



**OPERATOR OF THE NIGERIAN  
ELECTRICITY MARKET**

**Report On The Nigerian  
Electricity Market Operations**  
**January – December 2010**

**By**

**The Market Operations Sector**  
**(Transmission Company Of Nigeria)**

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## OUR MISSION

*To be an Efficient Administrator of the Market Rules, in a manner that assures credibility and promotes Competition and Stability in the Nigerian Electricity Market*



## OUR CORE VALUES

- Independence
- Transparency
- Reliability
- Efficiency
- Accountability

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## **INTRODUCTION**

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This report is an account of the activities of the Market Operator for the year 2010.

It also highlights the commercial activities of the Nigerian Electricity Market during the year. It is presented in six sections, as follows:

- Administration of the Trading Point Metering and Management of the Metered quantities.
- Administration of Market Settlements (Billing and Charges).
- Administration of Market Collections and Payments.
- Settlement Administration of the Independent Large Power Consumers.
- Settlement Administration in respect of the PPAs and Connection Agreements.
- Utilization and Payments for Gas.

The report starts with the metering systems at all the trading points in the network, including acquisition of the metered data, for the period in question. It addresses the market settlement activities, including the invoices and the credit notes, during the year, in respect of the participants with negative energy balances and those with positive energy balances, respectively. The report also addresses issues of payments by the participants invoiced and payments to the system participants which received credit notes from the Market Operator during the year.

Market settlement reconciliations, involving both energy and revenue are also highlighted in the report.

## **1.0 ADMINISTRATION OF THE TRADING POINT METERING AND MANAGEMENT OF THE METERED QUANTITIES**

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### **1.1 Inter-Face Metering**

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Table 1.1.1 shows the status of the trading point metering system in the wholesale Electricity Market as at the end of the year 2010, while table 1.1.2 shows grid metering activities during the period.

From table 1.1.1, it can be seen that there were six hundred and fifty nine (**659**) trading points nation-wide. Forty-five (**45**) out of this number were generation/transmission interface points, where the generators, including the IPPs, inject energy into the wholesale market. Five hundred and sixty three (**563**) were transmission/distribution interface points, where distributors, including the independent large power consumers, extract energy from the wholesale market. Forty-six (**46**) were Inter-Disco boundary points on shared feeders (among two or more Distributors), while five (**5**) were the interfaces for export trading.

Six hundred and twenty five (**628**) trading points have been metered with intelligent electronic meters while thirty four (**31**) points were yet to be metered.

The unmetered points were mainly the Inter-Disco boundary points. Metering of these points is currently going on.

## **1.2 Generation Capacity Availability**

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Table 1.2 shows the capacity availability of the generators during the year.

The average total available capacity for all the generators was **4,012.94Mw** with about **71%** of the available capacity contributed by the Federal Government owned generators, while **29%** came from the IPPs. Also, the table shows that average hydro:thermal capacity mix during the year was **28:72**. This shows a slight deviation from 2009 mix of **26:74**. This is because there was a shortfall in capacity from some thermal stations like, Afam I-V, Egbin, Geregu, Sapele, Omotoso, Olorunsogo, Agip and Omoku in 2010. Ajaokuta didn't generate at all in 2010.

Fig. 1.2.1 and fig. 1.2.2 are the pie charts showing the FGN-IPP capacity (Mw) contributions and average thermal-hydro capacity (Mw) contributions, respectively.

## **1.3 Energy Generated**

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Table 1.3 shows the total energy generated by all the generators connected to the grid (State-owned generation companies and the IPPs) during the year.

Also fig. 1.3.1 and fig. 1.3.2 are the pie charts representing the relative generation contributions of the FGN and the IPP plants, and those of the hydro and the thermal plants, respectively.

From the table, it can be seen that a total of **25,090,106.06Mwh** or a monthly average of **2,090,842.17Mwh** was generated during the year. The FGN generators contributed **68%** of the total energy generated while **32%** came from the IPPs. The hydro:thermal mix was **30:70**. These relative energy contributions shows that the IPP plants were run for more hours than the FGN plants. Also the Hydro plants were run for more hours than the thermal units during the year. Gas availability to the FGN thermal plants contributed significantly to this lower capacity load factor.

#### 1.4 Energy Injected into the Grid

Table 1.4 shows the quantities of energy sent into the grid by the different generators during the year. Fig. 1.4.1 and 1.4.2 are the pie charts representing the relative energy contributions of the FGN against the IPP plants and those of the hydro against the thermal plants, respectively.

From the table, the energy injected into the grid during the year was **24,001,313.67Mwh** or an average of **2,002,795.15Mwh** per month,

with the highest contribution of **20.71%** from Egbin, followed by Agip, Afam VI (Shell), Jebba, Shiroro and Kainji with **13.19%**, **12.13%**, **10.92%**, **10.03%** and **9.57%** respectively. The FGN generators contributed **67%** of the total energy traded in the WEM while **33%** was contributed by the IPPs. Also, the hydro:thermal mix was **31:69**. This shows a significant deviation from the hydro:thermal energy contributions of **37:63** in 2009.

The **306,217.37Mwh** generation of Omoku, Trans Amadi and NESCO were not tied to the grid but were restricted to their respective local distribution networks.

### **1.5 Energy Consumed by the Generators**

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Table 1.5 shows the quantities of energy consumed by the various generators. From the table, it can be seen that no Power Station sent out more energy than it generated as was the case in 2009. This could be traced to the fact that the industry's generator meter accuracy has improved. Sapele thermal station consumed about **10.95%** of its generation. This shows a significant improvement on the **80.99%** consumption of its generation in 2009. On the whole, the generators consumed

**782,575.02Mwh** or **3.13%** of their total generation for their auxiliary services and offices. This is still higher than the MYTO prescribed figure of **1%**.

Some justifications have been supplied by the CEOs of most of the power plants for the apparently high percentage consumptions in the plants. In some of the cases, energy is supplied to the local communities from the station supply system. In other cases, the plant auxiliaries are heavy duty machines with high loading capacity. For Sapele and Jebba power stations, the meters should be reviewed to ascertain their accuracy.

## **1.6 Energy Received by the Distributors**

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Table 1.6 shows the energy extracted by the various discos and the large power consumers, including the international connections, from the grid. The total energy received by the DISCOS, the International Customers and the large power consumers was **21,585,233.05Mwh** or an average of **1,798,769.42Mwh** per month.

Out of this, the DISCOS consumed about **19,991,093.79Mwh** or **92.61%** while **1,338,288.51Mwh** or **6.20%** went for export during the year.

A total of **255,850.75Mwh** or **1.19%** went to Ajaokuta, NIOMCO Itakpe and Delta Steel Company Aladja(the independent large power consumers).

DISCO consumption was a function of level of generation in the grid while consumptions by the Special Customers (particularly the International Connections) were not particularly dependent on the level of generation during the year. This is because supply to the International Connections was based on international Agreement which the industry endeavored to keep throughout the year.

Fig. 1.6 shows the monthly profile of the total energy extracted from the grid. From the profile, it can be seen that the highest energy of **1,953.69Gwh** was achieved in March while the lowest of **1,410.88Gwh** was achieved in February.

### **1.7 Comparison of Energy Transmitted and Energy Received by the Distributors**

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Table 1.7 shows that out of the **24,001,313.67Mwh** injected into the grid by the generators **21,585,233.05Mwh** was received by the Distributors. This means that a total of **2,416,080.62Mwh** was lost in the transmission network during the year resulting in an average Transmission Loss Factor of **10.07%**. It can be seen that apart from the months of January, March, April,



May and July, 2010 when the loss factors were **9.18%**, **9.04%**, **9.52%**, **9.36%** and **9.57%** respectively, transmission losses in 2010 were significantly higher than in the corresponding months in 2009.

Fig. 1.7 shows the profiles of the Transmission Loss Factor (TLF) for 2010 against the TLF for 2009.

## **2.0 ADMINISTRATION OF MARKET SETTLEMENTS (BILLING AND CHARGES)**

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### **2.1 Settlement Report**

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It should be noted that the settlements for the energies sent out by the generators and energies received by the distributors in each month in 2010 were calculated one month in arrears, after data collection and reconciliations. The settlements were conveyed to the participants through settlement statements. Three types of Settlement Statements were involved in the market system – the settlement statements for the DISCOS, GENCOS and TCN. Also NERC's monthly expectations from the market during the year were conveyed through the instrument of settlement statements.

### **2.1.1 DISCOS**

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This shows the calculation of payments by the DISCOS to the market for energy received. Apart from paying the GENCOS for energy delivered, the DISCOS were expected to pay the TCN for wheeling and System Operations services. Other beneficiaries on the DISCO settlement statements are shown in table 2.1.1. The table also shows that the total settlement charges on the DISCOS during the year was **N183.147bn**. This also includes some non-energy based charges.

From the table, it can be seen that Ikeja which received about **14.13%** of the total energy to the DISCOS contributed about **17.88%** of the total DISCO

settlements to the market, while Yola which received about **1.97%** of the total energy contributed about **0.02%** to the market settlements. It should be noted that whereas Ikeja contributed to the equalization pool, Yola drew from it. This situation contributed towards the observed in-balances in the energy and settlement equations for the two opposite companies.

### **2.1.2 GENCOS**

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The GENCO settlement report shows the total payments to be received by the GENCOS from the market for energy sent out to the market, and also the calculation of payments to be made by the GENCOS during the year. The GENCO settlement report for 2010 is shown in table 2.1.2.

The table shows that the total settlement for the GENCOS for the capacity and energy sent out during the year was **N76.576bn**. The table also shows that the payment outflows from the GENCOS was **N19.872bn**. The net payment to the GENCOS is shown to be **N56.704bn**.

### **2.1.3 TCN**

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The TCN settlement report shows payments to be made to TCN for wheeling and System Operations services and also the calculation of payments by the TCN to the market during the year. The TCN settlement is shown in table

2.1.3. It can be seen from the table that a total of **N33.101bn** was due to TCN out of which it should pay out **N5.296bn** as CHQ, Regulatory, Pension and Ancillary Services charges.

The net income for TCN during the year was **N27.805bn**.

## **2.2 Tariff Equalization Report**

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In order to achieve a Uniform National Tariff, the tariff order of 2008 harmonised the cost of service across the DISCOS through the process of tariff equalization. Consequently, three Distribution Companies, adjudged to be operating below average cost contributed into the equalisation pool, while the rest eight (8) DISCOS, which were operating above average cost, drew from the pool.

Ideally, the equalisation pool should read zero for equalisation equilibrium to be achieved. But during the year, there was a serious equalisation deficit. Details of the equalisation payments and drawls are shown in table 2.2. From the table, it can be seen that whereas payments into the pool was **N7.225bn**, total drawls was **N9.066bn** leaving an equalization deficit of **N1.841bn** during the year.

Equalisation drawls were made upfront, therefore a total equalisation drawls of **N9.066bn** means that some stakeholders had to forefiet part of their dues from the market.

With respect to prices, the ratio of equalisation inflow against outflow was **2:5** while energy-wise it was **4:7**. It follows that the energy balance should have tilted more in favour of the paying companies for a possible equalisation equilibrium during the year.

### **2.3 PHCN/Ajaokuta and NIOMCO Itakpe Energy Generation Reconciliation**

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There was no energy net-off between PHCN and Ajaokuta because Ajaokuta did not generate during the year.

Therefore the energy due to be paid for by Ajaokuta Steel Company and NIOMCO Itakpe during the year, according to table 2.3 was **67,096,800KWh**.

### **2.4 Energy Billed by the DISCOS, and billed to the International Connections and the Independent Large Power Consumers**

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Table 2.4 shows the total monthly energy billed during the year. Fig. 2.4 is the graphical presentation of the monthly energy billed by the DISCOS, and

billed to the International Customers and the Special Customers during the year compared with the total energy received during the period.

Energies billed in the months of February and May were more than the energies received in those months. This is not suppose to be so. The indication is that there were lots of over-estimated billing during those months.

The total energy billed during the year was **19,480,650,177.38Kwh** or an average of **1,623,387,514.78Kwh** per month. This was against the total energy of **21,585,233,050.00Kwh** received during the year. This shows that a total of **2,104,582,872.70Kwh** was lost in the distribution network due to technical and non-technical reasons.

Since bills to the International Connections and the Special Customers were based on the supplies at the trading points, it follows that all the losses were incurred at the DISCO distribution networks. Therefore, with the energy extracted by the DISCOS, the average distribution loss factor during the year was **10.53%**. Again, this figure seems to have been affected by the large scale estimations in the disco bills, and therefore cannot be relied upon.

## **2.5 Revenue Billed by the DISCOS, and billed to the International Connections and the Independent Large Power Consumers**

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Table 2.5 shows the total monthly revenue billed by the DISCOS during the year. The graphical presentation of the monthly revenue billed during the year is shown in fig. 2.5.

The total revenue billed during the year was **N162,587,072,761.40** or a monthly average of **N13,548,922,730.12**.

With the total energy of **19,480,650,177.38Kwh** billed, it follows that the operating average price of electricity to consumers (including VAT and MMF) during the year was **N8.35/Kwh**. The VAT component of the bills was **4.76%** of the total bills. Therefore the Operating Average Price of electricity billed to the consumers including MMF in 2010 was **N7.95/kwh**.

## **3.0 ADMINISTRATION OF MARKET COLLECTION AND PAYMENTS**

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### **3.1 Revenue Collection and Income Distribution**

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Table 3.1 shows the total revenue expected in respect of the total energy sent out by the generators and received by the distributors during the year. The minimum revenue expected in the market consists of the sum of the Market Operator's invoices to the DISCOS and the Special Customers (including the International Connections), and the MYTO-based DISCO incomes. The revenue expected during the year was **N244.980bn** while the revenue required to settle the market during the year was **N246.178bn**. The reason for the difference between the revenue expected and the revenue required to settle the market is that the revenue expected from NIGELEC based on the Connection Agreement tariff was lower than the revenue required to settle the various generators (calculated on the higher MYTO Tariffs) which contributed the power exported to Niger Republic.

Whereas, a total revenue of **N234.173bn** was expected from the DISCOS (including the subsidy expected) for the energy supplied to them, actual revenue collected by the DISCOS was **N166.930bn** (including the subsidy received).

For the energy supplied to the large power consumers, including the International Connections, a total revenue of **N10.807bn** was expected. But



the sum of **N4.322bn** was collected bringing the total collection for the market to **N171.252bn**.

Against the expected revenue of **N244.980bn**, only the sum of **N171.252bn** was collected including the sum of **N45.445bn** received during the year as part of the subsidy due. This created a revenue gap of **N73.727bn** for the market to clear.

Table 3.1 also shows how the **N171.252bn** (that is collection plus subsidy) available to the market during the year was allocated to all the stakeholders. It can be seen that whereas the MYTO-based income for the DISCOS was **N52.3016bn**, actual allocation to the DISCOS was **N62.566bn**. Due to the high operating costs of the DISCOS which MYTO could not capture completely (which made some DISCOS to receive more than their MYTO-based revenues), there was a settlement surplus of **10.638bn** to the DISCOS to enable them pay staff salaries and handle some minor operating expenses. However, this caused an in-balance in the market equilibrium.

Whereas the required settlement for the GENCOS was **N56.696bn**, only the sum of **N15.320bn** was available to them. Out of the available sum of **N15.320bn** to the GENCOS, Afam received a surplus payment of

**N722.84mn.** With the surplus payment of **N722.84mn** to Afam out of the available **N15.320bn**, the GENCOS were left with a settlement deficit of **N42.098bn**.

Also, the required settlement for the IPPs was **N55.064bn** but only **N41.270bn** was paid leaving the IPPs with a settlement deficit of **N13.794bn**.

Again, the required settlement for Other Stakeholders including TCN, gas suppliers etc, was **N82.118bn**. But the sum of **N52.096bn** was available to them. Out of the available sum of **N52.096bn** to Other Stakeholders, CHQ received a surplus payment of **N2.803bn**, while a surplus of **N84.318mn** was paid to MO for the year.

Total surplus payment to other stakeholders was **N4.969bn**. With this out of the available sum of **N52.096bn**, the Other Stakeholders were left with a settlement deficit of **N34.990bn**.

The settlement shortfall is mainly due to the fact that all the expected subsidy for the year was not received, and the fact that collection from the DISCOS was lower than expected. Also the surplus settlements in respect of DISCOS,

some GENCOS and Other Stakeholders contributed to the over-all settlement shortfall.

Total settlement required as per MYTO was **N246.178bn** but actual settlement was **N171.252bn** (which includes surplus payments and payments which were not provided for by MYTO, totalling **N16.329bn**).

Therefore, to settle the market fully, including all the collection inefficiencies, the sum of **N91.255bn** would be required.

In order to arrive at the actual settlement shortfall (see table 3.1), the settlement deficits and those allocations which were not provided for by MYTO but actually dispensed, were captured, and added to the difference between the settlement required as per MYTO and the actual settlement driven by the revenue collected in the market.

This is why the settlement shortfall was higher than the revenue gap by about **N17.527bn**, including the extra **N1.198bn** required to settle the GENCOS for the power supplied to NIGELEC.

### **3.2 DISCO Evaluation Report**

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This report compares the performances of the various DISCOS with respect to the expected revenues against the actual revenue collection, including subsidy earned and received.

It can be seen from table 3.2 which shows the DISCO Evaluations that the best performed DISCO during the year was Eko with **86.63%** performance, while the least performed was Kaduna with just about **56.73%**. All the other DISCOS fell between Eko and Kaduna Electricity Distribution Companies. On the average, the DISCOS collected **71.85%** of the expected revenues while **28.15%** of the expected revenue was not collected.

This report is without Prejudice to the fact that the revenue expected to clear the market includes the MYTO Subsidy provision for the various DISCOS. But it should be noted that the more the revenue collected, the more the associated subsidy. Subsidies were released for the months January – June, 2010 (though released towards the end of the year) while those for July – December were not released. However, all subsidies earned during the year (whether released or not) were considered in the evaluation.

It should be noted that the closer the revenue collection is to the expected revenue, the better the chances of the associated subsidy to be able to close the gap between actual revenue and expected revenue.

Fig. 3.2 is a graphical representation of the DISCO Efficiency Report during the year.

### **3.3 DISCO Wholesale Payment Performance Report**

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This report compares the payments by the DISCOS against the Market Operators invoices for the energy received during the year.

Table 3.3 shows that Benin, Enugu, Jos, Kaduna, Kano, PortHarcourt and Yola Distribution Companies paid less than **50%** of their invoices. On the average, about **50.47%** of the DISCO invoices was paid while **49.53%** was not paid. With this, even if the MYTO Subsidy were fully released, the market could not have been fully settled for **2010**. Therefore, the inability to settle the market fully in **2010** cannot be blamed only on the non-release of MYTO Subsidy, but also on the low collection performance of the DISCOS during the year.

Fig. 3.3 represents the wholesale payment performance of the DISCOS graphically.

### **3.4 DISCO Collection Against Operating Costs**

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This report compares the total DISCO cash collections with what they retained for staff salaries and minor operating expenses during the year. It can be seen

from table 3.4 that Yola Distribution Company retained about **94.61%** of its cash collection for its own operations.

On the average, **45.56%** of total DISCO collections was retained by the DISCOS. Only **54.44%** got to the wholesale market for other obligations, including payments to the GENCOS and IPPs.

Fig. 3.4 represents the situation graphically.

## **4.0 SETTLEMENT ADMINISTRATION OF THE INDEPENDENT LARGE POWER CONSUMERS**

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### **4.1 Payment Status of Ajaokuta Steel Company and NIOMCO Itakpe**

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The net energy due to be paid for by Ajaokuta Steel Company and NIOMCO Itakpe during the year was **67,096,800KWh**. Table 4.1 shows that the total invoices issued Ajaokuta and Itakpe during the period was

**N643,846,140.00**. The sum of **N7,457,968.58** was paid. Cumulative outstanding against Ajaokuta and NIOMCO Itakpe at the end of the year including outstanding brought forward from **2009** was **N1,805,484,149.92**.

#### **4.2 Payment Status of Delta Steel Company**

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The total energy supplied Delta Steel Company during the year was **188,753,950.00KWh**. According to table 4.2, the total invoices issued during the period was **N1,887,205,986.75**. The sum of **N355,000,000.00** was paid. Cumulative outstanding against Delta Steel Company at the end of the year, including outstanding brought forward from 2009 was **N4,673,799,181.75**.

