

Petroleum Planning & Analysis Cell Ministry of Petroleum & Natural Gas, Government of India



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ओ एस डी- माननीय मंत्री - (पेट्रोलियम और प्राकृतिक गैस) निजी सचिव- माननीय राज्य मंत्री - (पेट्रोलियम और प्राकृतिक गैस)

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अध्यक्ष, आईओसी, / ओएनजीसी, नई दिल्ली अध्यक्ष एवं प्रबंधक निदेशक- बीपीसी/एचपीसी/गेल निदेशक (मार्के.), आईओसी/ बीपीसी/ एचपीसी/ गेल प्रेजिडेंट, आरआईएल / एमडी और सीईओ, एच एम ई एल / सीईओ (मार्के.) नयारा एनर्जि महानिदेशक, फिपी

प्रबंध निदेशक-एनआरएल, गुवाहाटी/सीपीसीएल, चेन्नई/एमआरपीएल, मंगलुरु

ओएमसी योजना एवं रिटेल ग्रुप – एचओ

MoP&NG:

PS to Hon'ble Minister (P&NG)

OSD to Hon'ble Minister (P& NG)

PS to Hon'ble Minister of State (P&NG)

Secretary, P&NG

Additional Secretary, P&NG

Additional Secretary & Financial Advisor

Jt. Secretary (Refinery)

Jt. Secretary (Marketing)

Jt. Secretary (GP)

Jt. Secretary (G)

Deputy Director General (E&S)

Jt. Secretary (IFD)

Jt. Secretary (International Cooperation)

DGH: DG, DGH

OIDB: Secretary (OIDB)

NITI Aayog: Advisor (Energy), NITI Aayog Industry:

Chairman, IOC / ONGC New Delhi

C&MD - BPC / HPC / GAIL

Director (Mkt.), IOC/BPC/HPC/GAIL

President - RIL, MD & CEO - HMEL, CEO

(Mktg.) - Nayara

DG, FIPI

MD- NRL, Guwahati/ CPCL, Chennai/

MRPL, Mangalore

OMCs Planning & Retail Groups - HO

From the desk of DG-PPAC

Greetings from Petroleum Planning & Analysis

Dear readers.

Petroleum Planning & Analysis Cell (PPAC), an attached office of the Ministry of Petroleum & Natural Gas (MoPNG), Government of India, collects and analyses data on the Oil and Gas sector.

PPAC publishes the Industry POL and NG consumption report on its website www.ppac.gov.in.

It is a critical data analysis of pan India demand and distribution profile of POL & NG products. The historical trend of domestic consumption of various products and their YoY and cumulative growth rate define a clear time series profile of the demand regime. The sectoral breakup of consumption of most of the POL and NG products put a light on the actual percentage share of a finished product to its end users. Though I belief there are lots of scope of improvement to define more and more finadamental sectors and their market share in domestic sales.

In this revised edition a new approach has been adopted to represent the data and its critical analysis in a holistically artistic manner.

I hope the report would serve the purpose of meta data analysis for stakeholders in the oil and gas sectors, alternate energy division & the planners, policymakers, academicians, analysts, market researchers & the industries. I suggest all the stakeholders to have a look in ppac website for various data and reports.

पेट्रोलियम योजना एवं विश्लेषण प्रकोष्ठ की ओर से अभिवादन!

प्रिय पाठकों.

पेट्रोलियम योजना और विश्लेषण सेल (PPAC), भारत सरकार के पेट्रोलियम और प्राकृतिक गैस मंत्रालय (MoPNG) का एक संबद्ध कार्यालय, तेल और गैस क्षेत्र पर डेटा एकत्र और विश्लेषण करता है।



पीपीएसी अपनी वेबसाइट www.ppac.gov.in पर उद्योग पीओएल और एनजी खपत रिपोर्ट प्रकाशित करता है। यह पीओएल और एनजी उत्पादों की अखिल भारतीय मांग और वितरण रुपरेखा का एक महत्वपूर्ण डेटा विश्लेषण है। विभिन्न उत्पादों की घरेलू खंपत की ऐतिहासिक प्रवृत्ति और उनकी साल दर साल और संचयी विकास दर मांग व्यवस्था की एक स्पष्ट समय श्रंखला और रुपरेखा को परिभाषित करती है। अधिकांश पीओएल और एनजी उत्पादों की खपत का क्षेत्रीय विभाजन अंतिम उपयोगकर्ताओं के लिए तैयार उत्पाद के वास्तविक प्रतिशत हिस्से पर प्रकाश डालता है। हालांकि मेरा मानना है कि अधिक से अधिक अंतिम क्षेत्रों और घरेलू बिक्री में उनकी बाजार हिस्सेदारी को परिभाषित करने के लिए सुधार की बहुत गुंजाइश है। इस संशोधित संस्करण में समग्र रूप से कलात्मक तरीके से डेटा और उसके महत्वपूर्ण विश्लेषण का प्रतिनिधित्व करने के लिए एक नया दृष्टिकोण अपनाया गया है। मुझे उम्मीद है कि यह रिपोर्ट तेल और गैस क्षेत्रों में हितधारकों, वैकल्पिक ऊर्जा प्रभाग और योजनाकारों, नीति निर्माताओं, शिक्षाविदों, विश्लेषकों. बाजार शोधकर्ताओं और उद्योगों के लिए मेटा डेटा विश्लेषण के उद्देश्य को पूरा करेगी। मैं सभी हितधारकों को सुझाव देता हूं कि वे विभिन्न डेटा और रिपोर्ट के लिए पीपीसी वेबसाइट देखें।

> P.Manoj Kumar Director General-PPAC ए.मनोज कुमार महानिदेशक-पीपीएसी

From the desk of D&ES- I/C

संख्या : डी-12013/02/2022-॥ No. D-12013/02/2022-II

<u>Subject: Industry Consumption Review</u> <u>Report of PPAC: November 2022</u>

November-22 POL domestic consumption was 19 MMT. The consumption in HSD recorded the second highest consumption in that category during FY1997-98 to FY2022-23. Highest YoY growth rate was observed in Bitumen 30.3%.

