

# A RESPONSE TO TCN'S RESPONSE OF SEPTEMBER 20TH, 2019, ALLEGING ANED "MISREPRESENTATION OF CRUCIAL POWER GRID OPERATIONAL DATA"

Recognising our obligation to our members, the electricity distribution companies (DisCos), electricity customers, our investors (who have invested over \$1.4 billion and counting) and the paucity of data in our nascent privatized Nigerian Electricity Supply Industry (NESI), ANED believes in publishing both facts and information that are verifiable. The DisCos also believe in taking ownership of their challenges, shortcomings and inefficiencies, as they, collectively and individually, seek to improve the service delivery and supply of electricity to their customers.

However, what we do not believe in, is fostering propaganda or the distortion of information, as it concerns the sector - this is because the stakes are too high for our customers, operators, investors and the economic prospects of our country. A review of our previous publications and information releases will confirm this.

Consequently, it is with the aforementioned considerations that we are compelled to respond to the recent publications by the Transmission Company of Nigeria (TCN), in various news

media, on Friday, September 20th, 2019, in its response to our publication of September 16th, 2019 which sought to set the record straight on TCN's DisCo "load rejection" claims. TCN, in its response, contends that ANED mis-represented grid operational data.

TCN's National Control Center (NCC) Oshogbo, is the singular source of information on energy dispatched through the grid to the DisCos. A review of Table No. 1 below would indicate that the information provided by TCN (Column B), as its response to ANED's publication of September 16th, 2019, under "Energy Delivered to DisCos by TCN (MW) (MYTO)," exceeds the same information provided in TCN's NCC report (Column A) for the respective days, in aggregate.

In simple terms, TCN contends that it delivered significantly more energy than was officially and actually recorded. This variance (Column C), undoubtedly, raises questions as to the veracity of TCN's response and the actual capacity of energy that it is able to wheel, deliver or transmit.

TABLE 1

| DAY                            | A<br>TCN/NCC Daily Report – Energy Sent Out or Delivered by TCN (MW) to the DisCos* | B<br>TCN September 20 <sup>th</sup> , 2019 Response – "Energy Delivered to DisCos by TCN (MW) MYTO" | C<br>Variance of Energy Supposedly "Delivered" to the DisCos |
|--------------------------------|---|---|--|
| August 22 <sup>nd</sup> , 2019 | 3,608.79  | 4,656.30  | +1,047.51  |
| August 23 <sup>rd</sup> , 2019 | 3,584.73  | 4,905.52  | +1,320.79  |
| August 24 <sup>th</sup> , 2019 | 3,513.37  | 4,806.70  | +1,293.33  |
| August 25 <sup>th</sup> , 2019 | 3,258.71  | 4,806.71  | +1,548   |

\*Source: TCN's National Control Center

We note that TCN's response and its other explanations for DisCo "load rejection" references the DisCos' energy allocations or required "Sent-Out" energy under MYTO-2015 as the measure for DisCos' energy off-take failures or load rejection – another distortion or inaccuracy.

For purposes of clarification, with a one-time transmission or wheeling peak of 4,557 MW (February 1st, 2016), TCN has never wheeled sufficient energy to meet the DisCo energy off-take assumptions specified in the MYTO-2015 financial model (Column A), even at the peaks of generation - please see Table 2 below.

Importantly, we should highlight that the *Siemens "Electrification Roadmap for Nigeria" report, May 7th, 2019* has determined that the electricity distribution capacity is twice (2x) that of transmission capacity, at 11,000 MW versus 5,500 MW.

The MYTO-2015 energy or load allocation assumptions remain a function of generation and, particularly, energy sent out or transmitted by TCN, as indicated by the table below, which contains average daily energy sent out or transmitted by TCN (Column B) since the implementation of MYTO-2015 in February, 2016 versus the daily DisCo MYTO-2015 energy sent-out requirements (Column A).

Of note is that the table below highlights that DisCo MYTO-2015 energy required "Sent-Out" energy (Column A) significantly exceeds TCN's wheeling or delivery capacity or actual "Sent-Out" experience (Column B), resulting in a variance under Column C, under an assumption of the available generation.

TABLE 2

| Years of MYTO-2015 | A<br>MYTO-2015 Average Daily Energy to be Sent-Out or to be Delivered to DisCos (MW)* | B<br>Actual Average Daily Energy Sent-Out or Delivered by TCN to the DisCos (MW)** | C<br>Variance in Daily Energy Sent-Out or Delivered (MW) from MYTO-2015 Requirements |
|--------------------|---|--|--|
| 2016               | 5,092.20  | 3,729.39   | -1,362.81  |
| 2017               | 6,707.83  | 3,560.20   | -3,147.63  |
| 2018               | 8,384.38  | 3,803.30   | -4,581.08  |

Source: \*MYTO-2015 Financial Model / \*\*TCN/NCC Oshogbo

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While TCN's reference, in its response, to the fact that it "...is implementing the Transmission Rehabilitation Expansion Programme (TREP)..." with \$1.6 billion of federal government-guaranteed and multilateral institution/donor-funded funds and grants (cheap capital expenditure financing that is unavailable to the GenCos and DisCos) is laudable, for an aspirational quest of 20,000 MW by 2022, the November 1, 2013 privatisation of the Power Holding Company of Nigeria (PHCN) was predicated on a TCN that would also mirror or exceed the efficiencies expected of the privatized GenCos and DisCos, given its critical middle role in facilitating energy delivery. Alas, the reality is otherwise.

