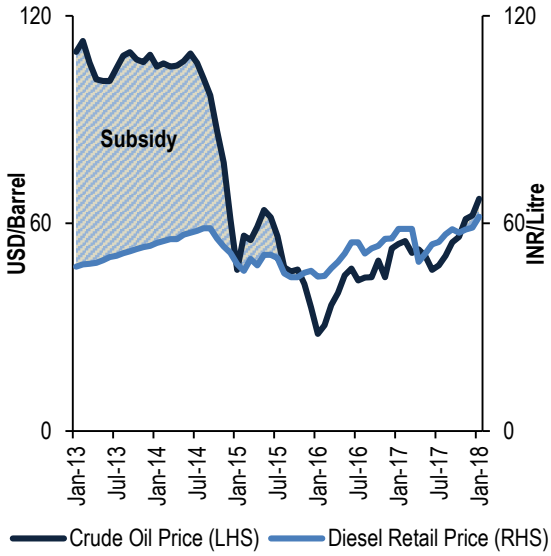
While there has been a 63% drop in the price of global crude over this five-period, the retail price of petrol in India has reduced by 3%. During this period, the retail price of diesel increased by 30%. Figure 5 and Figure 6 show the trends in prices of global crude oil and retail price of petrol and diesel in India over the last five years.

Figure 5: Prices of Global Crude Oil and retail price of petrol in India



Note: Subsidy indicated in the graph is notional. While calculating the amount of subsidy, various other factors such as cost of domestic inputs will also have to be accounted. Global Crude Oil Price is for the Indian basket. Figures reflect average monthly retail price of petrol in Delhi.
Sources: Petroleum Planning and Analysis Cell; Indian Oil Corporation Limited; PRS.

Figure 6: Prices of Global Crude Oil and retail price of diesel in India

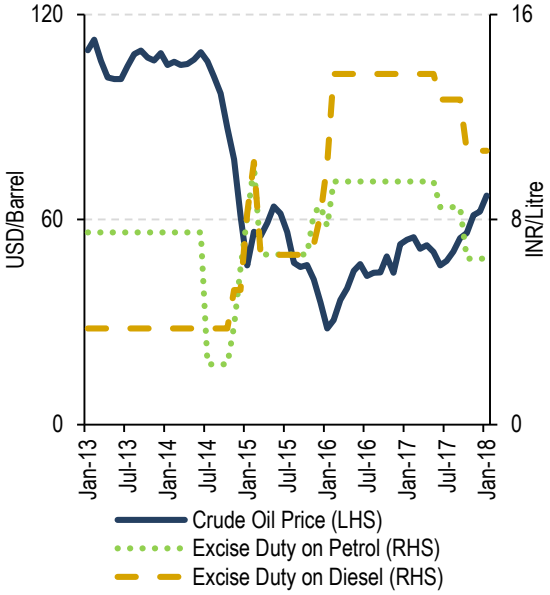


Note: Subsidy indicated in the graph is notional. While calculating the amount of subsidy, various other factors such as cost of domestic inputs will also have to be accounted. Global Crude Oil Price is for the Indian basket. Figures reflect average monthly retail price of diesel in Delhi.
Sources: Petroleum Planning and Analysis Cell; Indian Oil Corporation Limited; PRS.

The central government has used taxes to prevent sharp fluctuations in the retail price of diesel and petrol. In the past, when global crude oil prices have increased, duties have been cut.[7] Since 2014, as global crude oil prices declined, excise duties have been increased. As a result, the central

government's revenue from excise duty on petrol and diesel increased annually at a rate of 46% between 2013-14 and 2016-17. During the same period, the total sales tax collections of states (from petrol and diesel) increased annually by 9%.