On the verge of completion of Ethanol Supply Tear (ESY) 2021-22 around 434 cr liters ethanol has been blended with petrol to achieve the overall EBP% as 10. The Central Government approved the mechanism of ethanol procurement price by PSU-OMCs for ESY2022-23 as ₹49.44, ₹60.73 & ₹65.61 per litre from 'C & B-heavy molasses' and sugarcane respectively. It would broaden our farmers coverage under EBP programme.

Recently PNGRB announced Unified Tariff regulations effective from 1st April, 2023 to provide access of natural gas in the far-flung areas.

IHS Markit Manufacturing Purchasing Manager's Index (PMI) marked three month high at 55.7 in November 2022 from 55.3 from October-22.

The crude supply to India remained flexible & the average crude price for Indian Basket in November-22 hinged around USD87.55/bbl.

The Petroleum Planning and Analysis Cell (PPAC) have prepared the monthly Petroleum Industry Consumption Review Report. The report contains analysis of consumption of POL products and natural gas with sectoral break up during April - November 2022 (cumulative). The same is enclosed for kind reference.

If you have any question on this report, please write to Mr. Ritwik Kumar Hatial at ritwik.hatial@ppac.gov.in.

विषय: पीपीएसी की उद्योग बिक्री समीक्षा रिपोर्ट -नवम्बर 2022

नवंबर-22 पीओएल घरेलू खपत 19 एमएमटी थी। एचएसडी में खपत ने वित्त वर्ष 1997-98 से वित्त वर्ष 2022-23 के दौरान उस श्रेणी में दूसरी सबसे अधिक खपत दर्ज की। बिटुमेन 30.3% में वर्ष-दर-वर्ष उच्चतम वृद्धि दर देखी गई।



इथेनॉल आपूर्ति टीयर (ईएसवाई) 2022-23 के पूरा होने के कगार पर लगभग 434 करोड़ लीटर इथेनॉल को पेट्रोल के साथ मिश्रित किया गया है ताकि समग्र ईबीपी% 10 हो सके। केंद्रीय सरकार ने ईएसवाई 2022-23 के लिए पीएसयू.ओएमसी द्वारा ईबीपी कार्यक्रम के तहत गन्ने की अलग-अलग किस्मों पर आधारित कच्चे माल से प्राप्त उच्च इथेनॉल मूल्य को मंजूरी दे दी है: 'सी भारी मोलासेस ₹49.44, बी.भारी मोलासेस ₹60.73 और गन्ना रस से ₹65.61 प्रति लीटर और । यह ईबीपी कार्यक्रम के तहत हमारे किसानों के कवरेज को व्यापक करेगा।

हाल ही में PNGRB ने दूर-दराज के क्षेत्रों में प्राकृतिक गैस की पहुंच प्रदान करने के लिए 1 अप्रैल, 2023 से प्रभावी एकीकृत टैरिफ नियमों की घोषणा की।

आईएचएस मार्किट मैन्युफैक्चरिंग परचेजिंग मैनेजर्स इंडेक्स (पीएमआई) अक्टूबर-22 के 55.3 से नवंबर 2022 में तीन महीने के उच्चतम स्तर 55.7 पर पहुंच गया।

भारत में कच्चे तेल की आपूर्ति लचीली रही और सितंबर-22 में भारतीय बास्केट के लिए कच्चे तेल की औसत कीमत लगभग USD 87.565/bbl थी।

पेट्रोलियम योजना और विश्लेषण प्रकोष्ठ (PPAC) द्वारा मासिक पेट्रोलियम उद्योग खपत समीक्षा रिपोर्ट तैयार की गई है। रिपोर्ट में अप्रैल-नवम्बर 2022 (संचयी) के दौरान क्षेत्रीय ब्रेक अप के साथ (पीओएल) उत्पादों और प्राकृतिक गैस की खपत का विश्लेषण शामिल है। यह आपके संदर्भ के लिए संलग्न है।

यदि इस रिपोर्ट पर आपका कोई प्रश्न है, तो कृपया श्री ऋत्विक कुमार हिटयाल को ritwik.hatial@ppac.gov.in पर लिखें।

डॉ. पंकज शर्मा

अपर निदेशक (मांग एवं आर्थिक अध्ययन)-प्रभारी Dr. Pankaj Sharma Addl. Director (I/C)-D&ES

Highlights of the month:



We have completed 'Ethanol Supply Year' (ESY)2021-22. The Union Cabinet revised ethanol price from different sugarcane based raw materials for OMCs under the Ethanol Blended Programme (EBP) effective for ESY2022-23.

The recent World LPG Week workshop established the fact that PMUY scheme covering 9.55 crore households has become a global role model.

To incesae the affordability of natural gas in the far-flung areas, PNGRB recently announced new 'Natural Gas Tariff, Authorization and Capacilty Regulations' effective from April, 2023 under the objective of 'One Nation One Grid and One Tariff.'

The Goods and Services Tax collection marked Rs.1.46 lakh crore in November 2022, 11% higher than in November 2021. GST collection trend exceeding Rs.1.40 lakh crore band has been continuing in this FY2022-23.

The average FOB (Free on Board) price of Indian basket crude oil during the month November-2022 was USD 87.55/bbl.

The power demand in November 2022 increased by 13% as compared to November 2021 and power deficit remained the same as 0.2% in the month of November 2021. The average rainfall during the month was registered at 18.7 mm with percentage of departures 32percent with respect to 'this year November normal rainfall value' of 29.7 mm. Traffic at major ports during the month of November 2022 recorded a YoY growth 3.6% of the volumes in the month of November 2021.

The growth percentage in consumption of petroleum products, category-wise, for the month of November 2022 is given in Table-1.

