

Chapter 4

Weeding out Fake/Duplicate Connections

The LPG Control Order, 2000 (as amended) permits single LPG cooking gas connection to a household and restricts possession of more than one LPG connection by a household under the public distribution system. Each domestic LPG connection has a unique consumer ID with uniqueness maintained across all three OMCs. The parameters recorded in the domestic LPG consumer database include, *inter alia*, the name, address, Aadhaar number and Bank account number. Multiple connections arise when two or more LPG consumer IDs are found linked to the same consumer which can be identified through identical Aadhaar number, Bank account number, Name and Address. To implement the control order and restrict subsidy outgo, it is necessary to identify multiple connections receiving subsidy on LPG and take necessary steps for blocking/terminating such connections.

Audit checked the existence of multiple connections of consumers in a sample covering 34 *per cent* of distributors. The de-duplication exercise was conducted by Audit on the basis of the following parameters:

- ‘Same Aadhaar number’,
- ‘Same Bank account number and IFSC¹’,
- ‘Same Name and Same Address’,
- ‘Same Name, Date of birth and Registered mobile number’.

Audit findings on multiple LPG connections on the basis of the analysis using the above criteria are discussed below:

4.1. Identification of multiple connections on the basis of same Aadhaar number and same Bank account number

With introduction of the PAHAL Scheme, consumers necessarily need to link their bank account details with the LPG consumer database in order to avail subsidy. In case the consumer has an Aadhaar number, this should also be linked to the consumer database. Such consumers are designated as Cash Transfer Compliant (CTC) consumers who become eligible for transfer of subsidy to their designated bank account.

To ensure identification of multiple connections, OMCs started a de-duplication exercise in May 2013 within their respective databases (intra OMC de-duplication) on the basis of Aadhaar number. Post introduction of PAHAL, the OMCs also introduced an inter-OMC de-duplication exercise on Aadhaar number which started in May 2014. Later Bank IFSC and account number de-duplication was also included in 2015.

¹ IFSC stands for ‘Indian Financial System Code’

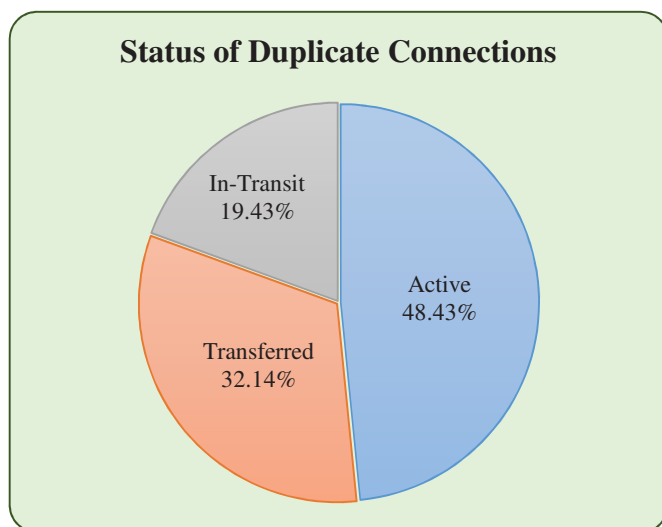
Considering the fact that OMCs have been carrying out intra and inter OMC de-duplication on Aadhaar number and Bank account number, multiple connections were not expected in the consumer database received by Audit from the OMCs. However, Audit noticed instances of multiple connections in the sample selected (34 per cent distributors of the OMCs).

4.1.1. Intra OMC de-duplication

Audit noticed multiple LPG connections having the same Aadhaar number and bank account number in the respective databases of the OMCs. It was seen that in some cases, one of the multiple connections remained 'active' while the other connections were indicated as 'transferred' or 'in-transit'. Subsidy in these cases was paid only for the 'active' connection even though the risk of the consumer availing of such subsidy in future could not be ruled out. Where two or more of the multiple connections were 'active', the cylinders continued to be delivered and subsidy transferred in respect of these 'active' multiple connections.

(i) **Multiple connections having same Aadhaar number** - It was noticed that the sample checked in HPCL had 1400 LPG consumers linked with 700 Aadhaar numbers indicating duplicate connections. The break-up of these duplicate connections is indicated in the Pie Chart below.

Figure-3: Break-up of duplicate LPG connections in HPCL



As seen from the Chart, the status of nearly half of the duplicate connections, *i.e.*, 48.43 per cent was "Active", while 32.14 per cent and 19.43 per cent of duplicate connections have 'transferred' and 'in-transit' status respectively. All these duplicate connections could avail supply of subsidised refills and thus get undue benefit.

The sample checked in BPCL did not indicate any multiple 'active' connections linked with the same Aadhaar number.

The data made available (December 2015/January 2016) by IOCL indicated presence of multiple connections for the same Aadhaar number. However, IOCL in reply (April/May 2016) clarified that the data provided to Audit had been from a Data warehouse (Sybase IQ) and that these multiple connections have been weeded out from the Oracle production data by applying a unique constraint on the Aadhaar number field. The contention of IOCL has been verified by Audit and found acceptable. As such, multiple connections for the same Aadhaar number were not seen in the production server of IOCL. It however needs to be noted that

when sample data was solicited from IOCL, the accurate set of data ought to have been provided to Audit. Besides, the rationale behind maintenance of different data for the same set of consumers in multiple databases was not clear to Audit.

