# **Energy Policy Development in Myanmar**

Current Situation, Prospect and Policy Proposals

Organized by

The Ministry of Economy, Trade and Industry, the Government of Japan The National Energy Management Committee, the Government of the Republic of the Union of Myanmar The Ministry of Energy, the Government of the Republic of the Union of Myanmar Policy Alternatives Research Institute, the University of Tokyo The Overseas Human Resources and Industry Development Association

Jointly-sponsored by

Economic Research Institute for ASEAN and East Asia

**6 February** 2015 **Nay Pyi Taw**, Myanmar International Symposium

### "Energy Policy Development in Myanmar: Current Situation, Prospect and Policy Proposals"

6 February 2015 Pinya Hall, Grand Amara Hotel No (5, 6), Jade Villa, Dekkhina Thiri Township, Nay Pyi Taw, Myanmar http://www.grandamarahotel.com/

Organizers

The Ministry of Economy, Trade and Industry [METI], the Government of Japan

The National Energy Management Committee **[NEMC]**, the Government of the Republic of the Union of Myanmar

The Ministry of Energy **[MOE]**, the Government of the Republic of the Union of Myanmar

Policy Alternatives Research Institute **[PARI]**, the University of Tokyo **[UTokyo]** 

The Overseas Human Resources and Industry Development Association [HIDA]

Joint sponsor

Economic Research Institute for ASEAN and East Asia [ERIA]









HIDA



# About the Symposium

### Objectives

While the Myanmar has been attracted increased international attention since its start of democratization and integration to the international economy in 2011, there are still many challenges that are visible in the country. In this event, it is aimed to look to the international environment and recent developments in the global energy arena, particularly in ASEAN, and discuss possible energy policy directions of Myanmar in the future by inviting global leaders in the field of international energy, innovation and ASEAN as well as high level policy makers in the Government of Myanmar.

In the second half of the symposium, based on the preceding presentations and discussions, more specific energy policy issues are to be discussed, with the policy makers taking the lead: policy proposals on the selected energy policy issues prepared by the participants of the Energy Policy Workshop from various energy related ministries, organizations and universities will be presented, followed by comments from the participants including keynote speakers and then by active discussions. The symposium also aims to provide a common ground and a forum for policy discussions across ministries, institutions, policy fields and national borders and an opportunity for human resources development. The participants of the Energy Policy Workshop will revise their draft of the proposals incorporating the comments received during the event and present them to the National Energy Management Committee (NMEC) in May/June 2015.

# Representatives of the Energy Policy Workshop Lecturers

Dr. Venkatachalam Anbumozhi, Senior Analyst, ERIA Dr. Masahiro Sugiyama, Assistant Professor, PARI, UTokyo Mr. Nobuo Hashimoto, Visiting Researcher, PARI, UTokyo Prof. Hisashi Yoshikawa, Project Professor, PARI, UTokyo

### **Expected Participants**

Ministers and Deputy Ministers of the energy line ministries, policy makers from the NEMC, energy related ministries and local governments, researchers and analysts, business persons from the energy demand side and other stakeholders.

# Program

#### 09.30- Registration

### Session 1 Global environment and trend surrounding Myanmar including its energy sector

10.00-10.20	<ul> <li>Welcome / Opening Remarks</li> <li>H.E. Mr. U Zay Yar Aung Minister for Energy, Chairman of NEMC, Myanmar</li> <li>H.E. Mr. Yasuhiko Yoshida Deputy Director-General for International Project Promotion, METI</li> <li>Mr. Sadao Takeda Senior Managing Director, HIDA</li> </ul>		
10.20-10.30	Photo Session		
10.30–12.15	12.15 Keynote Speeches "Energy Situation and Major Challenges" H.E. Mr. U Zay Yar Aung		
	💻 11.00–11.15 Coffee Break		
	"Global Energy Situation and the Future"		
	Prof. Nobuo Tanaka Former Executive Director, IEA		
	"Energy in ASEAN and Implications for Myanmar" Prof. S. K. Chou Professor, Department of Mechanical Engineering, and Executive Director, Energy Studies Institute, National University of Singapore		