SUMMARY OF PRODUCT WISE POL CONSUMPTION PROFILE FOR NOVEMBER-22

1. The consumption of petroleum products in November 2022 with a volume of 18.8MMT

- recorded a growth of 10.2% on volume of 17MMT in November 2021, 1.8% growth on volume of 18.5 MMT in November 2019, 10.9% growth on volume of 16.98 MMT in November 2018. The economic momentum is under acceleration with appreciable growth rate.
- 2. MS (Petrol) consumption during the month of November 2022 with a volume of 2.8 MMT recorded a growth of 8.1% on the volume of 2.6MMT (0.8 mbpd) in November 2021. The Sale of Passenger Vehicles in November-2022 with a volume of 2.8 lacs registered a growth 28.1% over volume of 2.1 lacs during November-2021. Two-wheeler sales November 2022 with a volume of 12.3 lacs marked 16.5% over volume of 10.6 lacs during November-2021. Three-wheeler passenger vehicles touched a sales volume of 0.46 lac in November-2022 registering 102.2% YoY growth rate over a volume of 0.22 lac in November-2021.
- 3. HSD (Diesel) consumption during the month of November 2022 with a volume of 7.8 MMT (1.97 mbpd) recorded a growth of 19.2% on the volume of 6.5 MMT in the month of November-21
- 4. LPG consumption during the month of November 2022 with a volume of 2.5 MMT registered a growth of 5.1% over the volume of 2.3 MMT in the month of November 2021. As usual, LPG consumption during the month had been largely driven by consumption in domestic category.
- 5. ATF consumption during November 2022 with a volume of 0.6 MMT registered a growth of 28.5%, over a volume of 0.5 MMT during the month of November 2021.
- 6. Bitumen consumption during November 2022 with a volume of 0.72 MMT registered growth rate of 30.3% over a volume of 0.6 MMT in the month of November 2021.Road constructions activity maintained high momentum during the month.
- 7. Kerosene (SKO) consumption with a volume of 0.039 MMT registered a de-growth of 68.8% in November 2022 as compared to November 2021. SKO consumption during the month is largely constituted by PDS category 0.025 MMT followed by non PDS SKO 0.014 MMT. Only the state of Karnataka registered 440 KL sales in nonsubsidised PDS SKO category during the month of November.

- Average percentage of ethanol blending in petrol (EBP) marked 10.5% in November-2022. Around 38.6 cr litre ethanol has been blended in petrol under EBP program. Cumulative ethanol blending percentage during 'Dec-21 to Nov-22' has been achieved at 10%.
- 9. Total Natural Gas Consumption (including internal consumption) for the month of November 2022, with a volume of 5.2 BCM, recovered 97.3% to a volume of 5.4 BCM, in corresponding month of the previous year.

This report analyses the trend of consumption of petroleum products in the country during the month of November 2022. Data on product-wise monthly consumption of petroleum products for November 2022 is uploaded on the PPAC website (www.ppac.gov.in) and on the mobile app "PPACE (PPAC-Easy)". A small summary of Natural Gas consumption is also provided.

Detailed NG production and consumption reports are available at www.ppac.gov.in.

Table-1: Petroleum Products Consumption (Quantity in TMT)

		Nove	ember		Aj	pril-November	r
Product	2021-22	2022-23	% share of 2022-23	Growth (%)	2021-22	2022-23	Growth (%)
(A) Sensitive Products							Unit-TMT
LPG	2347	2468	13	5.1	18411	18680	1.5
SKO	123	39	0.2	-68.8	1017	353	-65.3
Sub Total	2470	2506	13	1.4	19428	19034	-2.0
(B) Major Decontrolled Produ	ıct						
HSD	6513	7760	41	19.2	48795	56143	15.1
MS	2645	2860	15	8.1	20102	23280	15.8
Naphtha	1232	1008	5	-18.2	9480	8386	-11.5
ATF	504	617	3	22.5	3023	4728	56.4
Bitumen	554	722	4	30.3	4435	4858	9.5
FO/LSHS	514	557	3	8.3	4066	4489	10.4
Lubes+Greases	354	408	2	15.3	2893	2965	2.5
LDO	65	57	0.3	-13.0	669	477	-28.7
Sub Total	12381	13989	74	13.0	93463	105327	12.7
(C) Other Minor Decontrolled	Products						
Pet.Coke	1086	1144	6	5.4	8896	10158	7670
Others*	1158	1198	6	3.5	8352	10692	7846
Sub Total	2244	2342	12	4.4	17249	20850	20.9
Total	17095	18838	100	10.2	130140	145210	11.6

*Others include sulfur, propylene, propane, reformat, L.A.B.F.S, CBFS, butane, MTO etc.

NOTE :

- i) All figures are provisional.
- ii) The source of information includes Oil Companies, DGCIS & online SEZ data.
- $iii) \ \ The \ consumption \ estimates \ represent \ market \ demand \ and \ is \ aggregate \ of:$
 - (a) actual sales by oil companies in domestic market,

(b) consumption through direct imports by private parties (Private direct imports prorated for Apr-November'22, which may undergo change on receipt of actual data), and

 $(c) \ sales \ by \ SEZ \ units \ in \ Domestic \ Tariff \ Area \ (DTA)$

PPAC analyses the sales recorded by the industry and domestic sales by SEZ units based on available data. Data on direct private imports are received from DGCIS, which is added to the final sales reported by oil companies and domestic sales by SEZ units, for estimation of consumption figures.

Overall consumption of all petroleum products in November 2022 with a volume of 18.8 MMT

registered a growth of 10.2% on volume of 17.1 MMT in November 2021. The products which registered a growth in the month of November 2022 were iquified Petroleum Gas (LPG) 5.1%, High Speed Diesel (HSD) 19.2%, Petrol (MS) 8.1%, Aviation Turbine Fuel (ATF) 22.5%, Furnace Oil & Low Sulphur Heavy Stock (FO/LSHS) 8.3%, Bitumen 30.3%, Lunes and Greases

15.3%,petcoke 5.4% and products categorised under "Others" category 3.5% while the products which registered de-growth during the month

were Kerosene (SKO) 68.8%, Naphtha 18.2%, Light Diesel Oil (LDO) 13% and during the current month as compared to November 2021.

