NATIONAL INNOVATION AND RESEARCH ACADEMIA International Journal of Sustainable Development ISSN: 2713-4683. Volume 6, Issue 1. Pages 09- 19. August, 2019 Double Blind Peer Reviewed International Research Journal editornirajournals@gmail.com



# Issues and Challenges of Privatization of Nigeria's Power Sector

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<sup>1</sup>Department of Quantity Surveying, Abia State Polytechnic, Aba, Abia State | Email: airgoffoundation@yahoo.com | Phone: 08039683168 <sup>2</sup>Department of Building Technology, Abia State Polytechnic, Aba, Abia State | E-mail: aawillsltd@yahoo.com | Phone: 08056315927 <sup>3</sup>Department of Business Administration and Management, Abia State Polytechnic, Aba, Abia State | E-mail: johnrobinchio@yahoo.com | Phone: 08033365095 Abstract: The study examines issues and challenges of privatization of Nigeria's power with special interest in issues and challenges in Nigeria's power sector, measures taken by government in tackling the issues and challenges and benefits of privatized power sector in Nigeria. In doing this, secondary data sourced from books, journals and publications were used. Questionnaire comprising 3 research questions was administered to 50 professionals in financial engineering and technology. The questionnaire was constructed using Likert Five-Point Scale Response and analyzed using weighted mean. This methodology revealed that inadequacy of gas for firing turbines, community issues over bidding and ownership, cost recovery challenge due to over -priced power plants, transmission issues, the Multi Year Tariffs Orders, end user tariffs, settlement of workforce, etc. are the issues and challenges of privatization of Nigeria's power sector. Implementation of Power Reform Act, protection of consumers' power right, avoidance of skyrocketed electricity bill among others were recommended for tackling the identified issues and challenges.

*Key words: DISCOs, GENCOs, National Development, Power Sector, Privatization* 

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## INTRODUCTION

Electric power is the rate per unit time of energy consumption in an electrical circuit. Its supply and production are very vital to sustainable development of any nation. Nigeria with a population of about 200 million as stated by Worldometers (2019) (which relies on United Nation's estimates) needs sustainable power supply to properly utilize her potentials in industrialization, agriculture, health, education, human capital development, etc. Abdullahi (2016) stated that with electrical energy, the people are empowered to work

from the domestic level and the cottage industries, through the small-scale and medium industries to employment in the large-scale manufacturing complexes. He also stated that depriving people of electric power is tantamount to castration. Therefore, inadequate supply of electricity will make production and distribution of goods and services virtually impossible. While erratic supplies of electricity disrupt production, voltage fluctuations negatively affect the durability of machines. Enhanced electricity generation and distribution can thus, raise the efficiency and effectiveness of Nigeria's economy for sustainable national development. The electric power industry across the world is being deregulated at wholesale price level. The policy and strategic change, in whatever form it finally takes, will make great impacts on electricity supply in Nigeria.

However, it is sad to note that Nigeria as reported by Humwapwa (2019) produces just 4,000MW while South Africa (an African country like Nigeria) with a population of about 60 million, produces 51,309MW. Humwapwa (2019) also reported that **o**ver the years, the Federal Government of Nigeria tried various means, strategies and reforms to grow the power sector and to make it work, but all attempts have been an exercise in futility. While the already terrible power supply situation in the country is hitting hard on Nigerians and the economy, the Distribution Companies (DISCOs) have at the same time been defrauding electric power customers with outrageous electric bills. The charge is more than the officially approved rate. These companies have steadily been adding more insult to the injury of suffering Nigerians through the issuance of exorbitant monthly electricity bills that are over and above what is actually consumed. DISCOs inherited this fraudulent practice from the defunct Power Holding Company of Nigeria (PHCN). Unfortunately, the practice has been going on for years and has become endemic but need to be stopped.

Privatization is contract with nongovernmental sector that engages them in the production and provision of the good and services that were hitherto exclusively provided by the government. It has a wide range of coverage in models and methods depending on practitioners. Thus, has no particular meaning. Developing countries adopt privatization as a result of crises in financial management, infrastructural decay and inability of the government to manage public enterprises. Others reasons are based on need for delivery of quality services to their growing populace through outsourcing, divestiture, public private partnership, franchising, etc.

