

11.45 – 12.15 p.m

PLENARY SESSION

Jack Casazza, President, American Education Institute

Video Presentation: “Restructuring: Good? Or Bad?”

**AFRICAN MINISTERS AND CHIEF EXECUTIVES PERSPECTIVES/
DISCUSSION ON ELECTRIC POWER INDUSTRY RESTRUCTURING**

Co-ordinator:

Prof. James Momoh

Speakers:

Senator Liyel Imoke [Invited]

Special Adviser to the President of Nigeria on Utilities

Prof. Sanni Sambo

*Vice Chancellor, Bauchi State University,
Bauch, Nigeria*

The Hon. P. Mlambo Ngenka

*Minister of Energy,
Pretoria, South Africa*

Malam Nasir El-Rufai

*Director Gen. Bureau of Public Enterprises,
Abuja, Nigeria*

Charles Wereko- Brobbey

*Chief Executive, VRA,
Accra, Ghana*

1.15 – 2.15 p.m.

Lunch

SESSION 1

EXPERIENCES IN PLANNING AND OPERATION OF A DEREGULATED POWER UTILITY

2.15 – 4.15 pm

Session Chairman:

Dr. W.J. Balet

(South African Power Pool, Zimbabwe)

Co-Chairman:

Prof. K. Tomsovic

(Washington State University, USA)

Rapporteur:

Peter Bofah

(Howard University, USA)

Paper # 02-01-01

W.J. Balet, “The South African Power Pool and Restructuring”(Presentation Only)

Paper # 02-01-02

J. Amoako-Baah and Theophilus Sackey, “Impact of privatisation of the Electricity Industry in West Africa

Paper # 02-01-03

Mainsah, Vincent, “Preparing for the Grid Company of Tomorrow in AES-SONNEL”

Paper # 02-01-04

O.B. Obah and T.C. Nwodo, “*Privatisation of the Nigerian Power System. Issues and the Way forward.*”

Paper # 02-01-05

Momoh, J.A., Jack Casazza, “Technical Requirements for Implementing Nigeria’s Electric Power Policy”

Paper # 02-01-06

Bola Odubiyi and Innocent Davidson, “*England and Wales electricity industry: Experience in deregulation 1990 to 2000*”

Paper # 02-01-07

George Gross, “*Research needs and Challenges in the Standard Market Design*”(Presentation Only)

4.15-4.30 pm

Break session

SESSION 2

HUMAN RESOURCE MANAGEMENT & SOCIO-ECONOMIC IMPACTS OF DEREGULATION

4.30 - 6.30 pm

Session Chairman:	Victor Dzidzienyo	(Howard University, USA)
Co-Chairman:	Engr. A. S. A. Bada	(National Electric Power Authority, Nigeria)
Rapporteur:	Innocent Davidson	(University of Napal, South Africa)
Paper # 02-2A-01	E. J. Bala, " <i>Implications of a restructured power industry in Nigeria.</i> "	
Paper # 02-2A-02	E.A. Jackson, " <i>Electric Power Generation and Transmission in Ghana</i> "	
Paper # 02-2A-03	Shecku M. Silla and Foday K. Mannah, " <i>Prospects for and Challenges to Private Sector Participation in the Electricity Sector in Sierra Leone</i> "	
Paper # 02-2A-04	Ayodele. Afolabi. Esan., " <i>Regulatory Body's Role In The Proposed Restructured Electricity Industry In Nigeria</i> "	
Paper # 02-2A-05	Jack Casazza, " <i>Technical Competence and Engineering Leadership.</i> "	
Paper # 02-2A-06	Nwankwo, O.I. " <i>The implications of Restructured Power Industry and the effects on Rural and Low income Electricity Consumers in Nigeria</i> "	
Paper # 02-2A-07	Kouadio, Georges. " <i>Emmissions and puits of Greenhouse GAZ In Cote D'Ivoire and mitigation strategies</i> "(Presentation Only)	
Paper # 02-2A-08	Alison Chikova, " <i>Experiences and challenges in the South African Power Pool</i> " (Presentation Only)	
Paper # 02-2A-09	Bartholdi, Jürgen. " <i>Implications of Power Sector Liberalisation</i> "(Presentation Only)	
8.00-10.00 p.m.	DINNER	