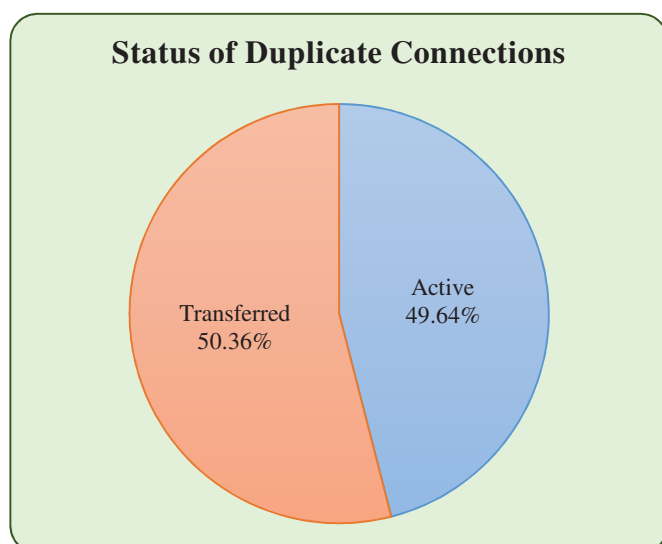
HPCL in its reply (April/May 2016) stated that in respect of duplicate connections identified, the duplicate consumers have been terminated and payment of subsidy has been stopped. Further, the Aadhaar number was said to have been corrected and show cause notice issued to distributors for wrong seeding.

Audit noted that HPCL has accepted the audit observation and initiated remedial action in cases where both the duplicate connections were 'active'. It is stressed that in other cases where only one of the duplicate connections was 'active' and the other was 'transferred' or 'in-transit', the possibility of future duplicate subsidy pay-outs could not be ruled out. Specific safeguards in this regard are essential to forestall such future eventuality.

(ii) Multiple connections having the Same Bank IFSC and Same Bank Account Number

In the sample selected from IOCL database, 43,323 LPG consumer IDs were found linked with 21,504 bank IFSC and Bank account numbers. Audit noticed instances where more than two connections were linked to the same bank IFSC and Same Bank account number. This included four distinct bank accounts linked with 12 active LPG consumer IDs, two cases where a bank account was linked to 11 and 16 'active' LPG IDs respectively. The break-up of the duplicate connections is indicated in the Pie Chart below.

Figure-4: Break-up of duplicate connections (IOCL)



As seen from the Chart, 49.64 per cent of duplicate connections were "Active", while remaining 50.36 per cent of duplicate connections were having 'transferred' status. All these duplicate connections could avail supply of subsidised refills and thus get undue benefit.

In the sample selected in HPCL, 14,198 LPG consumer IDs were found linked with 6,614 bank IFSC and account numbers. In the case of HPCL also, Audit noticed instances where more than two connections were linked to the same bank IFSC and same bank account number. Further scrutiny revealed that out of 7,584 duplicate connections, 7,561 connections (99.70 per cent) were having "Active" status while remaining

23 connections were having “Transferred/In-Transit” status. These duplicate connections could avail supply of subsidised refills and thus get undue benefit.

The sample checked in BPCL did not indicate multiple active LPG connections having same bank IFSC and same bank account number.

IOCL in its reply (April/May 2016) stated that at the time of commencement of PAHAL (DBTL) Scheme, no restriction had been imposed on seeding same bank account for multiple consumers. Considering that the above system was prone to misuse, de-duplication exercise with bank account number as a unique field was subsequently carried out on intra and inter-company basis. After analysis of the data, OMCs started blocking multiple connections identified on the basis of same bank account in the month of May 2015. Presently, one to one relationship between bank’s account number and LPG consumer ID (for domestic category only) has been enforced. However, there were NDEC¹ consumers, for whom field officers were authorized to approve request for connecting multiple connections to same bank IFSC and account number, after field verification.

HPCL replied (April/May 2016) that these cases were due to:

(i) Multiple connections with consumers having connections in both/other distributors that have now been blocked,

(ii) Few consumers were Aadhaar Cash Transfer Compliant consumers with common bank account seeded against two consumers due to erroneous entries by bank and absence of de-duplication/validation check in the earlier phases of Scheme implementation. Such consumers have now been asked to seed the correct Aadhaar number in their bank accounts. In some cases, distributor was said to have taken action by re-seeding the revised bank details in their system. HPCL further stated that all duplicate bank accounts as identified by Audit, have been blocked and were being activated only after due verification, on a case to case basis, as some accounts might be valid, in case of beneficiaries being joint account owners or consumers with different households. Such consumers were being advised to provide individual account numbers. HPCL assured to complete this exercise by 31 May 2016.

¹ Non-Domestic Exempt Category (NDEC) consumers include hospitals, hostels, supplies for Mid-day Meal schemes, Government Office canteens, Messes of Police, Border Security Force(BSF),Central Industrial Security Force (CISF), Defence Establishments, charitable institutions, etc. NDNE customers are not eligible for subsidy on LPG cylinders.