It is a common knowledge that regular power supply is very important for rapid economic growth. Attempts by successive Nigerian governments at industrialization and rapid economic growth have been hampered by incessant power failure. Presently, the power sector in Nigeria is privatized with no meaningful improvement. The privatization of the power sector is aimed at solving problem in the sector which among others include: limited access to power, inadequate generation and usage of power capacity, conflicting roles between government and holding companies. It is worth stating here that privatizing the arms of the power sector (e.g. generation, transmission, distribution, etc.) is now becoming a global practice.

At the moment, Nigeria uses four sources of energy namely natural gas, oil, hydro and coal. It is a common knowledge to experts in Nigeria's power sector that energy used in the sector is heavily dependent on petroleum. This is worrisome as it has increased greenhouse gas emissions and slowed down the development of alternative forms of energy. Ahiuma-Young, Obasi & Ejoh (2017) reported that the power situation in the country, especially in 2016, was precarious. They also stated that the feeling among Nigerians is that the defunct PHCN is better than the DISCOs, GENCOs; insisting that many concerned Nigerians are calling for a review of the privatization of the power sector so as to return it to public control. Unfortunately, the feeling has not stopped today. The situation is really worrisome when expectations were high that privatization would be the much awaited proverbial messiah to teething problem of inadequate power supply in Nigeria.

The poor performance of Nigeria's power sector over the years is seen as evidence of ineffectiveness of successive governments. However, the situation has not improved much since the privatization of much of the power sector in recent years, even with continued government subsidies for some users. Now, faced by economic misfortune occasioned by corruption, insecurity, maladministration and dwindling income due mainly to the collapse of global oil prices, the present administration in Nigeria has the challenge of convincing unsatisfied electricity consumers that they must accept substantial increases in energy tariffs if the country is to achieve constant, stable and nationwide electricity supply. These myriads of problems have bedevilled Nigeria for long. The endemic power crises came as a result of the inability of the existing plants to meet the ever increasing demand. The supply-demand gulf exists because of reasons namely obsolete and dilapidated plants with low installed capacity, poor maintenance culture, poor managerial efficiency.

No doubt, electric power supply is the heartbeat of Nigeria's economy. It is very vital to sustainable development of the country. It is an important input to production. As such, any issue affecting it, is treated with utmost importance because the Nigerian public with a population of over 190million will benefit a lot from any research work carried out on privatization of the power sector. The country needs sustainable power supply to properly utilize her potentials in industrialization, agriculture, health, education, human capital development, etc. She has to join the electric power industry across the world that is being deregulated or privatized at the wholesale price level. This deregulation or privatization policy change, in whatever form it takes, has far-reaching impacts on electricity production, transmission, distribution and consumption by private and public utilities. It is against this backdrop that this paper examined the issues and challenges in the privatized power sector in Nigeria in an attempt at finding lasting solution to an endemic problem. Thus, the study seeks to:

- 1. Ascertain the issues and challenges in Nigeria's power sector?
- 2. Identify the measures taken by government in tackling the issues and challenges?
- 3. Identify the benefits of privatized power sector in Nigeria?

# LITERATURE REVIEW

Electric power is the rate at which electric circuit transfers electrical energy to units where the power is consumed. The electrical energy is converted to another form, such as motion, heat, or an electromagnetic field. The common symbol for power is block letter P. The S.I. Unit of measurement for electric power is watts.

1 kW = 1000 W.

In utility consumption, the kilowatt (kW) is often specified instead. One watt is the power resulting from an energy dissipation, conversion, or storage process equivalent to one joule per second. The electric power P is equal to the energy consumption E divided by the consumption time t:

 $P = \frac{E}{4}$ 

 $F = \frac{1}{t}$ , P is the electric power in watt (W), E is the energy consumption in joule (J) and t is the time in seconds (s).

On the other hand, privatization is the contract with the nongovernmental sector engaging them in the production and provision of the good and services that were hitherto exclusively provided by the government. When a sector is privatized, government owned enterprises are traded-off to profit minded investors who operate freely in a capitalist economy. Rouse (2019) stated that privatization may entail either outright sale of government-held assets or removal of trade restrictions that have been preventing investors from competing with government. She also stated that it is an ongoing trend in many parts of the developed and developing world. King (2014) stated that moving a business from government ownership to private ownership improves the profit incentive as the new owners will focus on return on investment. Rouse (2019) further stated proponents of privatization insist that the competition which privatization brings into the economy encourages efficiency more than public controlled enterprise while critics of privatization maintain that social amenity services such as healthcare, education, law enforcement and the like should not be privatized so as to ensure equitable access to the populace.

