Solving the Liquidity crunch in the Nigerian Power Sector

White Paper presented at Power Sector Roundtable Conference hosted by Mainstream Energy Solutions Limited on September 24, 2019 at Kainji Dam Hydropower Plant, Niger State

pwc

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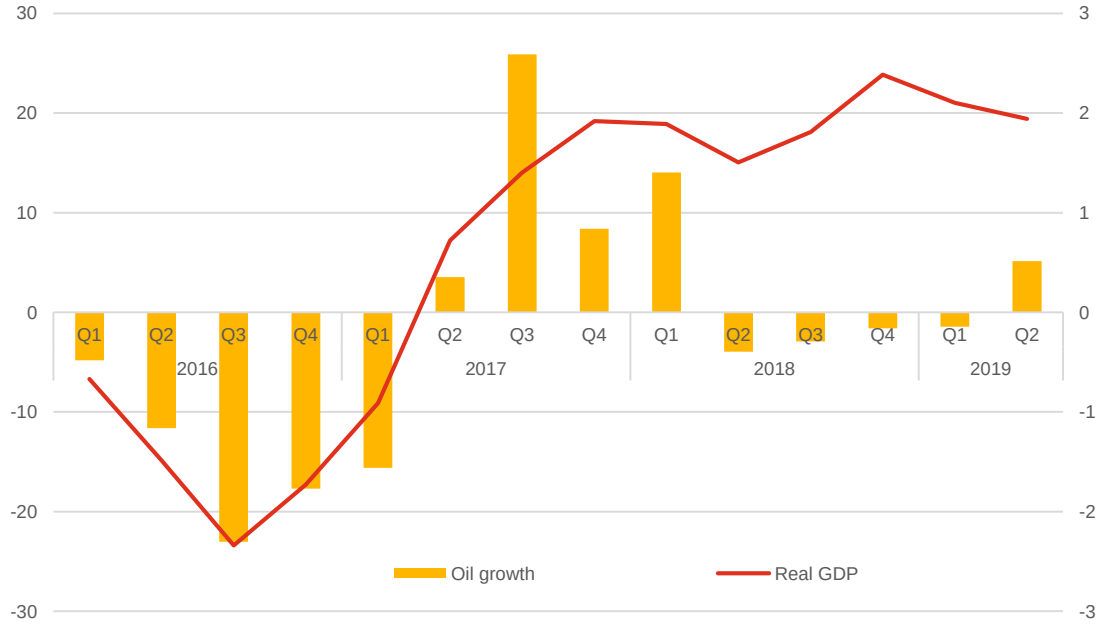
BACKGROUND

The slow pace of economic diversification

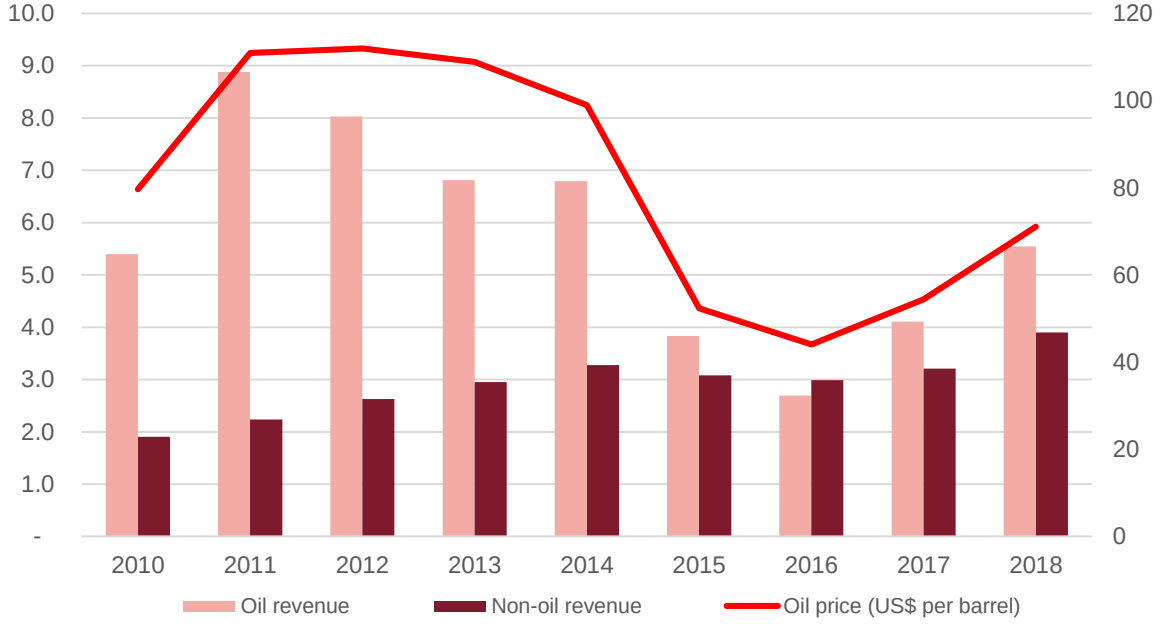
The Economic Recovery and Growth Plan (ERGP) contains the federal government's position to diversify the economy away from oil towards developing the agricultural and manufacturing sectors. While the oil sector contributes less than 10% to real GDP, it accounts for more than half of total government revenue. The economy remains vulnerable to oil price fluctuations with its ripple effect across non-oil sectors and key macroeconomic variables such as inflation and exchange rates.

Real GDP and oil growth (%)



Source: NBS, PwC analysis

Oil and non-oil revenue in Nigeria (N' billions)



Source: CBN, PwC analysis

Recognising the role of the power sector in economic diversification

- Economic diversification is needed to ensure inclusive growth that would provide jobs for the rising unemployed Nigerians and check against the escalating number of extremely poor people in the country.
- PwC estimates that for Nigeria to combat poverty and under- and unemployment, the economy would need to grow at 6% - 8%.
- The success of any economic diversification and inclusive growth strategy is anchored on industrialisation, In turn, massive industrialisation depends on a robust, sound and highly efficient power sector which will ultimately bring about the needed economic transformation envisaged.

Growth recovery remains fragile…

In the heat of the recession in 2016, Nigeria's growth dipped -1.62%. The economy recovered in 2017 with a growth of 0.82% and this was sustained to 1.93% in 2018, due to oil price recovery and stability in domestic oil production. Growth, albeit fragile, is expected to reach 2.1% by the end of 2019 according to PwC estimates. But output growth still remains significantly lower than population growth which hovers around 2.7%.

Source: NBS, IMF, PwC analysis

f = forecasted

Source: NBS, PwC analysis

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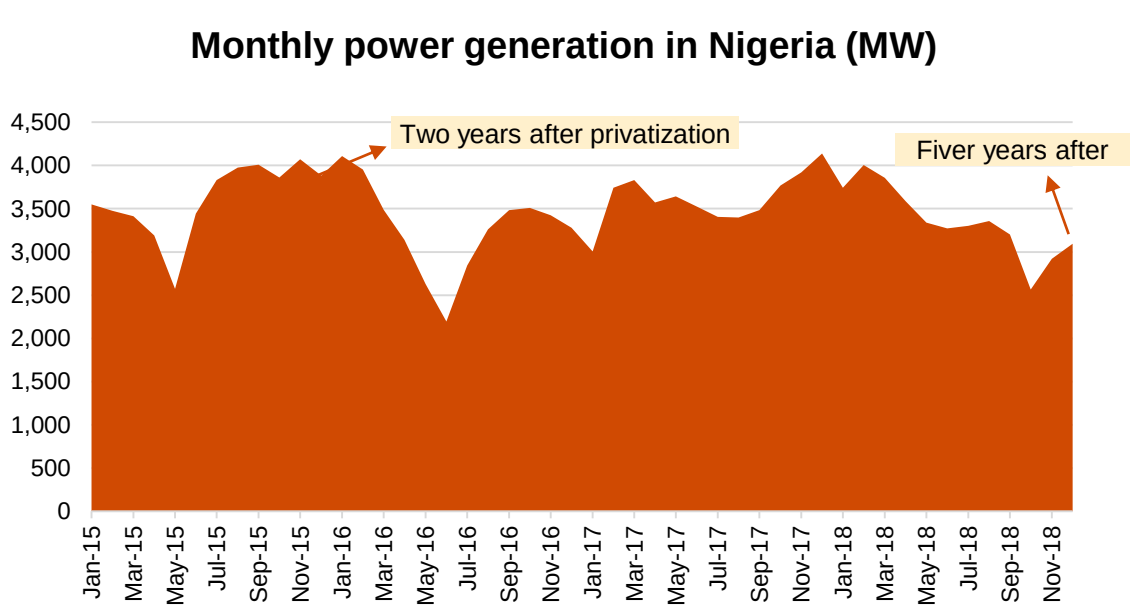
OVERVIEW OF THE NIGERIAN POWER SECTOR

Challenges of the power sector

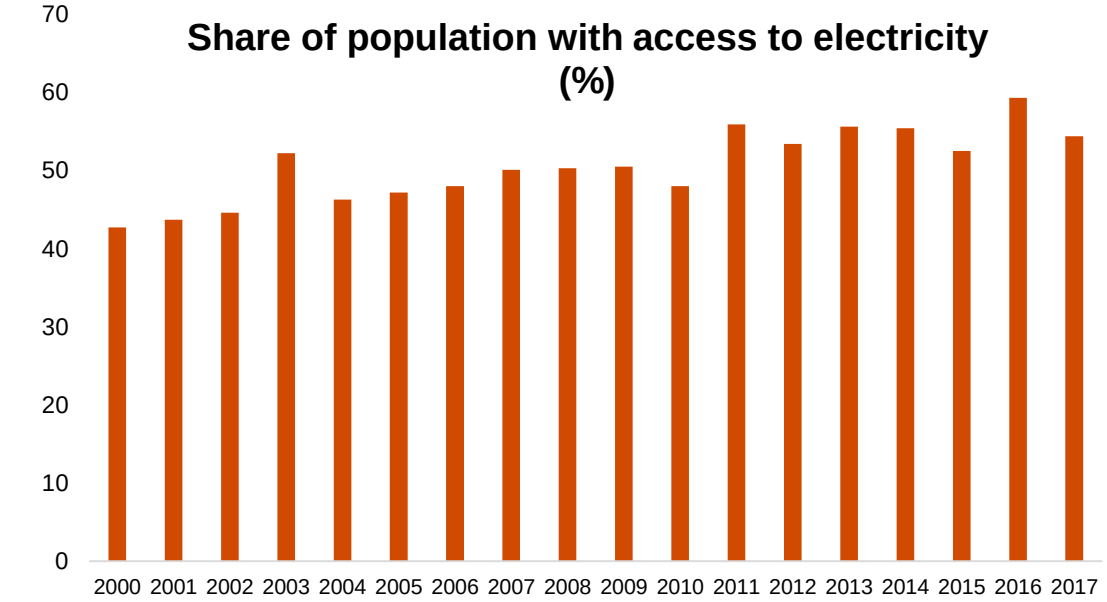
Power generation capacity falls short of pre-privatization target

Nigeria has more than 190 million people (the largest in Africa) including large industrial and commercial ventures scatter unevenly across the country. About 40% of the population have no access to electricity and supply is usually epileptic for those that have access. However, the country's current operational capacity stands at less than 4,000MW, less than 8,400MW projection for 2018 in Multi-Year Tariff Order (MYTO).

The installed capacity of 7,000MW is also less than the pre-privatization target of 11,879 MW by 2012 and post-privatization target of 14,218 MW and 40,000 MW by 2013 and 2020 respectively. The bulk of electricity generated comes from thermal sources (gas-fired power plants). As a result, the inadequate gas supply often affects power generation.