### 12.15–13.30 🛛 🎁 Lunch Break

Session 2	Presentations of draft policy proposals on specific policy issues by the Energy Policy		
	Workshop participants from the energy related ministries, organizations and universities		
	Followed by comments from the keynote speakers, relevant ministries of Myanmar, energy		
	specialists and policy makers		

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13.30-13.40		
	Prof. Hisashi Yoshikawa, Coordinator of the Energy Policy Workshop	
13.40-14.10	Group 1—"Energy Technology and Human Resource Development"	
	Comments from Ministry of Science and Technology (MOST)	
	Discussion	
14.10-14.40	Group 2 — "Electricity Policy in Myanmar"	
	Comments from Ministry of Electric Power (MOEP)	
	Discussion	
14.40-15.10	Group 3 — "Energy Efficiency Policy and Strategy for Myanmar"	
	Comments from Ministry of Industry	
	Discussion	
	💻 15.10–15.30 Coffee Break	
15.30-16.00	Group 4— "Energy Pricing, Subsidy and Energy Market"	
	Comments from Ministry of Energy (MOE)	
	Discussion	
16.00-16.30	Group 5—"Energy Access in Rural Area and Energy Poverty"	
	Comments from Ministry of Livestock, Fishery and Rural Development (MLFRD)	
	Discussion	

#### 16.30–17.00 Wrap Up

Mr. **Mitsutoshi Oriyama** Deputy Director, METI H.E. Mr. **U Zay Yar Aung** [Moderator] Prof. **Hisashi Yoshikawa** PARI, UTokyo

# Speakers

# Prof. Nobuo Tanaka



Former Executive Director International Energy Agency

#### Keynote Speaker

Nobuo Tanaka is currently the Global Associate for Energy Security and Sustainability at the Institute of Energy Economics, Japan (IEEJ) since September 1 of 2011. He is also Professor at Graduate School of Public Policy of the University of Tokyo, where he is teaching energy security since April 2013. As Executive Director of theInternational Energy Agency (IEA) from 2007 to 2011, he oversaw a seminal period in the Agency's work and direction. Under his leadership, the IEA initiated a collective release of oil stocks in June 2011, the third such collective action in the Agency's history, opening new scope and a new era for IEA emergency action. He was responsible for pioneering the concept of 'comprehensive energy security' while also expanding the Agency's focus on climate change, renewable energy and the transition to a low-carbon energy economy. He also played a crucial and personal role in the strengthening of ties with major IEA non-Member energy players, including China, India, Russia. etc.

He began his career in 1973 in the Ministry of Economy, Trade and Industry (METI) in Tokyo, and has served in a number of high-ranking positions in METI, including Director-General of the Multilateral Trade System Department. In this capacity, he led many trade negotiations at the World Trade Organisation (WTO) and for bilateral Free Trade Agreements. He was deeply engaged in a range of bilateral trade and economic issues with the US as Minister for Industry, Trade and Energy at the Embassy of Japan, Washington DC from 1998 to 2000, as well serving as the first secretary of the Embassy from 1982 to 1985.

With a strong background in international affairs, He has served as both Deputy Director and Directorfor Science, Technology and Industry (DSTI) of the Paris-based Organisation for Economic Co-operation and Development (OECD).

# Prof. S. K. Chou

# Dr. Venkatachalam Anbumozhi



#### Professor

Department of Mechanical Engineering Executive Director Energy Studies Institute National University of Singapore

Keynote Speaker



#### Senior Energy Economist

Economic Research Institute for ASEAN and East Asia



- 1990-1992 Executive Director, Science Council of Singapore, and Executive Director, National Science and Technology Board
- 2. 1992-2000 Director, Industry and Technology Relations Office, NUS.
- 1995-2002 Managing Director, NUS Technology Holdings Pte Ltd
- 4. 1998-2003 Head, Department of Mechanical Engineering, National University of Singapore
- 2003-2008 Vice-Dean, External & Industry Relations Office, Faculty of Engineering, National University of Singapore
- 6. 2007-2009 and 2010- Executive Director, Energy Studies Institute, NUS