The reply of the OMCs is to be viewed in the light of the following:

- The IOCL contention that one to one relation of bank IFSC and bank account number and consumer ID has been ensured is not acceptable as the multiple connections identified by Audit pertain to January 2016, much after May 2014 the date from which Management stated that blocking of multiple connections had been implemented. Besides only domestic LPG consumer database has been considered by Audit and thus the possibility of inclusion of NDEC consumers as stated in reply was remote.
- The corrective action taken by HPCL at the instance of Audit is noted.

Audit reiterates the need for ensuring that a single bank IFSC and bank account number is mapped to a single LPG consumer ID. Besides, there is a need for addressing the significant number of multiple connections designated as ‘transferred’ where the possibility of payment of subsidy in future cannot be ruled out.

(iii) Identification of duplicate connections on the basis of same name and address

National Informatics Centre (NIC) commenced a de-duplication exercise in June, 2012 on two parameters, *namely*, Same Name Same Address (SNSA) and Different Name Same Address (DNSA) in order to identify households with duplicate connections. Since July 2015, this de-duplication was carried out online and on a real time basis for new LPG connections.

For carrying out the de-duplication on the specific parameters of name and address, NIC obtained the data from the three OMCs and converted it into a unified format, standardised the same and determined the sufficiency of the available information against name and address to carry out the de-duplication exercise. A “fuzzy logic” algorithm was then used to segregate consumers into ‘Same Name Same Address’ (SNSA) and ‘Different Name Same Address’ (DNSA) categories with a sub-category of near and far under each. The result of the de-duplication exercise was periodically communicated to the OMCs as a ‘suspect list’ for further verification of ‘Know Your Customer’ (KYC¹).

Considering that the de-duplication exercise has been carried out (since July 2015) by NIC on a real time basis, it could be expected that the database provided by the OMCs would not have any duplicates on these parameters (SNSA and DNSA). Audit scrutinised a sample of 34 *per cent* of the distributor database on SNSA and found a number of exact matches (100 *per cent*) of same name and same address. This was noticed in all the three OMCs, the details of which are as given below:

¹ Know Your Customer (KYC) consists of information on POA- Proof of Address and POI- Proof of Identity with supporting documents.

Table-4: Details of SNSA duplicates across OMCs

Name of OMC	Number of consumers with SNSA	Number of LPG connections linked to consumers in Column 2
(1)	(2)	(3)
IOCL	6,364	13,949
HPCL	586	1,193
BPCL	8,935	19,587
Total	15,885	34,729

Audit considered only 'active' LPG consumers while identifying multiple connections bearing same name and address.

The OMCs replied (April/May 2016):

- IOCL stated that by visually checking the list provided by Audit, it could be inferred that the data available in the 'address' field was not sufficient in many cases to identify the connection as SNSA. For these consumers whose addresses were insufficient, KYC need to be completed only after which, de-duplication results would show the correct 'suspect list'. They further informed that the connections identified by Audit have been blocked from the central server so that fresh KYCs could be accepted from the consumers concerned and only upon field verification, would they be regularized.
- BPCL stated that the legacy data that has been migrated into current system did not had the complete name and address and with this limited data, it was not possible to conclude whether these were multiple connections. KYC for these consumers need to be completed and only then, it could carry out the de-duplication process.
- HPCL stated that all the cases identified by Audit have either been corrected or blocked.

As can be seen from the responses, the OMCs have stressed the insufficiency of information in the 'name' and 'address' fields which renders the de-duplication exercise by NIC incomplete. Therefore, there is an urgent need for correction of the consumer database to ensure accurate consumer information for an efficient de-duplication of the consumers, considering that the de-duplication exercise was started as early as June 2012.

The corrective action taken by HPCL at the instance of Audit is noted.

(iv) Identification of multiple connections on the basis of Name, Date of Birth, Registered Mobile Number of consumers

The de-duplication exercise carried out by NIC has been on two essential parameters, *namely*, 'name' and 'address' of the consumer. The OMCs also carried out intra and inter OMC de-duplication on Aadhaar number and Bank IFSC and Bank account number. Audit considered

a different combination of parameters to verify the existence of multiple connections in the database. The parameters considered by Audit were ‘Same Name, Same Date of Birth (DOB)’ and ‘Same Registered Mobile Number’. This combination of parameters was chosen as it was expected that a combination of these three parameters is highly likely to be unique to an individual. A check of such combination in the 34 per cent of the selected sample indicated presence of multiple connections as tabulated below. Audit considered only ‘active’ consumers for the analysis.

Table-5: Break-up of connections having Same Name, DOB and Mobile Number across OMCs

Name of OMC	Number of consumers with common parameter	Number of LPG connections available with consumers at Column 2
(1)	(2)	(3)
IOCL	6,322	13,163
HPCL	4,830	11,128
BPCL	19	38
Total	11,171	24,329

The OMCs replied (April/May 2016) as follows:

(i) IOCL stated that many of the suspects in the list provided by Audit have same name but different address and hence these connections were not identified in the current de-duplication system of NIC. IOCL further stated that as per present de-duplication process, mobile numbers were not used to identify a suspect. Besides, the Date of Birth (DOB) was not properly captured in the system because legacy data had been migrated into the current system without cleansing the data and thus DOB could not be used as a field for de-duplication. IOCL, while accepting that the above combination may lead to identification of multiple suspected connections, further informed that on field verification of the cases shared by audit, they found that:

- a) Some cases were genuine.
- b) Dummy data was uploaded by the distributor in some cases, since mobile number and DOB were mandatory fields.
- c) Wherever there were multiple connections, the Company assured that action was being taken.