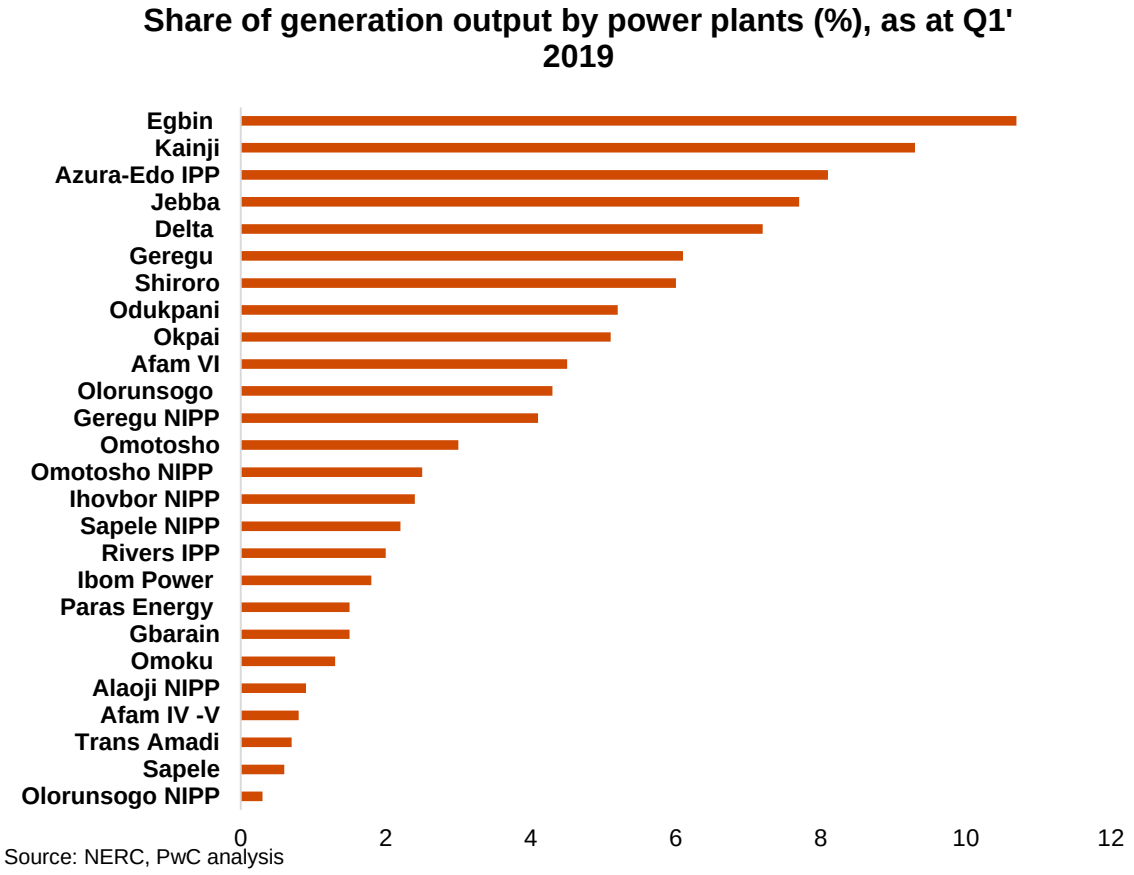
Source: NBS, PwC analysis



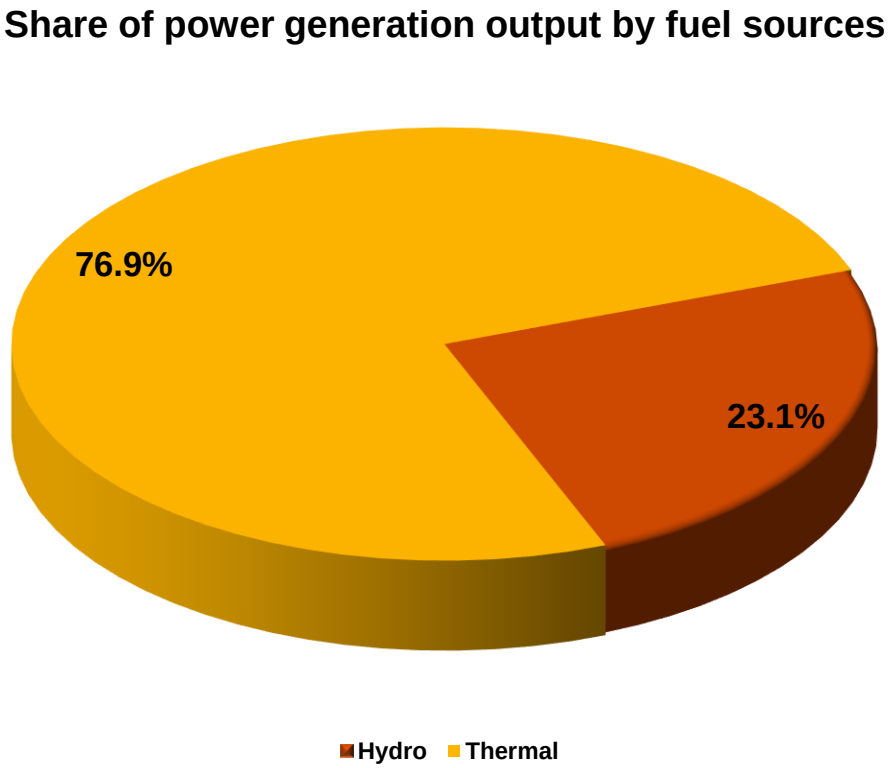
Source: World Bank, PwC analysis

Five power plants account for half of power generation in Nigeria

Gas-fired power plants account for more than 77% of total electricity generated (Q4'2018: 71%) while hydro sources accounted for 23% (Q2'2018: 29%). Insufficient gas supply and variability in rainfall and water level at hydro plants, among other challenges, continue impact power generation in Nigeria.

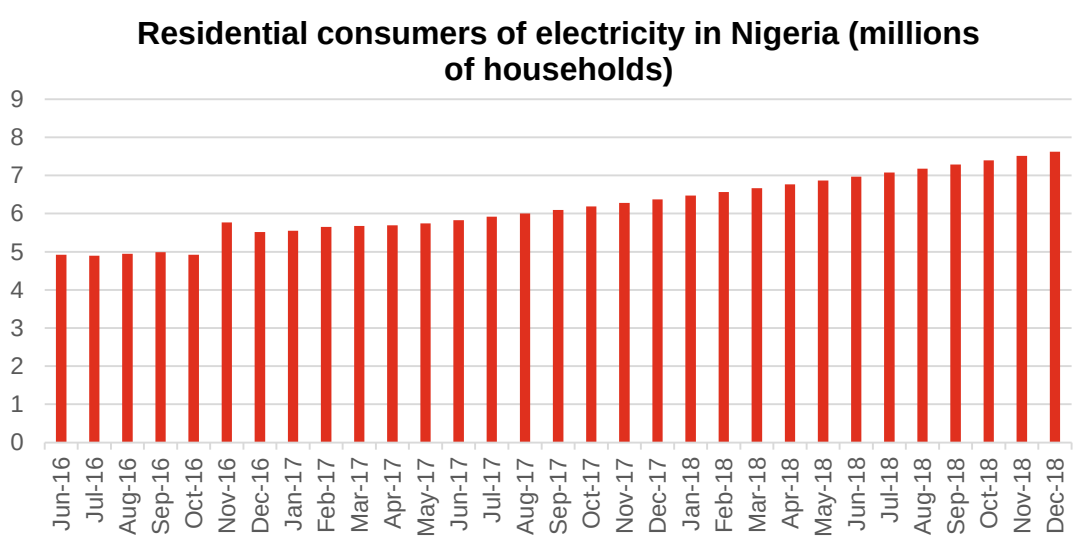


Source: NERC, PwC analysis

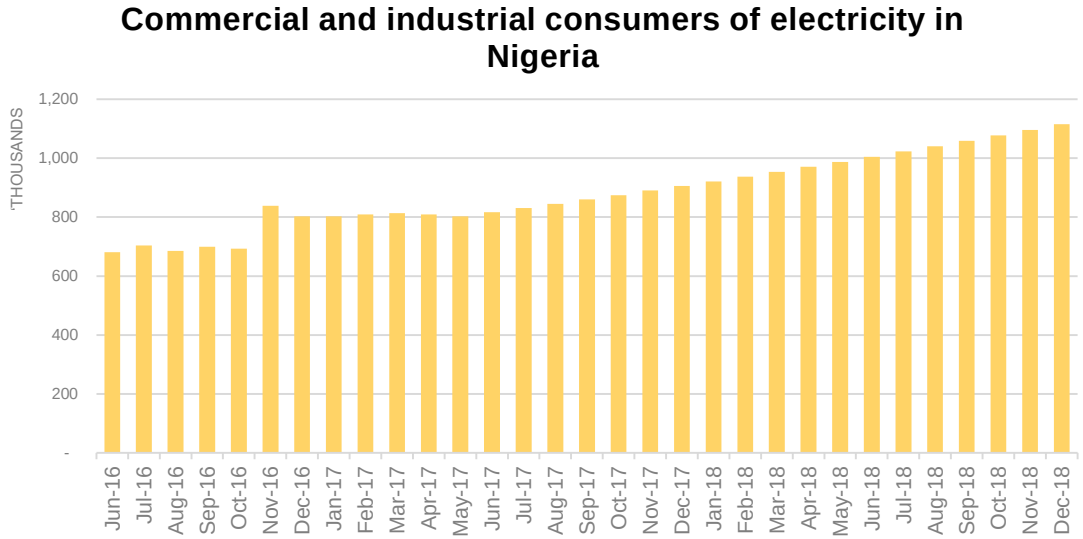


Source: NERC, PwC analysis

Electricity consumers in Nigeria



Source: NBS, PwC



Source: NBS, PwC

Consumers of electricity comprising households, industries, commercial ventures, among others, have risen significantly. Rising population and improvement in industrial and commercial activities are key factors driving the trend. As a result, demand for electricity has outpaced generation, transmission and distribution capacity.

5.7 million

About 5.7 million households were consumers of power.

29,685 industries

It is projected to have risen to about 51,000 by December 2018 at an average growth of 2.9%,

772,441 commercial ventures

Over 772,441 commercial customers compared to 657,000 as at June 2016

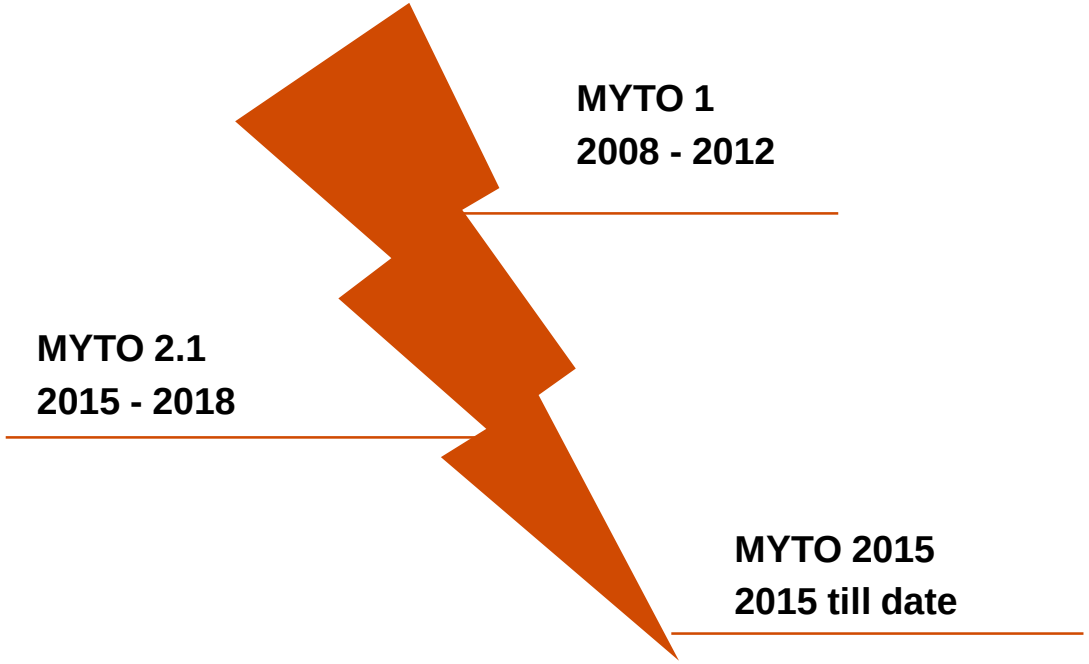
3

LIQUIDITY STATUS OF THE POWER SECTOR

Electricity pricing structure in Nigeria

The framework that governs electricity tariff framework in Nigeria is the Multi-Year Tariff Order (MYTO for short). Industry participants often complain that electricity charges to customer does not reflect the cost of generation, transmission and distribution. Introduced by NERC in 2008, MYTO was the proposed solution to this challenge as it provides a fifteen (15)-year tariff path for the electricity industry which is subject to minor reviews twice every year and a major review once every five years. MYTO has undergone different review since 2008.

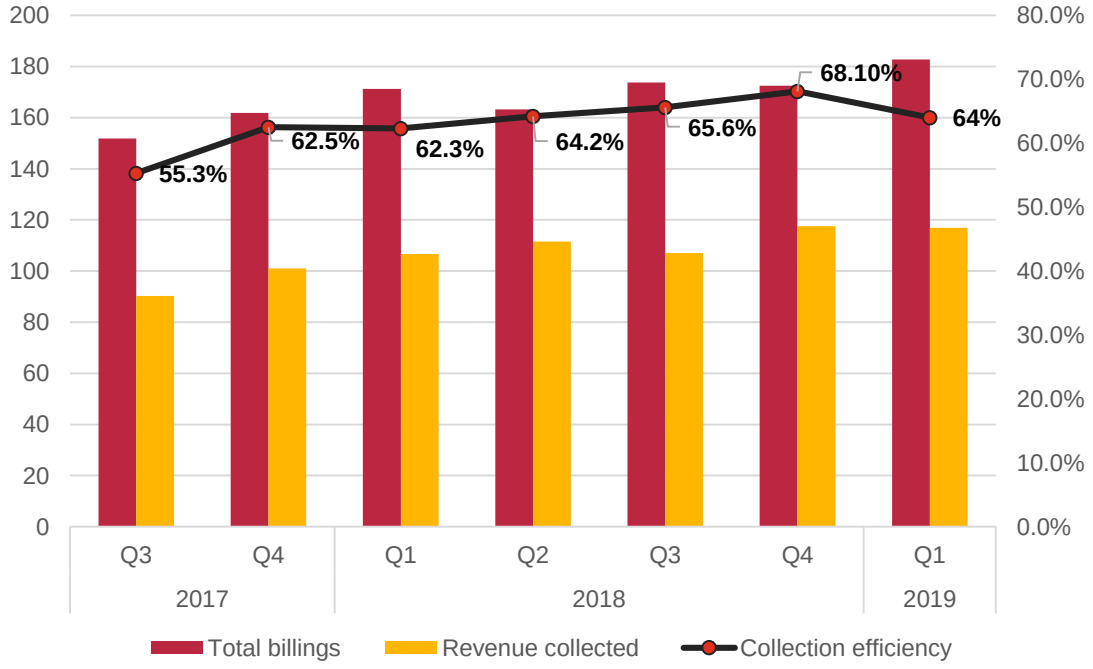
MYTO provides cost-reflective electricity tariffs across several years that is fair to generation, transmission and distribution companies and other industry stakeholders.