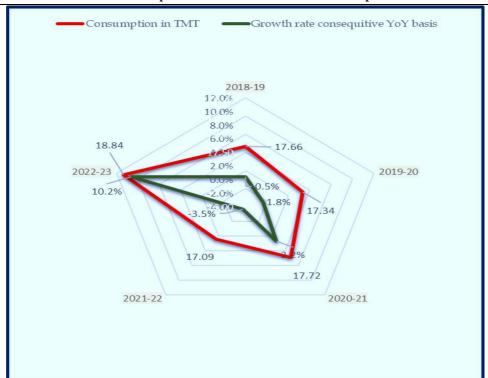
Figure-1: Monthly POL consumption (MMT) since November 2018

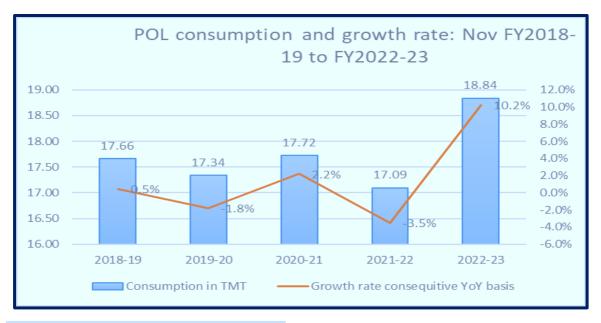


The overall POL domestic consumption profile during November-2022 & corresponding projected growth rate were quite promising & better than pre-covid regime as found in the radar/bar chart

of comparison between total POL consumption in the month of November in FY 2018-19 to FY2022-23 and its corresponding growth rate on YoY basis.

Chart-1: POL consumption & Growth rate YoY basis: radar plot with bar chart





PETROL/MOTOR SPIRIT (MS):

MS (Petrol) consumption during the month of November 2022 with a volume of 3 MMT registered a growth of 8.1%,7.3%, 12.8% and 28.3% over the volume of 2.8MMT, 2.7MMT, 2.5MMT & 2.3MMT in November 2021, 2020, 2019 & 2018 respectively.

Major factors contributing to MS consumption during the month are as follows:

- Economic activity went up during the month
- Mobility increases due to the festival seasons. Twelve unique Indian fsetivals were celebrated during the month
- Tourism dependent states saw heavy influx of travelers giving a boost to economic activities
- Less rain also accounted for higher influx of vehicles



Figure-2: Month wise MS consumption volume (MMT) since November 2018

OTHER FACTORS IMPACTING CONSUMPTION OF MS:

PASSENGER VEHICLE SALES:

The Sale of Passenger Vehicles in November 2022 at 2.8 lacs recorded growth of 28.1% YoY over sale of 2.2 lacs in the month of November 2021.

'Passenger vehicle' sales have been driven by 'utility vehicles.'

Passenger cars and utility vehicles recorded a growth of 29%, 32.1% respectively during the current month as compared to the same period previous year.

Table-2: Passenger vehicle sales in the month of November 2022

Vehicle Segment		November	
	2021-22	2022-23	Growth %age
Passenger Cars	100,906	130,142	29.0
Utility Vehicles	105,091	138,780	32.1
Vans	9,629	7,309	-24.1
Total PV	215,626	276,231	28.1

Source: SIAM

TWO-WHEELER SALES:

Two-wheeler sales in November 2022 with a volume of 12.4 lacs recorded a growth of 16.5% on

a month-on-month basis over volume of 10.7 lacs during November 2021.

Scooters/ Scootertte & Motorcycle sales recorded appreciable growth rate during the month.

Table-3: Two & Three Wheelers vehicle sales in the month of November 2022

	1	November	
Vehicle Segment	2021-22	2022-23	Growth %age
Scooters/Scotrette	318,986	412,832	29.4
Motor Cycles/Step-Throughs	699,949	788,893	12.7
Mopeds	42,558	34,465	-19.0
2 Wheelers total estimate	1,061,493	1,236,190	16.5
Passenger Carrier-3 wheeler	15,023	33,848	125.3
Goods Carrier-3 wheeler	6,139	8,985	46.4
E-Rickshaw	1,217	2,601	113.7
E-cart	172	230	33.7
3 Wheelers total estimate	22,551	45,664	102.5

Source: SIAM

THREE-WHEELER SALES:

Three-wheeler domestic sales in November 2022 with a volume of 0.46 lac recorded a growth of 102.5% on a-month-on-month basis over volume of 0.23 lac during November 2021.

HIGH SPEED DIESEL (HSD):

HSD (Diesel) consumption during the month of November 2022 with a volume of 7.76 MMT recorded a growth of 19.2%, 10.2%,2.6% & 11.8% over a volume of 6.5MMT,7 MMT, 7.6 MMT & 6.9 MMT in the month of November 2021,2020,2019 & 2018 respectively. The HSD consumption for the month is the second highest consumption in POL history after May-2019 with 7.77 MMT.

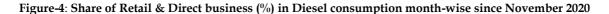
Factors affecting diesel consumption during November 2022 are as follows:

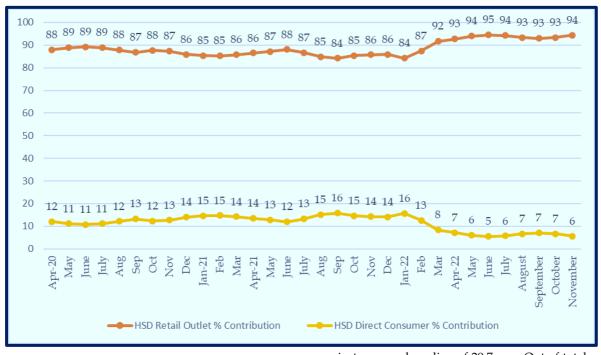
- Economic activity went up during the month
- Less rain fall & sowing season of rabi crop ramped up diesel consumption in irrigation, pumps and tractor mobility.
- Marriage season influenced personal mobility and gave push to petrol consumption.
- Full fleged industrial and mining activites in various parts of India increased diesel consumption. Less rainfall during the month ramped up mining activities.

IHS Markit Manufacturing Purchasing Manager's Index (PMI) increased to a three-month high 55.7 in November 2022 from 55.3 in October-22.

Pan India based dometic HSD consumption since April-18 till date is shown in the Fig-3. HDS market share in direct and retail sales is shown in the Figure-4.