It was the expectation of the investors in the PHCN successor companies (and continues to be so) that the situation would be different and TCN would eventually move away from the PHCN-legacy of uncleared equipment containers at the ports (over decades long), analog-based and informal communications systems for tracking energy flow versus real-time SCADA based systems, multiple and frequent explosions and burnings of transmission sub-stations and transformers (most recently, putting the Agbor and Asaba towns of Delta State; and Oye, Ekiti State in continued darkness), partial and total system collapses (a hundred and twenty-one [121], since privatisation and nine [9] total system collapses, so far in 2019), consistent grid frequency fluctuations, multiple transmission interface deficiencies (5,311 TCN interface interruptions in one DisCo franchise area, in the period of September 1 – 18, 2019), etc. Ayede, Ibadan North and Sagamu transmission infrastructure, in the Oyo, Osun and Ogun states continue to suffer from limited to no power, due to transmission grid limitations. Furthermore, the pronounced and inflexible radial nature of TCN's transmission grid continues to result in load dumping rather than the load rejection that TCN alleges, resulting in a losing commercial proposition for the DisCos

Indeed, TCN's reference, in its response, to Kano and Kaduna rejecting load runs contrary to conventional knowledge and fact that its transmission radial grid limitations prevent the DisCos in the north from receiving their energy allocations, as indicated by the **System Adequacy report authored by Market Operator/TCN (July 2017)**, which states –

*"Transmission constraints frequently limited the power flows in the network. Generation in the south-east frequently had to be reduced due to local transmission constraints and due to constraints in the lines from the Benin towards Lagos areas. Whenever the availability of generation was high, the flow from Shiroro to Kaduna had to be limited to ensure that voltage stability would be maintained in operation. As a result, the power allocated to the northern DISCOs (according to MYTO) could frequently not be met. Furthermore, a redistribution of power to the southern DISCOs often failed, ultimately requiring the generation in the south-eastern network to be reduced."* The report further states, *"Compared to international experience, the number of Forced Outages of transmission lines at all voltage levels was high and the availability relatively low. The same applied to transformers."*

**The recent Siemens "Electrification Roadmap for Nigeria" report, May 7th, 2019** states *"Today, power distribution by the Discos' to end-customers is limited by power infeed from TCN."*

Rather than eliminate all of the bottlenecks of the transmission grid, TCN, vociferously and continuously, continues to crow about its computer simulated increase in capacity, ignoring the fact that it, currently, **only averages a daily average of 3,700 MW** of wheeled or transmitted energy to the DisCos, out of its

**tested transmission capacity of 5,500 MW.** The constant requests, by TCN, to the GenCos to ramp down generation, the absence of spinning reserves and other critical ancillary services contribute to adversely affect the generation end of the value chain as well. It is also worthy of note that TCN's investment plans are not fully aligned with the DisCos' investment plans, which leads to stranded capacity upstream. The load and resulting investments at the distribution end should drive TCN's investments and the quest for additional generation needs in the system. A measure of its misguided investment plans is its continued ambition to play a role at the distribution end of the NESI value chain, in clear violation of its statutory role and without a distribution license.

Additionally, TCN's constant drumbeat of the need to re-capitalize the DisCos distracts from the fact that any such re-capitalization and related **Investment** cannot occur in an environment that lacks the following - respect for, or sanctity of contract; regulatory and policy certainty and consistency; ability of the sector operators to recover their costs of doing business; and an alignment of technical and commercial considerations. TCN would be best served by first healing itself.

With the onset of TCN's negative media onslaught, we chose to ignore such negativity and continued to reach out to TCN in partnership, hoping that TCN, a wholly government-owned entity would, ultimately, recognize that public resources should be best directed at addressing the deficiencies of the transmission grid, in line with Mr. President's and the federal government's larger objectives for the sector.

Unfortunately, our restrained approach engendered the risk of distortion of the facts by TCN, depriving our customers and the nation of information on the true state of the challenges of the sector. We believe that our customers need and deserve improved service delivery and electricity versus the distortion of, and propaganda of sectoral issues and the constant hunger for publicity that seems to be TCN's modus operandi. Such improved service delivery and electricity supply can only occur when NESI participants move away from superficial pursuits to rolling up their sleeves and putting in the diligent effort necessary to achieve progress in the sector.

As usual, the DisCos remain, with their hands outstretched, ready to work in partnership with all stakeholders, towards the objectives of making NESI commercially viable and sustainable, with a resultant increase in the supply of electricity.

Signed:  
Barr. Sunday Oduntan  
Executive Director, Research & Advocacy



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