Collection efficiency remains low at 65.6% of total billings…

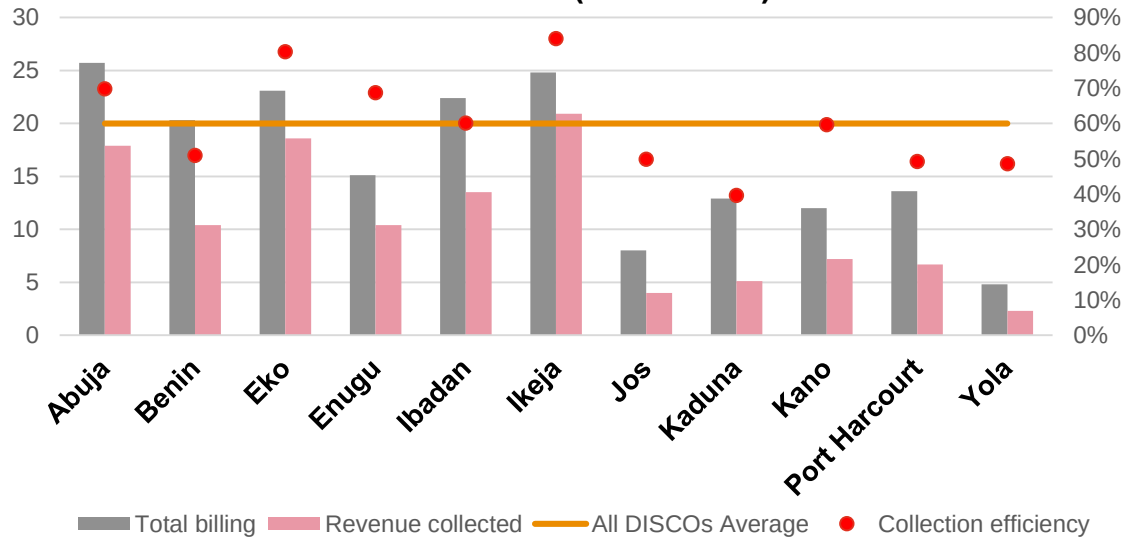
Essentially, many of the DISCOs have been unable to collect a significant proportion of the total billings to customers as total revenue collected by all the DISCOs for energy distributed still significantly lags the total billings. Collection efficiency improved by about 10% from 55.3% in Q3'2017 to 65.6% by Q3'2018. This implies that about N3.4 out of every N10 billed to customers are not paid to DISCOs as at when due.

Total billings and revenue collection by DISCOs (N' billions)



Source: NERC, PwC analysis

Total billings and revenue collected across DISCOs (N' billions)

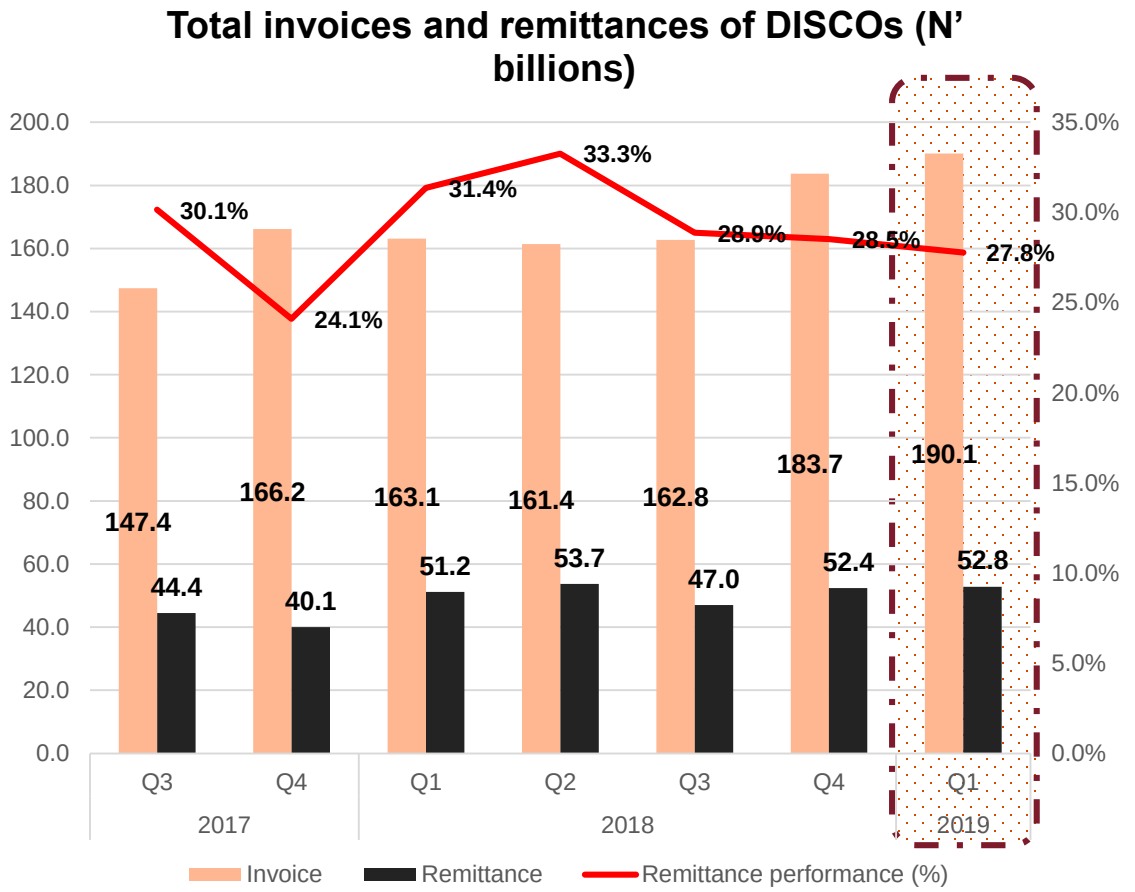


Source: NERC, PwC analysis

Only four out of 11 DISCOs (Abuja, Eko, Enugu and Ikeja) surpassed the average collection rate of 60% for Q1'2019.

…DISCOs' remittances to NBET for energy distributed is less than 50%

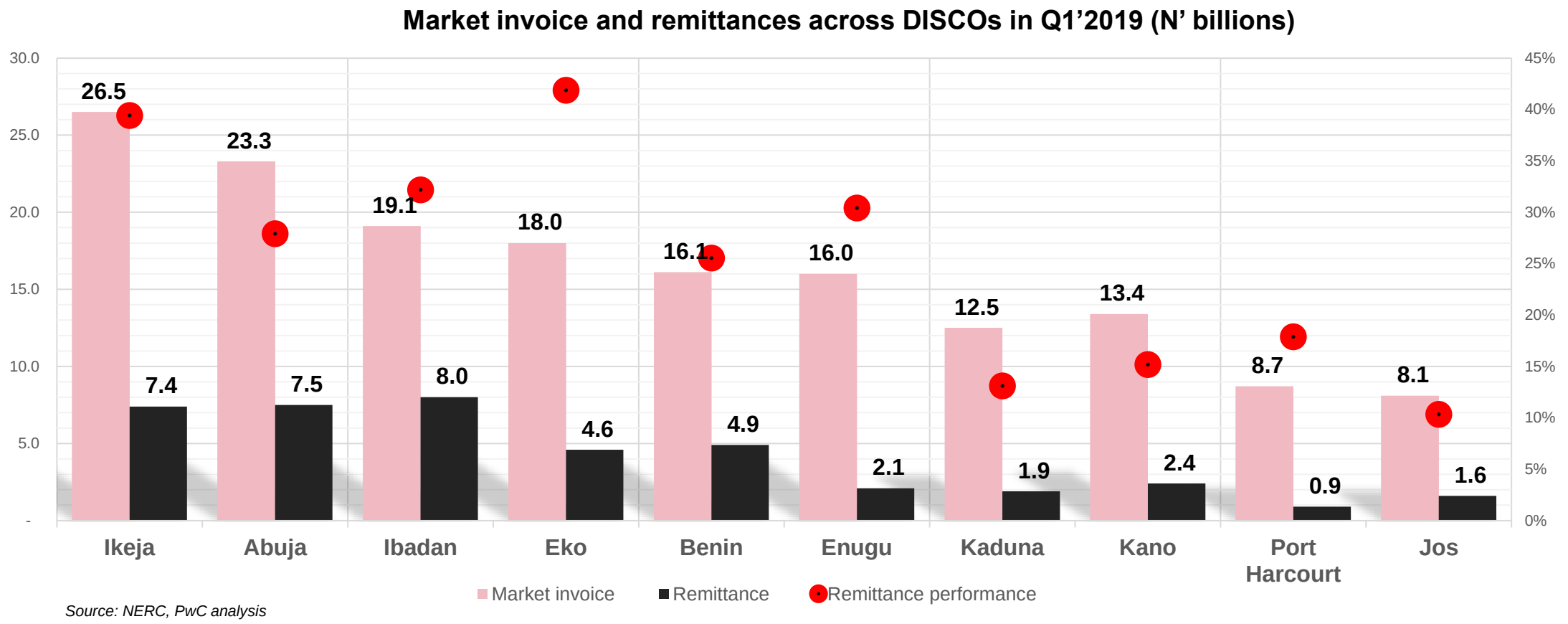
- Liquidity crunch is the biggest challenge of the Nigerian electricity sector today. The 11 DISCOs have been struggling to meet their obligations to the Nigerian Bulk Electricity Trading Plc (NBET) and Market Operators (MO) as evidenced in their low remittances to NBET and MO.
- In Q1'2019, only about **28%** of the **N190 billion** invoice (comprising invoice of 161.4 billion for energy purchased from NBET and an invoice of N28.8 billion for administrative services from MO) of DISCOs were remitted.
- In one year (Q1'2018 – Q1'2019), DISCOs' outstanding remittance to NBET and MO stood at about N523.8 billion and N80.3 billion respectively.
- Consequently, NBET have in turn been unable to meet their obligation to the generation companies (GENCOs) thus creating a liquidity challenge that has plagued the electricity industry since the privatization exercise in 2013.



Source: NERC, PwC analysis

None of the DISCOs have been able to offset the invoice due to NBET and MO

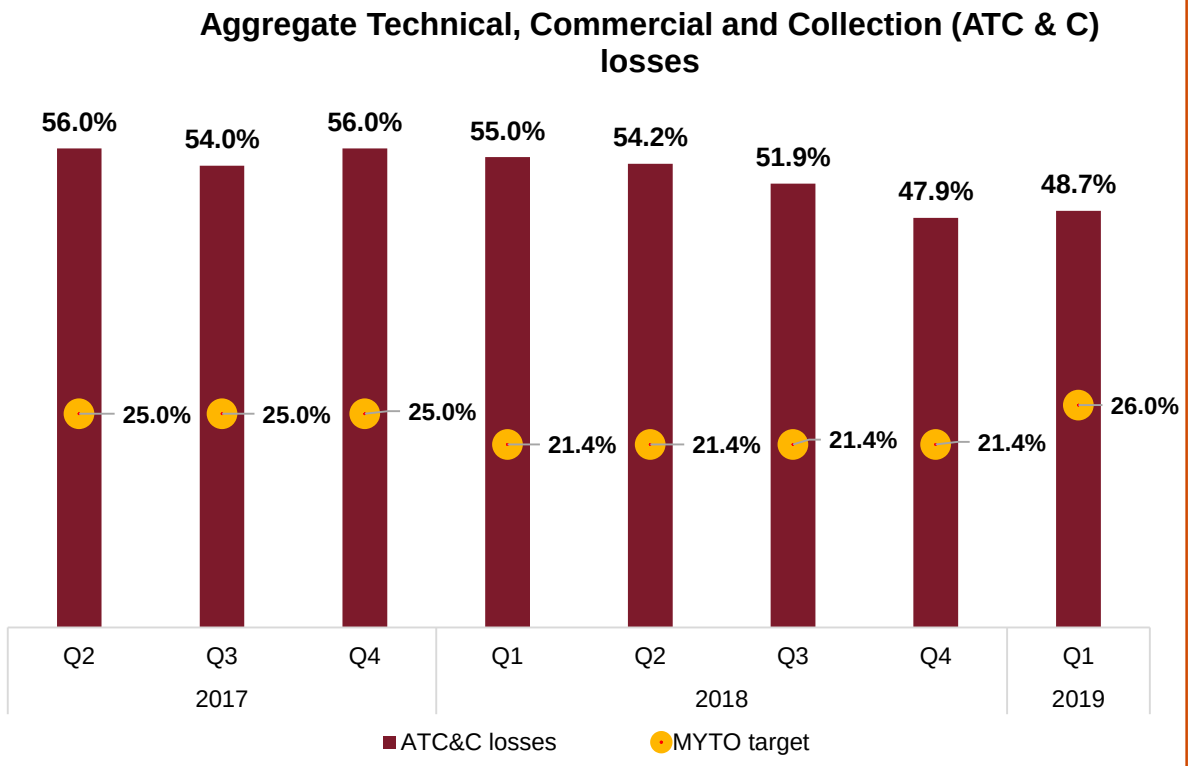
The proportion of remittances relative to market invoice is low across all the DISCOs as none could attain 50% of the total bill owed. This situation creates liquidity challenges to the generation and transmission segment of the industry.