## The Challenges of Privatization of Power Sector in Nigeria

The challenges of privatization of power sector in Nigeria include among others: the challenge of commencement, finance, inadequate gas supply determination of tariff, fraudulent practices, settling employees' packages.

## The Challenge of Commencement

It is worrisome to note that organizations that in the generation, transmission and distribution of electricity are still battling with commencement challenges till date. The Transmission Company of Nigeria is also facing initial challenge of fund as it requires about \$4.4billion to increase power transfer capacity, make the network more stable and reliable, and to increase transmission capacity to 16,843 MW by end of 2018 (Edukugbo, 2014.). Obasi & Anyasina (2014) reported that recent poll conducted by NOI Polls showed that electricity supply in Nigeria worsened in the last quarter (Q4) of 2013. According to them, the report stated that although power supply to households worsened in Q4, nevertheless, majority of Nigerians (70 percent) were hopeful about the ongoing reform in the power sector. The report indicated that an average of 46 percent of Nigerians received continuous power supply at not more than 4 hours daily, while 17 percent claimed not receiving any power supply in their various homes. The Poll however, noted that in Q4, there was an improvement in the nation's power sector as the privatisation process was taken to the next level. Unfortunately, these challenges are still there as reported by Humwapwa (2019).

## Finance

Kalu and Mbanasor (2004) defined finance as the science of money management. The main focus of finance is investments; and investment is interested in the behaviour of assets and liabilities within a specified period. It does not neglect uncertainty and risk. The power sector is a highly capital intensive industry that requires huge amount of money. It is a common knowledge that most of the investors that acquired the unbundled government owned Power Holding Company of Nigeria (PHCN) borrowed money from banks and having acquired these loans from these banks, continuous financing of the projects will become a huge task. Oketola (2013) reported that Nigerian banks provided 70 per cent of the funds in loans and equity of the N404bn paid for the power assets. He stated that the acquired loans and federal government intervention funds disbursed through Money Deposit Banks will not be sufficient to fast track the rapid turn- around expected in the sector. Further challenge he noted, is that the estimated \$4.28bn required capital expenditure and rehabilitation expenditure is hoped to be provided by indigenous banks. The expected spending by disco is to cover the following areas: provision of power transformers, metering, health, safety and environmental practices, reduction in the number of customer interruptions due to network faults, new customer connections and network expansion, improving customer services and complaints handling procedures.

As result of water, gas and transmission line constraints, the Nigerian Electricity Supply Industry as reported by Humwapwa (2019), incurred an aggregated loss of about N90bn in five years. This would no doubt hampered the distribution of generated energy by DISCOS no matter the amount of money released to them.

## Inadequate Gas supply

Okere (2017) reported that the Federal Government said the Nigerian electricity sector recorded a shortfall of 3,000 Megawatts (MW) due to inadequate gas supply to power plants. She also reported that the country's power generation stagnates at 3,729 MW. The negative effects of saboteurs, militants and vandals in gas production affect the availability of gas. This is seriously affecting the power sector reform as it is anchored on the use of gas to power systems in order to meet the needs of the country.

#### **Determination of Tariffs**

Tariff as a tax imposed on imported goods and services is one of several tools available to shape trade policy. It is a common knowledge that most of the machines used in Nigeria's power sector are imported; thus are subjected to tariffs which increase production cost. Joseph (2014) stated that electricity prices in Nigeria are currently below production costs and that the industry hardly generate enough revenue for its operating costs let alone capital expenditure which are imported. This is another huge challenge of privatization of Nigeria's power sector as there will no fund bailout from government.

## Fraud

Nigerian Electricity Regulatory Commission, NERC (2005) stated among others that all customers have a right to transparent electricity billing and should be notified in writing ahead of disconnection. More so, the unmetered ones should be billed with approved estimated billing methodology and in the event of overbilling should be refunded. However, as sweet as the above may sound, Asu (2017 reported that many electricity consumers were groaning over estimated billing. Oke (2018) reported that huge metering gap in the country is a big challenge. He stated that metering alone reduces collection losses by 30% and minimises the alienation of consumers who, often, underpay or do not pay their electricity bills because of disputed or crazy bills. He concluded that there is no doubt about the current method of billing not being transparent.