### **5.0 SETTLEMENT ADMINISTRATION OF THE PPAS AND CONNECTION AGREEMENTS**

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#### **5.1 Status of the IPPs and Operation of the PPAs**

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Table 5.1 shows the power and energy supplied to PHCN by Agip, AES, Shell (Afam vi), Ibom Power and NESCO during the year.

Table 5.1.1 shows that Agip nominated an average capacity of **476.70Mw** but delivered an average of **378.78Mw** during the year. The gap between the declared capacity and the average actual capacity generated was attributed to short down of the plants for scheduled inspections. The invoice received from Agip for the capacity nominated and energy delivered during the year was **\$163.087m**. Payment made to Agip during the year was **\$81.543m**. Cumulative outstanding in favor of Agip as at end of 2010, including brought forward from 2009 was **\$315.024m**.

According to table 5.1.2, AES nominated an average capacity of **295.40Mw** but delivered an average of **186.66Mw** during the year. The company issued invoices in the total sum of **\$68.191m** as capacity charge during the year. Payment made to AES during the year was **\$65.509m**. Cumulative outstanding to AES at the end of the year, including brought forward from 2009 was **\$3.927m**.

From table 5.1.3, Shell (Afam VI) nominated an average capacity of **650.00Mw** but delivered an average of **368.70Mw** during the year. The reason for the significant difference between the nominated capacity and the capacity delivered is the transmission bottleneck in the Eastern bloc which



prevents the complete evacuation of Shell generation. The company issued invoices in the total sum of **\$78.581m** as capacity and energy charges but was paid the total sum of **\$39.291m**. Cumulative outstanding in favor of Shell at the end of the year, including brought forward from 2009 was **\$65.647m**

From table 5.1.4, Ibom Power nominated an average capacity of **65.42Mw** but delivered an average of **44.45Mw** during the year. The company issued invoices in the total sum of **N911.950m** as capacity and energy charges but was paid the total sum of **N901.270m**. Cumulative outstanding to Ibom Power at the end of the year including brought forward from 2009 was **N16.841m**

NESCO invoice of **N90.270m** for energy supplied during the year according to table 5.1.5 was paid. There was no outstanding in favor of NESCO at the end of the year.

## **5.2 Operation of the Connection Agreements**

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Table 5.2 shows the power and energy supplied to NIGELEC and CEB during the year. Table 5.2.1 shows that an average capacity of **86.75Mw** and a

total energy of **551,575.51Mwh** were supplied NIGELEC while table 5.2.2 shows that an average capacity of **95.00Mw** and a total energy of **786,713Mwh** were supplied CEB during the year.

Total invoices issued NIGELEC was **\$20.435m** while total payment made was **\$20.733m**. Total outstanding balance in favor of PHCN from NIGELEC during the year, including receivable brought forward from 2009 was **\$2.8684m**.

Total invoice issued CEB for electricity it received during the year was **\$36.474m**. The sum of **\$26.364m** was paid. Total outstanding against CEB at the end of the year including receivable brought forward from 2009 was **\$17.828m**.

## **6.0 UTILIZATION AND PAYMENTS FOR GAS**

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All thermal plants including AES consumed a total of **119,217.10MMScf** of gas supplied by NGC and Shell during the year. Invoices issued during the year by the gas suppliers was **N3.554bn**. The sum of **N9.9567bn** was paid, bringing the cumulative outstanding against PHCN including brought forward from 2009 to be **N3.3861bn**. This includes the sum of **N4.371bn**

being part of outstanding debt written off by the NGC following Mr President's intervention.

Table 6.1 shows the quantity of gas consumed with the corresponding energy generated by the various thermal plants.

Figure 6.1.1 shows the cost of gas consumed for the generation of a unit of electrical energy (that is **N/Kwh**) while figure 6.1.2 shows the quantity of electrical energy generated from a unit of gas consumed. These have close relationships with the efficiency of the generating machines.

From the figures, it can be shown that the Delta machines were the most efficient in terms of **N/Kwh** and **Kwh/Mscf**.

Table 6.2 shows the monthly invoices issued with the corresponding payments made against the various thermal plants.

## **7.0 UPDATE ON THE ACTIVITIES FOR THE INITIATION OF THE TRANSITIONAL MARKET**

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### **7.1 Conditions Precedent to the Initiation of the Transitional Market Stage**

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According to the Market Rules Appendix 2: **Conditions Precedent**: Initiation of the Transitional Market Stage is to a large extent subject to the following conditions precedent:

- i. Passage of the Electric Power Sector Reform Act;
- ii. Establishment and commencement of operations of the commission;
- iii. Development, Implementation and Testing by the System Operator, of the Systems and Procedures required to implement the Grid Code;
- iv. Development, Implementation and Testing by the Market Operator, of the Systems and Procedures to implement the Market Rules for the Transitional Stage;
- v. Approval of the Grid Code and the Market Rules;
- vi. Formalization of the vesting contracts between the companies that will participate in the Transitional Stage Market;
- vii. Publication by the Commission, of the list of licensees entitled to become participants in the Transitional Market, with the relevant details.
- viii. Publication of the initial transmission Usage Charge by the Commission;

- ix. Publication of the initial System Operation and Market Administration Charges by the Commission;
- x. Constitution of the initial Dispute Resolution Panel, and the Initial Stakeholder Advisory Panel;
- xi. Notification by the Market Operator of the initial Market Operator Payments Calendar pursuant to Rule 31.7.7.

The status of each condition precedent is shown in Appendix 1 on page 30 of the report. From the table, it can be seen that reasonable progress has been made towards getting the market ready for the Transitional Stage.

## **7.2 Status of Preparations for the Transitional Stage Market**

The status of the Preparation for Transitional Stage Market is as shown below;

Appendix 1

<b>S/N</b>	<b>CONDITION PRECEDENT</b>	<b>STATUS</b>	<b>REMARKS</b>
1	Passage of the Electric Power Sector Reform Act	Done	
2	Establishment and commencement of operation of the Commission	Done	
3	Development, implementation and testing by the SO, of the systems and procedures required to implement the Grid Code	In progress	
4	Development, implementation and testing by the MO, of the systems and procedures required to implement the Market Rules for the Transitional stage	In progress	
5	Approval of the Grid Code and the Market Rules	Done	
7	Publication by the Commission of the list of Licensees entitled to become Participants, with relevant details	Not Yet	
8	Publication of the initial Transmission Usage Charge by the Commission	Done	
9	Publication of the initial System Operation and Market Operation Charge by the Commission	Incomplete	MO's charges done but SO's is in the process
10	Constitution of the initial Dispute Resolution Panel, and the initial Stakeholder Advisory Panel	Partly Done	ISAP has been constituted but the DRP is yet to
11	Notification by the Market Operator of the initial MO Payments Calendar	In progress	

## **8.0 OUTSTANDING ISSUES**

### **8.1 Metering of the Transmission Station Consumptions**

The project for the metering of the transmission stations' consumptions is aimed at measuring the energy consumptions of offices and station auxiliaries of the transmission stations. Project is on-going and also captured in the 2011 budget.

## **8.2 Inter Company Boundary Metering**

Project to meter actual consumption of the DISCOS on shared feeders. Such meters are to be installed at the geographical boundaries of the interfacing DISCOS. Project is on-going and also captured in the 2011 budget.

## **8.3 Telemetry**

Project to automate the reading of the trading point meters nation-wide. Pilot has been successfully completed. Project is also captured in the 2011 budget.

# **1.0 ADMINISTRATION OF THE TRADING POINT METERING SYSTEM AND MANAGEMENT OF THE METERED DATA**

## **1.1 Inter-Face Metering**

**Table 1.1.1 Status of Trading Point Metering System**

TRANSMISSION REGION	GENERATOR	DISTRIBUTOR	TYPE OF INTERFACE	NO	STATUS	REMARKS
BAUCHI	NESCO		GENDIST	4	OK	GANAWURI METER BURNT
		JOS	TRANS/DIST	31	OK	
		JOS/YOLA	DIST/DIST	2	NOT OK	1 YET TO BE METERED
		JOS/KADUNA	DIST/DIST	1	OK	
		JOS/ABUJA	DIST/DIST	1	OK	
		JOS/KANO	DIST/DIST	2	OK	
		NIGELEC	PHCN/NIGELEC	1	OK	
BENIN		YOLA	TRANS/DIST	32	OK	
	SAPELE		GEN/TRANS	3	OK	
	DELTA		GEN/TRANS	5	OK	
	AGIP		GEN/TRANS	4	OK	
	GEREGU		GEN/TRANS	3	OK	
ENUGU		BENIN	TRANS/DIST	42	OK	
			DIST/DIST	1	OK	
	OJI-RIVER		GEN/TRANS	0	NOT OK	YET TO BE METERED
			GEN/TRANS	0	NOT OK	YET TO BE METERED
		ENUGU	TRANS/DIST	53	OK	
KADUNA		ENUGU/PHC	DIST/DIST	4	NOT OK	3 YET TO BE METERED
		ENUGU/ABUJA	DIST/DIST	1	NOT OK	YET TO BE METERED
		ENUGU/BENIN	DIST/DIST	1	NOT OK	YET TO BE METERED
		KADUNA	TRANS/DIST	45	OK	
		NIGELEC	PHCN/NIGELEC	3	OK	
		KADUNA/KANO	DIST/DIST	1	OK	
		KANO	TRANS/DIST	40	OK	
LAGOS		KANO/KADUNA	DIST/DIST	1	OK	
		KANO/YOLA	DIST/DIST	1	OK	
	EGBIN		GEN/TRANS	6	OK	
	AES		GEN/TRANS	2	OK	
	OLORUNSOGO	IKEJA	TRANS/DIST	80	OK	
		CEB	PHCN/CEB	1	OK	
		IKEJA/IBADAN	DIST/DIST	1	NOT OK	YET TO BE METERED
		IKEJA/EKO	DIST/DIST	2	NOT OK	1 YET TO BE METERED
		EKO	TRANS/DIST	62	OK	
		EKO/IBADAN	DIST/DIST	1	NOT OK	YET TO BE METERED
OSHOGBO		EKO/IKEJA	DIST/DIST	13	NOT OK	YET TO BE METERED
			GEN/TRANS	0		
			GEN/TRANS	0		
	OMOTOSO	IBADAN	TRANS/DIST	79	OK	
		IBADAN/BENIN	DIST/DIST	1	OK	
PORTHARCOURT		IBADAN/IKEJA	DIST/DIST	2	NOT OK	YET TO BE METERED
	AFAM		GEN/TRANS	6	OK	
	AFAM VI		GEN/TRANS	2	OK	
	OMOKU		GEN/TRANS	1	OK	
	RST		GENDIST	0	OK	(EMBEDDED)
	ELEME	PHC/JOS	DIST/DIST	1	OK	
		PORT-HARCOURT	TRANS/DIST	46	OK	
SHIRORO		PHC/ENUGU	DIST/DIST	2	NOT OK	YET TO BE METERED
	SHIRORO		GEN/TRANS	4	OK	
	JEBBA		GEN/TRANS	2	OK	
	KAINJI		GEN/TRANS	3	OK	
		ABUJA	TRANS/DIST	53	OK	
		ABUJA/KADUNA	DIST/DIST	4	NOT OK	YET TO BE METERED
		ABUJA/BENIN	DIST/DIST	3	OK	
TOTAL				659		

**Table 1.1.2 Activity Report on Grid Metering**

REGION	STATION	COMPLAINTS AND OBSERVATIONS	ACTION TAKEN	REMARKS
BAUCHI	JOS	ENERGY METERS ON TORO AND MAKERI 33KV FEEDERS FAULTY	FAULTY ENERGY METERS REPLACED	METERS ARE NOW OK
	GOMBE	MALLAM-SIDI ENERGY METER FAULTY	ENERGY METER REPLACED	METER OK



	MAIDUGURI	ALL THE ENERGY METERS AT THE STATION ARE FAULTY AS A RESULT OF LOW VOLTAGE	FAULTY ENERGY METERS REPLACED	METERS ARE NOW OK
BENIN	UKPILLA	NO READING ON CEMENT FEEDER METER. METERING C.T. FAULTY	FAULTY C.T. REPLACED.	METER OK
	SAPELE	ENERGY METERS ON LINES S3B, S4B AND S4W FAULTY	FAULTY ENERGY METERS REPLACED	METER OK
	AJAOKUTA	NO DIGITAL METERS ON STEEL COMPANY LINES 1 & 2	STATION VISITED & DIGITAL METERS INSTALLED ON LINE 1 AT THE STEEL COMPANY & LINES 1 & 2 AT AJAOKUTA TRANSMISSION STATION	METERS COMMISSIONED OK
ENUGU	AHOADA	T1 INCOMER ENERGY METER FAULTY	METER REPLACED	OK
	EKET	T1 INCOMER V.T. FAULTY. THIS AFFECTS THE ACCURACY OF THE ENERGY METERS IN THE STATION	FAULTY V. Ts. REPLACED	METERS ARE NOW FUNCTIONING PROPERLY
	YANDEV	WRONG C.T. POLARITY ON YANDEV AND WUKARI 33KV DETECTED	C.T. POLARITY REVERSAL CORRECTED	METERS ARE NOW FUNCTIONING PROPERLY
	OWERRI	OGUTA AND ORLU 33KV FEEDER METERS ARE FAULTY	FAULTY ENERGY METERS REPLACED	METERS ARE NOW OK
KADUNA	ZARIA	ENERGY METERS ON FEEDERS 4 & 5 ON THE MOBITRA INDICATE SERIOUS LOAD INBALANCE BETWEEN THE RED & BLUE PHASES.	FAULTY C.Ts. REPLACED	METERS ARE NOW FUNCTIONING PROPERLY
		BLUE PHASE C.T. OF FEEDER 4 FAULTY	FAULTY C.T. REPLACED	METER NOW OK
	GUSAU	ENERGY METER ON MARU 33KV FEEDER FAULTY	FAULTY METER REPLACED	METERS NOW OK
	KUMBOTSO	BAGAUDA AND ANGEL SPINNERS FEEDER METERS NOT FUNCTIONING PROPERLY	FAULTY C.T. WIRING DETECTED AND CORRECTED	METERS NOW OK
	KATSINA	FEEDER 7 (KUGA) COMMISSIONED	ENERGY METER INSTALLED ON THE FEEDER	METER NOW OK
	MANDO-ROAD	FAULTY MOBITRA (T3) REPLACED WITH 60MVA	ENERGY METER INSTALLED ON THE INCOMER OF THE TRANSFORMER	METER OK

Table 1.1.2 contd Activity Report on Grid Metering

LAGOS	OTA	NEW AMJE 33KV FEEDER NOT METERED	ENERGY METER INSTALLED ON THE FEEDER	METER OK
	OSOGBO	POWER LINE FEEDER C.T. RATIO WAS CHANGED FROM 300/5 TO 300/1 AND THEREFORE A NEW METER WAS REQUIRED	A NEW 1A ENERGY METER INSTALLED	METER OK

		C.T. OF STEEL ROLLING MILL FEEDER SUSPECTED FAULTY, AND NEEDS REPLACEMENT	FAULTY C.T. REPLACED	FEEDER METER NOW OK
	IFE	NEW IKIRE FEEDER COMMISSIONED	ENERGY METER INSTALLED ON THE FEEDER	METER OK
	ILORIN	T1B ENERGY METER DAMAGED BY SURGE AND NEEDS REPLACEMENT	A NEW ENERGY METER INSTALLED ON THE CIRCUIT	METER OK
	OMU-RAN	EGBE 33KV FEEDER ENERGY METER BAD. ERROR E3 INDICATION SHOWING	A NEW ENERGY METER INSTALLED ON THE CIRCUIT	METER OK
	IKORODU	IJEDE FEEDER ENERGY METER FAULTY	A NEW ENERGY METER INSTALLED ON THE CIRCUIT	METER OK
PORTHARCOURT	PORTHARCOURT MAINS	T3 INCOMER ENERGY METER FAULTY	FAULTY ENERGY METER REPLACED	METER OK
		ENERGY METERS ON FEEDER 1, ABULOMA, UNIPORT NOT RECORDING ENERGY DELIVERED ACCURATELY.	FAULTY ENERGY METERS REPLACED	METER OK
	PORTHARCOURT TOWN	T1B, T2B ENERGY METERS FAULTY	FAULTY ENERGY METERS REPLACED	METERS OK
		ENERGY METER ON SECRETARIAT 33KV FEEDER FAULTY	FAULTY ENERGY METER REPLACED	METER OK
	UYO	RED PHASE C.T. COIL OF ENERGY METER ON FEEDER 1 FAULTY	FAULTY ENERGY METER REPLACED	METER OK
	EKET	DISPLAY UNIT OF ENERGY METER ON ABAK 33KV FEEDER WAS FAULTY	THE ENERGY METER WAS REPLACED	METER OK
	ITU	WRONG C.T. POLARITY ON T1 INCOMER DETECTED	POLARITY REVERSAL CORRECTED	METER OK
SHIRORO	TEGINA	ENERGY METER ON FEEDER 1 NOT FUNCTIONING PROPERLY. NEW BREAKER AND C.T. INSTALLED	METERING C.T. CORES WIRED TO THE CONTROL PANEL	METER RE-PROGRAMMED TO THE NEW C.T. RATIO
	BIRNIN-KEBBI	ENERGY METERS ON JEGA AND ARGUNGU FEEDERS ARE NOT FUNCTIONING PROPERLY	FAULTY C.T. WIRING DETECTED AND CORRECTED	METERS NOW OK
	APO	AIRPORT FEEDERS K21 AND K23 COMMISSIONED	ENERGY METERS INSTALLED ON THE CIRCUITS	METERS OK
	JEBBA	MOKWA 33KV, 5A C.T.-CARRING BREAKER FAULTY AND REPLACED WITH 1A TYPE	THE 1A ENERGY METERS REPLACED WITH 5A TYPE	METER OK
		ENERGY METERS ON OSOGBO 1, OSOGBO 2 AND KAINJI 2, 330KV OUTGOING FEEDERS ARE FAULTY	FAULTY ENERGY METERS REPLACED	METERS ARE NOW OK
	SULEJA	ENERGY METERS NOT INSTALLED ON 11KV FEEDERS AT THE STATION	4 (NO) 11KV FEEDER METERS INSTALLED	METERS OK

## 1.2 Generation Capacity Availability

Table 1.2 Generation Capacity (Mw) Availability

OWNERSHIP	TECHNOLOGY	GENERATOR	JAN	FEB	MAR	APR	MAY	JUN	JUL
FEDERAL GOVERNMENT OF NIGERIA	THERMAL	AFAM I-V	82.06	21.46	-	-	-	0.00	-
		DELTA	218.35	176.46	291.97	379.20	341.16	434.53	349.19

INDEPENDENT POWER PRODUCERS	HYDRO	EGBIN	837.42	793.57	809.03	779.33	719.58	790.10	762.52
		GEREGU	316.06	33.75	182.52	262.50	263.35	278.90	212.03
		SAPELE	168.39	176.79	137.48	153.03	93.65	98.00	93.23
		OMOTOSO	229.84	225.00	196.89	111.42	86.35	71.63	54.90
		OLORUNSOGO	300.00	300.00	275.73	126.50	27.32	75.27	95.35
		JEBBA	430.48	382.50	391.94	435.00	400.00	363.30	377.42
		KAINJI	455.74	449.64	407.87	358.30	229.23	348.70	209.71
	THERMAL	SHIRORO	450.00	439.29	372.58	320.00	445.16	435.00	450.00
		AES	211.03	199.54	167.85	206.63	215.87	212.77	245.32
		AGIP	466.77	464.75	469.84	452.83	344.48	331.97	459.71
		AFAM VI (SHELL)	453.19	368.68	444.06	429.40	401.61	387.33	595.06
		IBOM POWER	20.29	19.05	33.03	34.53	31.81	27.90	109.03
		AJAOKUTA	-	-	-	-	-	-	-
		ELEME	-	-	-	-	-	-	-
		OMOKU	90.32	75.00	84.19	68.33	65.32	62.33	79.84
		T/AMADI	-	-	-	-	-	42.33	48.39
	HYDRO	NESCO	10.00	10.00	10.00	10.00	10.00	10.00	10.00
TOTAL			4,739.94	4,135.48	4,274.98	4,127.00	3,674.89	3,970.06	4,151.70