DECEMBER 17, 2002

SESSION 3A

TECHNOLOGY FOR DISTRIBUTION SYSTEMS IN A DEREGULATED ENVIRONMENT

8.00-9.00 a.m

Session Chairman:	Arunsi. U. Chuku (Tuskegee University, USA)	
Co-Chairman:	T.C. Nwodo (Enugu State University of Science and Technology, Nigeria)	
Rapporteur:	O.C. Oparaku (University of Nigeria Nsukka, Nigeria)	
Paper # 02-3A-01	Izuegbunam F.I., and T.C. Nwodo, " <i>Anticipated Distribution Problems in a Privatized Nigerian Power System</i> "	
Paper # 02-3A-02	M.S Haruna, " <i>Alternative approach to Nigerian Electricity sector reforms.</i> "	
Paper # 02-3A-03	Anil Pahwa, " <i>Impacts of Cold Load Pickup on Distribution Systems</i> "	
Paper # 02-3A-04	Peter Bofah and M. K. Hughes Mensah, " <i>On Designing Electric Power System for a Rural Area Using Photo Voltaic Systems</i> "	
Paper # 02-3A-05	C.O. Ahiakwo and T.C. Nwodo, " <i>Restoring The Power Supply Industry – The Nigeria Experience.</i> "	
Paper # 02-3A-06	Foluseke A. Somolu and Ededet Out-Bassey, " <i>Lessons Learnt from Managing Power Purchase Agreements: The NEPA Experience</i> "(Presentation Only)	
Paper # 02-3A-07	J.A. Momoh, R.A. Sowah, " <i>Impact of Distributed Generation on Distribution Systems in a deregulated environment</i> "	

SESSION 3B

EVOLUTION OF COMPUTATIONAL TOOLS TO MEET THE NEEDS OF RESTRUCTURED UTILITY ENVIRONMENTS-PART 1

8:00-11:30 a.m.

Session Chairman: E.A. Jackson (Kwame Nkrumah University of Science and Technology, Ghana)

Co-Chairman: Anil Pahwa (Kansas State University, USA)

Rapporteur: E.A. Nwankwo (National Electric Power Authority, Nigeria)

8.00-9.00 am Kishan Baheti “NSF Initiatives and Future Direction” (Presentation Only)

9.00-11.30am

Paper # 02-3B-01 Abimbola Odubiyi, “*Transmission and System Operations in a Deregulated Industry.*”

Paper # 02-3B-02 Chen- Ching Liu, “*New Technologies for Power System Planning and Operation in a Competitive Environment.*”

Paper # 02-3B-03 Ganesh Kumar Venayagamoorthy, “*Intelligent Control of Turbogenerator exciter/turbine on the Electric Power grid to improve generation and stability.*”

Paper # 02-3B-04 Jonathan U. Ndiagwalukwe, “*Cost Optimization In Electric Power Transmission.*”

Paper # 02-3B-05 Nwankwo Ekwunife Anthony, “*Fuzzy Logic Application to Modern Power System Operations, A Silent Feature*”

Paper # 02-3B-06 J.A. Momoh, Ayodele S. Ishola -Salawu, “*ANN Load Forecast For VAR Planning for Multi-area Competitive Power System*”

Paper # 02-3B-07 W. Amuna, B. Modey, F. Abotsi and M. Dowuona, “*Harmonized Automatic Frequency Load Shedding Scheme in CIE, VRA&CEB*”

Paper # 02-3B-08 G.C. Ejebe, “*Transmission Access and Congestion Management For Power Markets*”

11.30- 12.30pm

TUTORIAL SESSION I

C.C. LIU, “*Restructuring of Electricity Power Markets*”

12.30 noon-1.30 pm

LUNCH/VIDEO PRESENTATION/ BREAK

SESSION 4

EVOLUTION OF COMPUTATIONAL TOOLS TO MEET THE NEEDS OF RESTRUCTURED UTILITY ENVIRONMENTS-PART 2

1.30- 3.00 pm

Session Chairman: Kevin Tomsovic (Washington State University, USA)

Co-Chairman: Abimbola Odubiyi (PowerGen PLC, UK)

Rapporteur: Ganesh Kumar Venayagamoorthy (University of Missouri-Rolla, USA)

Paper # 02-4-01 Olorunfemi Ojo, “*A Center-node Unified Power Flow Controller for Transmission lines.*”

Paper # 02-4-02 Mariesa Crow, A. Armbruster and B. McMillin, “*Controlling Power Flow using FACTS Devices and the Maximum Flow Algorithm*”