Figure 7: Price of global crude oil and excise duty on petrol and diesel in India

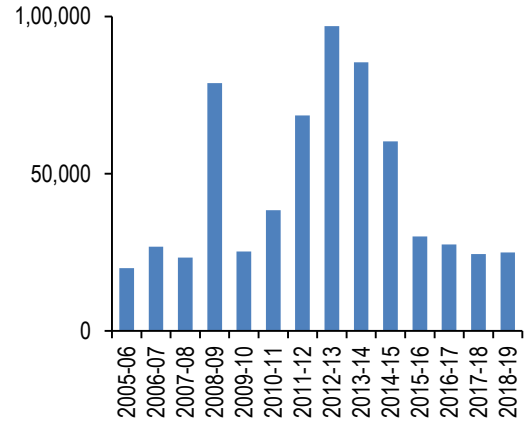


Sources: Petroleum Planning and Analysis Cell; PRS.

B. Subsidy paid on Kerosene and LPG

The Ministry provides subsidy for: (i) LPG cylinders, and (ii) supply of kerosene through the PDS system. The subsidy seeks to provide these products to beneficiaries at prices lower than production costs. Over the last few years, the Ministry's expenditure on subsidy has reduced from Rs 96,880 crore in 2012-13 to an estimated Rs 24,933 crore in 2018-19 (see Figure 8).

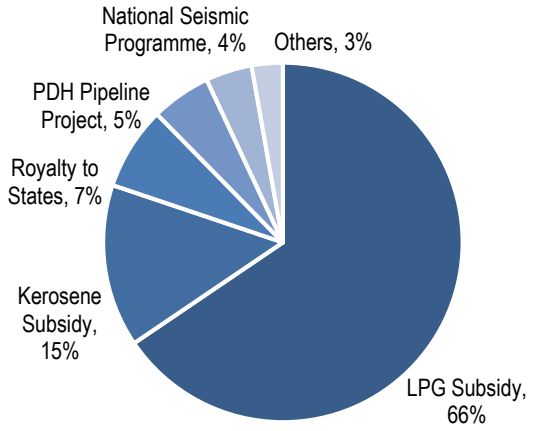
Figure 8: Expenditure on Petroleum Subsidy (Rs crore)



Note: Figures for 2017-18 are revised estimates and for 2018-19 are budget estimates.
Source: Union Budget documents; PRS.

The Ministry is estimated to spend 80% of its total budget on providing this subsidy in 2018-19. As seen in Figure 9, a large proportion of this will be for LPG subsidy. Between 2015-16 and 2018-19, the expenditure on LPG subsidy reduced from Rs 22,660 crore to an estimated Rs 20,378 crore (average reduction of 3% annually). During this period, the expenditure on kerosene subsidy reduced from Rs 7,339 crore to Rs 4,555 (average reduction of 15% annually. (Break-up of petroleum subsidy unavailable for previous years.)

Figure 9: Ministry spends 80% of its budget on LPG and kerosene subsidies (BE 2018-19)



Sources: Demand for Grants for the Ministry of Petroleum and Natural Gas, Union Budget 2018-19; PRS.

LPG Subsidy

The Ministry has been directly transferring the LPG subsidy into the bank account of the beneficiary under the PAHAL scheme. The Ministry stated that it had weeded out 3.77 crore duplicate, inactive or ghost beneficiary accounts under the scheme (for state-level details, see Table 8 in the Annexure). [8,20]

The CAG (2016) noted that while de-duplication checks had been carried out by agencies and oil companies, its audit identified 74,180 LPG customers linked to 37,090 Aadhaar (see Table 3). This indicated multiple LPG connections having the same Aadhaar number and bank details.[9]

Table 3: Details of connections having the same Aadhaar number across oil companies

Combination of Oil Marketing Companies	No. of Aadhaar numbers	No. of LPG unique consumer IDs
HPCL and IOCL	13,698	27,396
IOCL and BPCL	10,640	21,280
BPCL and HPCL	12,752	25,504
Total	**37,090**	**74,180**

Note: HPCL – Hindustan Petroleum Corporation Limited. IOCL – Indian Oil Corporation Limited. BPCL – Bharat Petroleum Corporation Limited.
Sources: CAG Report on implementation of PAHAL; PRS.