Venkatachalam Anbumozhi is a Senior Energy Economist at the Economic Research Institute for ASEAN and East Asia (ERIA). Indonesia. His previous positions include Senior Capacity Building Specialist at Asian Development Bank Institute, Assistant Professor at the University of Tokyo, Senior Policy Researcher at the Institute for Global Environmental Strategies and Assistant Manager in Pacific Consultants International, Tokyo. He has published several books, authored numerous research articles and produced many project reports on energy policies, energy infrastructure design, and private sector participation in Green Growth. Anbumozhi was invited as a member of the APEC Expert Panel on Green Climate Finance and the ASEAN Panel for promoting climate-resilient growth. He has taught Resource management, International cooperation and Development Finance at the University of Tokyo and has speaking engagements at some of the leading international organizations. He obtained his PhD from the University of Tokyo.

# Dr. Masahiro Sugiyama



Assistant Professor Policy Alternative Research Institute The University of Tokyo

Lecturer

# Mr. Nobuo Hashimoto



Visiting Researcher Policy Alternative Research Institute The University of Tokyo

Masahiro Sugiyama is an Assistant Professor at Policy Alternatives Research Institute (PARI), the University of Tokyo. He holds a Ph.D. in climate science and a master's degree in technology and policy, both from MIT. Prior to joining PARI, he was a researcher at the Socio-Economic Research Center, the Central Research Institute of the Electric Power Industry. He joined PARI in April, 2014. An expert on global warming, he has worked on various topics related with climate change, ranging from energy efficiency in global scenarios to citizens' views on climate geoengineering.

Nobuo Hashimoto is a Visiting Researcher to Policy Alternatives Research Institute (PARI) and also belongs to Electric Power Development Co., Ltd. He received his master's degree from graduate school of science and engineering, Waseda University in 1977. His interests include planning and development of electricity, particularly the development of hydropower. So far, he has worked as JICA advisor for energy-related ministries in Cambodia and Laos and has experiences in the field of technical cooperation in developing countries.

# The Energy Policy Workshop

# Prof. Hisashi Yoshikawa



#### Project Professor

Policy Alternative Research Institute / Graduate School of Public Policy The University of Tokyo

#### Lecturer / Moderator

Hisashi Yoshikawa is a Project Professor of the Graduate School of Public Policy (GraSPP), Policy Alternatives Research Institute (PARI) as well as Global Leader Program for Social Design and Management (GSDM), the University of Tokyo. Before he started to work in the University in September 2011, he worked both in the International Energy Agency (IEA) as Senior Advisor for Long-Term Policy and in the Organisation for Economic Co-operation and Development (OECD) as Deputy Director of the Directorate of Science, Technology and Industry (STI). He has also worked in the Ministry of Economy, Trade and Industry (METI) of the Japanese Government and held director positions, including Director of the Service Affairs Policy Division and Director of the Petroleum Distribution Division. His interests include policy planning and implementation, particularly in the field of energy.



The Energy Policy Workshop — Session 1, Sep. 2014



The Energy Policy Workshop — Session 2, Sep.-Oct. 2014



The Energy Policy Workshop — Session 3, Oct. 2014





Pre-seminar

Visit of Isogo Thermal Power Plant

### **Voices from Participants**

#### Group 1 -- Energy Technology and Human Resource Development

In this workshop, we have got knowledge of Energy Policy Making and workshop is strong. In addition, the lecturers are kind heart on us.

#### Group 2 - Electricity Policy in Myanmar

Stable power supply by hydropower development in Myanmar is our group's first target. Renewable water resources are better to introduce hydropower potentials in Myanmar is second target. To form "National Electricity Master Plan in Myanmar" is third target.

#### Group 3 - Energy Efficiency Policy and Strategy for Myanmar

This workshop is very much support preparing the draft of Energy Policy for Myanmar. We also got opportunities to learn Japanese practices of using energy in better way for country's development. We are also happy to learn the cultural and social environment of Japanese people.

#### Group 4—Energy Pricing, Subsidy and Energy Market

We can learn about "Electricity Challenges and Benefit of Tariff Increase in Myanmar" under supervision of HIDA.