Figure-3: Month-wise HSD consumption (MMT) since November 2018

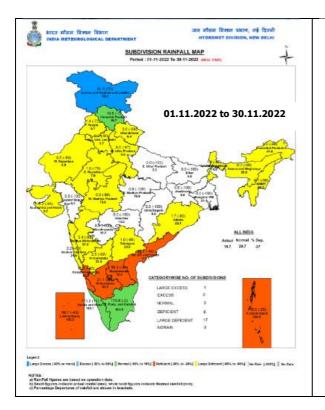


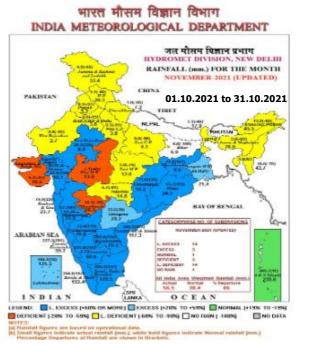


OTHER FACTORS IMPACTING CONSUMPTION OF HSD:

Seasonal rainfall scenario: The rainfall in the country during November 2022 was 37% below normal precipitation. A rainfall of 18.7 mm was recorded in the month of November 2022 as

against a normal reading of 29.7 mm. Out of total 36 subdivisions, 1 divisions received excess to large excess rainfall, 32 divisions received deficient rainfall whereas 3 division received normal rainfall.





Source: India Meteorological Department (IMD)



E-Way Bill

The electronic bill is mandatory document for transportation of goods of value higher than Rs 50,000. This Electronic document is used to track goods being moved around between cities and states. Economic activity driven by domestic trade is reflected from e-way bill generation. Number of E-way bills reflect quantum of transport activities directly influencing Diesel sales.

For the month of November, the volume of e-way bills generated was 80.69 million after hitting a three-month low of 76.88 million for October. November 2022 numbers are 32% higher from 61.15 million e-way bills generated in the same period last year.

INDICATORS	Number
E-Way Bill: Intra	
State (Unit)	51290192
E-Way Bill: Inter	
Sate (Unit)	29400834
E-Way Bill:	
Total (Unit)	80691026
Source:GST E-way	bill system

Commercial Vehicle

Based on data reported by individual companies, on an average there has been a growth of around 35% in domestic sales of commercial vehicles including three-wheelers during the month of November 2022 as compared to November 2021. The growth in commercial vehicle indicates an emerging outlook towards robust economic growth.

Tractor Sale:

Tractor sales as reported by major individual companies in the month of November 2022 has registered a growth rate of 10% as compared to sales in November 2021. Sowing Rabi crop season and less rainfall affected the growth in tractor sales during the month November-2022.

Port Traffic:

The traffic handled at major ports in India with a volume of 61 MMT in November 2022 recorded a growth of 2% on volume of 59 MMT in the month of November 2021.

Growth was observed in cargo handled during the month of November 2022 in all the major ports like Kolkata & Haldia 6.4%, New Mangalore 7.4%, Chennai 6.1%, Paradip 23.7%Kamarajar (Ennore) 30.3% with respect to November-2021.

During April-November 2022, sector wise growth was registered in coal (thermal, steam and coking)

48.8%, Other miscellaneous cargo 14.3%, Crude & Petroleum Oil & lubricants' (CPOL) 8.2%, with respect to November-2021. During April--Nov-2022 cumulative per centage share was seen in of CPOL was maximum i.e. 30%, followed by

container-tonnage 23.9% & coal 23.6%, other miscellaneous cargo 12%, other liquids 4.9%, iron ore & pellets 4.8%, and fertilizer 1.3%.

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Figure-5: Growth percentage of traffic handled at major ports since November 2020

Table-4: Traffic handled at major ports in November 2022(Qty in TMT)

Ports	November 2021	November 2022	Growth (%)
Kolkata & Haldia	5,177	5,510	6.4
Paradip	8,614	10,653	23.7
Visakhapatnam	5,732	4,671	-18.5
Kamarajar (Ennore)	2,690	3,505	30.3
Chennai	3,842	4,078	6.1
V.O. Chidambaranar	2,897	2,475	-14.6
Cochin	3,088	2,843	-7.9
New Mangalore	2,981	3,202	7.4
Mormugao	1,321	1,261	-4.5
Mumbai	5,480	5,517	0.7
JNPT	6,443	6,589	2.3
Deendayal	11,196	10,317	-7.9

Total: 59,461 60,621 2.0

Source: ipa.nic.in

Power situation:

The position of power supply for the month of November 2022 is given in Table-5. As per the data reported, power deficit position had remained to 0.2% in November-2022 as compared to November 2021. The requirement of power in November 2022 was 1,12,497 MU has recorded a growth of 13% over requirement of power at 99,557 MU in the month of November 2021.

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Industry POL & NG con Report, November 2022

www.ppac.gov.in

Table-5: Power supplied and deficit for November 2022

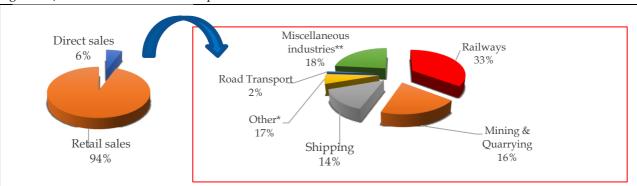
	No	vember-2021		1	November-2022	
	Requirement	Supplied (MU)	Deficit %	Requirement	Supplied (MU)	Deficit %
North	27,904	27,735	-0.6%	31,528	31,443	-0.3%
West	35,213	35,205	0.0%	40,433	40,433	0.0%
South	23,446	23,442	0.0%	27,377	27,375	0.0%
East	11,641	11,593	-0.4%	11,765	11,653	-1.0%
North- East	1,353	1,350	-0.2%	1,394	1394	0.0%
Total	99,557	99,324	-0.2%	112,497	112,298	-0.2%

Source: Central Electricity Authority (CEA)

Sectoral consumption of HSD:

The cumulative diesel sale during April-November-2022 was 56.1 MMT; 94% of which was constituted by retail sales. Balance 6% falls under direct sales category as shown in 5A chart. In direct Figure-5A/B: sector-wise HSD consumption

sales category, the sectoral consumption break up is shown in 5B chart with Railways 33% followed by Miscellaneous industries 18%, Mining & Quarrying 16%, Shipping 14%, other 17% and road transport 2%. Most of the retail sales are consumed in road transport.



*Other: power/agriculture and metallurgy **Miscellaneous: Elec./Electronics, Mechanical, Fertilizers, Textiles, cement, ceramics, chemical, aluminum &civil etc.