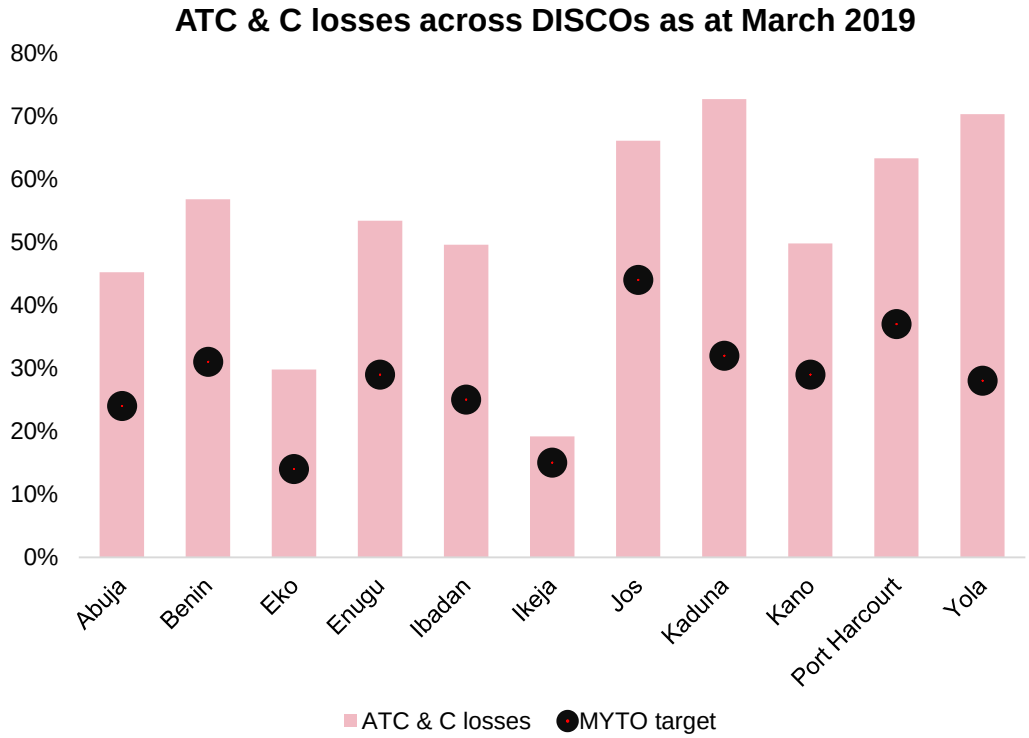
Source: NERC, PwC analysis

Divergence between actual ATC & C losses and MYTO target

Over the past one year, overall ATC & C losses has trended downward even though there is a huge divergence with the MYTO target. Performance of DISCOs have been poor. In Q1'2019, Ikeja (19%) was the most technically and commercially efficient among the DISCOs…



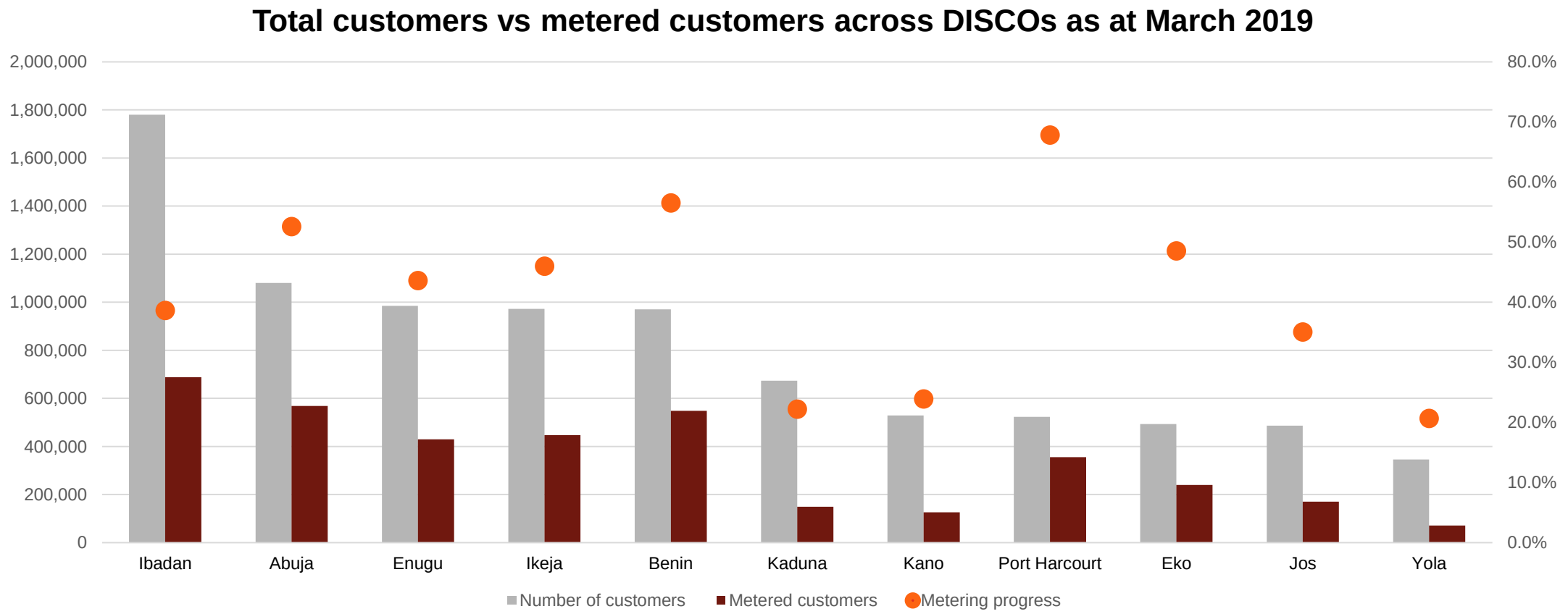
Source: NERC, PwC analysis



Source: NERC, PwC analysis

Slow metering progress…

It is believed that metering customers will reduce the liquidity challenges currently grappling the power sector but meter delivery progress has been slow so far. Abuja, Benin and Port- Harcourt are the DISCOs that currently have more than half of their customers metered. Yola DISCO had the slowest metering progress (21%) of all DISCOs as at Q1' 2019. Progress in metering customers will help to reduce ATC&C losses and billing collection inefficiencies in the sector.



Source: NERC, PwC analysis

Causes and consequences of Discos liquidity challenges

Causes

Tariff shortfall

The tariff shortfall in 2018 by the 11 Discos amounted to **N384 billion**. This was due to the fact that electricity consumers are not charged the cost-reflective tariffs

Receivable collection

A total of **N661.6 billion** worth of electricity was billed by Discos in 2018 but **N437.9 billion** was only received. This means only **66%** of electricity billed was collected in revenue

Technical, commercial and collection loss

The average aggregate technical, commercial and collection loss in 2018 was **52.7%.** This means more than half of the energy received by Discos was wasted

Consequences

Revenue lost

All 11 Discos are currently unable to pay tax because they have reported losses consistently since 2013.

GENCOs and TCN liquidity challenges

Since DISCOs are unable to pay the full amount of energy received to NBET, GENCOs and the TCN are not been paid. This has also affected their operations

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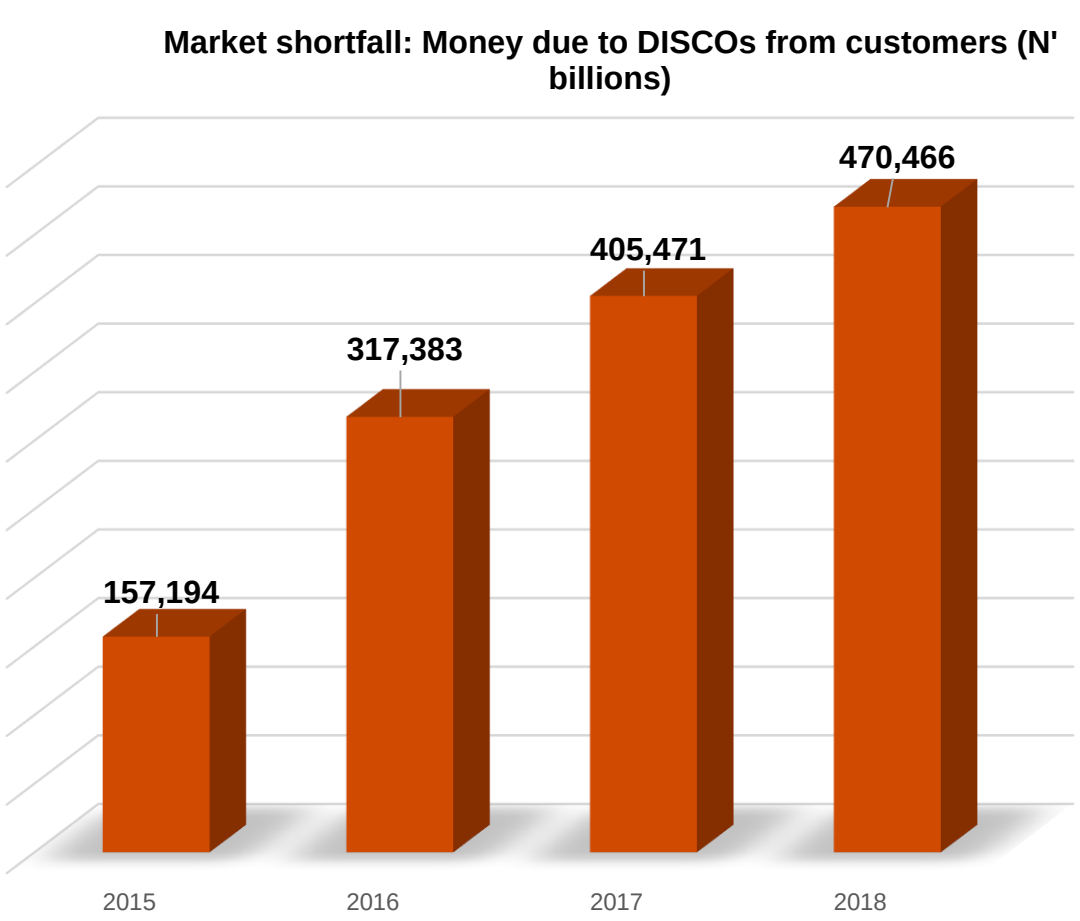
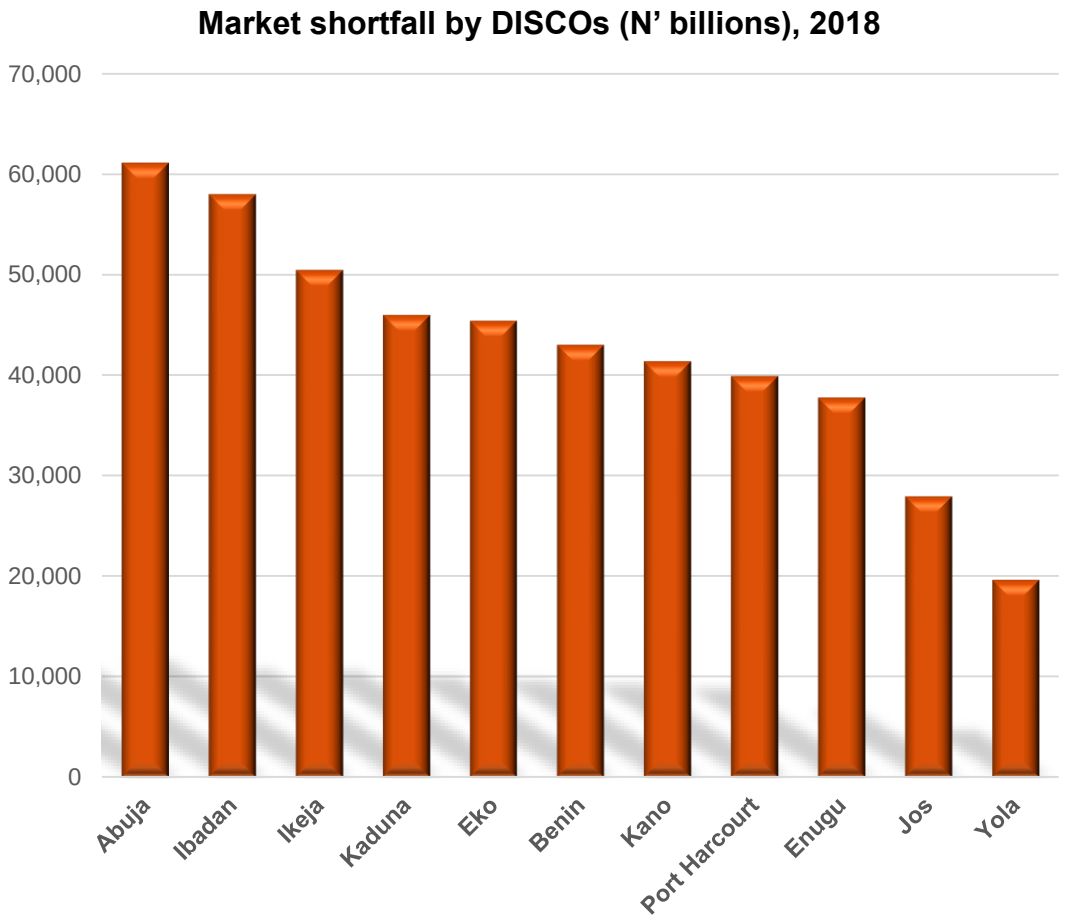
INDUSTRY FINANCIAL STATUS