#### Group 5-Energy Access in Rural Area and Energy Poverty

As policy guidance is urgently and essentially needed for Energy and Electrification works in Myanmar. METI, PARI and HIDA have started intensive Energy Policy Workshop for proper knowledge and thought in cooperation with Ministry of Energy, Myanmar government since 2013. Led by Professor Yoshikawa of PARI and other lecturers, we gained various aspects of energy related knowledge. Also HIDA arranged for us to observe highly developed technologies through Fujikura Ltd. Sakura plant, AEON MALL CO., LTD. Laketown and Electric Power Development Co., Ltd. (JPOWER), Isogo Thermal Power Station. Thank you for all your help to METI, PARI, HIDA and Myanmar Government.

# Participants of the Energy Policy Workshop

Group 1	Ms. Tin Lai Kyaw	Ministry of Electric Power
Energy Technology and Human	Mr. Kyaw Aung Win	Ministry of Electric Power
Resource Development	Mr. Kyaw Swar Soe	Ministry of Energy
	Mr. Khin Maung Kyaw	Ministry of Environmental Conservation and Forest
	Ms. Myint Myint Khin	Ministry of Industry
	Mr. Soe Win	Ministry of Mines
	Ms. Aye Aye Khaing	Myanma Scientific and Technogical Research Departmen
Group 2	Mr. Min Aye	REAM
Electricity Policy in Myanmar	Mr. Aung Ko Oo	Mandalay Technological University
	Mr. Win Oo	Ministry of Energy
	Ms. Myint Myint Kyi Swe	Ministry of Electric Power
	Mr. Kyaw Soe Win	Ministry of Energy
	Mr. Ye Swe	Ministry of Environmental Conservation and Forest
	Mr. Myat Ko Ko	Ministry of Industry
	Ms. Ei Ei Theint	Ministry of National Planning and Economic Developmen
	Mr. Hsan Htoo	University of Yangon
Group 3	Mr. Kyaw Thura Nyein	Ministry of Agriculture and Irrigation
Energy Efficiency Policy and Strategy	Ms. Yu Khine Tin	Ministry of Electric Power
for Myanmar	Ms. Mya Aye San	Ministry of Energy
	Mr. Soe Minn Khine	Ministry of Industry
	Ms. Ohn Mar Hlaing	Ministry of National Planning and Economic Developmen
	Mr. Toe Aung Wai	Ministry of Science & Technologhy
	Mr. Hla Myo Aung	Myanma Scientific and Technogical Research Departmen
	Mr. Aung Thet Paing	Myanmar Engineering Society
	Ms. Myat Shwe Wah	University of Yangon
Group 4	Ms. Thandar Wint Wint Khaing	Ministry of Agriculture and Irrigation
Energy Pricing, Subsidy and Energy	Ms. Phyu Phyu Khin	Ministry of Electric Power
Market	Mr. Hsan Oo	Ministry of Electric Power
	Mr. Win Zaw Htay	Ministry of Energy
	Mr. Ko Ko Maung	Ministry of Energy
	Mr. Ko Ko Lwin	Ministry of Industry
	Ms. Soe Soe Ohn	Ministry of Livestock, Fisheries and Rural Development
	Mr. Kyaw Kyaw	Ministry of Mines
	Mr. Zaw Myo Lwin	Ministry of Industry
Group 5	Ms. Sane Sane	REAM
Energy Access in Rural Area and	Mr. Kyaw Kyaw Win	Ministry of Agriculture and Irrigation
Energy Poverty	Mr. Aung Zaw Hein	Ministry of Electric Power
	Mr. Myo Min Han	Ministry of Energy
	Mr. Ko Ko Lay	Ministry of Energy
	Ms. Khaing Yadana Swe	Ministry of Industry
	Ms. Ei Ei Thant	Ministry of Livestock, Fisheries and Rural Development
	Mr. Soe Yi	Ministry of Mines
	Mr. Myint Thein	Myanma Scientific and Technogical Research Departmen
	Mr. Kyaw Kyaw	Myanmar Electric Power Enterprise
	Ms. May Phyu Aye	Myanmar Engineering Society