OWNERSHIP	TECHNOLOGY	GENERATOR	AUG	SEPT	OCT	NOV	DEC	AVE	% Contri Bution
FEDERAL GOVERNMENT OF NIGERIA	THERMAL	AFAM	-	-	7.10	23.37	43.39	14.78	0.37
		DELTA	421.77	334.87	293.90	224.57	134.84	300.07	7.48
		EGBIN	759.94	818.33	844.52	770.00	758.71	786.92	19.61
		GEREGU	204.77	207.00	157.42	202.97	192.19	209.46	5.22
		SAPELE	108.32	49.77	11.29	24.00	-	92.83	2.31
		OMOTOSO	70.26	58.00	71.68	66.60	59.74	108.53	2.70
		OLORUNSOGO	81.65	28.40	47.74	53.03	19.10	119.17	2.97
	HYDRO	JEBBA	378.32	377.05	445.55	418.63	332.77	394.41	9.83
		KAINJI	239.06	273.40	272.84	271.67	340.16	321.36	8.01
		SHIRORO	420.97	445.03	280.65	270.00	270.97	383.30	9.55
INDEPENDENT POWER PRODUCERS	THERMAL	AES	184.77	213.20	199.03	152.77	191.06	199.99	4.98
		AGIP	429.23	458.37	425.71	408.33	410.35	426.86	10.64
		AFAM VI (SHELL)	448.61	438.20	438.90	493.23	530.00	452.36	11.27
		IBOM POWER	133.81	156.30	95.19	-130.83	130.00	76.81	1.91
		AJAOKUTA	-	-	-	-	-	-	-
		ELEME	-	-	-	-	-	-	-
		OMOKU	70.97	69.17	66.94	85.00	79.84	74.77	1.86
		T/AMADI	92.56	66.23	86.29	85.00	75.00	41.32	1.03
	HYDRO	NESCO	10.00	10.00	10.00	10.00	10.00	10.00	0.25
TOTAL			4,055.01	4,003.32	3,754.75	3,690.00	3,578.12	4,012.94	100.00

HYDRO : THERMAL = 28 : 72

FGN : IPP = 71 : 29

**Fig. 1.2.1**

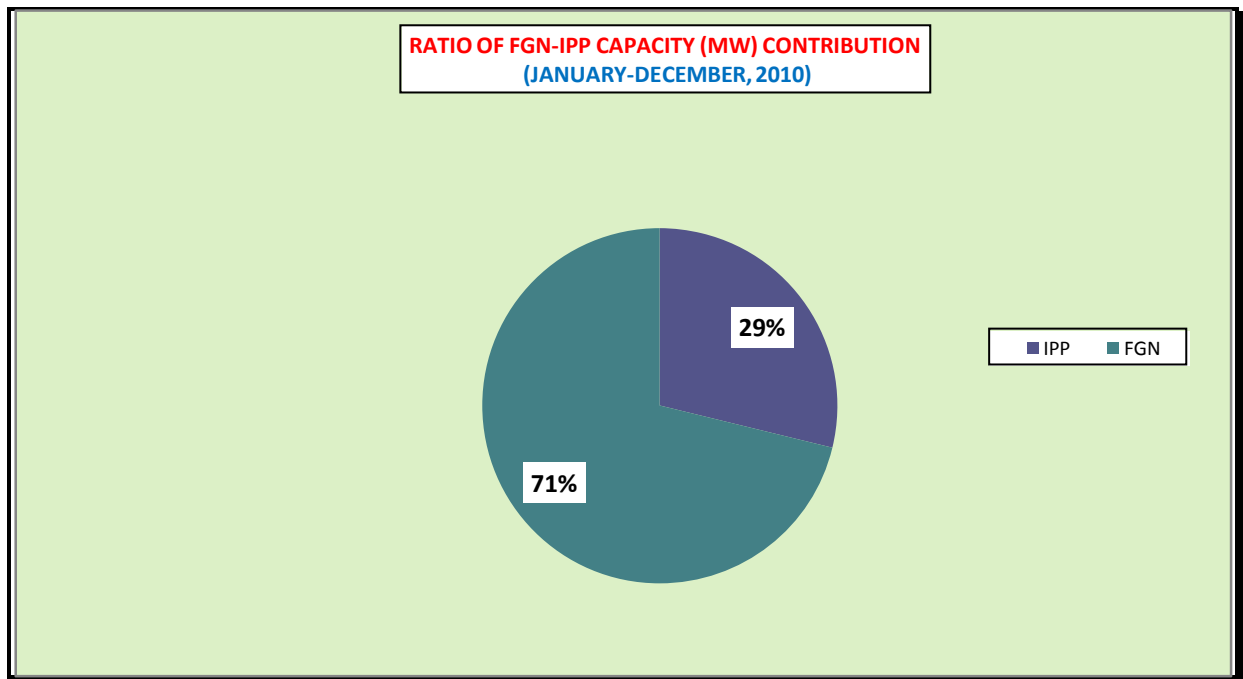
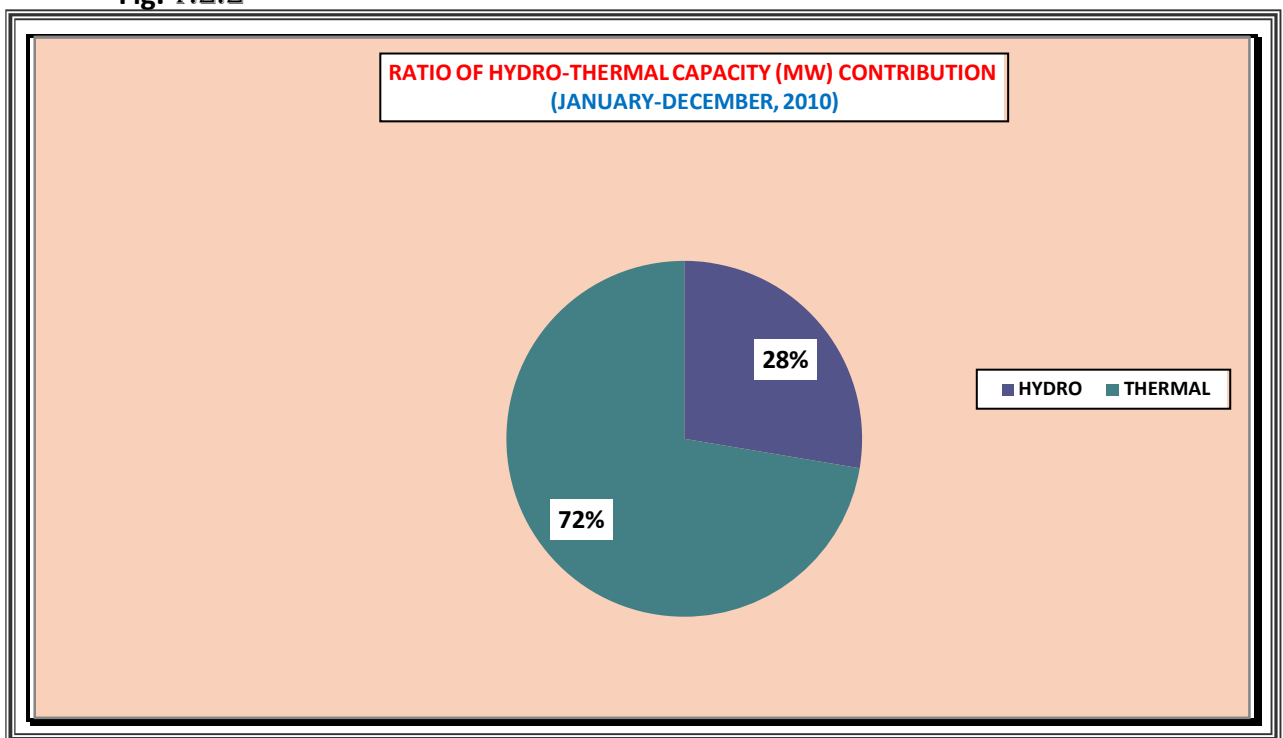


Fig. 1.2.2



### 1.3 Energy Generated

Table 1.3 Energy (Mwh) Generated by the Generators

OWNERSHIP	TECHNOLOGY	GENERATOR	JAN	FEB	MAR	APR	MAY	JUN	JUL
FEDERAL GOVERNMENT OF NIGERIA	THERMAL	AFAM 1-V	47,219.60	9,552.00	-	-	-	-	-
		DELTA	109,959.20	101,106.70	170,982.30	209,237.10	180,293.90	230,189.10	204,944.50
		EGBIN	361,854.50	225,177.01	465,111.00	463,922.60	460,629.29	472,782.99	457,616.08
		GEREGU	43,391.26	8,664.30	65,787.70	91,791.30	109,958.80	97,503.60	49,781.20
		SAPELE	37,478.00	8,422.00	77,753.00	95,936.00	57,379.00	60,280.80	64,408.40
		OMOTOSO	36,186.00	9,317.00	52,926.00	62,517.00	42,424.00	42,119.50	30,059.00
		OLORUNSOGO	-	1,275.90	40,097.89	38,385.20	13,658.00	36,865.00	39,917.79
	HYDRO	JEBBA	242,254.00	216,484.00	195,757.00	197,670.00	258,328.00	178,201.00	141,928.00
		KAINJI	294,193.00	261,319.00	256,710.00	204,302.00	123,655.00	180,218.00	114,599.00
		SHIRORO	212,457.00	205,529.00	195,863.00	160,178.00	61,683.00	213,894.00	258,360.00
INDEPENDENT POWER PRODUCERS	THERMAL	AES	135,131.91	107,576.10	99,696.10	132,802.51	137,480.09	136,326.18	156,851.05
		AGIP	301,689.00	270,479.00	313,934.00	287,847.00	209,066.00	226,267.00	296,814.00
		AFAM VI (SHELL)	319,778.16	168,706.00	292,806.12	243,847.75	255,331.90	233,398.40	316,225.08
		IBOM POWER	245.00	8,796.96	17,168.47	15,199.91	14,626.41	16,723.44	30,779.54
		AJAOKUTA	-	-	-	-	-	-	-
		ELEME	-	-	-	-	-	-	-
		OMOKU	25,939.10	637.20	23,301.26	18,223.40	16,402.80	15,934.00	20,151.30
		T/AMADI	3,400.00	2,634.00	-	833.00	3,620.60	2,527.00	8,055.00
		NESCO	1,852.93	1,379.23	1,411.05	1,720.96	1,590.91	940.15	1,143.94
		TOTAL			2,173,028.66	1,607,055.40	2,269,304.89	2,224,413.73	1,946,127.70

OWNERSHIP	TECHNOLOGY	GENERATOR	AUG	SEPT	OCT	NOV	DEC	TOTAL	AVE	%
FEDERAL GOVERNMENT OF NIGERIA	THERMAL	AFAM	-	-	1,611.40	14,137.00	23,636.80	96,156.80	8,013.07	0.38
		DELTA	214,423.00	168,099.30	163,418.10	119,056.00	86,159.90	1,957,869.10	163,155.76	7.80
		EGBIN	496,679.46	494,315.97	551,171.15	490,285.05	445,930.86	5,385,475.96	448,789.66	21.46
		GEREGU	49,811.30	46,328.30	65,271.00	73,642.80	74,833.60	776,765.16	64,730.43	3.10
		SAPELE	65,330.64	26,812.80	9,154.25	17,112.56	-	520,067.45	43,338.95	2.07
		OMOTOSO	39,064.00	25,859.00	19,747.00	15,482.00	14,001.00	389,701.50	32,475.13	1.55
		OLORUNSOGO	41,342.28	12,310.09	22,796.22	15,333.00	7,772.09	269,753.46	22,479.46	1.08
	HYDRO	JEBBA	211,771.00	222,954.00	297,417.00	298,525.00	232,452.00	2,693,741.00	224,478.42	10.74
		KAINJI	118,285.00	154,760.00	176,972.00	179,127.00	236,851.00	2,300,991.00	191,749.25	9.17
		SHIRORO	265,433.00	271,054.00	196,372.00	186,732.00	193,561.00	2,421,116.00	201,759.67	9.65
INDEPENDENT POWER PRODUCERS	THERMAL	AES	125,258.50	135,678.60	134,301.13	106,079.90	131,468.65	1,538,650.72	128,220.89	6.13
		AGIP	305,035.00	294,268.00	269,595.00	219,188.00	238,220.00	3,232,402.00	269,366.83	12.88
		AFAM VI (SHELL)	236,134.95	233,024.65	184,894.60	197,508.01	236,090.70	2,917,746.32	243,145.53	11.63
		IBOM POWER	39,558.00	52,643.98	26,783.91	40,376.04	20,550.56	283,452.22	23,621.02	1.13
		AJAOKUTA	-	-	-	-	-	-	-	0.00
		ELEME	-	-	-	-	-	-	-	0.00
		OMOKU	20,425.30	18,921.20	16,903.70	16,550.10	17,466.80	210,856.16	17,571.35	0.84
		T/AMADI	10,386.00	9,326.50	13,878.90	12,428.70	11,524.80	78,614.50	7,146.77	0.31
	NESCO	NESCO	1,473.10	1,545.87	1,650.99	1,131.85	905.73	16,746.71	1,395.56	0.07
TOTAL			2,240,410.53	2,167,902.26	2,151,938.35	2,002,695.01	1,971,425.49	25,090,106.06	2,090,842.17	100.00

HYDRO : THERMAL = 30 : 70

FGN : IPP = 68 : 32

Fig. 1.3.1

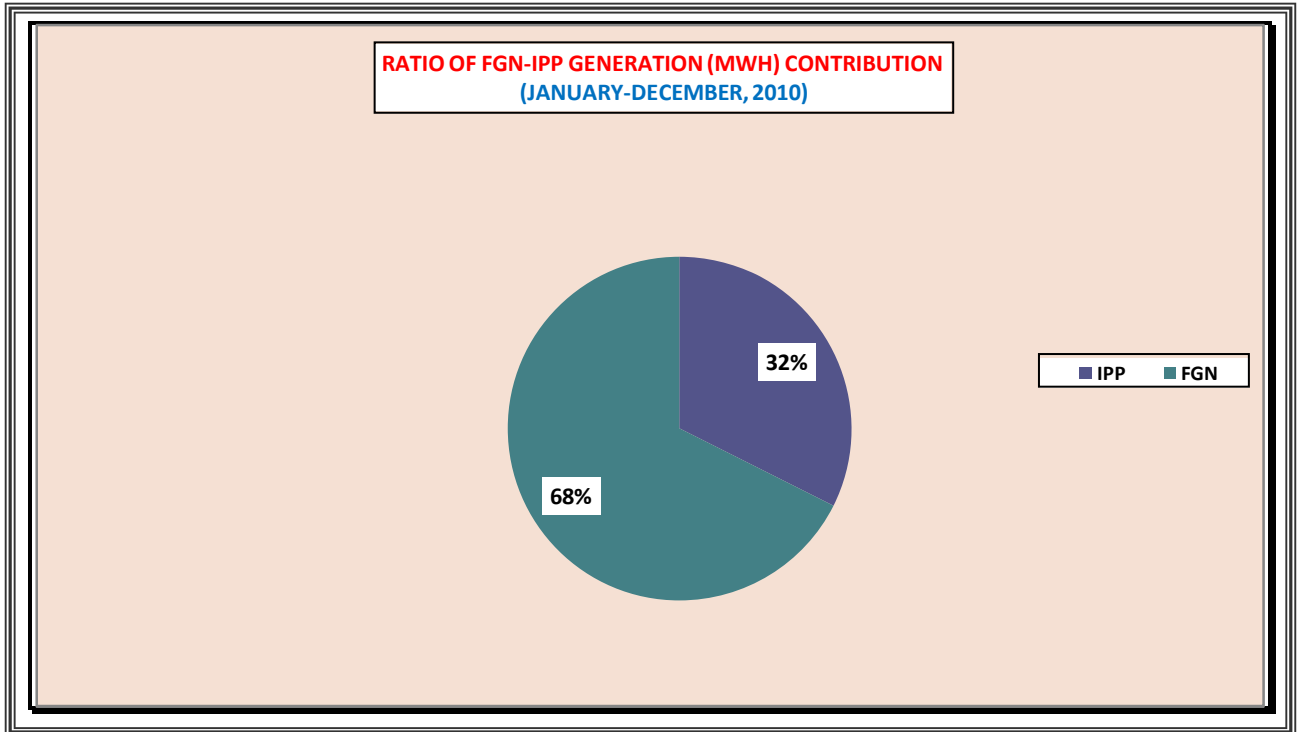
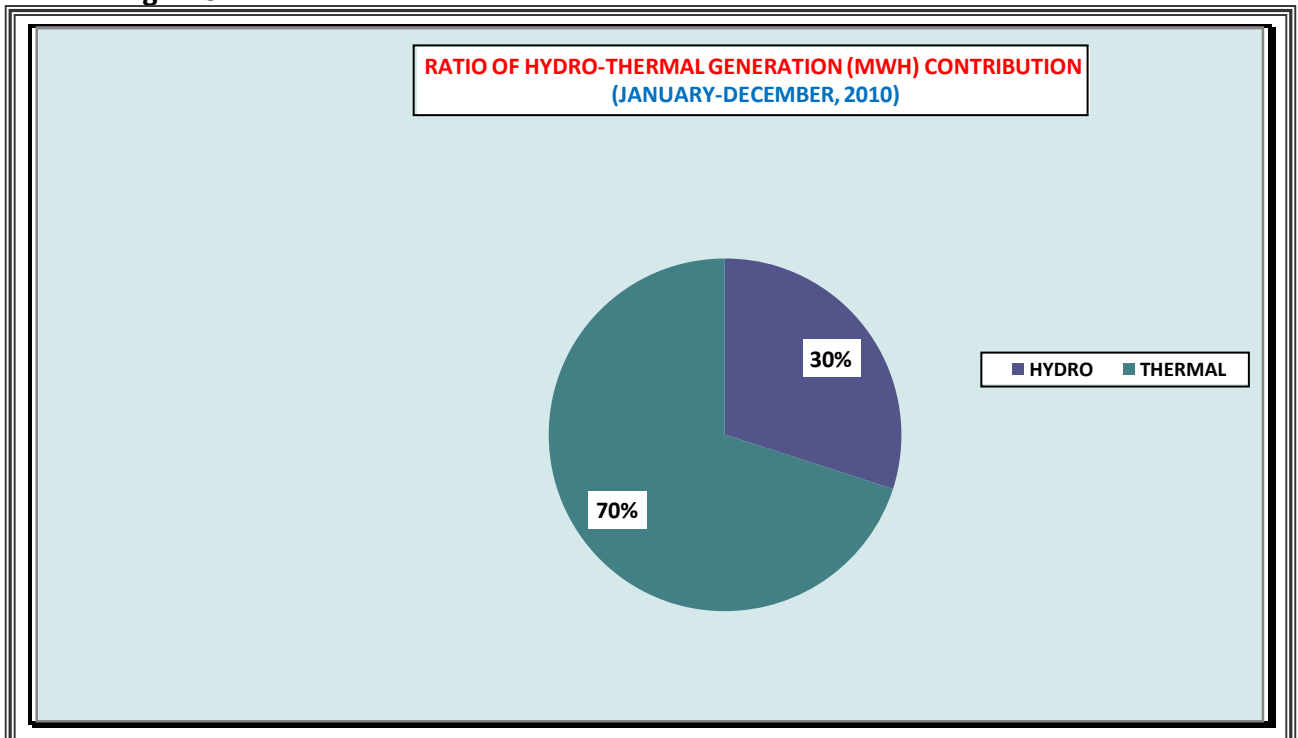