(ii) BPCL pointed out that the number of cases identified by Audit were very few. It was also stated that a separate master of mobile numbers was being updated and the legacy mobile numbers were no longer in use. BPCL also stated that DOB captured in the database was not reliable for carrying out de-duplication.

(iii) HPCL informed that all consumers with same name and different connections with the same distributor have been blocked and after verification of multiple connections, all duplicate connections shall be terminated. It was further explained that the consumers were from rural areas with common names and the distributor had uploaded common dates of birth while registering the consumers. Further, the cylinder booking was stated to have been done by consumers, from the same number as they were not conversant with the Interactive Voice Response System (IVRS) of the OMCs. HPCL assured to carry out corrections in the dates of birth, mobile numbers and to train the users on IVRS usage.

The replies of the OMCs need to be viewed in light of the following:

- (i) All the three OMCs have highlighted the poor quality of the database, particularly the date of birth and the mobile number of the LPG consumer. There is a need for maintaining integrity of the database before de-duplication is done to weed out multiple connections.
- (ii) Audit has carried out its analysis on the database provided by the OMCs. In case BPCL has a different database for mobile number of consumers, the same ought to have been made available to Audit rather than the incorrect legacy data.
- (iii) The replies of IOCL and HPCL imply that distributors were permitted to seed dummy data or own data in the consumer database at least in some cases. Therefore, remedial measures need to be urgently put in place to ensure accuracy of the database. However, the corrective action taken by HPCL at the instance of Audit is noted.

4.1.2. Inter OMC de-duplication

The three OMCs maintain distinct consumer databases and hence the need to check for multiple LPG connections across OMCs.

(i) Multiple connections having same Aadhaar number

In the selected sample of 34 *per cent*, Audit noticed that there were multiple connections having the same Aadhaar number across different OMCs which were ‘active’. It was seen that 74,180 LPG consumer IDs had been linked to 37,090 Aadhaar numbers indicating multiple connections, details of which are tabulated below:

Table-6: Details of connections having same Aadhaar number across OMCs

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

Audit also noticed that 23 Aadhaar numbers were linked to 69 'active' domestic LPG IDs in all the three different OMCs (one LPG ID in each OMC).

The OMCs replied (April/May 2016) as below:

- IOCL stated that the Aadhaar lookup was done for every consumer before subsidy payment for intra and inter OMC de-duplication against Aadhaar numbers.
- BPCL stated that inter OMCs online de-duplication for Aadhaar and bank account numbers was presently being carried out and that the cases quoted by Audit were the ones where the transfers were made prior to the commencement of this de-duplication process. The Company also informed that only the oldest connection has been retained on identification of multiple connections with the others being blocked.
- HPCL assured that the duplicate consumers identified by Audit have been blocked and unblocking was being done only after surrender of the duplicate connection of another OMC.

The reply of the OMCs (April/May 2016) is to be viewed in the light of the following:

- (i) The contention of IOCL that Aadhaar lookup would identify duplicates is not tenable as the lookup table was specific to IOCL database and could not identify duplicates across OMCs. This was borne out by the existence of multiple domestic 'active' connections across different OMCs, as reported by Audit.
- (ii) The response of BPCL that the instances reported by Audit pertained to the period prior to the inter OMC de-duplication process is not accurate as the database considered by Audit pertains to 31 October 2015 whereas the inter-OMC de-duplication commenced in May 2014.
- (iii) Corrective action taken by HPCL at the instance of Audit is noted.
- (iv) It is also important to note that while the web service recently introduced by the OMCs for identification of duplicate Aadhaar numbers (across all OMCs) would act as a check for prospective consumers, it would not detect duplicates in the existing database of the OMCs for which specific efforts need to be undertaken to weed out such duplicates.

(ii) Multiple connections having same bank IFSC and Bank account number

Audit noticed instances of multiple connections having same bank account across OMCs. In the selected sample, 17,694 'active' LPG consumer IDs were noticed against 8,847 bank IFSC and bank account numbers indicating multiple connections. The details are tabulated below:

Table-7: Details of multiple connections having same bank IFSC and account number across OMCs

Combination of OMCs	No. of bank accounts	No. of LPG unique consumer IDs
HPCL & IOCL	3,471	6,942
IOCL & BPCL	3,010	6,020
BPCL & HPCL	2,366	4,732
Total	8,847	17,694

Audit also observed that 21 Unique LPG IDs that were active have been linked with 7 bank IFSC and account numbers across the three OMCs.

IOCL stated (April/May 2016) that they carried out online de-duplication process on the data provided by Audit upon which 5710 records were found to be still duplicate. These bank accounts have been deseeded and the connections have been blocked.