Market shortfall on the rise



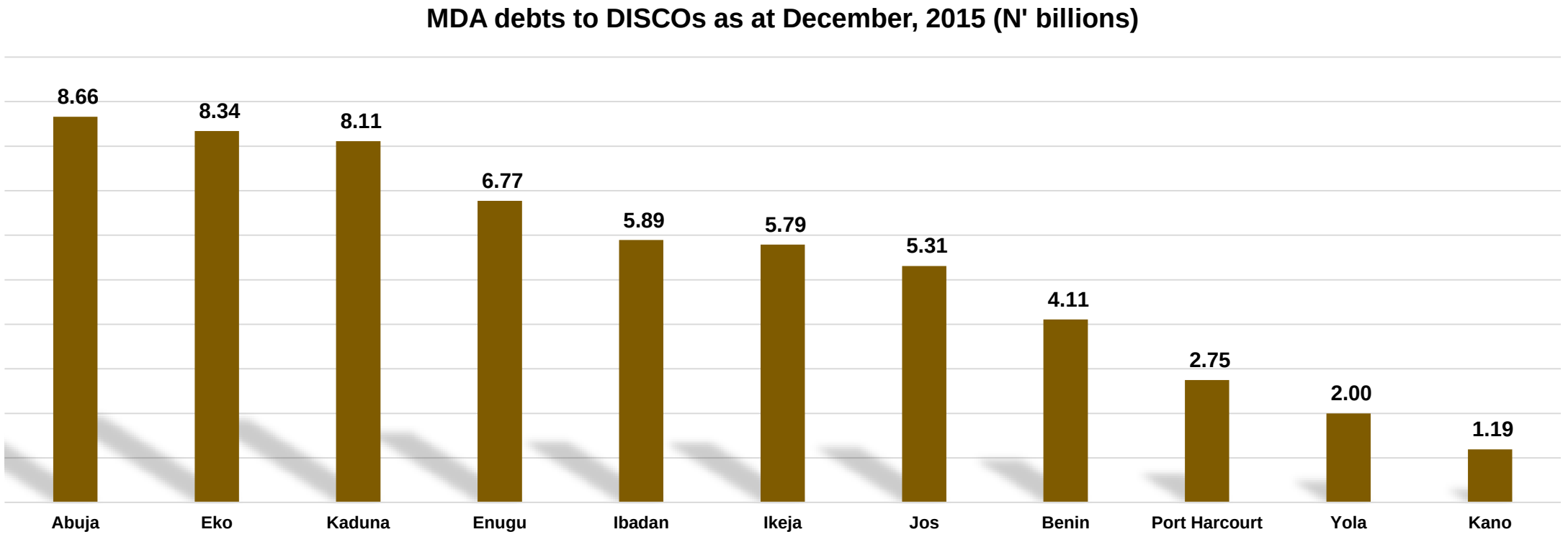
Source: NERC, PwC analysis



Source: NERC, PwC analysis

MDA debts to DISCOs

The total debt owed by ministries, departments and agencies (MDAs) of states and federal governments stood at approximately N59 billion as at December 2015. NERC has directed DISCOs to meter MDAs and reiterated the rights of DISCOs to disconnect MDAs who refused to pay their electricity bills.

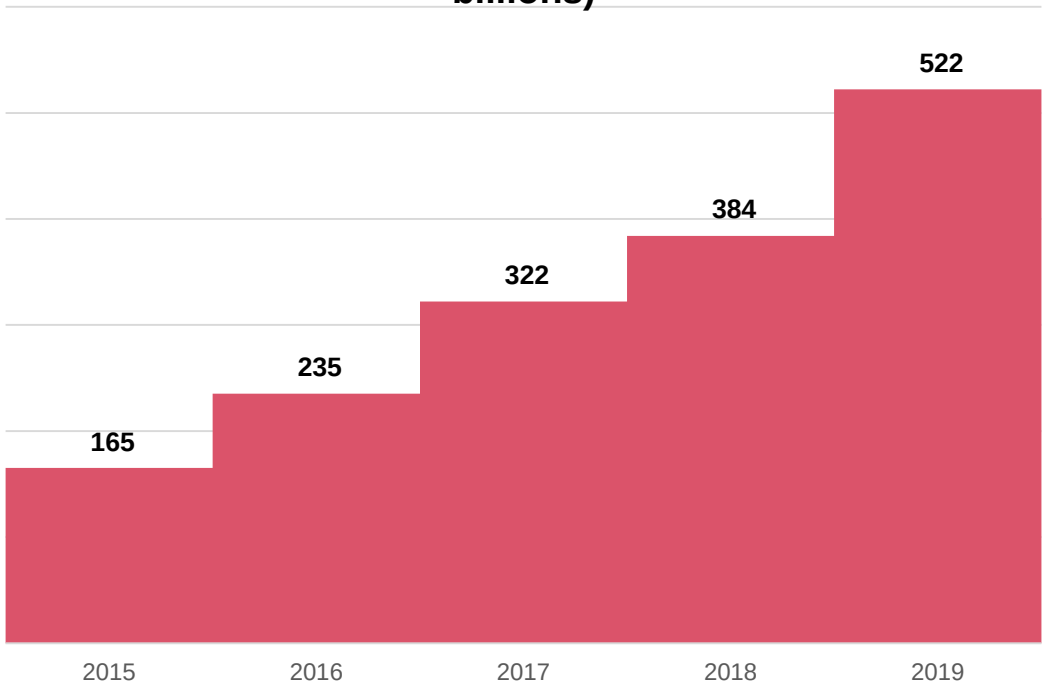


Source: ANED, PwC analysis

FGN owes DISCOs over N500bn in tariff shortfall

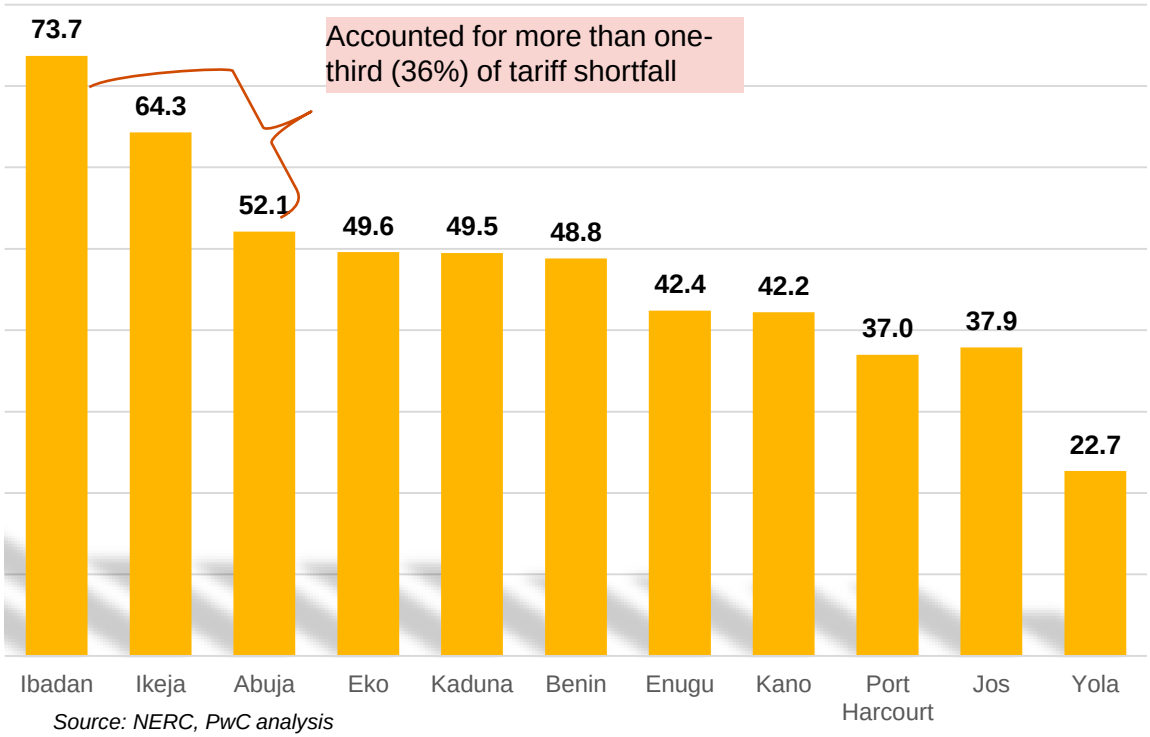
Tariff shortfall is the difference between the end-user cost-reflective tariff and the end-user allowed tariff (actual tariff) DISCOs currently charge their consumers. It is the money due to DISCOs from customers. This shortfall is what the Federal Government, via the Power Sector Recovery Plan (PSRP), agreed to pay as part of the electricity subsidy. Essentially, it is the amount FG owes DISCOs. This debt has been soaring over the years. In 2016, it climbed to N235 billion from N165 billion in 2015. It is expected to reach N522 billion by 2019, 36% increase relative to the preceding year.

Tariff shortfall in the electricity industry (N' billions)



Source: NERC, PwC analysis

Tariff shortfall across DISCOs, 2019 (N' billions)

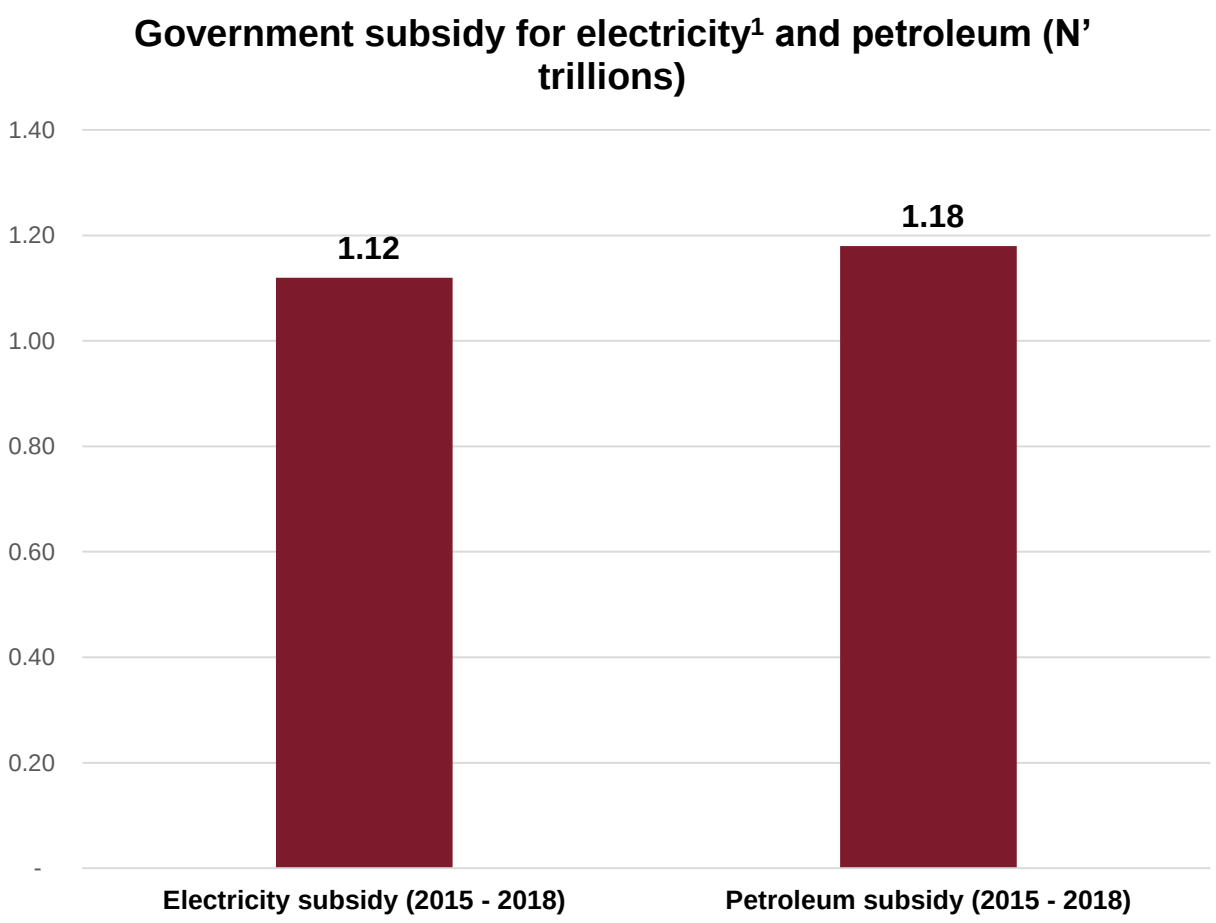


Source: NERC, PwC analysis

Electricity subsidy[1] vs petroleum subsidy

- The Federal Government (FG) has expended about N1.2 trillion as petroleum subsidy over the past four years (2015 – 2018).
- The tariff shortfall in the electricity sector which technically is the electricity subsidy payable by the FG stood at N1.12 trillion between 2015 and 2018.
- Both subsidies amounts to N2.3 trillion naira which represents about 17% of current foreign reserves and 26% of the 2019 budget.

Total electricity subsidy for the four years can cover the current budget of the ministries of health and education.