Fig. 1.3.2



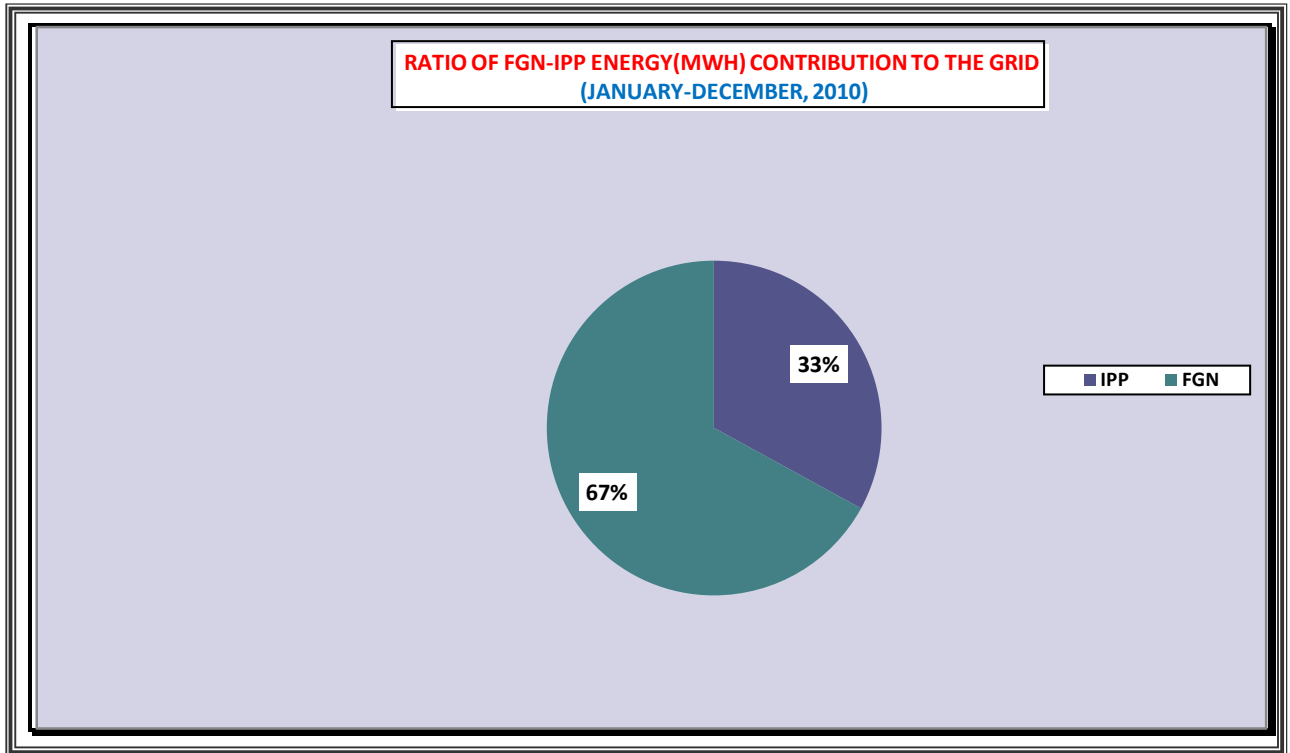
## 1.4 Energy Injected into the Grid

Table 1.4 Energy (Mwh) Injected into the Wholesale Electricity Market (WEM)

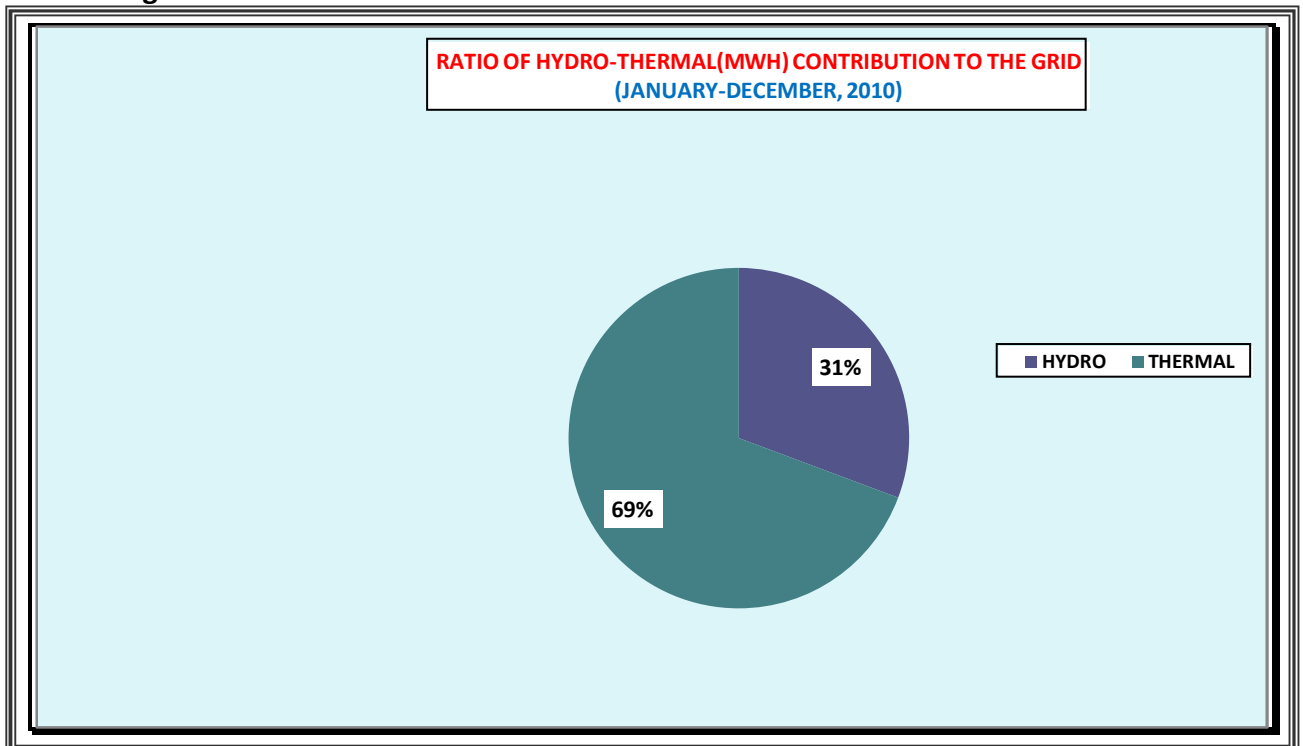
OWNERSHIP	TECHNOLOGY	GENERATOR	JAN	FEB	MAR	APR	MAY	JUN	JUL
FEDERAL GOVERNMENT OF NIGERIA	THERMAL	AFAM	45,461.10	9,476.80	-	-	-	-	-
		DELTA	105,883.20	96,633.60	165,662.50	200,194.50	177,308.00	223,599.50	198,298.50
		EGBIN	325,636.00	204,964.00	404,531.00	411,972.00	436,206.49	448,081.39	433,660.38
		GEREGU	42,968.00	8,569.00	65,049.00	90,757.00	108,814.00	96,462.00	49,272.00
		SAPELE	37,842.00	6,497.00	71,341.00	85,283.60	51,937.00	54,917.90	59,041.40
		OMOTOSO	35,715.70	8,275.00	52,430.82	59,084.00	40,203.00	38,697.00	28,289.00
		OLORUNSOGO	-	1,145.00	38,487.00	38,074.00	12,265.00	33,865.00	37,416.00
		JEBBA	235,830.00	211,050.00	190,470.00	192,210.00	251,410.00	173,230.00	137,910.00
	HYDRO	KAINJI	293,697.60	260,951.90	256,197.30	203,940.40	123,155.60	179,881.10	114,292.80
INDEPENDENT POWER PRODUCERS	THERMAL	SHIRORO	211,141.10	204,263.50	194,483.70	159,321.10	60,792.80	212,784.90	257,023.00
		AES	131,219.00	103,706.00	96,615.00	129,062.00	133,719.00	131,707.00	152,733.00
		AGIP	296,438.20	265,453.30	308,459.90	282,607.20	203,523.40	221,436.80	291,286.90
		AFAM VI (SHELL)	319,568.79	173,078.68	287,064.82	249,605.67	253,854.70	232,961.88	308,527.75
		IBOM POWER	245.00	8,796.96	17,168.47	15,199.91	14,189.60	17,032.40	29,571.00
		AJAKUTA	-	-	-	-	-	-	-
		ELEME	-	-	-	-	-	-	-
		OMOKU	-	-	-	-	-	-	-
		T/AMADI	-	-	-	-	-	-	-
TOTAL	HYDRO	NESCO	-	-	-	-	-	-	-
TOTAL			2,081,645.69	1,562,860.74	2,147,960.51	2,117,311.38	1,867,378.59	2,064,656.87	2,097,321.73

OWNERSHIP	TECHNOLOGY	GENERATOR	AUG	SEPT	OCT	NOV	DEC	TOTAL	AVE	%
FEDERAL GOVERNMENT OF NIGERIA	THERMAL	AFAM	-	-	1,392.00	14,060.41	24,805.50	95,195.81	8,654.16	0.40
		DELTA	193,632.71	162,967.77	160,405.00	117,437.70	81,240.00	1,883,262.98	156,938.58	7.85
		EGBIN	471,157.66	468,800.07	523,474.55	421,605.46	421,605.46	4,971,694.46	414,307.87	20.71
		GEREGU	49,280.00	45,701.00	65,271.00	72,910.00	74,163.00	769,216.00	64,101.33	3.20
		SAPELE	56,883.00	23,945.00	3,419.00	12,000.00	-	463,106.90	38,592.24	1.93
		OMOTOSO	38,541.00	24,460.00	19,238.70	15,014.00	13,071.00	373,019.22	31,084.94	1.55
		OLORUNSOGO	41,088.00	12,207.00	23,002.00	13,992.00	7,772.00	259,313.00	23,573.91	1.08
		JEBBA	206,090.00	216,890.00	289,550.00	290,530.00	226,180.00	2,621,350.00	218,445.83	10.92
	HYDRO	KAINJI	117,959.30	154,396.40	176,514.30	178,703.60	236,340.00	2,296,030.30	191,335.86	9.57
INDEPENDENT POWER PRODUCERS	THERMAL	SHIRORO	264,145.20	269,692.90	195,044.30	185,465.80	192,125.40	2,406,283.70	200,523.64	10.03
		AES	122,139.00	131,874.50	130,236.00	127,871.00	127,971.50	1,518,853.00	126,571.08	6.33
		AGIP	299,403.00	288,770.30	263,628.54	213,855.80	231,873.28	3,166,736.62	263,894.72	13.19
		AFAM VI (SHELL)	246,115.28	233,024.65	192,007.83	189,762.12	226,066.17	2,911,638.34	242,636.53	12.13
		IBOM POWER	39,558.00	45,140.00	26,743.00	31,548.00	20,421.00	265,033.09	22,134.45	1.11
		AJAKUTA	-	-	-	-	-	-	-	-
		ELEME	-	-	-	-	-	-	-	-
		OMOKU	-	-	-	-	-	-	-	-
		T/AMADI	-	-	-	-	-	-	-	-
TOTAL	HYDRO	NESCO	-	-	-	-	-	-	-	-
TOTAL			2,145,992.15	2,077,869.59	2,069,926.22	1,884,755.89	1,883,634.31	24,001,313.67	2,002,795.15	100.00
HYDRO : THERMAL =			31 : 69				FGN : IPP = 67 : 33			

**Fig. 1.4.1**



**Fig. 1.4.2**





## 1.5 Energy Consumed by the Generators

Table 1.5 Energy (Mwh) Consumed by the Generators

OWNERSHIP	TECHNOLOGY	GENERATOR	ENERGY GENERATED (MWH)	ENERGY INJECTED (MWH)	ENERGY CONSUMED BY THE GENERATORS	% OF CONSUMPTION
FEDERAL GOVERNMENT OF NIGERIA	THERMAL	AFAM	96,156.80	95,195.81	960.99	1.00
		DELTA	1,957,869.10	1,883,262.98	74,606.12	3.81
		EGBIN	5,385,475.96	4,971,694.46	413,781.50	7.68
		GEREGU	776,765.16	769,216.00	7,549.16	0.97
		SAPELE	520,067.45	463,106.90	56,960.55	10.95
		OMOTOSO	389,701.50	373,019.22	16,682.28	4.28
		OLORUNSOGO	269,753.46	259,313.00	10,440.46	3.87
	HYDRO	JEBBA	2,693,741.00	2,621,350.00	72,391.00	2.69
		KAINJI	2,300,991.00	2,296,030.30	4,960.70	0.22
		SHIRORO	2,421,116.00	2,406,283.70	14,832.30	0.61
INDEPENDENT POWER PRODUCERS	THERMAL	AES	1,538,650.72	1,518,853.00	19,797.72	1.29
		AGIP	3,232,402.00	3,166,736.62	65,665.38	2.03
		AFAM VI (SHELL)	2,917,746.32	2,911,638.34	6,107.98	0.21
		IBOM POWER	283,452.22	265,613.34	17,838.88	6.29
		AJAOKUTA	-	-	-	-
		ELEME	-	-	-	-
		OMOKU	-	-	-	-
		T/AMADI	-	-	-	-
		NESCO	-	-	-	-
	HYDRO	NESCO	-	-	-	-
TOTAL			24,783,888.69	24,001,313.67	782,575.02	3.13

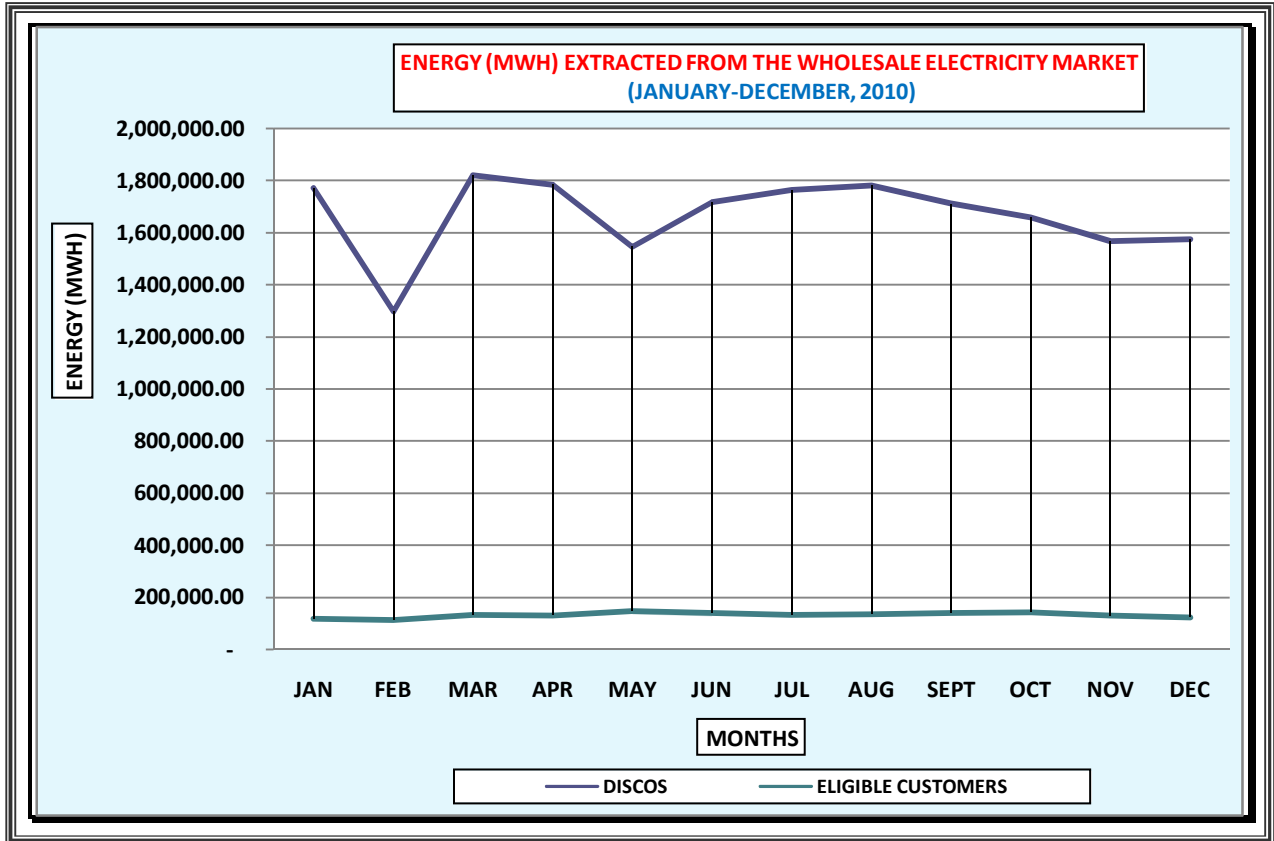
## 1.6 Energy Extracted from the Grid

Table 1.6 Energy (Mwh) Extracted from the Wholesale Electricity Market (WEM)

TYPE	DISCOS	JAN	FEB	MAR	APR	MAY	JUN	JUL
DISCOS	ABUJA	231,194.00	171,140.83	234,239.11	210,917.03	195,894.72	204,866.53	210,331.09
	BENIN	218,219.12	177,117.33	230,741.94	206,182.14	213,087.20	219,783.62	220,312.64
	EKO	170,712.24	120,850.01	205,196.48	200,518.98	154,910.76	184,272.11	192,668.70
	ENUGU	209,871.12	151,418.39	208,195.81	185,630.04	168,588.68	176,796.49	195,882.39
	IBADAN	210,192.52	145,226.65	185,480.13	225,244.84	174,665.46	221,986.34	225,502.99
	IKEJA	251,327.26	194,167.71	273,825.14	294,217.74	240,964.72	264,067.45	278,112.75
	JOS	99,032.42	62,254.74	99,252.76	95,185.68	77,565.55	93,482.74	84,911.28
	KADUNA	132,426.57	104,255.68	147,060.07	134,821.34	114,138.76	122,884.35	126,172.10
	KANO	90,042.03	57,048.99	87,546.51	88,541.84	65,597.95	83,308.96	82,242.84
	P/H	120,686.26	89,799.07	110,938.90	102,718.76	105,808.69	109,303.76	113,036.06
	YOLA	37,744.49	23,248.20	37,835.74	40,274.56	33,786.17	35,807.39	33,927.91
	SUB TOTAL	1,771,448.03	1,296,527.60	1,820,312.59	1,784,252.95	1,545,008.66	1,716,559.74	1,763,100.75
SPECIAL CUSTOMERS	NIGELEC	40,135.70	40,590.70	50,031.00	48,477.00	52,112.50	46,440.31	47,488.80
	CEB	62,477.00	54,596.00	60,869.00	62,030.00	73,738.00	71,613.00	62,380.00
	SUB TOTAL	102,612.70	95,186.70	110,900.00	110,507.00	125,850.50	118,053.31	109,868.80
	AJAOKUTA	5,473.00	5,316.00	6,518.00	5,401.00	5,890.00	5,210.00	5,302.00
	DELTA	11,020.80	13,752.00	15,840.00	15,475.20	15,840.00	16,399.43	18,161.49
	ITAKPE	51.60	97.20	118.80	85.20	64.80	117.60	121.20
	SUB TOTAL	16,545.40	19,165.20	22,476.80	20,961.40	21,794.80	21,727.03	23,584.69
TOTAL		1,890,606.13	1,410,879.50	1,953,689.39	1,915,721.35	1,692,653.96	1,856,340.08	1,896,554.24

TYPE	DISCOS	AUG	SEPT	OCT	NOV	DEC	TOTAL	AVE	%
DISCOS	ABUJA	192,097.07	197,322.54	196,354.53	200,393.00	186,537.07	2,431,287.52	202,607.29	11.26
	BENIN	222,280.82	215,076.03	224,460.90	211,286.30	244,255.70	2,602,803.74	216,900.31	12.06
	EKO	172,859.11	167,688.74	141,480.29	141,100.96	127,615.06	1,979,873.44	164,989.45	9.17
	ENUGU	193,942.26	185,999.08	191,118.30	189,256.10	202,286.65	2,258,985.31	188,248.78	10.47
	IBADAN	226,638.85	208,528.40	200,242.16	184,287.63	181,374.92	2,389,370.89	199,114.24	11.07
	IKEJA	293,377.07	261,648.05	256,049.07	231,087.66	211,219.48	3,050,064.10	254,172.01	14.13
	JOS	95,561.90	85,788.78	93,831.50	81,808.48	73,700.84	1,042,376.67	86,864.72	4.83
	KADUNA	140,702.70	141,195.72	126,873.55	122,147.75	120,511.78	1,533,190.37	127,765.86	7.10
	KANO	93,051.51	94,365.53	83,523.71	73,601.39	79,073.73	977,944.99	81,495.42	4.53
	P/H	110,631.16	114,609.30	106,500.21	103,680.70	112,072.77	1,299,785.64	108,315.47	6.02
	YOLA	40,096.66	38,910.33	38,156.85	29,447.88	36,174.94	425,411.12	35,450.93	1.97
	SUB TOTAL	1,781,239.11	1,711,132.50	1,658,591.07	1,568,097.85	1,574,822.94	19,991,093.79	1,665,924.48	92.61
SPECIAL CUSTOMERS	NIGELEC	46,146.60	47,877.70	48,726.00	44,568.00	38,981.20	551,575.51	45,964.63	2.56
	CEB	65,267.00	68,443.00	71,053.00	64,935.00	69,312.00	786,713.00	65,559.42	3.64
	SUB TOTAL	111,413.60	116,320.70	119,779.00	109,503.00	108,293.20	1,338,288.51	111,524.04	6.20
	AJAOKUTA	5,567.00	4,823.00	6,120.00	4,776.00	5,346.00	65,742.00	5,478.50	0.30
	DELTA	18,421.09	18,421.09	17,221.09	17,221.09	10,980.67	188,753.95	15,729.50	0.87
	ITAKPE	122.40	110.40	140.40	162.00	163.20	1,354.80	112.90	0.01
	SUB TOTAL	24,110.49	23,354.49	23,481.49	22,159.09	16,489.87	255,850.75	21,320.90	1.19
TOTAL		1,916,763.20	1,850,807.69	1,801,851.56	1,699,759.94	1,699,606.01	21,585,233.05	1,798,769.42	100.00