BPCL stated (April 2016) that inter-OMC multiple connections were being identified presently and action initiated and that the instances highlighted by Audit pertained to the period prior to the inter-OMC de-duplication process.

The corrective action taken by IOCL at the instance of Audit is noted. The reply of BPCL, however, is not tenable as Audit had identified duplicate bank IFSC and account numbers across OMCs in the database pertaining to 30 October 2015, after the commencement of inter-OMC de-duplication exercise in May 2014. Meanwhile, HPCL did not specifically reply to this issue (May 2016).

4.2. Status of action taken by OMCs on multiple connections identified

Multiple LPG connections were identified through de-duplication exercise on the basis of 'name and address' carried out by NIC and on 'Aadhaar number and bank IFSC and bank account number' carried out by the OMCs. The suspect list of multiple connections received from NIC was first verified by the OMCs against information submitted by these consumers as part of KYC procedures along with proof of identity and address. If the connections were established as multiple, the first connection was retained and all subsequent connections taken by the consumer were blocked. No cylinder was delivered or subsidy transferred on blocked connections. Such blocked connections, however, could later be un-blocked based on the revised/corrected KYC submitted by the consumer to prove that the blocked connection was a unique one. In case multiple connections were identified by OMCs themselves, the blocking of duplicate connections was done immediately without waiting for verification of information supplied as part of KYC procedure.

OMC-wise status of multiple connections identified, blocked, regularised and terminated since commencement of de-duplication exercise from June 2012 and up to 30 October 2015 was as under:

Table-8: Multiple connections identified, blocked, regularised and terminated from June 2012 and up to 30 October 2015 across OMCs

(In numbers)

Name of OMC	No. of suspected multiple connections identified	No. of connections blocked	No. of connections regularised after submission of KYC	No. of connections terminated
IOCL	2,67,06,353	64,40,445	77,21,680	2,02,869
HPCL	69,86,654	18,73,936	46,26,931	41,485
BPCL	1,10,67,453	15,10,351	77,12,503	5,712
Total	4,47,60,460	98,24,732	2,00,61,114	2,50,066

The analysis of the table above indicated the following:

- While 4.48 crore multiple connections were identified by OMCs from June 2012 to 30 October 2015, only 0.98 crore connections remained blocked with 2.01 crore connections having been regularised after submission of KYC forms by the consumers. Only limited number of connections, *i.e.*, only 2.50 lakh, (till October 2015) have actually been terminated on this account. The majority of the connections which had been blocked due to suspected multiple connections have, thus, been subsequently un-blocked.
- A connection could be blocked for reasons other than being a suspected multiple connection. Yet, against 4.48 crore connections suspected to be multiple connections, the total number of blocked, regularised and terminated connections was only 3.01 crore (as on 30 October 2015) indicating that in respect of 1.46 crore connections, blocking, regularising or termination had not been carried out.

The OMCs in their reply (April/May 2016) confirmed that all suspected multiple connections were not blocked. BPCL and IOCL pointed out that the 'Different Name Same Address' (DNSA) category of consumers was not blocked by the OMCs. IOCL also stated that in their modified process, all inactive connections would be included in the category 'blocking due to multiple connections'.

As per the response of the OMCs, the DNSA category of suspected multiple connections identified by NIC were not blocked. As such, rectification measure was not taken by the OMC to verify these DNSA connections identified. The practice of considering all inactive connections as being blocked due to multiple connections, as indicated by IOCL would give an incorrect picture of action taken by the OMCs on identified multiple connections.

4.3. Process of blocking and un-blocking connections

Audit assessed the process of blocking and subsequent un-blocking of LPG connections in the 34 *per cent* sample selected. It was noticed that though a majority of blocked connections were eventually un-blocked, the reasons for blocking and un-blocking and the dates of blocking and un-blocking of the connections were not sufficiently documented.

- In IOCL, 57.95 lakh connections had been blocked, of which 30.81 lakh (53.16 *per cent*) were subsequently un-blocked. The date of blocking had not been recorded in 24.04 lakh cases (41.48 *per cent*) and in another 6.71 lakh cases (11.58 *per cent*) an invalid date (01/02/1900) was recorded. The date of un-blocking was also reported incorrectly as 01/02/1900 in 9.62 lakh of the connections (31.22 *per cent*) un-blocked. Besides it was seen that reasons for un-blocking had not been recorded in any of the 30.81 lakh cases un-blocked.
- In HPCL, 1.09 crore connections had been blocked, of which 67.07 lakh connection (61.53 *per cent*) was subsequently un-blocked. The date of blocking was not mentioned in 68.14 lakh cases (62.51 *per cent*) while the date of un-blocking had an invalid date in 320 cases. The reason for blocking was not indicated in 74.19 lakh cases (68.06 *per cent*) blocked while 19.37 lakh of connections un-blocked (28.88 *per cent*) indicated reasons for un-blocking as 'others'.
- In BPCL, 47.14 lakh connections had been blocked of which 31.06 lakh connections (65.88 *per cent*) have been subsequently un-blocked. The date of blocking was not mentioned in case of 4.93 lakh connections (10 *per cent*), while the date of blocking and reasons thereof was not mentioned in 0.67 lakh cases. In case of 17.15 lakh connections (36 *per cent*) blocked cases, reason for blocking was recorded as 'others'.