Paper # 02-4-03 Abimbola Odubiyi and Innocent Davidson, “*Distributed Generation in Nigeria’s Electricity Industry Deregulation: Assessment and Integration.*”

Paper # 02-4-04 Shokunbi Olumuyiwa, “*The WAPP Model as our planning tool*”

Paper # 02-4-05	Carlton Blue, “ <i>Alternative Analysis for Reliability Performance Assessment of Small to Large Utility Planning Areas</i> ”
Paper # 02-4-06	Arunsi. U. Chuku , B. Oni, and Francois Kuate, “ <i>Relieving Electricity Supply Stress through Dispersed Generation</i> ”
Paper # 02-4-07	J.A. Momoh, “ <i>Computational Tools for Power Engineering for the Restructured Power markets</i> ” (for presentation only)
Paper # 02-4-08	Sackey, Theo. “ <i>Developing a Power Market in West Africa : The Role of the West Africa Power Pool</i> ”
Paper # 02-4-09	Venkataramana Ajarapu “ <i>ISU Approach for Identifying, Tracing and Optimal Control of Voltage Stability Margin</i> ”
3.00-3.15pm	Break

SESSION 5

INFORMATION TECHNOLOGY FOR THE POWER SYSTEM STABILITY AND RELIABILITY

3.15-4.45pm	
Session Chairman:	Mariesa Crow (University of Missouri-Rolla, USA)
Co-Chairman:	T.T. Afolayan (National Electric Power Authority, Nigeria)
Rapporteur:	A.B. Mohammed (National Electric Power Authority, Nigeria)
Paper # 02-5-01	I.K. Dabipi, Emmanuel Akinjide, and Daniel Okunbor, “ <i>Information Technology Application required for Nigerian Power Stability Reliability</i> ”
Paper # 02-5-02	A.M. Anyanwu, Okorogu.V.N, “ <i>Market oriented telecommunication services delivery: a power industry perspective.</i> ”
Paper # 02-5-03	T.S.G. Wudil, I.O. Ajiboye, “ <i>Protection Coordination of 11KV Distribution, 33KV and 132KV Transmission Lines</i> ”
Paper # 02-5-04	A.M. Anyanwu, S.Isebemeh , E.O.Okoye “ <i>Wireless communication based revenue management system.</i> ”
Paper # 02-5-05	Orihie, C.N; T.O., Amadi; Dahiru. I; Ichegbo. S.N.; Onumonu, I.N; Aja J.O.; Ibrahim. A, “ <i>Impact and Application of Sensors and Control Devices in Power Industry in a Deregulated Economy</i> ”
Paper # 02-5-06	Enemuo, S.N; Afolayan, T.T; Orihie, C.N.; Igbokwe H.; Ezenwaka B.N.; Mohammed A.B., Obishia, F.C, “ <i>Restructuring the Nigerian Power Industry</i> ”

SESSION 6A

TECHNOLOGY FOR ENHANCING POWER SYSTEM STABILITY AND RELIABILITY

4.45 – 6.45 pm	
Session Chairman:	C.C. Liu (University of Washington, USA)
Co-Chairman:	A.M. Anyanwu (National Electric Power Authority, Nigeria)
Rapporteur:	Venkataramana Ajarapu (Iowa State University, USA)
Paper # 02-6A-01	Nafisatu .A. Ali, Hussein Moh’d Bulawa, “ <i>Transformer Failure In Nigeria: Causes And Remedy</i> ”
Paper # 02-6A-02	J. Tong and K. Tomsovic, “ <i>Estimating the Active Power Transfer Margin for Transient Voltage Stability</i> ”
Paper # 02-6A-03	Arunsi U. Chuku, Ben Oni , “ <i>Managing Congestion in Electric Power Network by Utilizing Dynamic Ampacity of Transmission Lines</i> ”

- Paper # 02-6A-04 Udeji O. C. N., Anumaka E. A., *“Equipment Defects In Power System Network In Nigeria”*
- Paper # 02-6A-05 J. Amoako-Baah, *“Influences of Real GDP and Real Energy Prices on Energy Demand – Ghana’s Electricity Sub sector”*
- Paper # 02-6A-06 Ogu, P.N., *“Transmission Line Protection And System Stability”*
- Paper # 02-6A-07 Ejike. N.F, *“Managing Maintenance Of Thermal Power Plant In A Developing Economy”*

SESSION 6B

ELECTRICAL POWER SYSTEM INFRASTRUCTURE STANDARDS

4.45-645 pm

Session Chairman: Engr. F.A. Somolu (Nigeria Society of Engineers, Nigeria)