This Ministry stated that the implementation of PAHAL has resulted in savings in the delivery of LPG subsidy (see Table 4). Note that the CAG

(2016) had observed that there was a difference in the savings estimated by the Ministry and oil companies. It noted inconsistencies in the calculations made by both, and stated that the actual savings may be less than estimates made by the Ministry and the oil companies.[9]

Table 4: Savings estimated by the Ministry due to the implementation of PAHAL (Rs crore)

Year	Estimated savings
2014-15	14,818
2015-16	6,443
2016-17	4,608
2017-18 (Apr-Nov)	3,799

Note: As per the Ministry, savings have been calculated by multiplying average subsidy per cylinder for the year with the number of blocked customers and the number of entitled cylinders (i.e., 12).
Sources: Unstarred Question No. 278, Lok Sabha, Ministry of Petroleum and Natural Gas, Answered on February 5, 2018; PRS.

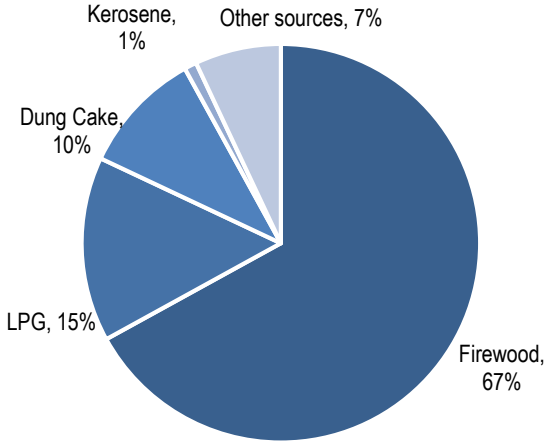
The CAG audit observed that as of December 2015, 1.55 crore beneficiaries had not joined the PAHAL scheme for direct benefit transfer of subsidy. It noted that there was a possibility that this includes consumers who deserve the subsidy, but may not be able to avail it.[9]

Give it up campaign: The Ministry launched the 'Give it Up' campaign to encourage domestic LPG consumers, who can afford to pay the market price of LPG, to voluntarily surrender their LPG subsidy.[10] As on January 30, 2018, more than one crore LPG consumers had voluntarily surrendered their subsidy.[11] The government also disqualified consumers with an annual income of more than Rs 10 lakh from receiving the subsidy.[1]

The CAG audit (2016) noted that the implementation of PAHAL and the 'Give it Up' campaign had resulted in the reduction in the offtake of subsidised LPG cylinders. However, it noted that lower offtake did not have a significant impact on subsidy savings, as these savings were primarily a result of the fall in global crude prices.[9]

Pradhan Mantri Ujjwala Yojana: According to the National Sample Survey (2011-12), more than 67% of the rural households in the country used firewood as the primary source of energy for cooking (see Figure 10).[12] In urban areas, most of the households (68%) used LPG for cooking. (For a state-wise details on the primary source of energy for cooking in rural and urban areas and the change in preferences between 1993-94, see Table 9, Table 10, Table 11, and Table 12 of the Annexure.)

Figure 10: Primary source of energy for cooking in rural areas (2011-12)



Sources: Energy Sources of Indian Households for Cooking and Lighting, 2011-12, NSS 68th Round, July 2011-June 2012; PRS.

The Pradhan Mantri Ujjwala Yojana was launched in 2016 with an objective of providing clean cooking fuel, i.e., LPG, to households which rely on firewood, coal, dung cakes, etc. for cooking.[13] Under the scheme, Rs 1,600 is provided as an initial cost to the beneficiary households.[14,20] This amount seeks to cover costs for installation of an LPG connection.[15]

The scheme has a target of providing five crore LPG connections to BPL families between 2016-17 and 2018-19 (see Table 5 below). These connections are issued in the name of the women of the household, and the BPL families are identified based on the Socio-Economic Caste Census.[16]