Fig. 1.6



## 1.7 Comparison of Energy Transmitted and Energy Received

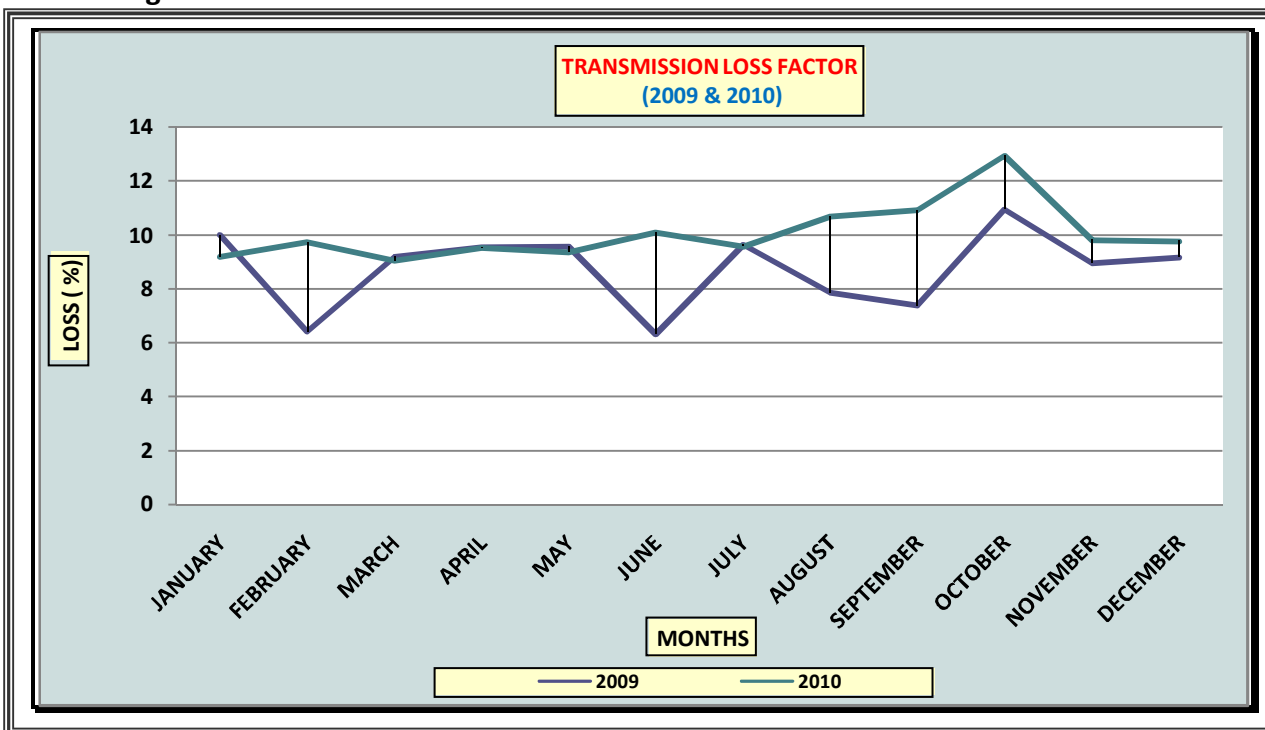
Table 1.7 Comparison of Energy Transmitted and Energy Received by the Distributors

	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE
ENERGY INJECTED (MWH)	2,081,645.69	1,562,860.74	2,147,960.51	2,117,311.38	1,867,378.59	2,064,656.87
ENERGY EXTRACTED (MWH)	1,890,606.13	1,410,879.50	1,953,689.39	1,915,721.35	1,692,653.96	1,856,340.08
LOSS (MWH)	191,039.56	151,981.24	194,271.12	201,590.03	174,724.63	208,316.79
LOSS (%)	9.18	9.72	9.04	9.52	9.36	10.09

	JUL	AUG	SEPT	OCT	NOV	DEC	TOTAL
ENERGY INJECTED (MWH)	2,097,321.73	2,145,992.15	2,077,869.59	2,069,926.22	1,884,755.89	1,883,634.31	24,001,313.67
ENERGY EXTRACTED (MWH)	1,896,554.24	1,916,763.20	1,850,807.69	1,801,851.56	1,699,759.94	1,699,606.01	21,585,233.05
LOSS (MWH)	200,767.49	229,228.95	227,061.90	268,074.66	184,995.95	184,028.30	2,416,080.62
LOSS (%)	9.57	10.68	10.93	12.95	9.82	9.77	10.07

Fig. 1.7



## 2.0 ADMINISTRATION OF MARKET SETTLEMENTS (BILLING AND CHARGES)

### 2.1.1 Disco Settlement Report

Table 2.1.1

DISCOS	GENERATION CHARGES (=N=M)			OTHER CHARGES (=N=M)					
	CAPACITY	ENERGY	TOTAL GENERATION CHARGES (A)	NERC					
	AMOUNT	AMOUNT		TCN	MO	REGULATORY CHARGE	ANNUAL LICENCE FEE	CHQs	CAP. BUILDING
ABUJA	11,160.88	3,747.38	14,908.25	3,731.71	327.90	101.16	137.51	292.91	84.59
BENIN	11,954.28	4,038.81	15,993.08	3,996.39	351.78	107.86	145.51	307.18	89.34
EKO	9,017.92	3,046.08	12,063.99	3,040.79	293.51	82.56	112.53	240.43	68.77
ENUGU	10,370.79	3,504.97	13,875.76	3,468.43	284.12	93.63	126.35	266.83	75.50
IBADAN	10,909.90	3,706.94	14,616.84	3,668.65	353.64	99.03	133.61	282.12	79.36
IKEJA	13,914.50	4,716.52	18,631.03	4,680.05	422.09	126.56	171.31	363.09	104.38
JOS	4,783.96	1,617.63	6,401.59	1,606.73	149.20	43.49	58.95	125.15	35.30
KADUNA	7,029.93	2,375.50	9,405.42	2,353.88	197.22	63.60	85.96	181.88	51.40
KANO	4,470.57	1,518.93	5,989.49	1,501.62	133.28	40.51	54.60	115.12	31.63
P/H	5,970.65	2,013.67	7,984.32	1,995.56	174.98	53.91	72.84	154.07	44.71
YOLA	1,941.87	659.28	2,601.15	653.14	57.32	17.64	23.83	50.38	14.51
<b>TOTAL</b>	<b>91,525.23</b>	<b>30,945.70</b>	<b>122,470.93</b>	<b>30,696.95</b>	<b>2,745.03</b>	<b>829.95</b>	<b>1,123.01</b>	<b>2,379.14</b>	<b>679.49</b>

DISCOS	OTHER CHARGES CONTD (=N=M)								GRAND TOTAL (GENERATION CHARGES PLUS OTHER CHARGES) (=N=M) A+B
	PEN. CHARGES	EQ. CHARGES	VAT	LOAN REPAYMENT	MMF	ODF	ADJUSTMENT	TOTAL OTHER CHARGES (B)	
ABUJA	373.60	206.33	683.74	120.00	1,005.10	247.36	-	7,311.91	22,220.16
BENIN	400.39	(481.16)	585.48	146.32	860.65	544.83	(24.42)	7,054.57	23,047.65
EKO	302.57	2,839.48	798.43	245.08	1,173.69	341.43	-	9,539.26	21,603.26
ENUGU	346.96	(1,573.76)	554.49	130.56	815.10	305.85	-	4,894.04	18,769.80
IBADAN	365.56	(680.65)	755.17	121.14	1,110.11	498.28	(34.03)	6,786.01	21,402.85
IKEJA	466.60	4,179.01	1,089.22	240.00	1,601.15	674.25	-	14,117.72	32,748.75
JOS	159.94	(1,500.71)	242.50	120.00	356.47	474.46	-	1,871.46	8,273.05
KADUNA	235.15	(891.01)	326.12	117.60	479.40	605.13	-	3,806.33	13,211.75
KANO	149.38	(1,085.19)	281.98	94.51	414.50	603.05	-	2,334.99	8,324.48
P/H	199.88	(2,081.72)	302.10	120.00	444.09	636.26	-	2,116.69	10,101.01
YOLA	64.98	(671.27)	94.50	59.70	138.92	339.47	-	843.14	3,444.29
<b>TOTAL</b>	<b>3,065.01</b>	<b>(1,740.64)</b>	<b>5,713.72</b>	<b>1,514.92</b>	<b>8,399.17</b>	<b>5,270.36</b>	<b>(58.45)</b>	<b>60,676.12</b>	<b>183,147.04</b>

## 2.1.2 GENCOS Settlement Report

Table 2.1.2 GENCOS Settlement Report

GENCOS	INFLOW (=N=M)			OUTFLOW (=N=M)					GRAND TOTAL (INFLOW MINUS OUTFLOW) (=N=M) A - B
	CAPACITY	ENERGY	TOTAL INFLOW (A)	FUEL	PENSION CHARGE	PENSION FUND	LOAN	TOTAL OUTFLOW (B)	
	AMOUNT	AMOUNT							
AFAM	472.50	148.35	620.85	105.76	14.84	(20.35)	-	100.25	520.59
DELTA	5,496.95	3,113.97	8,610.92	2,212.73	289.84	(16.93)	75.58	2,561.22	6,049.70
EGBIN	14,422.37	8,082.50	22,504.87	4,495.15	740.10	(4.24)	-	5,231.02	17,273.85
SAPELE	3,834.05	1,246.88	5,080.93	884.98	117.01	-	-	1,001.99	4,078.94
JEBBA	1,708.33	727.21	2,435.54	505.06	68.86	(25.13)	25.40	574.19	1,861.36
SHIRORO	7,214.42	4,308.63	11,523.05	3,086.80	406.65	(24.73)	67.96	3,536.68	7,986.37
KAINJI	5,885.04	3,672.58	9,557.63	2,601.32	357.43	(147.38)	11.51	2,822.88	6,734.75
GEREGU	7,019.07	4,014.23	11,033.30	2,884.22	369.31	(26.23)	-	3,227.31	7,805.99
OMOTOSHO	1,987.42	590.25	2,577.67	413.13	55.93	-	-	469.06	2,108.61
OLORUNSOGO	2,197.87	433.15	2,631.02	308.27	38.80	-	-	347.07	2,283.95
AJAKUTA	-	-	-	-	-	-	-	-	-
TOTAL	50,238.02	26,337.76	76,575.78	17,497.44	2,458.77	(264.99)	180.45	19,871.67	56,704.11

## 2.1.3 TCN Settlement Report

Table 2.1.3 TCN Settlement Report

NAME OF COMPANY	INFLOW (=N=M)	OUTFLOW (=N=M)							NET INCOME (INFLOW MINUS OUTFLOW) (=N=M) (A - B)
	TOTAL INFLOW (A)	NERC	CHQs	PENSION CHARGE	LOAN REFUND	PENSION FUND	ANCILLARY CHARGES	TOTAL OUTFLOW (B)	
TCN	33,100.85	403.54	1,154.84	3,305.70	249.80	(130.56)	312.30	5,295.63	27,805.22

## 2.2 Tariff Equalization Report

Table 2.2 Equalization Table

DISCOS	TOTAL ENERGY RECEIVED (MWH)	% OF TOTAL ENERGY	EQUALIZATION (N/MWH)								
			JAN - JUN			JUL - DEC			TOTAL PAYMENTS (=N=M)	TOTAL CHARGES (=N=M)	SURPLUS /DEFICIT (=N=M)
			ENERGY (MWH)	EQUALI ZATION RATE	PAYMENT/ CHARGES (=N=M)	ENERGY (MWH)	EQUALI ZATION RATE	PAYMENT/ CHARGES (N=NM)			
ABUJA	2,431,287.52	12.16	1,248,252.22	-0.08	99.86	1,183,035.30	-0.09	106.47	206.33		
BENIN	2,602,803.74	13.02	1,265,131.35	0.19	(240.37)	1,337,672.39	0.18	(240.78)		(481.16)	
EKO	1,981,393.19	9.91	1,036,460.58	-1.29	1337.03	944,932.61	-1.59	1,502.44	2,839.48		
ENUGU	2,258,985.31	11.30	1,100,500.53	0.63	(693.32)	1,158,484.78	0.76	(880.45)		(1,573.76)	
IBADAN	2,389,370.89	11.95	1,162,795.94	0.29	337.21	1,226,574.95	0.28	(343.44)		(680.65)	
IKEJA	3,048,544.35	15.25	1,518,570.02	-1.15	1,746.36	1,529,974.33	-1.59	2,432.66	4,179.01		
JOS	1,046,677.73	5.23	526,773.89	1.25	(658.47)	519,903.84	1.62	(842.24)		(1,500.71)	
KADUNA	1,533,190.37	7.67	755,586.77	0.5	(377.79)	777,603.60	0.66	(513.22)		(891.01)	
KANO	977,944.99	4.89	472,086.28	0.97	(457.92)	505,858.71	1.24	(627.26)		(1,085.19)	
P/H	1,299,785.64	6.50	639,255.44	1.46	(933.31)	660,530.20	1.89	(1,248.40)		(2,181.72)	
YOLA	425,411.12	2.13	208,696.55	1.42	(296.35)	216,714.57	1.73	(374.92)		671.27	
TOTAL	19,995,394.85								7,224.83	(9,065.46)	(1,840.64)

Equalization inflow against outflow	
Energy Ratio	37.41 : 62.69
Price Ratio	2.10 : 5.28

## **2.3 PHCN/Ajaokuta and NIOMCO Itakpe Energy Generation Reconciliation**

Table 2.3 PHCN/Ajaokuta and NIOMCO Itakpe Energy Generation Reconciliation

MONTHS	ENERGY DELIVERED TO AJAOKUTA AND NIOMCO ITAKPE BY PHCN (KWH)	ENERGY SUPPLIED TO PHCN BY AJAOKUTA (KWH)	NET ENERGY SUPPLIED TO AJAOKUTA AND SISTER COMPANIES (KWH)
JAN	5,524,600	-	5,524,600
FEB	5,413,200	-	5,413,200
MAR	6,636,800	-	6,636,800
APR	5,486,200	-	5,486,200
MAY	5,954,800	-	5,954,800
JUN	5,327,600	-	5,327,600
JULY	5,423,200	-	5,423,200
AUGUST	5,689,400	-	5,689,400
SEPTEMBER	4,933,400	-	4,933,400
OCTOBER	6,260,400	-	6,260,400
NOVEMBER	4,938,000	-	4,938,000
DECEMBER	5,509,200	-	5,509,200
<b>TOTAL</b>	<b>67,096,800</b>	<b>-</b>	<b>67,096,800</b>



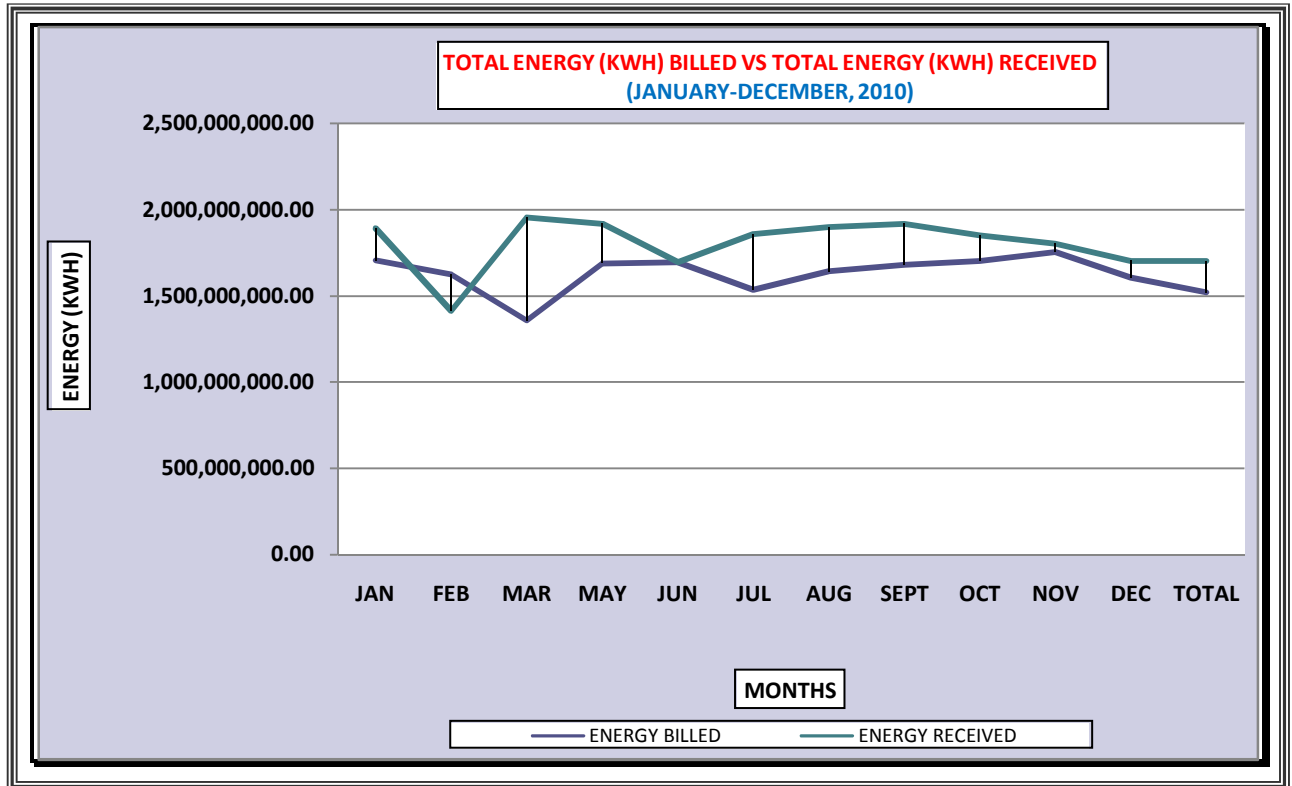
## 2.4 Energy Billed (Kwh)

Table 2.4 Energy Billed (Kwh) by the DISCOS, and billed to the International Connections and the Special Customers

ZONE	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY
ABUJA	154,344,630.00	156,162,949.00	154,569,008.00	159,632,620.00	153,714,728.00	157,138,315.00	151,326,529.00
BENIN	187,978,686.03	193,166,541.94	160,661,160.12	179,019,123.02	167,855,601.36	170,683,619.88	179,333,677.24
EKO	190,142,321.00	176,675,373.00	117,363,444.00	192,352,656.00	188,531,003.00	147,609,930.00	178,502,306.00
ENUGU	189,695,595.00	198,171,918.00	139,798,832.00	191,275,041.00	173,540,070.00	163,168,539.00	167,507,357.00
IBADAN	207,115,208.00	204,638,525.00	139,606,246.00	179,816,578.00	212,242,988.00	171,081,584.00	203,830,626.00
IKEJA	244,172,703.00	230,716,417.00	179,398,802.00	255,593,384.00	269,936,576.00	220,952,453.00	246,090,421.00
JOS	74,804,775.00	50,442,619.00	76,120,610.00	79,052,187.00	61,309,049.00	77,337,917.00	73,923,539.00
KADUNA	122,264,960.00	104,086,225.00	106,176,689.00	111,954,648.00	101,297,467.00	99,541,849.00	89,655,659.00
KANO	85,240,622.00	80,893,484.00	50,237,009.00	76,776,135.00	82,465,790.00	60,737,838.00	78,421,059.00
P-H	94,374,363.00	85,276,457.18	76,468,874.00	96,771,901.00	97,396,418.00	99,642,659.60	106,368,349.70
YOLA	33,114,313.40	27,203,321.90	20,800,763.60	32,196,629.80	38,310,409.80	25,850,518.60	30,815,136.00
SUB-TOTAL	1,583,248,540.43	1,507,433,831.02	1,221,201,437.72	1,554,440,902.82	1,546,600,100.16	1,393,745,223.08	1,505,774,658.94
NIGELEC	40,135,700.00	40,590,700.00	50,031,000.00	48,477,000.00	52,112,500.00	46,440,305.00	47,488,800.00
CEB	62,477,000.00	54,596,000.00	60,869,000.00	62,030,000.00	73,738,000.00	71,613,000.00	62,380,000.00
SUB TOTAL	102,612,700.00	95,186,700.00	110,900,000.00	110,507,000.00	125,850,500.00	118,053,305.00	109,868,800.00
AJAKUTA	5,473,000.00	5,316,000.00	6,518,000.00	5,401,000.00	5,890,000.00	5,210,000.00	5,302,000.00
DELTA STEEL	11,020,800.00	13,752,000.00	15,840,000.00	15,475,200.00	15,840,000.00	16,399,430.00	18,161,490.00
ITAKPE	51,600.00	97,200.00	118,800.00	85,200.00	64,800.00	117,600.00	121,200.00
SUB TOTAL	16,545,400.00	19,165,200.00	22,476,800.00	20,961,400.00	21,794,800.00	21,727,030.00	23,584,690.00
GRAND TOTAL	1,702,406,640.43	1,621,785,731.02	1,354,578,237.72	1,685,909,302.82	1,694,245,400.16	1,533,525,558.08	1,639,228,148.94