KEROSENE:

Kerosene consumption during November-2022 with a volume of 0.039MMT registered a degrowth of 69%, 75%, 80% & 86% as compared to November 2021, 2020, 2019 & 2018 respectively. There are ten states/UTs who have voluntarily surrendered the PDS kerosene quota. Except the UT of J&K, Ladakh and Lakshadweep, all UTs and the states of Andhra Pradesh, Delhi, Haryana, Punjab, Uttar Pradesh and Rajasthan have been declared kerosene free. A volume of 440KL of nonsubsidized PDSSKO sales has been registered during the month for the state of Karnataka. In PDSSKO upliftment, West Bengal (13145 KL) was the biggest consumer followed by Tamil Nadu

(4440KL) and Kerala (3852KL). The market share of subsidized-PDS and other SKO was 64%~&~36% respectively.



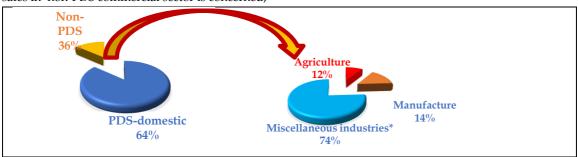
PDS SKO %ge — Other SKO* %ge 100 90 91 89 84 86 85 86 86 88 85 85 86 89 85 86 89 89 88 86 88 86 88 86 90 80 66 64 64 70 60 50 40 30 20 10 Aug Sep Oct Nov Dec Ian-21 Feb Mar Ipuly Aug Sep Oct Nov Dec Ian-21 Iuly Aug Feb Oct Nov Dec Ian-22 Feb Mar Mar Mar

Figure-6: Month-wise PDS & other-SKO consumption in share (%) since November 2020

*Other SKO: non-subsidized PDS SKO +non-PDS kerosene

Sectoral consumption of SKO:

Out of total SKO sales during April-November-2022 with a volume of 0.39 MMT 'PDS domestic SKO' upliftment constituted to 67%. So far as SKO sales in 'non-PDS commercial sector is concerned,' 36% accounted to miscellaneous industries followed by agriculture 12% manufacture 14% as shown in 6A/B chart.



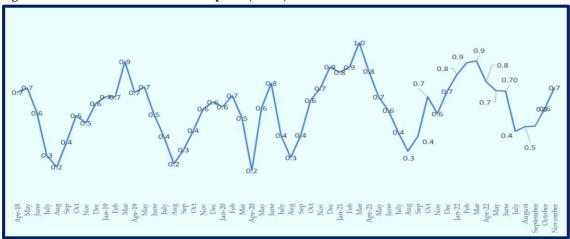
**Miscellaneous industries include aviation, mining, road transport, shipping, power generation, railways, and resellers Figure-6A/B: PDS domestic, non-PDS commercial SKO sales & their breakup for April-November-202

BITUMEN:

Bitumen consumption during November 2022 with a volume of 0.72 MMT registered a growth rate of 30.3%,0.8%,23.5% and 45.9% over a volume of 0.6 MMT, 0.71MMT,0.6MMT& 0.49 MMT in the month of November 2021, 2020, 2019 & 2018 respectively. Less rain fall accounted for high upturn in road construction projects in November-2021. Road construction activity was ramped up during the month to mitigate the quarter ending targets too.



Figure-7: Month-wise Bitumen consumption (MMT) since November 2018



Sectoral consumption of Bitumen:

Cumulative bitumen sales during April-November-2022 marked a volume of 4.9 MMT of which 97% was constituted to Road construction, balance 3% was consumed by miscellaneous industries.

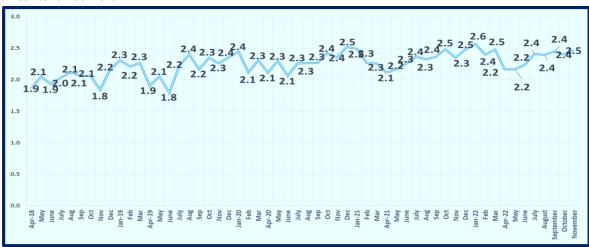
LPG:

LPG consumption during the month of November 2022 with a volume of 2.5MMT registered a growth rate of 5.1%, 4.9%, 9.2% and 34.1% over the volume of 2.34MMT, 2.35MMT, 2.23MMT & 1.84MMT in

Figure-8: Month-wise LPG consumption (MMT) since November 2018

month of November 2021, 2020,2019 & 2018 respectively.

Domestic LPG is supplied in 14.2 kg and 5 kg cylinders to domestic consumers for use as kitchen fuel. Packed Non-Domestic LPG is sold to commercial or industrial consumers in cylinders having water capacity less than 1000 liter. Bulk LPG is primarily sold to Industries in large containers with water capacity greater than 1000 liter for industrial applications. Auto LPG is an automotive fuel used by three and four-wheeler vehicles



Sectoral consumption of LPG:

In April-November-2022 total LPG sale was 18.7 MMT driven by packed domestic category 92%

followed by 'non-domestic/industry/commercial sector 7% as shown in 8A chart.

Figure-8A: Sector wise LPG consumption for April - November 2022



NAPHTHA:

Naphtha consumption during the month of November 2022 with a volume of 1 MMT recovered 81.8%,71.8%,80.7% and 82.4% over the volume of 1.23MMT, 1.4MMT, 1.24MMT & 1.22 MMT in November2021, 2020, 2019& 2018 respectively.

Petrochemical industries remain the main consumers of naphtha.

Sectoral consumption of Naphtha:

Consumption of naphtha during April-November-2022 with a volume of 8.4MMT was driven by petrochemicals sector 86%, whereas 16% naphtha consumption fell in 'miscellaneous industries including power' as shown in 8A chart.