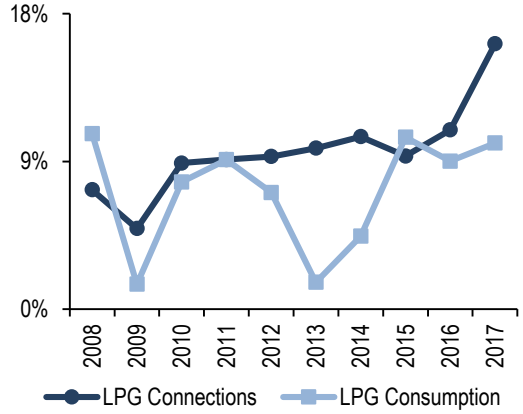
Table 5: Target of new connections to be given under the Pradhan Mantri Ujjwala Yojana

Financial Year	Target (Crore)
2016-17	1.5
2017-18	1.5
2018-19	2.0

Sources: 18th Report of the Standing Committee on Petroleum and Natural Gas on the Demands for Grants of the Ministry of Petroleum and Natural Gas (2017-18), March 2017; PRS.

As of February 2018, 3.39 crore new connections had been issued.[17] For a state-wise break up of new connections, see Table 13 in the Annexure. The Union Budget 2018-19 proposes to increase this target to eight crore beneficiaries.[18]

Figure 11: Growth in LPG connections and consumption (in %)



Sources: Petroleum Planning and Analysis Cell, Ministry of Petroleum and Natural Gas; PRS.

Kerosene subsidy

Over the last few years, the Ministry's expenditure on providing subsidy for kerosene has reduced from Rs 24,804 crore in 2014-15 to an estimated Rs 4,555 crore in 2018-19 (see Table 6). The Ministry stated that with the increase in LPG coverage and electrification in villages, the allocation for kerosene had been rationalised.[19]

Table 6: Expenditure on kerosene subsidy (Rs crore)

Year	Expenditure on kerosene subsidy
2014-15	24,804
2015-16	11,496
2016-17	8,861
2017-18 RE	8,804
2018-19 BE	4,555

Sources: Demands for Grants for the Ministry of Petroleum and Natural Gas (2018-19); Unstarred Question No. 2295, Lok Sabha, Ministry of Petroleum and Natural Gas, Answered on January 1, 2018; PRS.

The Standing Committee on Petroleum and Natural Gas (2017) had recommended that the Ministry should reduce the expenditure on this subsidy and work towards the eventual withdrawal of the subsidy.[20] It noted that an increase in the coverage of LPG beneficiaries is necessary to reduce their dependence on kerosene. This will result in the usage of cleaner fuel, promote the health of users, and address the problem of adulteration.

The Committee also recommended that states should be encouraged to move towards the direct cash transfer of kerosene subsidy to reduce inefficiencies in the delivery.[19] As of January 1, 2018, Jharkhand had implemented direct cash transfer in kerosene in 24 districts. The Ministry stated that other states had been requested to join the scheme.[19]

[1] Annual Report 2016-17, Ministry of Petroleum and Natural Gas, http://petroleum.nic.in/sites/default/files/AR16-17.pdf.
[2] Demands for Grants for the Ministry of Petroleum and Natural Gas for 2018-19, http://www.indiabudget.gov.in/ub2018-19/eb/sbe72.pdf.
[3] About the Scheme, PAHAL – Direct Benefits Transfer for LPG, Ministry of Petroleum and Natural Gas, http://petroleum.nic.in/dbt/whatisdbtl.html.
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[5] Brief Report on Jagdishpur- Haldia & Bokaro- Dhamra Pipeline (JHBDPL Phase-II) Project, Environment Clearance
[6] Annual Report 2016-17, Ministry of Petroleum and Natural Gas, http://petroleum.nic.in/sites/default/files/AR16-17.pdf.
[7] Report of the Committee on Pricing and Taxation of Petroleum Products, Ministry of Petroleum and Natural Gas, February 2006, http://petroleum.nic.in/sites/default/files/Report1.pdf.
[8] Unstarred Question No. 278, Lok Sabha, Ministry of Petroleum and Natural Gas, Answered on February 5, 2018, http://164.100.47.190/loksabhaquestions/annex/14/AU278.pdf.
[9] Report of the Comptroller and Auditor General of India on Implementation of PAHAL (DBTL) Scheme (Pratyaksh Hanstantrit Labh Yojana), 2016, http://www.cag.gov.in/sites/default/files/audit_report_files/Union_Commercial_Compliance_Full_Report_25_2016_English.pdf .
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[11] Unstarred Question No. 278, Lok Sabha, Ministry of Petroleum and Natural Gas, Answered on February 5, 2018, http://164.100.47.190/loksabhaquestions/annex/14/AU278.pdf.
[12] Energy Sources of Indian Households for Cooking and Lighting, 2011-12, NSS 68th Round, July 2011-June 2012, Ministry of Statistics and Programme Implementation, http://mospi.nic.in/sites/default/files/publication_reports/nss_report_567.pdf.