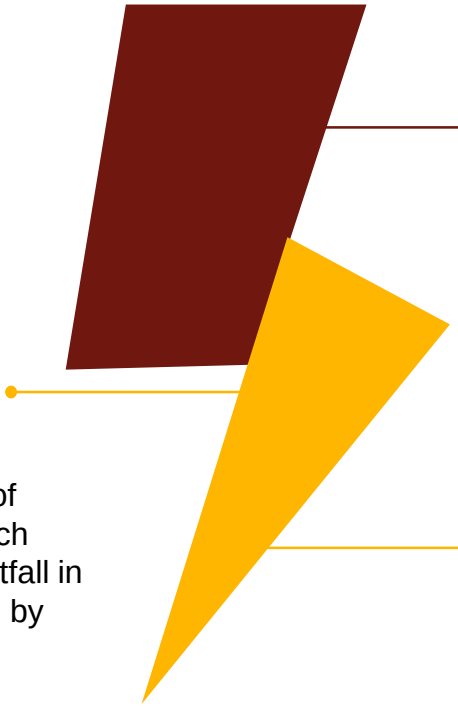


Source: NERC, NNPC, PwC analysis

[1] *Electricity subsidy is the aggregation of the tariff shortfalls from each DISCOs. Data for electricity subsidy excludes actual remittances.*

FGN continues to pump bail-out funds years after privatization

As a result of the challenges bedeviling the power sector ranging from low collection, non-cost reflective tariffs, distribution losses amongst others, DISCOs are unable to meet their obligations to NBET and this in turn spirals to other players in the power value chain (GENCOs, TCN, gas companies, banks etc.). The liquidity crisis which is the most critical challenge of the sector necessitates government's intervention in three occasions to avoid total collapse of the sector.



N213 billion

The Federal Government approves a loan of N213 billion for DISCOs in 2014. This was part of the Nigeria Electricity Market Stabilization Facility (NEMSF) by the CBN

N600 billion

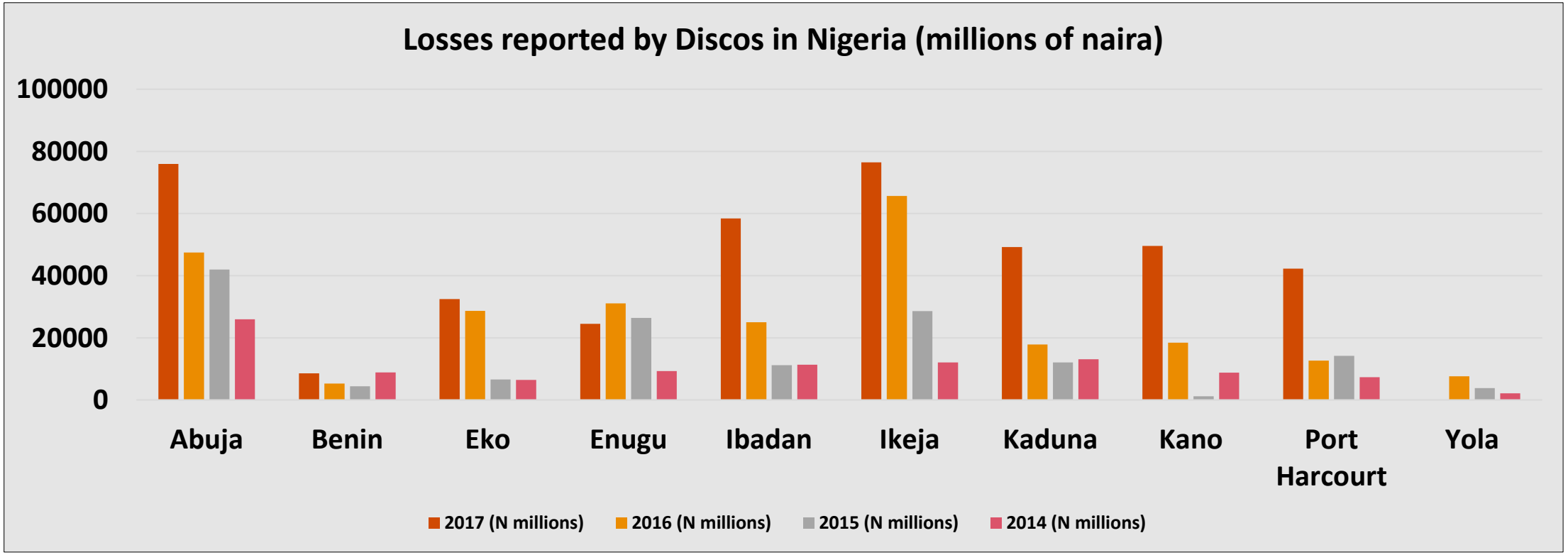
In August, 2019, the Federal Government signed the release of N600bn for the power sector which source said is meant for the shortfall in the payment of monthly invoices by key stakeholders in the sector.

N701 billion

The Federal Executive Council (FEC) approved N701 billion CBN facility in March 2017 as Power Assurance Guarantee for the NBET for a period of two years

Financial performance of DISCOs

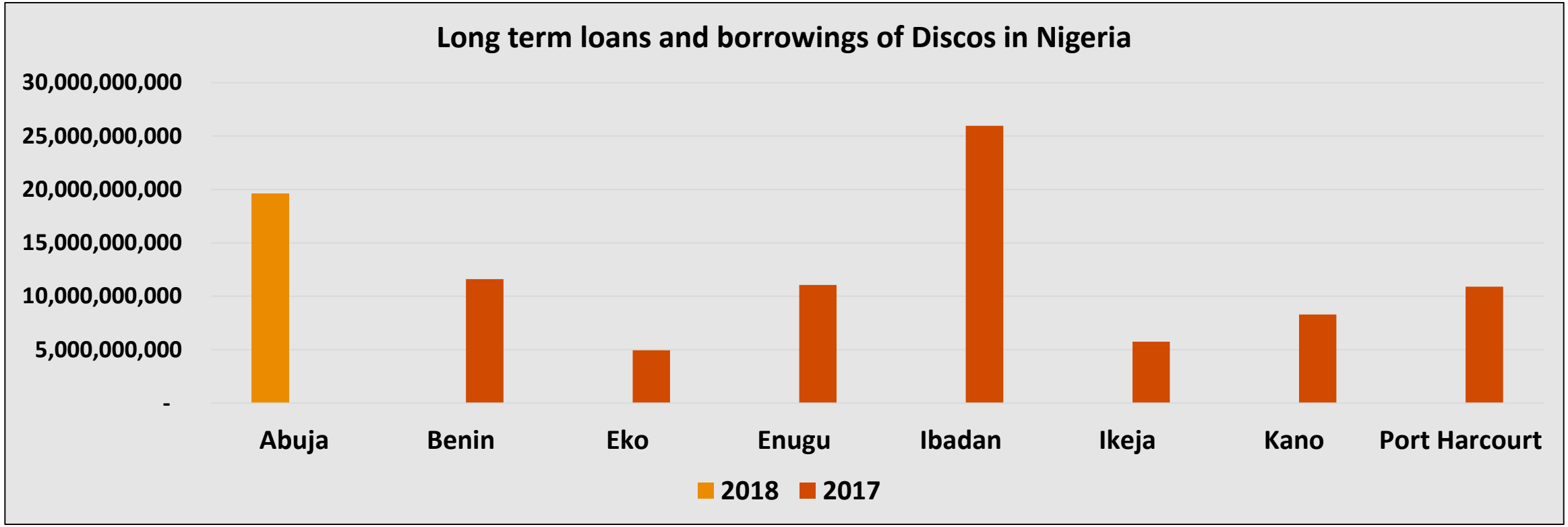
Electricity distribution companies in Nigeria have steadily reported losses since their emergence in 2013. In addition, there has been a steady growth in the amount of loss reported. In 2017, the total loss reported by Discos stood at N417 billion



Source: Financial statements of the DISCOs, PwC analysis

Indebtedness of DISCOs

Since inception in 2013, electricity distribution companies in Nigeria have grown their long term indebtedness. Based on available financial reports, a sum of N98.1 billion is owed by 8 Discos highlighted in the chart below



Source: Financial statements of the DISCOs, PwC analysis

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POSSIBLE STRATEGY TO SOLVE LIQUIDITY CRUNCH

Average electricity tariffs under MYTO

There are 11 DISCOs in Nigeria with different tariffs for sub-classes across consumer categories. We grouped the average tariff for each consumer category sub-classes under all 11 DISCOs into three sets: minimum, average and maximum. These values were obtained using simple descriptive analysis (Please see appendix)

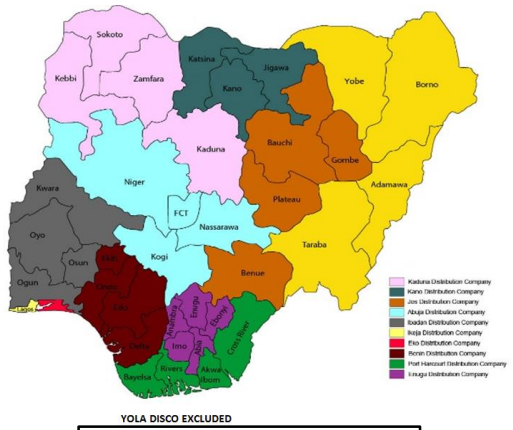
N/Kwh	Minimum	Average	Maximum
Industries	33.97	52.4	67.12
Residential	4	38.30	63.75
Commercial	31.51	50.54	65.78
Special	31.59	46.88	63.75
Street Lighting	25.25	41.06	58.67

Source: NERC, PwC analysis

Possible electricity supply strategy…

TCN

Energy received from GENCOs



YOLA DISCO EXCLUDED

Energy received from TCN

DISCOs

ATC losses

To revitalize liquidity in DISCOs, we consider ***50%*** *of energy received by DISCOs is transmitted to industries at a cost-reflective rate of* ***N80/Kwh***

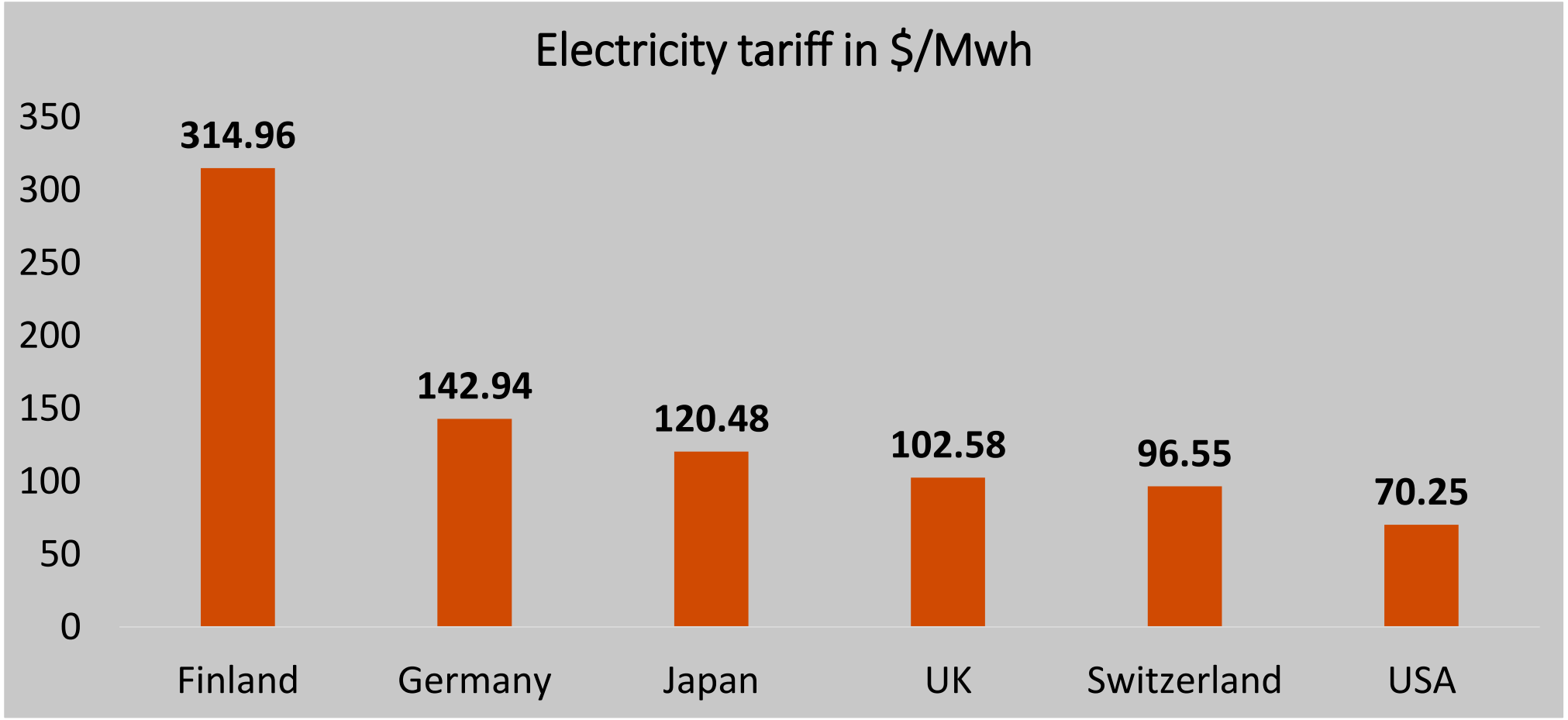
50% **Industries**

50% **Residential & others**

Post ATC Energy

Benchmarking electricity tariff

At tariff charge of N80/Kwh, Nigeria's electricity tariff is still below most developed industrialised countries…



Source: International Energy Agency

The direct effect of the strategy: Liquidity increase

We assume the average charge of N80/Kwh @ 50% electricity supplied to industries 24/7 while other consumer categories maintain the current MYTO tariff charges…