Figure-8A: Sector wise naphtha consumption for April - November 2022



ATF:

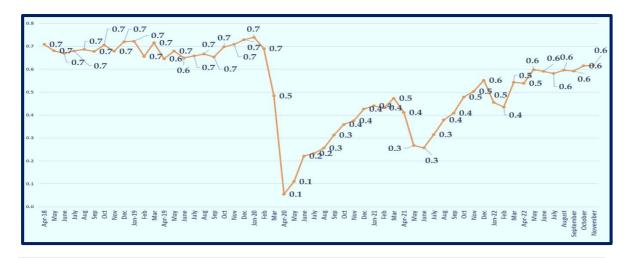
ATF consumption during November 2022 with a volume of 0.62 MMT registered a growth of 22.5% and 64.3% over the volume of 0.5 MMT and 0.4 MMT in November 2021 and 2020 respectively. However, it recovered 87.1% & 91% over the

volume of 0.71~MMT & 0.68MMT in November 2019 & 2018 respecyively.

The domestic footfall is back to be comparable with pre-Covid levels, however, international traffic footfall is lagging because of restricted entry in few countries.

Month wise ATF consumption since November-2018 is depicted in the Figure-9.

Figure-9: Month-wise ATF consumption (MMT) since November 2018



Sectoral consumption of ATF:

Almost entire ATF consumption during April-November-2022 with a volume of 4.7 MMT, attributed to aviation sector; 78% domestic & 22% international aviation as shown in the chart.

Figure-10A: Sector wise ATF consumption for FY2022-23



FURNACE OIL & LOW SULPHUR HEAVY STOCK (FO/LSHS):

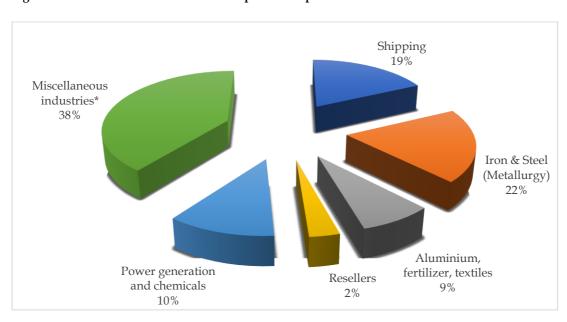
FO/LSHS consumption during November 2022 with a volume of 0.557 MMT recorded a growth rate of 8.3%, 15.1% 20.9% & 13.5% year-to-year basis over volume of 0.514 MMT, 0.483MMT, 0.461MMT, 0.491 MMT in the month of November 2021, 2020, 2019 & 2018 respectively. The higher growth rate is attributed to consumption shift from gas to LSHS in refining and chemical sector

and the volatile price regime in natural gas in recent time.

Sectoral consumption of FO/LSHS:

Consumption of FO/LSHS during April-November-2022 with a volume of 4.5 MMT was driven by 'Miscellaneous industries' 38%, followed by 'Iron & steel (metallurgy)' 22% , 'shipping' 19% 'Power generation and chemicals' 10% and 'Aluminum, fertilizer& textiles' 9% as shown in the chart.

Figure-10B: Sector wise FO+LSHS consumption for April - November 2022



^{*}Miscellaneous usage includes Civil Engineering, Elec./Electronics, Mechanical etc.

PETCOKE:

Petcoke consumption during the month of November 2022 with a volume of 1.144 MMT recorded a growth of 5.4% over volume of 1.09 MMT in the month of November 2021. However, it recovered to 99.9%,68.4% and81.9% on year-to-year basis over a volume of 1.145MMT,1.6731MMT & 1.397 MMT in November-2020, 2019 & 2018 respectively.

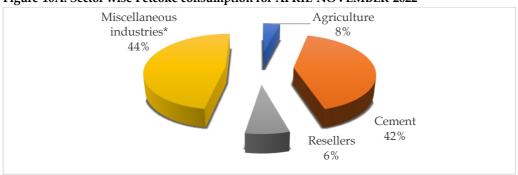
Directorate General of Foreign Trade (DGFT) under Ministry of Commerce and Industry has

banned import of petcoke for use as fuel but has allowed its import only for use as feedstock in some select industries such as cement, lime kiln, calcium carbide and gasification industries.

Sectoral consumption of Petcoke:

Petcoke consumption during April-November-2022 was of 9MMT. The domestic sales driven by 'miscellaneous industries' 44%, followed by 'cement industries' 42%, Reseller 6%, Agriculture 8% as shown in the chart.

Figure-10A: Sector wise Petcoke consumption for APRIL-NOVEMBER-2022



^{*}Miscellaneous industries include power, civil, metallurgy, mining & shipping

LIGHT DIESEL OIL:

LDO consumption during the month November-2022 with a volume of 0.057 MMT recovered 87% & 82.6% on year-to-year basis over a volume of 0.065 MMT & 0.069 MMT in the month of November 2021 & 2020 respectively. However, it registered growth rate of 12% & 19.4% over a volume of 0.051MMT, 0.048MMT in the month November-2019 &2018 respectively.

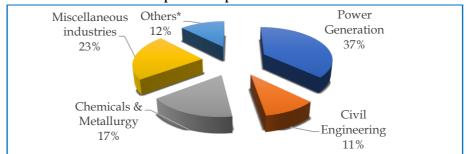
Sectoral consumption of Light Diesel Oil:

During April-November-2022, consumption of Light Diesel oil (LDO) with a volume of 0.5MMT

was driven by 'Power Generation' 37% followed by 'Miscellaneous industries 23% and Chemicals & Metallurgy 17%, 'other' 12% and Civil Engineering 11% as shown below sectoral consumption piechart.



Figure-11: Sector wise LDO consumption for April-November 2022



*Other includes Mining& Mechanicals (2.7%), shipping (0.73%), Textiles (0.35%), Electrials & Electronics (0.24%) etc.

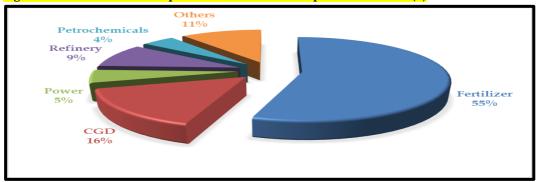
NATURAL GAS:

Natural Gas is used as a feedstock in several industries like fertilizers, plastics and other commercially important organic chemicals and used as a fuel for electricity generation, heating purpose in industrial and commercial units. Natural gas is also used for cooking in domestic households and as a transportation fuel for vehicles. Consumption of Natural Gas with a volume of 5.1 BCM (billion cubic meters) during the month of November 2022 recovered 96.9 % on volume of 5.3 BCM in the month of November 2021.