[13] About Pradhan Mantri Ujjwala Yojana, Ministry of Petroleum and Natural Gas, http://www.pmujjwalayojana.com/about.html.
[14] Pradhan Mantri Ujjwala Yojana (PMUY) – modalities for implementation, Ministry of Petroleum and Natural Gas, June 28, 2016, http://petroleum.nic.in/sites/default/files/P_17018_1_2016_Lpg%28Pt%29_PMUY.pdf.
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[16] About PMUY, Website of the Pradhan Mantri Ujjwala Yojana, Last accessed on February 19, 2018, http://www.pmujjwalayojana.com/about.html.
[17] State-wise PMUY connections released, Website of the Pradhan Mantri Ujjwala Yojana, Last accessed on February 19, 2018, http://www.pmujjwalayojana.com/released-connections.html.
[18] Union Budget Speech 2018-19, http://www.indiabudget.gov.in/ub2018-19/bs/bs.pdf.
[19] Unstarred Question No. 2295, Lok Sabha, Ministry of Petroleum and Natural Gas, Answered on January 1, 2018, http://164.100.47.190/loksabhaquestions/annex/13/AU2295.pdf.
[20] 18th Report of the Standing Committee on Petroleum and Natural Gas on the Demands for Grants of the Ministry of Petroleum and Natural Gas (2017-18), March 2017, http://164.100.47.193/lsscommittee/Petroleum%20&%20Natural%20Gas/16_Petroleum_And_Natural_Gas_18.pdf.

Annexure

Detailed expenditure table

Table provides an overview of expenditure on the major schemes of the Ministry, provided in the Demands for Grants (2018-19). In addition, major shifts in the budgetary allocation are shown in the last two columns.

Table 7: Major heads of allocation in the Ministry of Petroleum and Natural Gas (Rs crore)

Head	Actual 2016-17	Budget 2017-18	Revised 2017-18	Budget 2018-19	Absolute increase in 2018-19 (BE) over 2017-18 (RE)	% change in BE 2018-19 over RE 2017-18
Secretariat	28	31	34	32	-1	-4.3%
Payment of royalty to states	35	44	7,005	2,326	-4,679	-66.8%
Strategic Oil Reserves	2,031	2,579	1,141	781	-360	-31.6%
LPG Subsidy	**18,678**	**16,076**	**15,656**	**20,378**	**4,721**	**30.2%**
Of which:						
Direct Benefit Transfer	13,000	13,097	13,097	16,478	3,381	25.8%
LPG Connection to Poor Households	2,500	2,500	2,252	3,200	948	42.1%
Other subsidy	3,178	454	282	608	326	115.3%
Kerosene Subsidy	**8,861**	**8,924**	**8,804**	**4,555**	**-4,249**	**-48.3%**
Of which:						
Cash Incentives for Kerosene Distribution	80	107	106	254	148	140.5%
Direct Benefit Transfer	0	150	34	96	62	180.3%
Under-recovery	8,781	8,662	8,662	4,200	-4,462	-51.5%
Phulpur Dhamra Haldia Pipeline	**450**	**1,200**	**400**	**1,674**	**1,274**	**318.5%**
National Seismic Programme	**-**	**-**	**10**	**1,300**	**1,290**	**-**
Autonomous Bodies	**149**	**303**	**145**	**55**	**-91**	**-62.3%**
Total	**30,231**	**29,158**	**33,195**	**31,101**	**-2,095**	**-6.3%**

Sources: Expenditure Budget, Union Budget 2017-18; PRS.