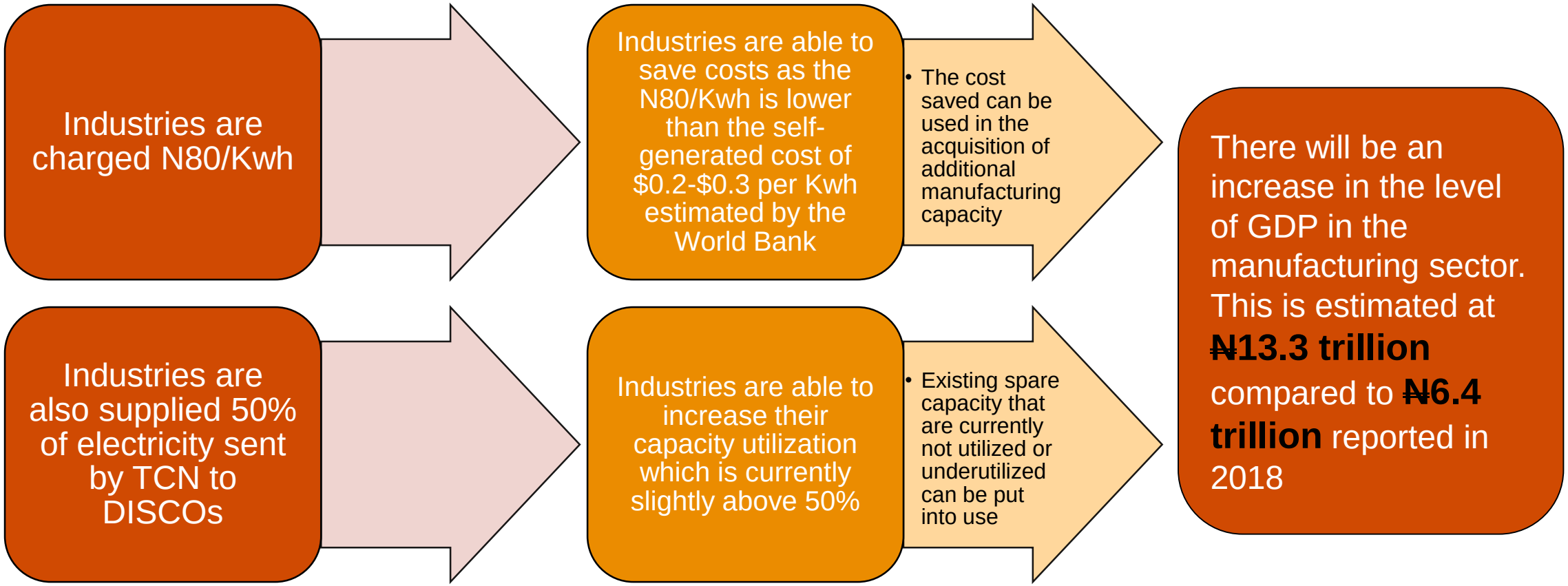
At N80/Kwh charged to industries, an estimated N400 billion will be injected into the power sector annually .

	Energy billed (Gwh) - Old	Tariff (N/Kwh) - Old	Old revenue	Energy billed (Gwh) - Proposed	Tariff (N/Kwh)	Revenue (N)
Industries	2,109.30	**52.24**	110,189,787,596	10,442.08	**80**	835,366,400,000
Residential	13,324.09	38.3	510,312,558,910.00	5,221.04	38.3	199,965,832,000
Commercial	4,281.25	50.54	216,374,412,905	3,132.62	50.5	158,322,614,800
Special	751.83	46.88	35,245,902,912.00	1,670.73	46.9	78,323,822,400
Street Lighting	417.68	41.06	17,149,940,800	417.68	41.1	17,149,940,800
			889,272,603,123.00			**1,289,128,610,000**
Additional liquidity						399,856,006,877

Source: PwC analysis, NERC

The indirect effect of the strategy: Manufacturing GDP increases…

The effect of charging industries a tariff of N80/Kwh and supplying 50% of electricity received by DISCOs to industries 24/7 is an increase in the level of manufacturing GDP from ₦6.4 trillion to ₦13.3 trillion



Effect on Tax Revenue

DISCOs in Nigeria continue to report losses, hence they pay only an estimated minimum tax based on turnover…instead of the 30% CIT, which is higher…and would have resulted in significant tax revenues for the government…

Years	Total loss of DISCOs
2014	N 105 billion
2015	N 150 billion
2016	N 259 billion
2017	N 417 billion

	Operating+Administrative+Finance cost (N'billions)
Abuja	132
Port Harcourt	94
Benin	88
Eko	110
Enugu	85
Ibadan	129
Ikeja	144
Kaduna	91
Yola (2016)	20
Kano	90
	983

Tax from DISCOs

- A minimum estimated revenue of **N1 trillion** is required by DISCOs to break even
- Discos are still unable to make profit to pay tax

Tax from industries

- Based on 2018 tax-to-GDP ratio of **6%** and the estimated increase in GDP of **N13.3 trillion**, additional tax revenues of about **N798 billion** could be realised.

Source: DISCOs annual report, FIRS, PwC analysis

Proposed strategy: Direct Employment

Increasing electricity supply to industries has a direct effect on employment in the manufacturing sector as additional labour will have to be engaged to produce the GDP worth N49.6 trillion estimated in earlier slide (PwC estimate)

Employment in the industrial sector is expected to increase from

4.42 million to 6.21 million, approximately 1,790,000 additional jobs

Source: UN stat, ILO, CBN, PwC analysis

Proposed strategy: Indirect Employment

***Increasing electricity supply to industries has an indirect effect on employment in other sectors of the economy at a multiplier rate of* 2.5 *Times of direct employment* (PwC estimate)**

2.5

X

PwC estimates that an additional job creation of

4.475 million jobs

Source: UN stat, ILO, CBN, PwC analysis

If Electricity supplied to industries increases to 40,000Gwh in 7 years…

Liquidity

N/Kwh	Energy billed (Gwh)	Revenue (N)
Industries	40,000.00	3,200,000,000,000
Residential	5,221.04	199,965,832,000
Commercial	3132.62	158,322,614,800
Special	1,670.73	78,323,822,400
Street Lighting	417.68	17,149,940,800
		3,653,762,210,000

GDP

~~₦49.6~~ trillion

Employment

46.59 million

Source: UN stat, ILO, CBN, PwC analysis

6 Appendices

Appendix 1

	Industrial			Residential			Commercial			Special			Street lighting		
	Minimum	Average	Maximum	Minimum	Average	Maximum	Minimum	Average	Maximum	Minimum	Average	Maximum	Minimum	Average	Maximum
Abuja	48.20	56.59	60.79	4.00	39.39	60.79	46.48	56.02	60.79	46.05	46.05	46.05	35.29	35.29	35.29
Benin	46.31	49.45	51.08	4.00	38.91	52.60	45.38	47.91	49.55	42.91	44.70	45.86	47.14	47.14	47.14
Eko	33.97	41.12	45.48	4.00	30.82	40.15	31.51	40.08	44.72	31.59	31.59	31.59	30.51	30.51	30.51
Enugu	52.48	57.02	60.88	4.00	42.25	62.56	44.57	53.51	59.61	44.40	53.21	58.57	42.72	42.72	42.72
Ibadan	43.86	54.01	59.08	4.00	38.18	58.12	38.92	49.43	54.69	41.99	41.99	41.99	32.44	32.44	32.44
Ikeja	36.85	45.50	50.13	4.00	39.89	48.00	32.65	41.81	49.22	34.86	37.93	39.46	25.25	25.25	25.25
jos	50.24	53.44	55.62	4.00	40.80	60.02	55.77	58.58	59.58	58.24	58.24	58.24	58.67	58.67	58.67
kaduna	41.46	48.87	56.86	4.00	37.30	58.84	37.64	47.48	56.86	42.65	49.70	56.86	49.59	49.59	49.59
kano	47.62	57.03	61.73	4.00	41.72	63.50	35.29	49.84	59.97	47.62	47.62	47.62	37.04	37.04	37.04
Port Harcourt	51.88	57.59	61.55	4.00	42.22	63.75	50.56	57.15	61.55	52.76	58.62	63.75	52.76	52.76	52.76
Yola	44.53	55.83	67.12	4.00	29.86	56.39	44.53	54.15	65.78	40.28	45.98	53.70	40.27	40.27	40.27
Proposed tariffs	33.97	52.40	67.12	4.00	38.30	63.75	31.51	50.54	65.78	31.59	46.88	63.75	25.25	41.06	58.67

Appendix 2

Electricity received by DISCOs in 2018	26,385 Gwh
Energy lost	21%
Energy shared to classes	20,884.15 Gwh
Revenue collection efficiency	66%
Allocation	In Gwh
Industries	10,442.075
Residential	5,221.0375
Commercial	3,132.6225
Special	1,670.732
Street Lighting	417.683

N/Kwh	Minimum (N/Kwh)	Average (N/Kwh)	Maximum (N/Kwh)	Gwh allocated
Industries	33.97	52.4	67.12	10,442.075
Residential	4	38.3	63.75	5,221.0375
Commercial	31.51	50.54	65.78	3,132.6225
Special	31.59	46.88	63.75	1,670.732
Street Lighting	25.25	41.06	58.67	417.683

Appendix 3

Energy received and sent to consumers

Years	Gwh	energy after ATC losses
2019f	30092.82901	23773.33492
2020f	33869.74417	26757.09789
2021f	38120.69546	30115.34941
2022f	42905.17858	33895.09108
2023f	48290.15648	38149.22362

Allocation of post ATC losses to consumer classes (Gwh)

	Industries (Gwh)	Residential	Commercial	Special	Street lighting
2019f	11886.67	5943.33	3566.00	1901.87	475.47
2020f	13378.55	6689.27	4013.56	2140.57	535.14
2021f	15057.67	7528.84	4517.30	2409.23	602.31
2022f	16947.55	8473.77	5084.26	2711.61	677.90
2023f	19074.61	9537.31	5722.38	3051.94	762.98

Forecasted tariff (Kw/h): Ikeja DISCO

	Industries	Residential (Kw/h)	Commercial	Special	Street lighting
2019f	35.3	24.1	32.89	29.13	19.42
2020f	45.5	31.91	41.81	37.86	25.25
2021f	47.53	33.3	43.68	39.55	26.37
2022f	47.05	32.97	43.23	39.15	26.11
2023f	47.25	33.11	43.42	39.32	26.22

Revenue billed and collected (N)

	Industries	Residential	Commercial	Special	Street lighting	Revenue billed	revenue collected
2019f	419,599,361,314.88	143,234,342,885.11	117,285,747,821.36	55,401,379,694.52	9,233,563,282.42	744,754,394,998.28	491,537,900,698.86
2020f	608,723,977,090.01	213,454,748,449.91	167,807,139,442.64	81,041,898,101.55	13,512,334,436.50	1,084,540,097,520.61	715,796,464,363.60
2021f	715,691,278,723.99	250,710,283,836.62	197,315,769,333.04	95,284,965,532.62	15,882,835,278.73	1,274,885,132,705.00	841,424,187,585.30
2022f	797,382,017,585.55	279,380,288,201.87	219,792,718,088.57	106,159,425,253.05	17,700,016,560.39	1,420,414,465,689.41	937,473,547,355.01
2023f	901,275,408,090.40	315,780,198,538.34	248,465,893,455.78	120,002,197,828.11	20,005,452,867.84	1,605,529,150,780.46	1,059,649,239,515.10

7

CASE STUDIES

CASE STUDY: NIGERIA

The cost of using diesel in the surveyed companies is higher than electricity supplied by DISCOs; hence cost-savings of N45 million is realised, if electricity from the DISCOs is used…

Peak after take-over				
Customers	Electricity supplied by DISCOs (MWh)	Cost of electricity supplied at N33.97/Kwh	Diesel cost of using generators at $1/litre	Cost savings **(=N=)**
King Group of Companies	1,173	39,846,810	42,228,000.00	2,381,190.00
Sam Steel Plc.	2,053	69,740,410	73,908,000.00	4,167,590.00
Saturn Manufacturing Ltd.	14,224	483,189,280	512,064,000.00	28,874,720.00
Dormant Conglomerates	3,261	110,776,170	117,396,000.00	6,619,830.00
Pluto Industries	1,647	55,948,590	59,292,000.00	3,343,410.00
		759,501,260.00	**804,888,000.00**	**45,386,740.00**

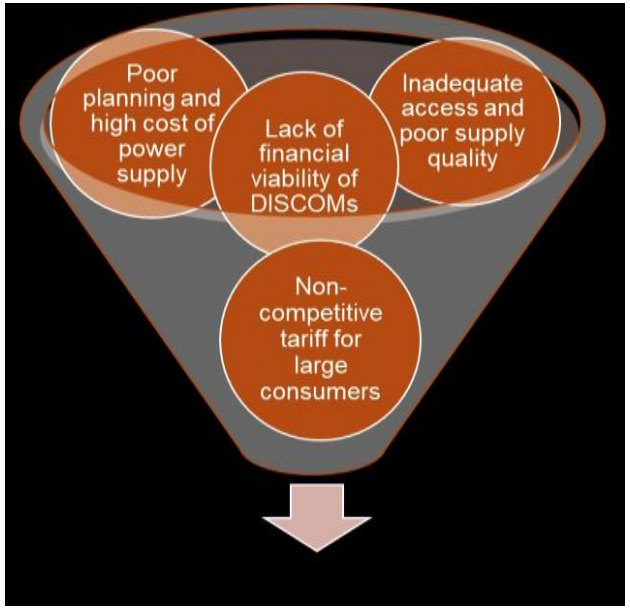
Sources: GIZ (2015) “Promoting Clean Energy Investment in Nigeria”, PwC analysis

Conversion factor: 1 litre of diesel oil = 10Kwh. Electricity supplied through generators was converted to litres using the conversion factor
Electricity supplied through generators and the costs are estimated
Diesel cost is estimated at $1 per litre consumed based on the global average price of diesel from www.globalpetrolprice.com
Cost of electricity supplied from DISCOs is estimated using the worst-case scenario cost in previous slides

CASE STUDY: INDIA

Background

In India, the distribution sector is considered as the weakest link in the entire value-chain of electricity. This segment is plagued by high technical and commercial losses (owing to theft of electricity), low collection from consumers, increase in power purchase cost payable to the generators, tariffs which do not non-reflective inadequate & untimed tariff hikes by the regulator, political influence to lower the tariffs, delayed subsidy disbursement, and mounting dues from government departments. This has led to financial crisis in the distribution companies. This has led to financial crisis in the distribution companies (Discoms), which is attributable partly to the low levels of transparency about their financial viability.