Co-Chairman: Dickson E. Ozokwelu (Department of Energy, USA)

Rapporteur: I.K. Dabipi (University of Maryland Eastern Shore, USA)

- Paper # 02-6B-01 Foluseke A. Somolu and F.K.O. Zacccheaus, *“Transmission Constraints And The Deregulation Of The Nigerian Electricity Supply Industry”*
- Paper # 02-6B-02 Ayodele Afolabi Esan, *“Small Hydro Power For The Restructured Power Industry”*
- Paper # 02-6B-03 Dickson E. Ozokwelu,, Olayinka Ogunsola,, *“Strategy For Successful, Sustainable, Energy-Efficient, And Renewable, Electrical Power Generation And Distribution In Nigeria”*
- Paper # 02-6B-04 J.C. Ekeh, E.O. Ikwu, *“ An Assessment of Electric Utility Energy Systems In Nigeria”*
- Paper # 02-6B-05 Hector E. A. Boye, *“International Contracts For Construction of Hydroelectric Power Infrastructure”*
- Paper # 02-6B-06 Johnson Asumandu, Ralph Tanner, Michael Kelly, Jake Belter and Song Chin Koh, *“A web based hands on electrical and electronic remote wiring and measurements laboratory (Rwn) suitable for African and South American Universities*
- Paper # 02-6B-07 Johnson Asumandu, Kwaku Adu Gyamfi, Felix Abotsi and Kala Seidu, *“Energy Crisis: Ghana generating Characteristics”*

7.00 – 7.30 p.m. **Rapporteurs Meeting**

7.30 – 10.00 p.m. **Gala Night and Recognition**

Venue: Banquet Hall, NICON HOTEL, Abuja, Nigeria.

Host: **CEO/MANAGING DIRECTOR (NEPA): ENGR. JOSEPH MAKOJU**

WEDNESDAY, DECEMBER 18, 2002

SESSION 7A

Session Chairman: Prof. Arunsi Chuku (Tuskegee University, USA)
Co-Chairman: Prof. Ajarapu (Iowa State University, USA)
Rapporteur: Engr. Amuna (Volta River Authority, Ghana)

7.30 – 8.30 a.m. Breakfast/ICPSOP Steering Committee Business Meeting

8.30 – 9.45 a.m. **TUTORIAL SESSION II**
Prof. Momoh, “ Foundation for Restructuring of Electric Power Systems”

9.45 – 10.00 a.m. Coffee Break

SESSION 7B

Session Coordinators: Engr. A.S.A. Bada (National Electric Power Authority, Nigeria)
Dr. Peter Bofah (Howard University, USA)

10.00 – 7.00 p.m. Excursions (Shiroro Power Station)
(Lunch will be taken during the visit)

7.30 –10.00 p.m **Howard Night**

THURSDAY, DECEMBER 19, 2002

SESSION 8A

Session Chairman: **Prof. Innocent Davidson**
Co-Chairman: Prof. E.A. Jackson (Kwame Nkrumah University of Science and Technology, Ghana)
Rapporteur: Engr. Orihie (National Electric Power Authority, Nigeria)

7.00 - 8.00 a.m. **Breakfast/Working Group Meeting**

8.00 - 9.15 a.m. **General Discussion of Paper Presentations**

9.15 - 9.30 am Break

9.30 - 11.30 a.m. **TUTORIAL III**
Prof. James Momoh, “Transmission and Generation in a Restructured Environment”.

SESSION 8B

Session Chairman: **Prof. James A. Momoh** (National Science Foundation, USA)
Co-Chairman: Engr. F.A. Somolu (Nigeria Society of Engineers, Nigeria)
Rapporteur: Dr. G. C. Ejebe (Cargil Power, USA)

11.30 - 12.30 noon **Communiqué/Closing Ceremony**

Refreshments

12.30 a.m. 1.30 p.m. **Post Conference Executive Planning Committee Meeting**

FRIDAY, DECEMBER 20, 2002 (Optional)

SESSION 9

Session Chairman: **Prof. James A. Momoh** (National Science Foundation, USA)
Co-Chairman: **Prof. T.C. Nwodo** (Enugu State University of Science and Technology, Nigeria)
Rapporteur: **Prof. C.C. Liu** (University of Washington, USA)

9.00 - 5.00 p.m **NSF Collaboration and Proposal Working Group Meeting**