## Settling of Employees' Welfare Packages

International Labour Organization, ILO (n.d.) stated that welfare of employees includes facilities of organizations that their workforce perform their assigned duties in healthy and congenial environment and to provide them with amenities conducive to healthy living and morale booster. It was reported in Echewofun (2016) that aggrieved workers of the

defunct PHCN under the National Union of Electricity Employees (NUEE) have not been paid their outstanding severance packages. A situation that led to the intervention of Nigeria's Minister of Labour who struck a deal with aggrieved workers to reconstitute a committee to verify and pay outstanding severance packages. The report had that the immediate reconstitution of a technical and implementation committee was to ensure the final verification and payment of severance packages to unpaid PHCN staff, payment of the 16 months arrears owed the ex-staff and inclusion of staff in the 10% equity shares of privatized companies.

### Benefits of Privatization of Power Sector in Nigeria

Despite the various issues and challenges discussed above, there are still benefits of the privatization of the Nigerian power sector. There will be improved and regular electricity flow in most parts of Nigeria. Oni (2015) stated that opportunities exist for the construction of alternative independent power projects, such as coal fired power plants and renewables. He also stated that Nigerian Bulk Electricity Trading Plc. (NBET) is ready to buy power from the GENCOs and sell in competitive markets. Nwogu, Makinde, Okere, Utebor, Onuba, & Nnodim (2017) reported that to some extent, power sector has improved in Nigeria but the full benefits are expected. Ojobo (2005) stated that privatization will eliminate fraud and remove unproductive use of national resources. Any investor considering Nigeria ought to be interested in the progress of the country's power sector privatization. International investors will benefit from a closer inspection of, and familiarity with, the opportunities presented by this exciting development in Africa's biggest economy (though in recession). Audu, Paul & Ameh (2017) stated that privatization of the power sector extricates government interference and reduces its excesses from the management of power in Nigeria. This enhances efficiency.

#### **RESEARCH METHODOLOGY**

A survey research was adopted for the study. Questionnaire comprising 3 research questions with 23 multiple choice items was administered to 50 professionals in the fields of financial engineering and technology namely: quantity surveying, construction economics, construction project management, accounting, construction finance, cost engineering, etc. The questionnaire was constructed using Likert Five-Point Scale Response Alternative and analysed using weighted mean. The formula for calculating the Weighted Mean is shown below:

# $\overline{\mathbf{X}} = \sum \mathbf{F}\mathbf{X} / \mathbf{N}$

Where:  $\overline{X}$  = Weighted Mean,  $\Sigma$  = Summation, F = Frequency, X = Nominal Value of Options and N = Number of Respondents. Nominal values were assigned to six scaling items as follows:

Strongly Agree (SA) = 5, Agree (A) = 4, Undecided (UD) = 3, Disagree (D) = 2, Strongly Disagree (SD) = 1 and Void (unfilled options) = 0. The Mean of each cluster was also calculated using the formula below:

$$\overline{X} = \sum X / N$$

Where:  $\overline{X}$  = Cluster Mean,  $\Sigma$  = Summation, X = Nominal Value of Mean of Each Option in a Cluster and N = Number of Cluster. The decision rule of acceptability was 3.5 points and above while points below 3.5 were rejected. The questionnaire was administered by the researchers who also collected them back on completion. This ensured 100% return of questionnaires administered.

## RESULTS

The data collected for this study were arranged in tables and models which were analyzed using frequency count and weighted mean.

## Data Presentation

## **Research Question One**

What are the issues and challenges in Nigeria's power sector?