ZONE	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTAL ENERGY BILLED	AVE. ENERGY BILLED
ABUJA	155,820,935.00	151,607,147.00	161,749,845.60	166,348,642.60	168,447,813.40	1,890,863,162.60	157,571,930.22
BENIN	175,944,255.06	185,070,973.67	237,840,618.11	186,319,333.51	178,325,742.66	2,202,199,332.60	183,516,611.05
EKO	183,243,051.00	166,159,445.00	161,510,585.00	139,478,130.00	132,836,143.00	1,974,404,387.00	164,533,698.92
ENUGU	179,912,237.00	175,485,203.00	175,666,069.00	178,378,739.00	174,212,011.00	2,106,811,975.00	175,567,664.58
IBADAN	206,364,702.00	218,582,055.00	196,521,845.58	180,937,617.93	166,569,586.59	2,287,307,562.10	190,608,963.51
IKEJA	246,030,823.00	264,469,070.00	255,567,075.00	225,638,625.00	202,141,005.00	2,840,707,354.00	236,725,612.83
JOS	89,235,027.00	78,897,164.00	83,073,198.00	73,984,652.00	64,873,749.00	883,054,486.00	73,587,873.83
KADUNA	88,256,641.00	88,606,495.00	104,461,147.00	102,686,697.00	102,963,214.00	1,221,951,691.00	101,829,307.58
KANO	75,237,313.00	87,679,799.00	82,378,201.00	74,627,965.00	65,236,773.00	899,931,988.00	74,994,332.33
P-H	106,943,201.30	105,859,449.00	113,895,433.00	108,328,484.00	108,371,137.00	1,199,696,726.78	99,974,727.23
YOLA	34,410,803.10	38,559,437.90	35,988,033.70	34,230,959.50	28,101,930.00	379,582,257.30	31,631,854.78
SUB TOTAL	1,541,398,988.46	1,560,976,238.57	1,608,652,050.99	1,470,959,845.54	1,392,079,104.65	17,886,510,922.38	1,490,542,576.86
NIGELEC	46,146,600.00	47,877,700.00	48,726,000.00	44,568,000.00	38,981,200.00	551,575,505.00	45,964,625.42
CEB	65,267,000.00	68,443,000.00	71,053,000.00	64,935,000.00	69,312,000.00	786,713,000.00	65,559,416.67
SUB TOTAL	111,413,600.00	116,320,700.00	119,779,000.00	109,503,000.00	108,293,200.00	1,338,288,505.00	111,524,042.08
AJAKUTA	5,567,000.00	4,823,000.00	6,120,000.00	4,776,000.00	5,346,000.00	65,742,000.00	5,478,500.00
DELTA STEEL	18,421,090.00	18,421,090.00	17,221,090.00	17,221,090.00	10,980,670.00	188,753,950.00	15,729,495.83
ITAKPE	122,400.00	110,400.00	140,400.00	162,000.00	163,200.00	1,354,800.00	112,900.00
SUB TOTAL	24,110,490.00	23,354,490.00	23,481,490.00	22,159,090.00	16,489,870.00	255,850,750.00	21,320,895.83
GRAND TOTAL	1,676,923,078.46	1,700,651,428.57	1,751,912,540.99	1,602,621,935.54	1,516,862,174.65	19,480,650,177.38	1,623,387,514.78

Fig. 2.4



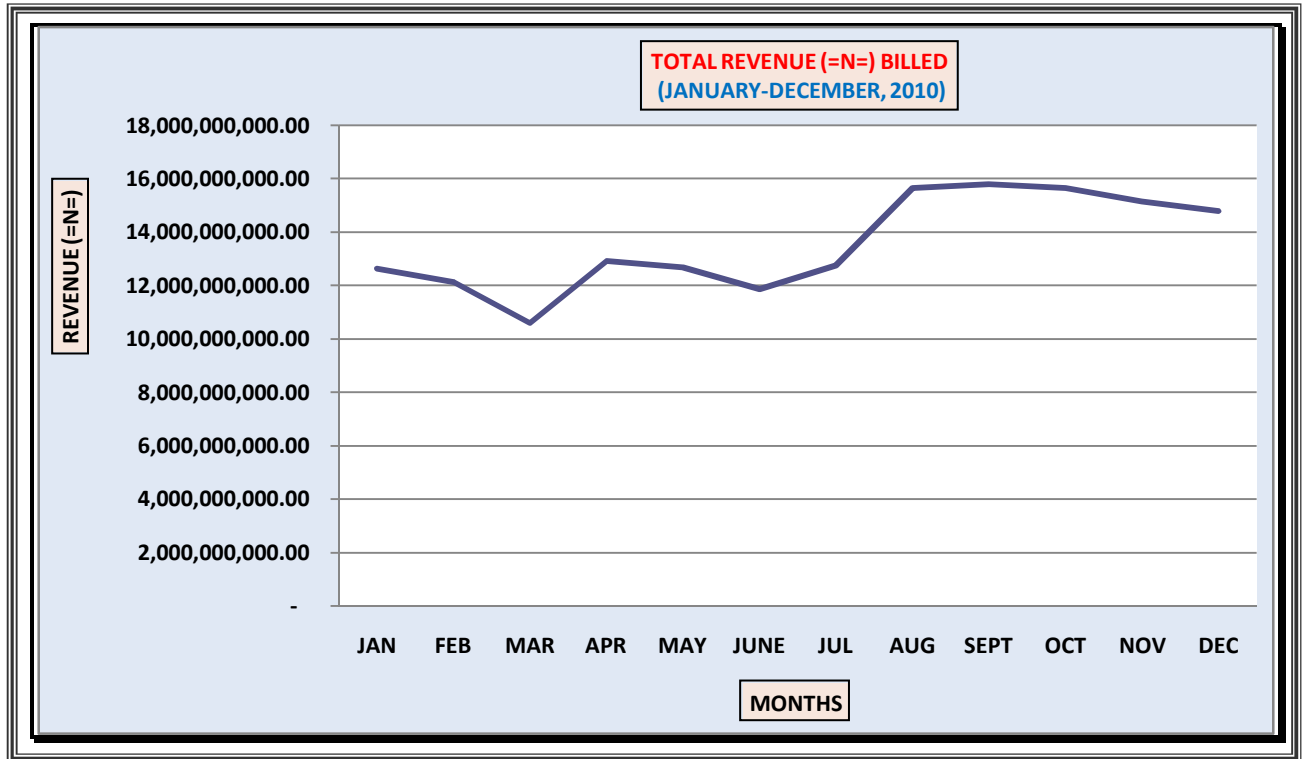
## 2.5 Revenue Billed

Table 2.5 Revenue Billed (=N=) by the DISCOS, and billed to the International Connections and the Special Customers

ZONE	JAN	FEB	MAR	APR	MAY	JUN	JUL
ABUJA	1,381,840,921.00	1,282,971,946.00	1,274,615,794.00	1,477,121,497.00	1,335,843,801.00	1,291,355,623.00	1,317,991,492.00
BENIN	1,184,161,286.13	1,190,792,694.94	1,071,387,436.97	1,167,515,026.26	1,078,970,043.99	1,074,948,639.51	1,111,697,353.80
EKO	1,706,607,539.00	1,603,823,788.00	1,176,837,367.00	1,748,636,116.00	1,685,035,305.00	1,515,573,535.00	1,636,512,857.00
ENUGU	1,280,060,397.00	1,319,246,554.00	1,014,071,272.00	1,302,926,035.00	1,210,519,557.00	1,141,028,614.00	1,188,220,911.00
IBADAN	1,477,546,526.52	1,484,164,766.95	1,092,958,409.17	1,358,633,217.13	1,490,555,928.16	1,298,486,363.35	1,620,735,899.01
IKEJA	2,092,708,442.17	1,979,840,243.81	1,657,134,971.99	2,223,118,180.07	2,292,403,094.40	1,979,296,444.28	2,125,024,797.03
JOS	462,874,398.48	332,677,398.96	476,048,932.92	488,967,770.18	387,117,614.17	474,523,975.23	586,586,268.69
KADUNA	673,110,132.91	676,470,114.51	696,031,997.39	739,736,265.08	653,520,718.21	670,317,622.58	649,032,663.43
KANO	673,975,225.19	667,349,549.11	503,701,566.87	663,015,372.43	691,617,248.05	575,786,213.15	663,590,689.56
P-H	701,407,435.93	651,790,095.69	616,050,016.02	691,468,793.77	656,042,614.92	715,475,174.80	759,553,756.79
YOLA	194,089,028.00	162,713,664.67	132,487,714.70	192,537,842.20	221,644,716.91	162,830,004.06	185,491,082.87
SUB TOTAL	11,828,381,332.33	11,351,840,816.64	9,711,325,479.03	12,053,676,115.12	11,703,270,641.81	10,899,622,208.96	11,844,437,771.18
NIGEELEC	202,054,493.76	206,896,487.20	243,482,758.00	239,327,242.16	252,765,588.00	234,287,022.48	233,531,074.80
CEB	423,181,634.40	375,744,319.20	413,502,760.80	420,491,052.00	521,363,845.60	508,573,045.60	452,997,772.00
SUB TOTAL	625,236,128.16	582,640,806.40	656,985,518.80	659,818,294.16	774,129,433.60	742,860,068.08	686,528,846.80
AJAKUTA	52,270,113.00	51,038,988.00	61,694,829.00	51,660,399.00	56,005,446.00	49,920,003.00	50,693,475.00
DELTA STEEL	114,828,630.00	139,884,990.00	160,425,510.00	158,394,390.00	135,103,237.50	167,676,216.75	170,481,522.75
ITAKPE	769,020.00	1,244,040.00	1,436,820.00	1,102,920.00	920,850.00	1,358,070.00	1,254,120.00
SUB TOTAL	167,867,763.00	192,168,018.00	223,557,159.00	211,157,709.00	192,029,533.50	218,954,289.75	222,429,117.75
GRAND TOTAL	12,621,485,223.49	12,126,649,641.04	10,591,868,156.83	12,924,652,118.28	12,669,429,608.91	11,861,436,566.79	12,753,395,735.73

ZONE	AUG	SEPT	OCT	NOV	DEC	TOTAL REVENUE BILLED	AVERAGE REVENUE BILLED
ABUJA	1,650,438,991.00	1,610,079,237.00	1,606,912,932.93	1,607,069,967.37	1,625,503,110.82	17,461,745,313.12	1,455,145,442.76
BENIN	1,307,576,976.64	1,319,925,526.31	1,449,021,632.99	1,474,864,460.89	1,436,177,514.62	14,867,038,593.05	1,238,919,882.75
EKO	2,136,057,944.00	1,984,556,864.00	1,969,016,010.00	1,741,245,712.00	1,677,938,608.00	20,581,841,645.00	1,715,153,470.42
ENUGU	1,645,711,332.00	1,590,994,206.49	1,455,020,026.92	1,578,123,367.25	1,566,482,312.69	16,292,404,585.35	1,357,700,382.11
IBADAN	1,861,851,584.21	1,958,097,314.13	1,840,763,812.45	1,723,030,571.00	1,568,192,460.01	18,775,016,852.09	1,564,584,737.67
IKEJA	2,710,352,124.18	2,883,378,791.40	2,793,717,183.82	2,556,908,816.98	2,350,453,676.53	27,644,336,766.66	2,303,694,730.56
JOS	691,920,962.99	616,672,239.10	651,989,999.15	594,848,112.00	526,306,415.86	6,290,534,087.73	524,211,173.98
KADUNA	759,865,762.77	765,776,748.65	810,266,393.73	827,566,477.53	851,429,680.60	8,773,124,577.39	731,093,714.78
KANO	839,446,469.96	881,917,670.76	881,176,165.36	859,973,693.81	752,217,506.90	8,653,767,371.15	721,147,280.93
P-H	863,189,640.11	947,340,922.38	957,326,652.75	961,239,220.30	1,360,121,327.74	9,881,005,651.20	823,417,137.60
YOLA	263,738,596.54	284,091,554.58	274,120,322.41	265,519,353.48	219,761,355.81	2,559,025,236.23	213,252,103.02
SUB TOTAL	14,730,150,384.40	14,842,831,074.80	14,689,331,132.51	14,190,389,752.61	13,934,583,969.58	151,779,840,678.97	12,648,320,056.58
NIGEELEC	225,270,691.04	235,324,720.40	238,988,505.60	220,669,388.08	199,558,334.56	2,732,156,306.08	227,679,692.17
CEB	470,375,202.40	489,492,181.60	505,202,293.60	468,376,676.00	494,722,866.40	5,544,023,649.60	462,001,970.80
SUB TOTAL	695,645,893.44	724,816,902.00	744,190,799.20	689,046,064.08	694,281,200.96	8,276,179,955.68	689,681,662.97
AJAKUTA	53,084,115.00	46,415,565.00	58,555,455.00	46,013,667.00	51,142,875.00	628,494,930.00	52,374,577.50
DELTA STEEL	174,611,435.25	174,611,435.25	163,901,435.25	219,081,497.25	108,205,686.75	1,887,205,986.75	157,267,165.56
ITAKPE	1,230,810.00	1,191,750.00	1,425,480.00	1,652,280.00	1,765,050.00	15,351,210.00	1,279,267.50
SUB TOTAL	228,926,360.25	222,218,750.25	223,882,370.25	266,747,444.25	161,113,611.75	2,531,052,126.75	210,921,010.56
GRAND TOTAL	15,654,722,638.09	15,789,866,727.05	15,657,404,301.96	15,146,183,260.94	14,789,978,782.29	162,587,072,761.40	13,548,922,730.12

Fig. 2.5



## 3.0 ADMINISTRATION OF MARKET COLLECTIONS AND PAYMENTS

### 3.1 Revenue Collection And Income Distribution Report

Table 3.1 Revenue Collection and Income Distribution

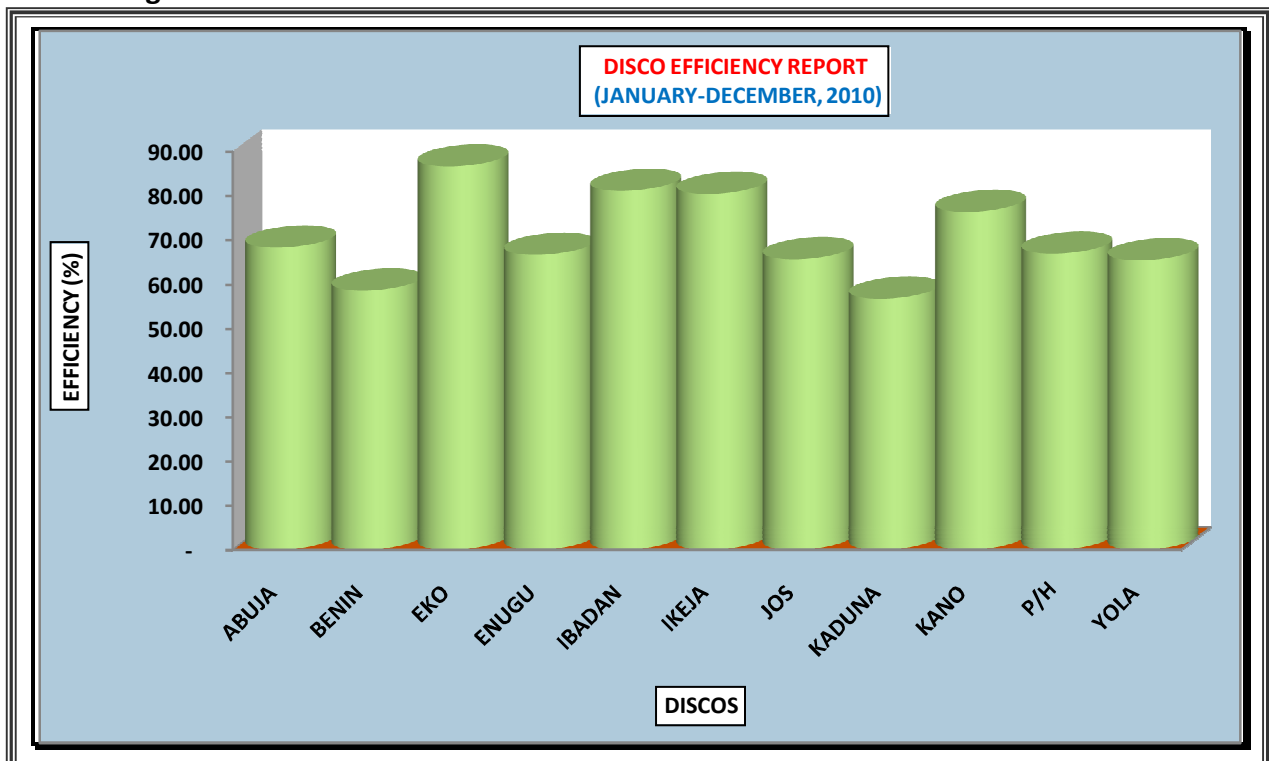
BENEFICIARY	ENERGY (MWH)	REVENUE EXPECTED (=N=M)				ACTUAL REVENUE (=N=M)			REVENUE GAP (=N=M)	REQUIRED SETTLEMENT (=N=M)	ACTUAL SETTLEMENT (ALLOCATION) (=N=M)	SETTLEMENT SHORTFALL (=N=M)
		MO INVOICE	DISCOS MYTO BASED INCOME	PROV.FOR EQUALISATION	TOTAL	COLLECTION	SUBSIDY	TOTAL				
DISCOS	ENERGY RECEIVED											
ABUJA	2,431,287.52	21,877.30	6,374.99	-	28,252.29	14,010.70	5,279.94	19,290.64	8,961.65	6,374.99	6,002.44	372.54
BENIN	2,602,803.74	22,679.80	6,803.68	-	29,483.48	12,489.26	4,774.75	17,264.01	12,219.47	6,803.68	6,884.16	(80.48)
EKO	1,981,393.19	21,297.75	5,201.01	-	26,498.76	16,735.29	6,220.32	22,955.60	3,543.16	5,201.01	7,887.57	(2,686.57)
ENUGU	2,258,985.31	18,473.61	5,905.68	-	24,379.29	11,834.14	4,412.34	16,246.48	8,132.81	5,905.68	6,576.05	(670.37)
IBADAN	2,389,370.89	21,036.59	6,246.19	-	27,282.77	16,132.03	5,996.70	22,128.73	5,154.04	6,246.19	8,657.55	(2,411.36)
IKEJA	3,048,544.35	32,308.49	7,979.71	-	40,288.20	23,575.88	8,822.90	32,398.78	7,889.41	7,979.71	8,406.97	(427.27)
JOS	1,046,677.73	8,118.59	2,720.86	-	10,839.45	5,146.68	1,969.43	7,116.11	3,723.34	2,720.86	3,623.29	(902.43)
KADUNA	1,533,190.37	13,006.77	4,010.79	-	17,017.57	6,968.70	2,685.33	9,654.03	7,363.54	4,010.79	4,618.46	(607.67)
KANO	977,944.99	8,187.21	2,545.37	-	10,732.58	6,003.48	2,190.58	8,194.06	2,538.52	2,545.37	3,648.17	(1,102.80)
PH	1,299,785.64	9,818.01	3,399.83	-	13,217.83	6,459.55	2,383.20	8,842.75	4,375.08	3,399.83	3,819.21	(419.39)
YOLA	425,411.12	3,227.17	1,112.57	-	4,339.74	2,128.66	710.08	2,838.74	1,501.00	1,112.57	2,442.12	(1,329.56)
PROV. FOR EQUAL.	-	-	-	1,840.64	1,840.64				1,840.64			-
SUB-TOTAL	19,995,394.85	180,031.29	52,300.68	1,840.64	234,172.60	121,484.36	45,445.58	166,929.94	67,242.67	52,300.68	62,566.02	372.54
NIGELC	551,575.51	2,732.16			2,732.16	836.86		836.86	1,895.29			
CEB	786,713.00	5,544.02			5,544.02	3,127.70		3,127.70	2,416.32			
AJAKUTA	65,742.00	628.49			628.49	2.43		2.43	626.07			
ITAKPE	1,257.60	15.35			15.35	3.50		3.50	11.85			
DELTA	188,753.95	1,887.21			1,887.21	352.00		352.00	1,535.21			
SUB TOTAL	1,594,042.06	10,807.23			10,807.23	4,322.49		4,322.49	6,484.74	-	-	-
TOTAL	21,589,436.90	190,838.52	52,300.68	1,840.64	244,979.84	125,806.85	45,445.58	171,252.43	73,727.41	52,300.68	62,566.02	372.54
POWER STATIONS	ENERGYSENT OUT											
FGN												
AFAM	256,771.58									500.51	1,223.36	(722.84)
DELTA	2,192,059.95									6,141.25	2,418.64	3,722.61
EGBIN	4,428,411.76									17,166.16	3,382.66	13,783.49
GEREGU	945,973.80									4,714.42	1,903.76	1,241.64
SAPELE	462,288.30									3,145.41	1,538.27	4,602.41
OMOTOSHO	360,766.22									2,111.90	1,477.16	5,477.58
OLORUNSOGO	212,690.00									2,285.48	1,461.86	6,073.19
JEBBA	2,395,294.60									6,140.68	681.17	4,033.25
KAINJI	2,218,572.60									6,954.74	737.22	1,374.67
SHIRORO	2,512,616.60									7,535.05	496.04	1,789.44
SUB-TOTAL	15,985,445.41									56,695.59	15,320.14	42,098.29
IPP												
SHELL	2,746,554.11									19,863.37		
AGIP	3,116,523.85									23,355.52		
AES	1,494,135.70									10,215.07	41,270.34	13,793.52
IBOM POWER	185,796.56									1,629.90		
NESCO	2,661.11									-		
SUB-TOTAL	7,545,671.32									55,063.86	41,270.34	13,793.52
TOTAL	23,531,116.73									111,759.45	56,590.49	55,891.81
OTHERS												
TCN										28,150.36	16,154.33	11,996.03
ANCILARYSERVICES										313.20	99.68	213.51
CHQ										3,603.87	6,406.59	(2,802.72)
NERC										1,273.49	969.19	304.31
NERC LICENCE										1,123.01	800.00	323.01
MO										138.50	222.81	(84.32)
GAS										17,653.41	6,530.90	11,122.51
VAT										5,713.72	2,053.49	3,660.23
RESERVE/PROD										-	1,550.00	(1,550.00)
CAPACITY BUILDING										480.96	360.19	120.77
LOAN REPAYMENT										1,506.77	-	1,506.77
ODF										5,270.36	500.00	4,770.36
MMF										8,399.17	7,516.55	882.62
PENSION CHARGE										8,490.74	8,400.58	90.16
MARKET PROJECT										-	531.53	(531.53)
BANK CHARGES											0.06	(0.06)
SUB-TOTAL										82,117.56	52,095.92	34,990.28
GRAND TOTAL		190,838.52	52,300.68	1,840.64	244,979.84	125,806.85	45,445.58	171,252.43	73,727.41	246,177.69	171,252.43	91,254.63