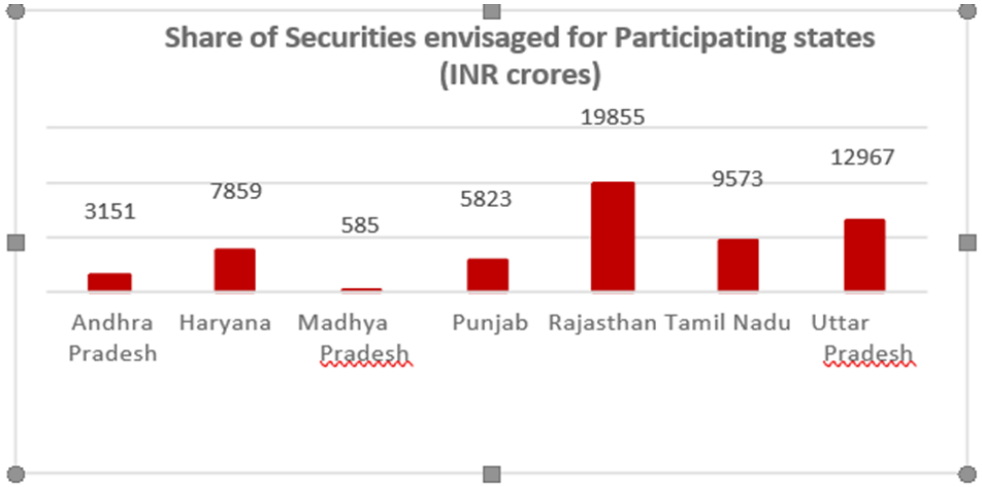


A positive ACS-ARR gap across the years has led to spiralling of losses, limiting the discoms ability to undertake any capital expenditure programs for performance improvement. Weak financial position of Discoms' downgrade their credit rating and that affects their further ability to raise debts at lower rate of interests. This leads to higher interest costs and restrained liquidity adding to the financial burden. The Discoms borrow short term funds from the banks and FIs to fund their operational liabilities and meet the long term debt service obligations, thus falling into a debt trap.

In India, electricity being a concurrent subject under the purview of states; it is difficult for the Central Government to reform Discoms directly. Hence, the state government has the onus of coming to rescue of the distribution companies/SEBs whenever they run into financial crisis through some revival package. The central government has time and again facilitated this through various schemes to bail out such Discoms through a one-time debt restructuring, equity infusion, raising capital and transfer of liabilities to the state governments. This only temporarily covers up the wound for two to three years. Post which they resurface, as the root cause of the

Financial restructuring plans for Discoms in India

India has implemented such financial restructuring schemes for Discoms under various packages. In 2012, the Central government formulated a financial restructuring plan (FRP) for all interested state-owned Discoms which had accumulated heavy financial and operational losses. Under this scheme, state governments were committed to ensure that the Discoms eliminate the chronic gap between Average Cost of Supply (ACS) and Aggregated Revenue Requirement (ARR) within the specified moratorium period. Eight states signed the FRP but were unable to curb operational losses and reduce the outstanding debt.



Fifty percent (50%) of the short-term liabilities were supposed to be taken over by the state governments on their balance sheet over a period of 2-5 years. Such liability was meant to be first converted into bonds issued to the participating lenders, backed by state government guarantee. The tenor of the loans post takeover by state government would not be more than 15 years with a moratorium of 3 -5 years. Balance 50% were planned to be rescheduled by lenders and serviced by Discoms with a moratorium of 3 years. Principal and interest repayment, in both the cases, were fully secured by State Government guarantee.

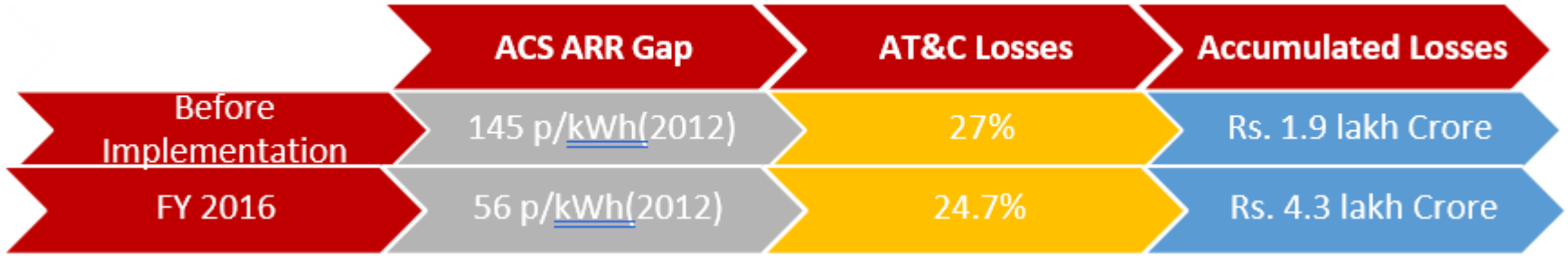
Efficacy of power restructuring packages in Power Distribution Companies: Liquidity Support

Total short-term liabilities of INR 1,19,626 crores were envisaged to be restructured under this scheme.

Of which, INR 59,813 crores (50%) were meant to be taken over by state governments and converted into bonds over a period of 2-5 years.

A transitional finance mechanism by the Central Government was also provided to support the restructuring effort through:

- **Provision for liquidity support by the way of a grant, if ACS-ARR gap is reduced by 25% in the year as benchmarked against the figures for the year 2010-11. This support was available for three years.**
- **Incentive by the way of capital reimbursement support of 25% of the principal repayment by the state government on the taken over liability under the scheme.**
- **Few mandatory conditions set out as a part of the scheme included, timely tariff setting & revenue realisation for FY2012-13, prepaid metering for all large and government consumers before 31st March 2013, timely audit of past accounts and monitoring under the 3-level operating framework (state and central level followed by third party verification) laid down by the scheme.**



However, the inability of state governments to implement timely tariff hikes resulted in growth of ACS outpacing that of ARR. As a result, losses again started mounting and Discoms resorted to borrowing to fulfil their operating costs. Thus, the objective of gap elimination was not achieved even though it brought in some sense of financial discipline to the state governments

Efficacy of power restructuring packages in Power Distribution Companies: Liquidity Support

Similarly, the central government in November 2015 brought in another scheme under the name- "Ujjwal Discom ssurance Yojana" (UD Y). The scheme aimed at financial turnaround, operational improvement, reduction of cost of generation, development of renewable energy, energy efficiency & conservation. This scheme saw initial success due to large scale participation, as 27 states and 5 Union Territories (UTs) became part of this scheme.

The total net discom liabilities which was proposed to be restructured under this scheme stood at INR 2,73,318 crores as on 30th September 2015.

Under this scheme, the participating states were supposed to takeover 75% of the debt of their respective Discoms in a time bound manner. Of the total debt, 50% were to be taken over in 2015-16 and balance 25% in 2016-17. These states would then raise money through issuance of UDAY bonds to banks and other financial institutions.

The balance 25% debt was supposed to be dealt with in either of the two ways:

1) restructuring the loans by lowering the rate of interests or
2) funded from money raised through issuance of Discom bonds.

Such debt-transfer would improve the liquidity scenario for the Discoms and hence their credit rating and ability to raise funds.

Also, learning from the past, the government also put in place, regular reporting systems and monitoring of four financial parameters and ten operational efficiency parameters envisaged in UDAY MoUs for time-bound improvement. State and UT governments were required to reduce operational losses to 15 per cent and bring down the ACS-ARR gap to nil by 2018-19.

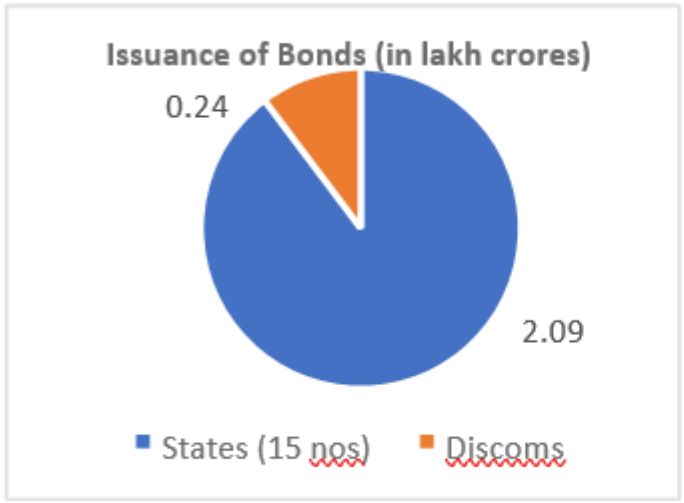
Efficacy of power restructuring packages in Power Distribution Companies: Liquidity Support

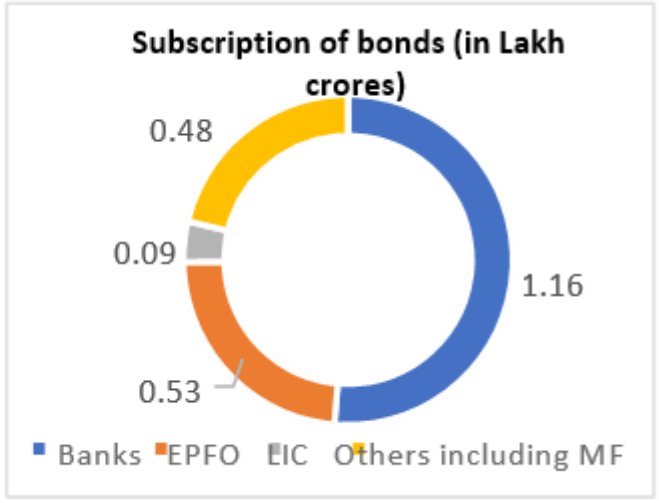
Financial Parameters			Operational Parameters			
	Target*	Achievement*	Parameter	Achievement*	Parameter	Achievement*
Bonds Issued (INR Cr)	269056	232163	Feeder Metering (Urban)	100%	Smart Metering (above 500 units)	4%
AT&C Loss (%)	15% by FY2019	20.44%	Feeder Metering (Rural)	100%	Smart Metering (above 200 units)	4%
ACS ARR Gap (INR/unit)	0.0 by FY2019	0.25	DT Metering (Urban)	84%	Feeder Segregation	77%
Tariff Revision	27	25	DT Metering (Rural)	61%	Rural feeder audit (Nos)	100%
			Electricity Access to unconnected households	100%	Distribution of Ujala LEDs (lakhs)	100%

Efficacy of the Implemented Schemes

In the past, FRPs had improved the liquidity of Discoms by providing a moratorium on debt repayments so that operational losses could be reduced during the moratorium period. This could not deliver desired results, however, as there were no deterrents to non-compliance with operational loss-reduction targets.

Initially the UDAY scheme, saw a dip in the operational losses and lowering of the ACS-ARR gap. However, as on September 2019, even after the deadline has passed, only seven states have registered operational losses below 15 per cent and rest states have failed to achieve even this. Similarly, only handful states have fared well on reducing ACS-ARR gap and few states have instead seen the widening of this gap. The overall loss levels are currently at 20.44% with the ACS-ARR gap persisting at INR 0.25/unit for the participant states. Around 86% of the bonds have been issued and subscribed by multiple banks and FIs. Timely tariff revisions were being followed in most of the states, but the milestones are still far from being achieved. Thus, the scheme has only been able to achieve limited success.





Efficacy of power restructuring packages in Power Distribution Companies: Liquidity Support

The current financial status of the discoms may be gazed through the following insights:

A recent study shows that there has been a significant increase in the committed subsidies by various state governments. However, the subsidy payments in actual are quite delayed. In the absence of timely payment from the state governments, the working capital requirement of the Discom increases adding to the cost of supply ultimately. This puts additional stress on the already ailing Discoms and hence provides for inherent inefficiency. If this continues, accumulation of such unpaid subsidies may soon lead to NPAs in the Distribution Sector as well requiring a bail-out plan.

Also, the total outstanding of the discoms to generation companies as of July this year stood at INR 73,425 crore, including an overdue amount of Rs 55,276 crore. To overcome the hurdle, the government has mandated to open letters of credit for getting supply from generation companies, excluding state government power plants from August 1, 2019. This aims at reducing stress related to payments for power generation companies.

Discoms have not been able to borrow from banks to pay generators since July 2018, because their working capital loan limits were reached. Government of India is now, in the process of rolling out a new tariff policy and UDAY 2.0 to address the hindrances .

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