**Table 1** – The mean of respondents' views on the issues and challenges in Nigeria's power sector.

| S/N | Description                             | SA | Α  | UD | D  | SD | Mean | Remarks |
|-----|---|----|----|----|----|----|------|---------|
| 1.  | The Challenge of Commencement           | 25 | 25 | 0  | 0  | 0  | 4.50 | Accept  |
| 2.  | Finance                                 | 8  | 17 | 6  | 14 | 3  | 3.27 | Reject  |
| 3.  | Inadequate gas supply                   | 14 | 22 | 6  | 8  | 0  | 3.84 | Accept  |
| 4.  | Determination of tariffs                | 6  | 17 | 17 | 6  | 3  | 3.35 | Reject  |
| 5.  | Fraudulent practices                    | 17 | 28 | 3  | 0  | 0  | 4.24 | Accept  |
| 6.  | Reconciliation of balance sheet         | 14 | 22 | 8  | 6  | 0  | 3.88 | Accept  |
| 7.  | Settling of employees' welfare packages | 14 | 17 | 14 | 3  | 2  | 3.76 | Accept  |
|     | Grand Mean                              |    |    |    |    |    | 3.83 | Accept  |

## **Research Question Two**

What are the measures taken by government in tackling the issues and challenges?

**Table 2** – The mean of respondents' views on the measures taken by government in<br/>tackling the issues and challenges

| S/N | Description   | SA | Α  | UD | D  | SD | Mean | Remarks |
|-----|---|----|----|----|----|----|------|---------|
| 8.  | Encouraging private sector participation                            | 0  | 8  | 25 | 14 | 3  | 2.76 | Reject  |
| 9.  | Diversification of the energy generation sources                    | 8  | 17 | 6  | 14 | 3  | 3.27 | Reject  |
| 10. | Promoting energy efficiency for sustainable development.            | 6  | 11 | 19 | 6  | 6  | 3.10 | Reject  |
| 11. | Construction of new power generation facilities, transmission lines | 11 | 14 | 14 | 6  | 3  | 3.50 | Accept  |

| 12. | Distribution centres to boost the power supply  | 6  | 17 | 11 | 11 | 0 | 3.40 | Reject |
|-----|---|----|----|----|----|---|------|--------|
| 13. | Initiation the process of selling off the existing facilities to private investors                                | 11 | 68 | 18 | 0  | 5 | 4.02 | Accept |
| 14. | Embarked on programmes and<br>strategies aimed at boosting energy<br>generation from renewable sources            | 14 | 17 | 14 | 3  | 2 | 3.76 | Accept |
| 15. | Focus on the need for energy efficiency<br>on both demand and supply side to<br>reduce greenhouse<br>gas emission | 8  | 14 | 22 | 6  | 0 | 3.48 | Reject |
| 16. | Ensuring viability of energy systems  | 5  | 17 | 17 | 6  | 3 | 3.24 | Reject |
|     | Grand Mean  |    |    |    |    |   | 3.39 | Reject |

## **Research Question Three**

What are the benefits of privatized power sector in Nigeria?

Table 3 – The mean of respondents' views on the benefits of privatized power sector in Nigeria

| S/N | Description   | SA  | Α  | UD | D  | SD | Mean | Remarks |
|-----|---|-----|----|----|----|----|------|---------|
| 17. | Provision of opportunities for international and local investment.  | 24  | 26 | 0  | 0  | 0  | 4.50 | Accept  |
| 18. | Improved and regular electricity flow in most part of Nigeria.      | 8   | 17 | 6  | 14 | 3  | 3.27 | Reject  |
| 19. | Frustration of corrupt Nigerians who want to hold Nigeria to ransom | 6   | 11 | 19 | 4  | 6  | 3.10 | Reject  |
| 20. | Creation of new business/jobs in the power sector                   | 14  | 22 | 8  | 6  | 0  | 3.88 | Accept  |
| 21. | Elimination of fictitious electricity bills                         | 6   | 17 | 11 | 11 | 0  | 3.40 | Reject  |
| 22. | Elimination of illegal sale of transformer to power consumers       | 125 | 44 | 18 | 6  | 5  | 3.96 | Accept  |
| 23. | Encouragement of competition  | 14  | 17 | 14 | 3  | 2  | 3.76 | Accept  |
|     | Grand Mean  |     |    |    |    |    | 3.70 | Accept  |

# **Findings/Discussions**

**Table 1** – Items 1, 3, 5, 6 and 7 with weighted mean scores of 4.50, 3.84, 4.24, 3.88, and 3.76 respectively were accepted by the respondents as being issues and challenges in Nigeria's power sector. On the other hand, respondents rejected items 2 and 4 as being issues and challenges in Nigeria's power sector. These items scored weighted mean of 3.27 and 3.35 respectively.