## 3.2 Disco Evaluation Report

Table 3.2 Expected Revenue Vs Actual Collection

DISCOs	EXPECTED REVENUE (=N=)	ACTUAL COLLECTION (INCLUDING SUBSIDY) (=N=)	EFFICIENCY (%)	RANKING
ABUJA	28,252,291,469.61	19,290,637,437.97	68.28	5TH
BENIN	29,483,478,997.32	17,264,010,051.64	58.55	10TH
EKO	26,498,759,692.81	22,955,604,168.54	86.63	1ST
ENUGU	24,379,288,831.83	16,246,479,621.54	66.64	7TH
IBADAN	27,282,774,467.71	22,128,732,384.51	81.11	2ND
IKEJA	40,288,198,556.11	32,398,784,625.91	80.42	3RD
JOS	10,839,452,813.25	7,116,108,096.48	65.65	8TH
KADUNA	17,017,567,778.94	9,654,026,210.02	56.73	11TH
KANO	10,732,576,609.09	8,194,059,762.86	76.35	4TH
PORTHARCOURT	13,217,833,977.78	8,842,750,992.58	66.90	6TH
YOLA	4,339,741,469.52	2,838,742,301.72	65.41	9TH
TOTAL	232,331,964,663.97	166,929,935,653.76	71.85	

Fig. 3.2

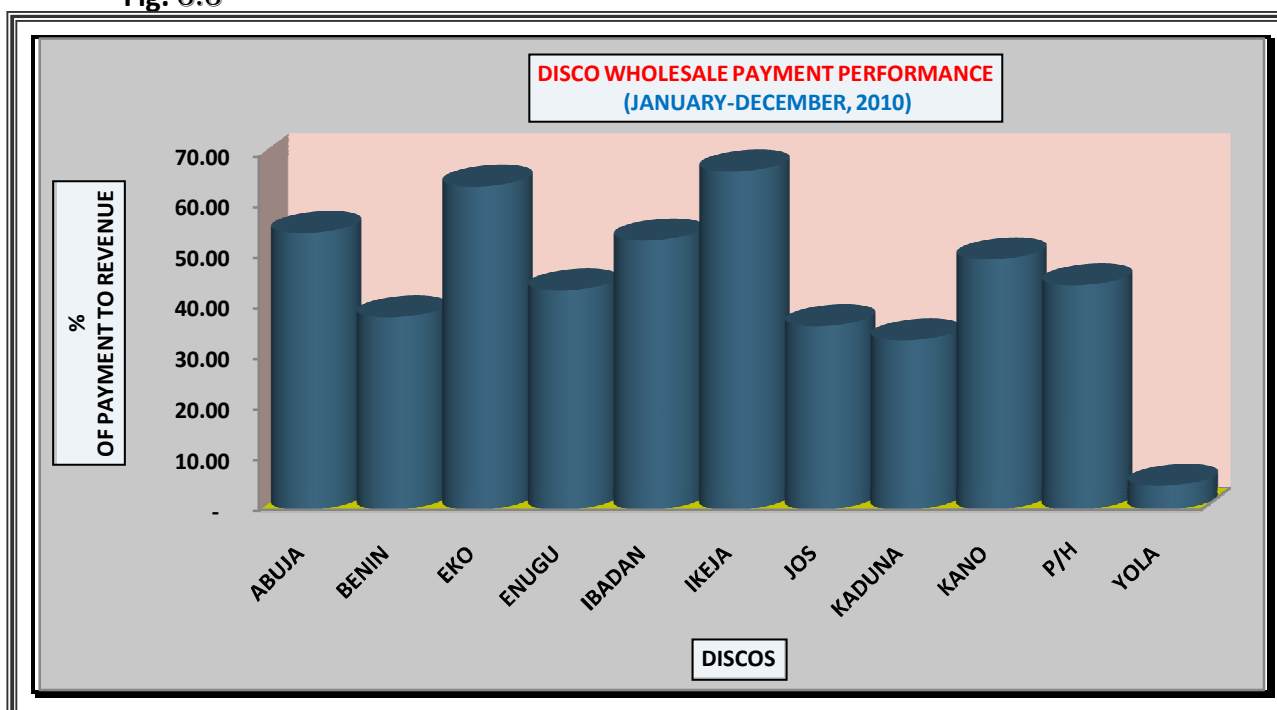


### 3.3 Disco Wholesale Payment Performance Report

Table 3.3 DISCO Wholesale Payment Performance Report

DISCOs	INVOICE =N=	PAYMENT TO MARKET OPERATOR (INCLUDING SUBSIDY) =N=	PAYMENT EFFICIENCY %	RANKING
ABUJA	21,877,303,482.49	11,968,262,718.16	54.71	3RD
BENIN	22,679,795,570.50	8,626,142,517.92	38.03	8TH
EKO	21,297,753,007.23	13,605,646,450.78	63.88	2ND
ENUGU	18,473,605,882.59	8,007,029,206.32	43.34	7TH
IBADAN	21,036,585,021.83	11,201,833,897.99	53.25	4TH
IKEJA	32,308,489,918.38	21,601,714,256.55	66.86	1ST
JOS	8,118,589,129.74	2,945,446,974.63	36.28	9TH
KADUNA	13,006,774,921.40	4,353,100,762.99	33.47	10TH
KANO	8,187,208,248.81	4,050,442,912.29	49.47	5TH
PORTHARCOURT	9,818,008,374.68	4,355,714,134.68	44.36	6TH
YOLA	3,227,173,558.77	153,072,813.37	4.74	11TH
TOTAL	180,031,287,116.42	90,868,406,645.68	50.47	

Fig. 3.3

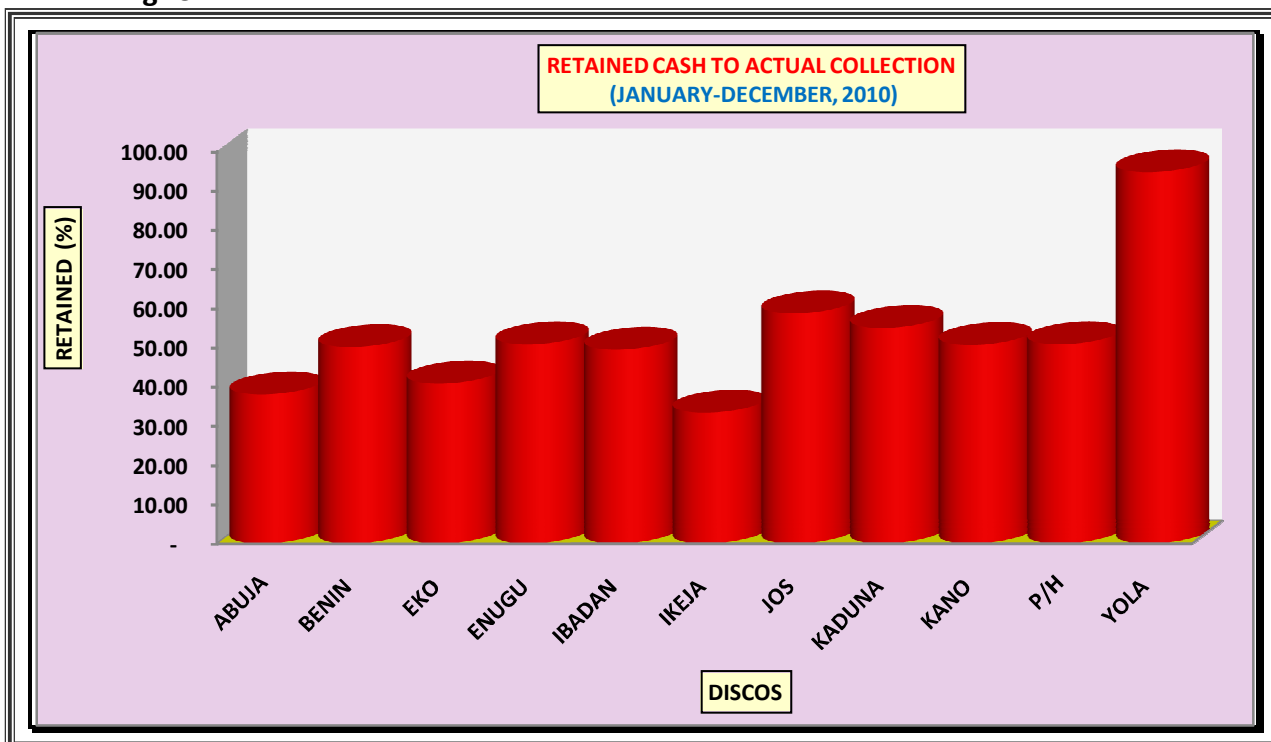


### 3.4 Disco Collection Against Operating Cost

Table 3.4 DISCO Collection Against Operating Cost

DISCOS	ACTUAL COLLECTION =N=	TRANSFER TO MARKET OPERATOR =N=	RETAINED BY DISCO =N=	% RETAINED	RANKING
ABUJA	19,290,637,437.97	11,968,262,718.16	7,322,374,719.81	37.96	2ND
BENIN	17,264,010,051.64	8,626,142,517.92	8,637,867,533.72	50.03	5TH
EKO	22,955,604,168.54	13,605,646,450.78	9,349,957,717.76	40.73	3RD
ENUGU	16,246,479,621.54	8,007,029,206.32	8,239,450,415.22	50.72	7TH
IBADAN	22,128,732,384.51	11,201,833,897.99	10,926,898,486.52	49.38	4TH
IKEJA	32,398,784,625.91	21,601,714,256.55	10,797,070,369.36	33.33	1ST
JOS	7,116,108,096.48	2,945,446,974.63	4,170,661,121.85	58.61	10TH
KADUNA	9,654,026,210.02	4,353,100,762.99	5,300,925,447.03	54.91	9TH
KANO	8,194,059,762.86	4,050,442,912.29	4,143,616,850.57	50.57	6TH
PORTHARCOURT	8,842,750,992.58	4,355,714,134.68	4,487,036,857.90	50.74	8TH
YOLA	2,838,742,301.72	153,072,813.37	2,685,669,488.34	94.61	11TH
TOTAL	166,929,935,653.76	90,868,406,645.68	76,061,529,008.08	45.56	

Fig. 3.4





## 4.0 SETTLEMENT ADMINISTRATION OF THE INDEPENDENT LARGE POWER CONSUMERS

### 4.1 Payment Status on Ajaokuta Steel Company and NIOMCO Itakpe

Table 4.1 Payment Status on Ajaokuta and NIOMCO Itakpe

MONTHS	ELECTRICITY DELIVERED TO AJAOKUTA AND NIOMCO ITAKPE		INVOICE (=N=)	PAYMENT MADE (=N=)	OUTSTANDING (=N=)	CUMMULATIVE OUTSTANDING (=N=)
	CAPACITY (MW)	ENERGY (MWH)				
01/01/2010						1,169,095,978.50
JANUARY	10.52	5,524.60	53,039,133.00	-	53,039,133.00	1,222,135,111.50
FEBRUARY	11.19	5,413.20	52,283,028.00	-	52,283,028.00	1,274,418,139.50
MARCH	10.99	6,636.80	63,131,649.00	-	63,131,649.00	1,337,549,788.50
APRIL	10.71	5,486.20	52,763,319.00	-	52,763,319.00	1,390,313,107.50
MAY	10.65	5,954.80	56,926,296.00	-	56,926,296.00	1,447,239,403.50
JUNE	10.51	5,327.60	51,278,073.00	-	51,278,073.00	1,498,517,476.50
JULY	9.99	5,423.20	51,947,595.00	-	51,947,595.00	1,550,465,071.50
AUGUST	9.97	5,689.40	54,314,925.00	4,500,000.00	49,814,925.00	1,600,279,996.50
SEPTEMBER	10.08	4,933.40	47,607,315.00	-	47,607,315.00	1,647,887,311.50
OCTOBER	11.58	6,260.40	59,980,935.00	2,957,968.58	57,022,966.42	1,704,910,277.92
NOVEMBER	10.13	4,938.00	47,665,947.00	-	47,665,947.00	1,752,576,224.92
DECEMBER	10.54	5,509.20	52,907,925.00	-	52,907,925.00	1,805,484,149.92
TOTAL	10.57	67,096.80	643,846,140.00	7,457,968.58	636,388,171.42	1,805,484,149.92

### 4.2 Payment Status on Delta Steel Company Aladja Warri

Table 4.2 Payment Status on Delta Steel Company

MONTHS	ELECTRICITY DELIVERED		INVOICE (=N=)	PAYMENT MADE (=N=)	OUTSTANDING (=N=)	CUMMULATIVE OUTSTANDING (=N=)
	CAPACITY (MW)	ENERGY (MWH)				
01/01/2010						3,141,593,195.00
JANUARY	46.46	11,020.80	114,828,630.00	-	114,828,630.00	3,256,421,825.00
FEBRUARY	48.38	13,752.00	139,884,990.00	60,000,000.00	79,884,990.00	3,336,306,815.00
MARCH	53.76	15,840.00	160,425,510.00	-	160,425,510.00	3,496,732,325.00
APRIL	57.22	15,475.20	158,394,390.00	-	158,394,390.00	3,655,126,715.00
MAY	27.22	15,840.00	135,103,237.50	128,000,000.00	7,103,237.50	3,662,229,952.50
JUNE	60.13	16,399.43	167,676,216.75	-	167,676,216.75	3,829,906,169.25
JULY	23.67	18,161.49	170,481,522.75	-	170,481,522.75	4,000,387,692.00
AUGUST	28.79	18,421.09	174,611,435.25	10,000,000.00	164,611,435.25	4,164,999,127.25
SEPTEMBER	28.79	18,421.09	174,611,435.25	52,000,000.00	122,611,435.25	4,287,610,562.50
OCTOBER	28.79	17,221.09	163,901,435.25	105,000,000.00	58,901,435.25	4,346,511,997.75
NOVEMBER	28.79	17,221.09	219,081,497.25	-	219,081,497.25	4,565,593,495.00
DECEMBER	28.79	10,980.67	108,205,686.75	-	108,205,686.75	4,673,799,181.75
TOTAL	30.40	188,753.95	1,887,205,986.75	355,000,000.00	1,532,205,986.75	4,673,799,181.75

## 5.0 SETTLEMENT ADMINISTRATION OF THE PPAS AND CONNECTION AGREEMENT

### 5.1 Operation of the PPAs

Table 5.1 Nominated Vs Delivered Generation of the IPPs

		JAN	FEB	MAR	APR	MAY	JUN	JUL
AGIP	NOMINATED (MW)	476.70	476.70	476.70	476.70	476.70	476.70	476.70
	DELIVERED (MW)	398.45	395.02	414.55	392.55	273.84	307.21	409.42
	DELIVERED (GWH)	296.44	265.45	308.46	282.61	203.52	221.44	291.29
AES	NOMINATED (MW)	300.90	300.90	294.30	294.30	294.30	294.30	294.30
	DELIVERED (MW)	192.48	174.23	142.85	188.51	184.70	199.30	223.05
	DELIVERED (GWH)	131.22	103.71	96.62	129.06	133.72	131.71	152.73
SHELL	NOMINATED (MW)	650.00	650.00	650.00	650.00	650.00	650.00	650.00
	DELIVERED (MW)	441.55	299.69	399.61	360.80	402.32	359.82	454.03
	DELIVERED (GWH)	319.57	173.08	287.06	249.61	253.85	232.96	308.53
IBOM POWER	NOMINATED (MW)	38.00	38.00	38.00	38.00	38.00	85.00	85.00
	DELIVERED (MW)	11.00	20.50	29.91	24.17	24.71	28.81	62.82
	DELIVERED (GWH)	0.25	8.80	17.17	15.20	14.19	17.03	29.57
NESCO	DELIVERED (GWH)	1.85	1.38	1.41	1.72	1.59	0.94	1.14

		AUG	SEPT	OCT	NOV	DEC	TOTAL	AVE
AGIP	NOMINATED (MW)	476.70	476.70	476.70	476.70	476.70		476.70
	DELIVERED (MW)	441.93	446.32	388.34	341.92	335.78		378.78
	DELIVERED (GWH)	299.40	288.77	263.63	213.86	231.87	3,166.74	263.90
AES	NOMINATED (MW)	294.30	294.30	294.30	294.30	294.30		295.40
	DELIVERED (MW)	197.86	200.33	183.86	156.91	195.85		186.66
	DELIVERED (GWH)	122.14	131.87	130.24	127.87	127.97	1,518.86	126.57
SHELL	NOMINATED (MW)	650.00	650.00	650.00	650.00	650.00		650.00
	DELIVERED (MW)	392.81	355.78	318.85	280.44	358.70		368.70
	DELIVERED (GWH)	246.12	233.02	192.00	189.76	231.87	2,917.43	243.12
IBOM POWER	NOMINATED (MW)	85.00	85.00	85.00	85.00	85.00		65.42
	DELIVERED (MW)	77.88	72.29	52.86	67.69	60.70		44.45
	DELIVERED (GWH)	39.56	45.14	26.74	31.55	20.42	265.62	22.14
NESCO	DELIVERED (GWH)	1.47	1.55	1.65	1.13	0.91	16.74	1.40