Sectoral consumption of Natural Gas April-October-22: (PROVISIONAL)

During April-October 2022, consumption of Natural gas (NG) with a volume of 34.5 BCM was driven by the fertilizer (55%) followed by CGD (16%), Refinery (9%), Power (5%), Petrochemicals (4%) and others (11%).

Figure-12: Sector wise consumption of Natural Gas for April-October 2022 (P)



*Other includes Ceramic, Chemical, Glass, Metal & small customers etc.

Source: PPAC data; P: provisional

Conversion factors taken for TMT to barrel conversion

Conversion factor (ap	pprox.)	
Product	Weight (MT)	Bbl.
LPG	1	11.6
SKO	1	8.1
Diesel	1	7.6
Petrol	1	8.9
Naphtha	1	8.7
ATF	1	8.1
Bitumen	1	6.1
Furnace Oil	1	6.7
Lubes	1	7.2
Light Diesel Oil	1	7.4
Petcoke	1	5.5
Product Basket (for Others)	1	8.1

	Industry Con	sumption Trend	Analysis 2022-2	23 (Provisiona	l)	
					('Million ba	arrels per day)
	April- No	ovember			November	
Product	2021-22	2022-23	Growth(%)_2021- 22 to 2022-23	2021	2022	Growth(%)_ 2021 to 2022
		(A) Sensit	ive Products			
LPG	1.17	1.18	1.5	0.91	0.95	5.1
SKO	0.04	0.02	-65.3	0.03	0.01	-68.8
Sub Total	1.21	1.20	-1.0	0.94	0.96	2.5
		(B) Major Deco	ontrolled Produc	ct		
HSD	2.03	2.33	15.1	1.65	1.97	19.2
MS	0.98	1.13	15.8	0.78	0.85	8.1
Naphtha	0.45	0.40	-11.5	0.36	0.29	-18.2
ATF	0.13	0.21	56.4	0.14	0.17	22.5
Bitumen	0.15	0.16	9.5	0.11	0.15	30.3
FO/LSHS	0.15	0.17	10.4	0.12	0.13	8.3
Lubes+Greases	0.11	0.12	2.5	0.09	0.10	15.3
LDO	0.03	0.02	-28.7	0.02	0.01	-13.0
Sub Total	4.03	4.54	12.6	3.26	3.66	12.3
			4.62	10.1		
	(C)	Other Minor D	econtrolled Pro	ducts		
Pet.Coke	0.27	0.31	14.2	0.04	0.04	5.4
Others*	0.37	0.47	28.0	0.04	0.04	3.5
Sub Total	0.64	0.78	22.2	0.07	0.08	4.4
Total	6	7	10.8	4.27	4.70	10.0
*Others include sulfur,	oropylene, prop	pane, reformat,	L.A.B.F.S, CBFS,	butane, MTO	etc.	

An Oil Barrel



In the oil industry, an oil barrel is defined as 42 US gallons or 158.987 litres. Oil companies typically report their production in terms of volume and use the units bbl (one barrel) per day. Prices of crude oil are measured in barrels, while production totals across all producing countries are measured in million barrels per day. Over the time no one now actually buys or transports crude in a barrel and this is just used as an unit of measurement.

22 n												
P			Industry Consu	onsumptic	on Trend A	ımption Trend Analysis 2022-23 (Provisional)	22-23 (Pro	ovisional)				
0.0												('000 MT)
		April- November	ır					November				
Product	2021-22	2022-23	Growth(%)_2021- 22 to 2022-23	2018	2019	2020	2021	2022	Growth(%)_ 2018 to 2022	Growth(%)_ 2019 to 2022	Growth(%)_ 2020 to 2022	Growth(%)_ 2021 to 2022
Do				2	 Sensitiv 	(A) Sensitive Products						
LPG	18411	18680	1.5	1841	2261	2352	2347	2468	34.1	9.2	4.9	5.1
ЗКО	1017	353	-65.3	278	188	155	123	39	-86.1	-79.5	-75.1	-68.8
Sub Total	19428	19034	-2.0	2118	2449	2506	2470	2506	18.3	2.3	0.0	1.4
ahar				(B) M	ajor Decon	B) Major Decontrolled Product	oduct					
HSD	48795	56143	15.1	6941	7566	7039	6513	7760	11.8	2.6	10.2	19.2
MS	20102	23280	15.8	2319	2535	2665	2645	2860	23.3	12.8	7.3	8.1
Naphtha	9480	8386	-11.5	1223	1248	1403	1232	1008	-17.6	-19.3	-28.2	-18.2
АТЕ	3023	4728	56.4	678	709	376	504	617	-9.0	-12.9	64.3	22.5
Bitumen	4435	4858	9.5	495	585	717	554	722	45.9	23.5	0.8	30.3
FO/LSHS	4066	4489	10.4	491	461	483	514	227	13.5	20.9	15.1	8.3
Lubes+Greases	2893	2962	2.5	303	332	421	354	408	35.0	21.9	-3.0	15.3
OGT	699	477	-28.7	48	19	69	99	22	19.4	12.0	-17.4	-13.0
Sub Total	93463	105327	12.7	12497	13488	13174	12381	13989	11.9	3.7	6.2	13.0
Sub - Total (A) + (B)	112891.2	124360.5	10.2	14614.6	15937.3	15680.0	14850.9	16495.0	12.9	3.5	5.2	11.1
110/1				(C) Other	Minor Dec	(C) Other Minor Decontrolled Products	Products					Ī
Pet.Coke	9688	10158	14.2	1397	1673	1145	1086	1144	-18.1	-31.6	-0.1	5.4
Others*	8352	10692	28.0	970	902	2516	1158	1198	23.5	32.8	-52.4	3.5
Sub Total	17249	20850	20.9	2367	2575	3662	2244	2342	-1.1	-9.0	-36.0	4.4
Total	130140	145210	11.6	16982	18513	19342	17095	18838	10.9	1.8	-2.6	10.2
*Others include sulfur, propylene, propane, reformat, L.A.B.F.S, CBFS, butane, MTO etc.	propylene, pro	pane, reformat,	L.A.B.F.S, CBFS,	butane, MTO	etc.							





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