The Ministry of Petroleum and Natural Gas stated that it had weeded out 3.77 crore duplicate, inactive or ghost beneficiary accounts under the PAHAL scheme. State-wise details of the accounts can be found in the table below.

Table 8: LPG customers weeded out (as on December 1, 2017)

State / UT	Weeded Out Customers (Lakh)
Andhra Pradesh	28.72
Arunachal Pradesh	0.85
Assam	10.76
Bihar	11.42
Chhattisgarh	5.48
Goa	1.36
Gujarat	19.37
Haryana	11.09
Himachal Pradesh	6.62
Jammu and Kashmir	7.47
Jharkhand	4.89
Karnataka	15.28
Kerala	11.18
Madhya Pradesh	19.34
Maharashtra	36.15
Manipur	1.11
Meghalaya	0.67
Mizoram	0.72
Nagaland	0.79
Odisha	7.75
Punjab	19.53
Rajasthan	12.7
Sikkim	0.61
Tamil Nadu	23.46
Telangana	21.51
Tripura	1.19
Uttar Pradesh	55.87
Uttarakhand	7.73
West Bengal	13.64
Andaman and Nicobar Islands	0.31
Chandigarh	1.59
Dadra and Nagar Haveli	0.11
Daman and Diu	0.19
Delhi	17.9
Lakshadweep	0.01
Puducherry	0.56
Total	**377.94**

Source: Unstarred Question No. 278, Lok Sabha, Ministry of Petroleum and Natural Gas, Answered on February 5, 2018; PRS.

Table 9: Primary source of energy for cooking in rural areas (per 1000 households)

State	Coal and Coke	Firewood and Chips	LPG	Dung Cake	Kerosene	Other Sources	No Cooking Arrangement	All
Andhra Pradesh	2	675	289	2	2	3	27	1000
Assam	1	810	172	0	3	5	9	1000
Bihar	6	564	59	208	5	157	1	1000
Chhattisgarh	9	932	15	31	2	5	6	1000
Gujarat	0	797	139	9	35	7	12	1000
Haryana	0	417	267	244	12	58	3	1000
Jharkhand	143	777	29	29	3	2	16	1000
Karnataka	0	805	147	0	20	7	21	1000
Kerala	1	663	308	0	1	7	20	1000
Madhya Pradesh	2	808	62	106	5	7	8	1000
Maharashtra	0	621	231	2	10	97	38	1000
Odisha	9	870	39	18	2	56	6	1000
Punjab	0	305	305	303	27	42	19	1000
Rajasthan	0	893	89	6	7	4	1	1000
Tamil Nadu	0	583	372	0	25	2	18	1000
Uttar Pradesh	2	561	67	334	1	28	6	1000
West Bengal	65	629	66	53	5	175	6	1000
All-India	**11**	**673**	**150**	**96**	**9**	**49**	**13**	**1000**

Sources: Energy Sources of Indian Households for Cooking and Lighting, 2011-12, NSS 68th Round, July 2011-June 2012; PRS.

Table 10: Primary source of energy for cooking in urban areas (per 1000 households)

State	Coal and Coke	Firewood and Chips	LPG	Dung Cake	Kerosene	Other Sources	No Cooking Arrangement	All
Andhra Pradesh	1	101	773	0	27	7	91	1000
Assam	1	168	710	1	57	23	40	1000
Bihar	40	249	605	55	5	33	13	1000
Chhattisgarh	113	347	398	33	27	21	59	1000
Gujarat	9	159	620	3	105	57	47	1000
Haryana	0	60	865	31	14	5	25	1000
Jharkhand	311	56	539	5	12	9	68	1000
Karnataka	0	148	640	0	68	4	139	1000
Kerala	0	363	554	0	6	5	72	1000
Madhya Pradesh	8	257	652	18	36	2	27	1000
Maharashtra	2	57	745	0	101	15	80	1000
Odisha	38	365	435	2	48	27	85	1000
Punjab	1	67	754	32	100	7	38	1000
Rajasthan	5	187	716	2	20	0	70	1000
Tamil Nadu	0	112	709	0	85	2	92	1000
Uttar Pradesh	6	210	668	75	10	8	23	1000
West Bengal	135	107	565	6	87	15	84	1000
All-India	**21**	**140**	**684**	**13**	**57**	**15**	**69**	**1000**