Field audit of the blocking and un-blocking process in the selected one *per cent* of distributors (165 distributors) indicated that:

- In 27 cases, connections were un-blocked on the basis of termination voucher of another OMC indicating the closure of the duplicate connection. In such cases, though the Permanent Advance of terminated connection was recovered, the additional subsidy availed due to multiple connections was not recovered. Considering that the number of subsidised cylinders which has been consumed by a consumer was indicated on the termination voucher, this ought to have been adjusted against the continuing LPG connection.

The OMCs replied (April/May 2016) to Audit on the following lines:

- (i) IOCL stated that the actual date of blocking and un-blocking was determined from a separate table (TBL_ADMIN_ACTION) rather than the table made available to Audit for analysis (MST_CONSUMER). It was also stated that the centralised Indsoft

System was populated from legacy data and the data corresponding to 'new' blocking and un-blocking had been investigated and found to be correct.

- (ii) HPCL stated that blocking and un-blocking of connections were carried out in the system through various sources like directly at distributor level, blocking by Sales Officers through Web application and central blocking of bulk customers. The date of blocking and un-blocking was a system stamp data and captured automatically in system. It was also assured that consumers were being unblocked by distributors only after obtaining necessary KYC documents and on surrender of duplicate connections, if any.
- (iii) BPCL stated that prior to 2013, data was maintained in the decentralised distributor server and for these cases there was a possibility of date of blocking not being recorded in the system. After migration to the centralised server, system logs were maintained for capturing the blocking and un-blocking dates. It was added that post migration, the reasons for blocking were maintained at an optimum level and reasons, codes not found notionally relevant were clubbed under 'others'.
- (iv) The OMCs acknowledged that at present there is no system for adjustment of subsidised refill consumed by a consumer through multiple connections. However, the Audit suggestion for clubbing consumption of multiple connections at the time of surrender was well taken and would be incorporated during subsequent development.

The replies of the OMCs need to be considered in the following context:

- (i) The IOCL contention regarding existence of different sets of databases with different values for dates of blocking and un-blocking is subject to risk. 'Date' being a specific field data ought to be captured at a single point, automatically, by the system and populated in all relevant tables. It is unclear why different values exist for the same field in different tables and needs to be appropriately addressed.
- (ii) While appreciating the steps being taken by HPCL for ensuring automatic capture of the dates of blocking and unblocking, further action is required for presenting accurate and transparent documentation regarding blocking and un-blocking of connections in the light of significant number of cases noticed by Audit without essential details.
- (iii) While the problems with legacy data as indicated by BPCL is appreciated, there is a need for its correction now, particularly considering that the migration to the centralised system had taken place in 2013. Considering that the reason for blocking of as many as 17.15 lakh consumers in the 34 *per cent* sample checked have been recorded as 'others', there is a need for assigning more definite reasons for blocking and subsequent un-blocking to maintain transparency of the database and trigger further action.

The assurance of the OMCs regarding proposed adjustment of subsidised refill consumed by a consumer through multiple connections during termination of one of the connections is noted.

4.4. Integrity of the consumer database

It is essential to ensure integrity of the consumer database to weed out fake and duplicate connections. Audit noticed invalid entries in the database which points to poor input control and therefore, compromises the authenticity and integrity of the consumer database.

4.4.1. Non recording/improper recording of date of birth of consumers

The LPG Control Order lays down that LPG connection can only be provided to a consumer who is 18 years of age and above. It is, therefore, important to accurately capture the date of birth of the consumer in the LPG consumer database.

Audit noticed that out of the total sample of 9.94 crore consumers, date of birth was not captured in respect of 3.40 crore domestic consumers (0.30 crore in IOCL, 1.09 crore in HPCL and 2.01 crore in BPCL). Another 55,407 LPG consumers were seen to be minors (48,405 in IOCL; 7001 in HPCL and one in BPCL). Besides, 73.50 lakh (73.43 lakh in IOCL; 0.06 lakh in HPCL and 0.01 lakh in BPCL) consumers had a date of birth between January and December 1900 which seems unlikely. Yet another 2100 consumers (1,047 in IOCL and 1,053 in HPCL) indicated a future date of birth which was evidently inaccurate.

IOCL in its reply (April/May 2016) stated that the date of birth was not proper in the system as the legacy data was migrated into the current system without data cleansing. This was reiterated by BPCL. HPCL (April/May 2016) stated that their database was very old and has been migrated from time to time and hence date of birth was not maintained appropriately in all cases. All OMCs assured that steps were being taken towards correction. The OMCs further stated the following:

- IOCL accepted mistakes in capturing valid entries for Date of Birth and that the age validation logic was not checking the minimum date selected. IOCL further stated that system restriction would be incorporated so that year of birth before 1899 or invalid DOB cannot be entered. The reply also assured that an action plan was being taken up for connections to minors. Field force would be sensitised and distributors advised against issuing connections to minors. The list given by Audit would be shared with field for verification and action would be taken on erring distributors if connections were found issued to minors which would be subsequently blocked. It has also been informed that system checks were being put in place to ensure that LPG connections were not issued to minors. Additionally, measures for validation and updation of valid Date of Birth and PIN codes both in their Consumer Master at Central Server

and in the Client Database, a case in point being “date validation logic” was now being initiated.