**Table 5.1.1 Payment Status on Agip PPA**

MONTH	INVOICE (\$)	PAYMENT (\$)	OUTSTANDING (\$)	CUMMULATIVE OUTSTANDING (\$)
01/01/2010				233,480,635.10
JANUARY	13,207,390.75	6,603,695.38	6,603,695.37	240,084,330.47
FEBRUARY	12,991,146.96	6,495,573.48	6,495,573.48	246,579,903.95
MARCH	13,732,290.16	6,866,145.08	6,866,145.08	253,446,049.03
APRIL	13,883,936.03	6,941,968.02	6,941,968.01	260,388,017.04
MAY	13,292,587.20	6,646,293.60	6,646,293.60	267,034,310.64
JUNE	13,426,534.89	6,713,267.45	6,713,267.44	273,747,578.08
JUL	14,073,615.62	7,036,807.81	7,036,807.81	280,784,385.89
AUG	14,135,113.60	7,067,556.80	7,067,556.80	287,851,942.69
SEPT	14,135,113.60	7,067,556.80	7,067,556.80	294,919,499.49
OCT	13,111,828.20	6,555,914.10	6,555,914.10	301,475,413.59
NOV	12,919,236.15	6,459,618.08	6,459,618.07	307,935,031.66
DEC	14,177,785.20	7,088,892.60	7,088,892.60	315,023,924.26
<b>TOTAL</b>	<b>163,086,578.36</b>	<b>81,543,289.20</b>	<b>81,543,289.16</b>	<b>315,023,924.26</b>

**Table 5.1.2 Payment Status on AES PPA**

MONTH	INVOICE (\$)	PAYMENT (\$)	OUTSTANDING (\$)	CUMMULATIVE OUTSTANDING (\$)
01/01/2010				1,244,109.98
JANUARY	5,682,615.00	5,682,615.00	-	1,244,109.98
FEBRUARY	5,682,615.00	5,682,615.00	-	1,244,109.98
MARCH	5,682,615.00	5,682,615.00	-	1,244,109.98
APRIL	5,682,615.00	5,682,615.00	-	1,244,109.98
MAY	5,682,615.00	5,682,615.00	-	1,244,109.98
JUNE	5,682,615.00	5,682,615.00	-	1,244,109.98
JUL	5,682,615.00	3,000,000.00	2,682,615.00	3,926,724.98
AUG	5,682,615.00	5,682,615.00	-	3,926,724.98
SEPT	5,682,615.00	5,682,615.00	-	3,926,724.98
OCT	5,682,615.00	5,682,615.00	-	3,926,724.98
NOV	5,682,615.00	5,682,615.00	-	3,926,724.98
DEC	5,682,615.00	5,682,615.00	-	3,926,724.98
<b>TOTAL</b>	<b>68,191,380.00</b>	<b>65,508,765.00</b>	<b>2,682,615.00</b>	<b>3,926,724.98</b>

**Table 5.1.3 Payment Status on SHELL PPA (AFAM VI)**

MONTH	INVOICE (\$)	PAYMENT (\$)	OUTSTANDING (\$)	CUMMULATIVE OUTSTANDING (\$)
01/01/2010				26,356,462.76
JANUARY	8,402,365.96	4,201,182.98	4,201,182.98	30,557,645.74
FEBRUARY	4,660,609.85	2,330,304.93	2,330,304.92	32,887,950.66
MARCH	7,609,056.80	3,804,528.40	3,804,528.40	36,692,479.06
APRIL	6,550,517.08	3,275,258.54	3,275,258.54	39,967,737.60
MAY	6,852,858.97	3,426,429.49	3,426,429.48	43,394,167.08
JUNE	6,284,997.25	3,142,498.63	3,142,498.62	46,536,665.70
JUL	8,271,274.75	4,135,637.38	4,135,637.37	50,672,303.07
AUG	6,645,290.12	3,322,645.06	3,322,645.06	53,994,948.13
SEPT	6,291,854.41	3,145,927.21	3,145,927.20	57,140,875.33
OCT	5,406,859.56	2,703,429.78	2,703,429.78	59,844,305.11
NOV	5,078,745.87	2,539,372.94	2,539,372.93	62,383,678.04
DEC	6,526,810.74	3,263,405.37	3,263,405.37	65,647,083.41
TOTAL	78,581,241.36	39,290,620.71	39,290,620.65	65,647,083.41

**Table 5.1.4 Payment Status on IBOM POWER PPA**

MONTH	INVOICE (=N=)	PAYMENT (=N=)	OUTSTANDING (=N=)	CUMMULATIVE OUTSTANDING (=N=)
01/01/2010				6,161,264.86
JAN	245,688.95	122,844.47	122,844.47	6,284,109.33
FEB	30,658,340.81	15,329,170.40	15,329,170.40	21,613,279.73
MARCH	59,772,506.74	29,886,253.37	29,886,253.37	51,499,533.10
APRIL	52,067,258.52	26,033,629.26	26,033,629.26	77,533,162.38
MAY	49,738,811.98	24,869,405.99	24,869,405.99	102,402,568.37
JUNE	57,119,748.46	30,226,863.97	26,892,884.49	129,295,452.86
JUL	99,410,386.41	49,707,050.28	49,703,336.13	178,998,788.99
AUG	139,319,347.60	69,659,673.80	69,659,673.80	248,658,462.79
SEPT	151,826,748.80	75,912,321.50	75,914,427.30	324,572,890.09
OCT	89,742,784.05	71,794,227.24	17,948,556.81	342,521,446.90
NOV	110,932,503.91	88,746,003.13	22,186,500.78	364,707,947.68
		364,707,947.67	(364,707,947.67)	0.01
DEC	71,115,556.74	54,274,978.85	16,840,577.89	16,840,577.90
TOTAL	911,949,682.97	901,270,369.93	10,679,313.04	16,840,577.90

**Table 5.1.5 Payment Status on NESCO PPA**

MONTH	INVOICE (=N=)	PAYMENT (=N=)	OUTSTANDING (=N=)	CUMMULATIVE OUTSTANDING (=N=)
01/01/2010				-
JAN	4,791,447.05	4,791,447.05	-	-
FEB	3,902,715.50	3,902,715.50	-	-
MARCH	3,758,534.33	3,758,534.33	-	-
APRIL	3,466,000.00	3,466,000.00	-	-
MAY	2,534,869.89	2,534,869.89	-	-
JUNE	3,043,928.48	3,043,928.48	-	-
JUL	3,456,209.61	3,456,209.61	-	-
AUG	13,718,121.82	13,718,121.82	-	-
SEPT	13,381,933.27	13,381,933.27	-	-
OCT	11,942,824.73	11,942,824.73	-	-
NOV	12,713,290.39	12,713,290.39	-	-
DEC	13,560,019.23	13,560,019.23	-	-
<b>TOTAL</b>	<b>90,269,894.30</b>	<b>90,269,894.30</b>		

## 5.2 Operation of the Connection Agreements

Table 5.2.1 NIGELEC

MONTHS	ELECTRICITY DELIVERED		INVOICE (\$)	PAYMENT MADE (\$)	OUTSTANDING (\$)	CUMMULATIVE OUTSTANDING (\$)
	CAPACITY (MW)	ENERGY (MWH)				
01/01/2010						3,166,926.56
Adjustment (Reconciliation)			2,459,995.82	445,242.00	2,014,753.82	5,181,680.38
JANUARY	78.19	40,135.70	1,329,305.88	774,468.00	554,837.88	5,736,518.26
FEBRUARY	84.44	40,590.70	1,361,161.10	836,415.00	524,746.10	6,261,264.36
MARCH	85.05	50,031.00	1,601,860.25	2,292,277.80	(690,417.55)	5,570,846.81
APRIL	87.56	48,477.00	1,574,521.33	1,617,781.39	(43,260.06)	5,527,586.75
MAY	91.25	52,112.50	1,662,931.50	3,218,026.67	(1,555,095.17)	3,972,491.58
JUNE	93.93	46,440.31	1,541,361.99	-	1,541,361.99	5,513,853.57
JULY	86.11	47,488.80	1,536,388.65	1,107,793.00	428,595.65	5,942,449.22
AUGUST	85.34	46,146.60	1,482,044.02	2,052,881.17	(570,837.15)	5,371,612.07
SEPTEMBER	87.13	47,877.70	1,548,188.95	2,266,858.73	(718,669.78)	4,652,942.29
OCTOBER	90.37	48,726.00	1,572,292.80	-	1,572,292.80	6,225,235.09
NOVEMBER	86.46	44,568.00	1,451,772.29	3,781,445.15	(2,329,672.86)	3,895,562.23
DECEMBER	85.16	38,981.20	1,312,883.78	2,340,038.27	(1,027,154.49)	2,868,407.74
TOTAL	86.75	551,575.51	20,434,708.36	20,733,227.18	(298,518.82)	2,868,407.74

Table 5.2.2 CEB

MONTHS	ELECTRICITY DELIVERED		INVOICE (\$)	PAYMENT MADE (\$)	OUTSTANDING (\$)	CUMMULATIVE OUTSTANDING (\$)
	CAPACITY (MW)	ENERGY (MWH)				
01/01/2010						7,718,614.16
JANUARY	80	62,477.00	2,784,089.70	2,464,849.00	319,240.70	8,037,854.86
FEBRUARY	80	54,596.00	2,472,002.10	2,560,681.00	(88,678.90)	7,949,175.96
MARCH	80	60,869.00	2,720,412.90	-	2,720,412.90	10,669,588.86
APRIL	100	62,030.00	2,766,388.50	2,697,589.00	68,799.50	10,738,388.36
MAY	100	73,738.00	3,430,025.30	2,784,036.70	645,988.60	11,384,376.96
JUNE	100	71,613.00	3,345,875.30	-	3,345,875.30	14,730,252.26
JULY	100	62,380.00	2,980,248.50	2,766,363.50	213,885.00	14,944,137.26
AUGUST	100	65,267.00	3,094,573.70	6,775,822.60	(3,681,248.90)	11,262,888.36
SEPTEMBER	100	68,443.00	3,220,343.30	-	3,220,343.30	14,483,231.66
OCTOBER	100	71,053.00	3,323,699.30	-	3,323,699.30	17,806,930.96
NOVEMBER	100	64,935.00	3,081,425.50	3,094,548.70	(13,123.20)	17,793,807.76
DECEMBER	100	69,312.00	3,254,755.70	3,220,318.30	34,437.40	17,828,245.16
TOTAL	95	786,713.00	36,473,839.80	26,364,208.80	10,109,631.00	17,828,245.16

## 6.0 GAS ADMINISTRATION AND SETTLEMENT

### 6.1 Gas Consumption Against Energy Generated

Table 6.1 Gas Consumption Against Energy Generated

GENCO	GAS CONSUMED (MMSCF)	RATE (=N=/1000SCF)	AMOUNT (=N='1000)	VAT (=N='1000)	TOTAL (=N='1000)	ENERGY GENERATED (MWH)	COST OF GAS/ ENERGY (=N=/MWH)	MWH/ MMSCF
EGBIN	58,878.26	30.00	1,766,347.83	88,317.39	1,854,665.22	5,385,475.96	0.34	91.47
AES	20,064.17	30.00	601,925.13	30,096.26	632,021.39	1,538,650.72	0.41	76.69
SAPELE	5,776.54	30.00	173,296.24	8,664.81	181,961.05	520,067.45	0.35	90.03
DELTA	14,186.11	30.00	425,583.27	21,279.16	446,862.43	1,957,869.10	0.23	138.01
AFAM	966.64	30.00	28,999.15	1,449.96	30,449.11	96,156.80	0.32	99.48
GEREGU	11,810.49	30.00	354,314.69	17,715.73	372,030.43	776,765.16	0.48	65.77
OMOTOSO	4,478.34	30.00	134,350.32	6,717.52	141,067.83	389,701.50	0.36	87.02
OLORUNSOGO	3,056.55	30.00	91,696.50	4,584.82	96,281.32	269,753.46	0.36	88.25
<b>TOTAL</b>	<b>119,217.10</b>		<b>3,576,513.13</b>	<b>178,825.66</b>	<b>3,755,338.79</b>	<b>10,934,440.15</b>		

Fig. 6.1.1

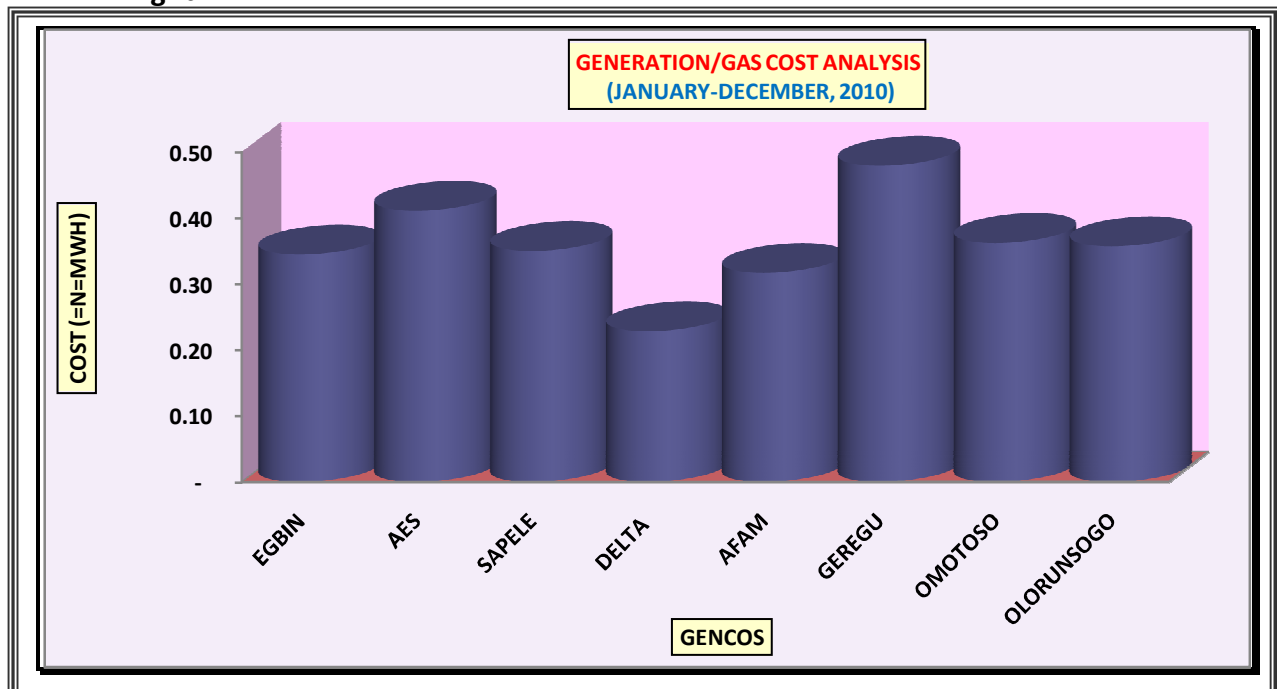
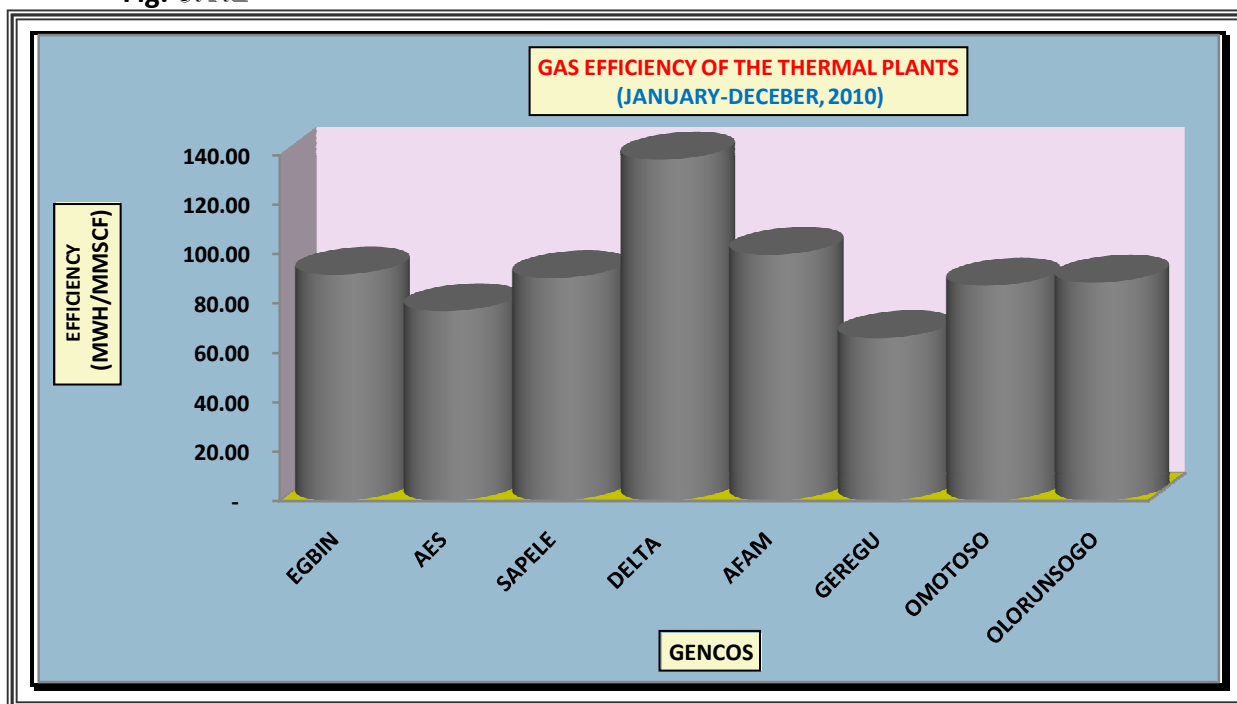


Fig. 6.1.2



## 6.2 Gas Invoice and Payment

Table 6.2 Gas Invoicing and Payments

MONTHS	INVOICES (=N=)					PAYMENTS (=N=)	OUTSTANDING (=N=)
	AFAM, DELTA, AES, EGBIN & SAPELE	OMOTOSO	OLORUNSOGO	GEREKU	TOTAL		
01/01/2010							9,788,841,118.49
JANUARY	213,074,930.31	13,335,350.62	-	18,391,680.04	244,801,960.97	-	10,033,643,079.46
FEBRUARY	144,110,039.20	3,456,341.22	584,110.23	4,405,596.26	152,556,086.91	250,000,000.00	9,936,199,166.37
MARCH	PRICE DIFFERENTIAL CHARGES WRITTEN-OFF				0.00	4,371,328,700.34	5,564,870,466.03
	249,295,961.42	18,711,191.30	13,994,161.37	31,632,842.56	313,634,156.65	-	5,878,504,622.68
APRIL	267,453,942.16	22,551,574.06	12,923,071.60	39,905,226.18	343,833,814.03	-	6,222,338,436.71
MAY	263,666,453.26	15,205,224.83	5,010,719.40	47,491,131.75	331,373,529.24	4,028,393,780.92	2,525,318,185.03
JUNE	291,582,059.36	14,791,492.67	13,906,820.47	41,889,894.83	362,170,267.33	-	2,887,488,452.36
JULY	276,179,561.12	12,185,195.08	14,160,824.69	30,596,062.53	333,121,643.42	500,000,000.00	2,720,610,095.78
AUGUST	263,528,916.85	15,267,576.11	14,480,594.67	30,687,798.52	323,964,886.15	-	3,044,574,981.93
SEPTEMBER	247,850,472.04	9,017,494.89	5,276,035.14	26,785,733.15	288,929,735.22	-	3,333,504,717.15
OCTOBER	274,539,712.63	6,634,036.17	8,618,400.00	35,165,964.39	324,958,113.19	320,000,000.00	3,338,462,830.34
NOVEMBER	227,988,958.46	5,201,202.73	5,980,776.13	33,513,310.26	272,684,247.58	487,000,000.00	3,124,147,077.92
DECEMBER	225,347,220.80	4,711,150.49	345,809.55	31,565,183.40	261,969,364.24	-	3,386,116,442.16
TOTAL	2,944,618,227.64	141,067,830.17	96,281,323.25	372,030,423.87	3,553,997,804.93	9,956,722,481.26	3,386,116,442.16