Sources: Energy Sources of Indian Households for Cooking and Lighting, 2011-12, NSS 68th Round, July 2011-June 2012; PRS.

Table 11: Distribution of rural households by primary source of energy for cooking

Source of energy for cooking	1993-94	1999-2000	2004-05	2009-10	2011-12
Coal and Coke	1%	2%	1%	1%	1%
Firewood and Chips	78%	76%	75%	76%	67%
LPG	2%	5%	9%	12%	15%
Dung Cake	12%	11%	9%	6%	10%
Kerosene	2%	3%	1%	1%	1%
No Cooking Arrangement	1%	1%	1%	2%	1%
Other Sources	4%	3%	4%	3%	5%
All Rural Households	**100%**	**100%**	**100%**	**100%**	**100%**

Sources: Energy Sources of Indian Households for Cooking and Lighting, 2011-12, NSS 68th Round, July 2011-June 2012; PRS.

Table 12: Distribution of urban households by primary source of energy for cooking

Source of energy for cooking	1993-94	1999-2000	2004-05	2009-10	2011-12
Coal and Coke	6%	4%	3%	2%	2%
Firewood and Chips	30%	22%	22%	18%	14%
LPG	30%	44%	57%	65%	68%
Dung Cake	2%	2%	2%	1%	1%
Kerosene	23%	22%	10%	7%	6%
No Cooking Arrangement	6%	4%	5%	7%	7%
Other Sources	3%	1%	2%	2%	2%
All Urban Households	100%	100%	100%	100%	100%

Sources: Energy Sources of Indian Households for Cooking and Lighting, 2011-12, NSS 68th Round, July 2011-June 2012; PRS.

Table 13: Connections released under the Pradhan Mantri Ujjwala Yojana

States / UT	Number of connections released as on 31-03-2017	Number of connections released as on 16-02-2018
Andhra Pradesh	63,428	79,893
Arunachal Pradesh	-	5,253
Assam	2	8,74,893
Bihar	24,76,953	47,00,789
Chhattisgarh	11,05,441	18,66,588
Goa	954	983
Gujarat	7,52,354	12,56,221
Haryana	2,78,751	3,51,723
Himachal Pradesh	1,601	26,853
Jammu and Kashmir	2,65,787	3,65,115
Jharkhand	5,36,912	10,80,352
Karnataka	15,840	8,61,080
Kerala	11,241	34,642
Madhya Pradesh	22,39,821	31,63,875
Maharashtra	8,58,808	17,86,364
Manipur	25	27,064
Meghalaya	-	29,161
Mizoram	-	704
Nagaland	-	8,208
Odisha	10,11,955	20,58,124
Punjab	2,45,008	3,73,463
Rajasthan	17,22,694	25,32,655
Sikkim	-	576
Tamil Nadu	2,72,749	9,37,746
Telangana	41	41
Tripura	-	37,861
Uttar Pradesh	55,31,159	64,02,186
Uttarakhand	1,13,866	1,35,579
West Bengal	25,20,479	49,11,387
Andaman & Nicobar Islands	1,189	1,698
Chandigarh	-	-
Dadra and Nagar Haveli	3,211	11,437
Daman and Diu	73	202
Delhi	516	519
Lakshadweep	-	129
Puducherry	760	2,407
Total	**2,00,31,618**	**3,39,25,771**

Sources: Website of the Pradhan Mantri Ujjwala Yojana (last accessed on February 19, 2018); PRS.