- BPCL informed that recently DOB field has been made mandatory and the field was being correctly captured for all new connections released. System control has been put in to ensure that the applicant was a major. Connection issued to minor has been terminated and action has been initiated against the distributor as per Marketing Discipline Guidelines (MDG).
- HPCL (May 2016) has stated that distributors have been advised to correct dates of birth in the system after verifying with documents.

OMCs have accepted the Audit finding and assured corrective action and the specific steps taken by them in this regard are noted.

4.4.2. Incorrect capture of PIN codes in addresses

Audit noticed that 83.34 lakh domestic LPG consumers (83.22 lakh in IOCL; 2,969 in HPCL and 8,904 in BPCL) had addresses that bore an army PIN code. In another 80.25 lakh cases (2.20 lakh in HPCL and 78.05 lakh in BPCL), the PIN codes have not been captured at all, and in another 3.39 lakh cases (45,332 in IOCL; 275 in HPCL and 2.93 lakh in BPCL), PIN codes of less than six digits were documented.

IOCL in reply (April/May 2016) stated that system checks would be ensured for the future new connections to pre-empt these aberrations. BPCL assured (April 2016) that system checks have been ensured to accept only six digit numbers as PIN code and that data has been obtained from Census 2011 which shall be incorporated into the system to ensure accuracy of district-wise PIN codes. HPCL stated (April 2016) that their LPG consumer database was very old and has been migrated from time to time and hence PIN codes were unavailable or improperly maintained. HPCL assured that they were in the process of upgrading the current software in centralized database with enhanced features and controls which would eliminate the errors gradually over a period of time. HPCL (May 2016) further stated that distributors have now uploaded the correct PIN codes in the system after verifying with documents.

OMCs accepted the observation and initiated corrective action at the instance of Audit which is noted.

4.4.3. Incorrect capture of Aadhaar numbers in the consumer database

Aadhaar number uniquely identifies an individual. Accurate recording of this data is essential for ensuring the uniqueness of the consumer database. An Aadhaar number necessarily has 12 digits and it never starts with ‘0’ or ‘1’. Audit noticed instances of incorrect capture of Aadhaar numbers in the sample test checked as under:

- Aadhaar number starting with '1' has been captured in the system in respect of 188 LPG consumers of IOCL, 258 LPG consumers of BPCL and 252 LPG consumers of HPCL. Additionally, 62 consumers of BPCL were found linked to Aadhaar numbers starting with '0'.
- The system used by IOCL and HPCL permitted the capture of Aadhaar numbers with less than the stipulated 12 digits. 42 such cases were noticed in IOCL and 14 in HPCL.
- In respect of 19,538 active LPG domestic consumers in HPCL, the Aadhaar number was not recorded, though these consumers were depicted as ACTC consumers in the database.
- Besides, in some cases, incorrect capture of Aadhaar numbers was noticed while conducting field audit of the distributors. (Details at Chapter 6, para 6.1).

IOCL in its reply (April/May 2016) while pointing out that the error was marginal (being noticed in only 45 entries of 8 crore entries) accepted that there was no check implemented for ruling out entry of Aadhaar numbers starting with '1'. It assured that action has already been taken to deseed these consumer Unique IDs and system check has now been incorporated to address such invalid entries.

BPCL stated (April 2016) that action has already been taken to correct the incorrect Aadhaar numbers that were seeded and it has system controls to ensure that the length of Aadhaar number is restricted to 12.

HPCL stated (May 2016) that the incidence of non-availability of Aadhaar against Aadhaar Cash Transfer Compliant (ACTC) consumer was found in cases where Aadhaar number was deseeded from the system before generating the Transfer Voucher. HPCL assured that such practise has currently been discontinued and in case of null and wrong entries, distributors were taking remedial action by way of re-seeding the correct Aadhaar numbers in their system after verification with documents.

OMCs have initiated corrective action on being pointed out by Audit. It is reiterated, however, that the results of audit pertain to only 34 *per cent* of the distributors scrutinised and hence the OMCs would need to carry out verification in the entire database and initiate corrective action. OMCs need to ensure accurate seeding of Aadhaar numbers in the consumer database as it is a key input for smooth functioning of the Scheme.

4.4.4. Non-linking of available Aadhaar numbers with LPG IDs in the consumer database

In course of field audit of the selected sample of 165 distributors, Audit noticed that in 104 cases, the Aadhaar number of consumers was not linked by the distributor with relevant LPG IDs despite being available.