With a grand mean of 3.83, Table 1 revealed that there are issues and challeges in Nigeria's power sector. This finding corroborates the report of Obasi & Anyasina (2014) where they stated that recent poll by NOI Polls Limited Electricity supply in Nigeria

worsened in the last quarter (Q4) of 2013. It is in tandem with (Edukugbo, 2014) who stated that The Transmission Company of Nigeria is also facing initial challenge of fund as it requires about \$4.4billion to increase power transfer capacity, make the network more stable and reliable, and improve efficiency of electric power transfer by reducing transmission technical losses and enable TCN to increase transmission capacity to 16843 MW by end of 2018.

**Table 2** – Items 1, 2, 3, 5, 8 and 9 with weighted mean scores of 2.76, 3.27, 3.10, 3.40, 3.48 and 3.24 respectively were rejected by the respondents as being the measures taken by government in tackling the issues and challenges. On the other hand, respondents accepted items 4, 6 and 7 as being the measures taken by government in tackling the issues and challenges in Nigeria's power sector. These items scored weighted mean of 3.50, 4.02 and 3.76 respectively.

The results in Tables 2 clearly show the measures taken by government in tackling the issues and challenges in Nigeria's power sector are not enough. The findings as shown in Table 2 do agree with Oketola (2013) who reported that Federal government intervention funds disbursed through Money Deposit Banks will not be sufficient to fast track the rapid turn- around expected in the power sector.

**Table 3** – Items 2, 3 and 5 with weighted mean scores of 3.27, 3.10 and 3.40 respectively were rejected by the respondents as being benefits of privatized power sector in Nigeria. On the other hand, respondents accepted items 1, 4, 6 and 7 as being benefits of privatized power sector in Nigeria. These items scored weighted mean of 4.5, 3.88, 3.96 and 3.76 respectively.

With a grand mean of 3.70, it is evidently clear that there are benefits in privatized power sector in Nigeria as shown in Table 3. This corroborates the position of Oni (2013) who stated that opportunities exist for the construction of alternative independent power projects, such as coal fired power plants and renewables if the power sector is privatized. The government of Nigeria, he added, entered into a memorandum of understanding with a Chinese energy firm to build a US\$3.7 billion coal power project which is expected to add 1200 MW of electricity to the national grid. This will also create more employment and developmental opportunities.

## CONCLUSION

The power sector is indeed a very important sector; critical to the rapid transformation of any economy and the power sector reform discussed in this study is in the right direction. No doubt, the attempts by successive Nigerian governments culminating in the various power sector reform programmes which are also integral components of President Muhammadu Buhari are bold steps towards the rapid development of the economy. However, the challenges and issues examined here will significantly affect the aims and objectives of the reform. Thus, it is needful for the government to boldly tackle these issues and challenges. The challenges mentioned here are by no means exhaustive. If the Government can intervene and resolve them, it will create a peaceful environment for the new investors to operate. The intention of the reform of the Nigerian power sector is the provision of cheap, neat, safe, and environmentally friendly electricity for use in socioeconomic activities such as construction, agriculture, communications, household chores, education, entertainment, healthcare services, security; commerce, industrialization, water Supply, etc. This will result to minimized waste, improved productive capacity, enhanced health and better revenue to individuals and the economy coming from exports and taxation. Access to quality electricity service is therefore a significant factor in poverty alleviation.

## RECOMMENDATIONS

Based on the findings, the following recommendations are made as a way forward:

- 1. The major recommendation to the problem of the power sector reforms in Nigeria is the implementation of the reform Act; the Act is not being fully and strictly implemented. It is therefore opined that there should be machinery specifically put in place for the strict enforcement of the Act and this machinery would ensure the proper transition from the holding company to the successor companies under a very fair and transparent process.
- 2. Laws should also be established and the consequences of such laws should mettle with any defaulter; and citizens should be enlightened about such laws. Educating them on their rights on such laws and its importance should be part of the enlightenment programme.
- 3. Electricity bills should not be skyrocketed when power is not being received by individuals or corporate organizations paying for them.
- 4. Relevant government Ministries, Departments and Agencies (MDAs) should check the excesses of the privatization process to ensure conformity with the Act and international minimum acceptable standard.

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