IOCL and BPCL in reply (April/May 2016) stated that with the launch of PAHAL (DBTL) Scheme from January 2015, all efforts were made to reach the desired CTC target before the end of Parking Period so that subsidy of the willing consumers did not lapse. For ATC consumers to be cash transfer compliant, Aadhaar seeding was necessary to be done in both LPG database and the consumer bank and the OMCs/distributors/consumers faced many issues related to Aadhaar seeding with the banks; the gap between Aadhaar seeded consumers and cash transfer compliant consumers being 10-15 *per cent* resulting in the possibility of these consumers facing problems with Aadhaar linking in bank. The OMCs informed that the matter had been raised with MoPNG and OMCs were permitted to seed bank account for consumers facing problems with linking Aadhaar to bank accounts to reduce consumer inconvenience. The OMCs also stated that after November 2015, all distributors have been strongly advised to seed Aadhaar in LPG database and resultantly the Aadhaar seeding in the LPG database has improved by March 2016.

The difficulties highlighted by OMCs and consumers in linking of Aadhaar numbers to the respective bank accounts are appreciated. However, simultaneous linking of Aadhaar number to consumer database and bank account is a more secure method of ensuring uniqueness of the database and hence all out efforts are essential to ensure maximum coverage of ATC consumers in the LPG database for domestic consumers. Audit notes the assurance of the OMCs that efforts were now being made for higher percentage of Aadhaar seeding.

The reply of HPCL (May 2016) did not include response on this issue.

4.4.5. Incorrect seeding of IFSC in the consumer database

The Indian Financial System Code (IFSC) of the consumer bank is essential information for effecting direct transfer of LPG subsidy to the consumer. It is an eleven character code with first four being alphabetic characters representing the bank name, fifth being '0' and the last six characters indicating the bank branch. Audit noticed the following cases of incorrect seeding of bank IFSC in the sample checked.

- For 17,852 LPG domestic consumers of IOCL and 3,714 consumers of BPCL, the bank IFSC has been recorded with less than eleven digit, non-alphanumeric value.

- For another 12,762 LPG domestic consumers of IOCL and 4,725 LPG consumers of HPCL, the first four alphabetic characters representing the bank name were found missing in the bank IFSC. Of these, in case of 253 consumers, the bank IFSC had six numeric characters while another 4,472 consumers, the IFSC had nine numeric characters only.
- In addition, in another 1,691 active LPG domestic consumers of HPCL, no value has been recorded against their IFSC and bank account number though they have BCTC status.

It was noticed that the bank account number of consumers were also not accurately recorded. Account numbers with less than six digits, alphanumeric characters, special characters were noticed. Such anomalies in recording of IFSC and bank account number of consumers would lead to consumers being unable to avail of the subsidy benefit.

IOCL in reply (April/May 2016) stated that the 16,582 cases have been identified and traced back to an issue in the seeding process where the last digit was truncated for certain IFSCs and assured that the cases were being identified for the total master data would be corrected. IOCL also stated that invalid entries could be partly attributed to manual seeding done at distributor end, for whom bank verification was not carried out, in order to speed up the seeding process. Further, cases where the first four alphabetic characters representing the bank name were found missing, were a result of bank account data being seeded by banks and sent to IOCL, one such bank being Punjab Maharashtra Co-operative Bank (PMCB) that had sent a wrong set of IFSCs and these cases were being corrected now.

BPCL stated (April 2016) that prior to the receipt of IFSC master data from National Payment Corporation of India, BPCL had uploaded the IFSC master available from the RBI site. BPCL requested Audit to share the data to enable BPCL to verify the 3,714 cases.

HPCL assured (May 2016) to check and correct the IFS Codes in co-ordination with banks and consumers. It also stated that all consumers with invalid bank account numbers had been converted to ACTC, after carrying out corrections.

The desired information has been provided by Audit to BPCL. Audit notes the efforts being made by the OMCs for correction of the databases, at the instance of Audit. Inaccurate seeding of IFSC and bank account number could deprive genuine LPG consumers from availing subsidy benefit under the Scheme and needs to be urgently corrected. It may be mentioned here that of the 16,582 cases of incorrect seeding of IFSC, 12,678 cases noticed in IOCL as well as the 1,691 cases of 'Null' entries in HPCL pertain to active Bank Cash Transfer Compliant (BCTC) domestic consumers. Incorrect seeding has resulted in non-payment of subsidy in these cases which needs to be quantified and corrective action is required to be taken by the OMCs. It is pertinent to note that these aberrations noticed could

easily be rectified by mandating a set of input data controls to ensure the validity and accuracy of the consumer database.

MoPNG, in response to the conclusion made on the above aspects in Chapter 10, stated (June 2016) that OMCs were continually undertaking Inter and Intra company de-duplication process for issuing new LPG connections. As on 2 May 2016, total 3.49 crore LPG connections had been blocked after de-duplication.

The reply is to be viewed in the light of the fact that deficiencies were noticed in the de-duplication process carried out by the OMCs, as multiple connections existed both within and between OMCs even after de-duplication exercise. Several instances of data integrity and validation deficiencies were also noticed.

Even though National Informatics Centre and the OMCs had carried out de-duplication checks on the domestic LPG consumer database, Audit noticed instances of multiple connections existing both within and between OMC. Besides, connections blocked on suspicion of being multiple connections were often un-blocked without maintaining adequate documentation of justification for such un-blocking. Scrutiny of the selected sample indicated that there were inadequate input checks for the domestic LPG consumer database, which adversely affected its accuracy and integrity.