

International Best Practices in Power & Energy Sector Lessons for South Asia & Bangladesh



International Best Practices in Power & Energy Sector Lessons for South Asia & Bangladesh

December 2016

Edited by

Professor Syed Munir Khasru

Chairman

The Institute for Policy, Advocacy, and Governance (IPAG)

Contributing Authors from



McKinsey&Company

BCG



**COPYRIGHT © 2016 THE INSTITUTE FOR POLICY, ADVOCACY,
AND GOVERNANCE (IPAG)**

All rights reserved. Permission to reprint, republish, refer, and/or distribute this material in whole or in part for any other purposes must be obtained in writing from the Chairman and/or Executive Director of IPAG. IPAG accepts no responsibility or liability for the consequence of this document being used for a purpose other than the purposes for which it were commissioned. Any entity using or relying on the document for such other purpose agrees, and will by such use or reliance be taken to confirm his agreement to indemnify IPAG for all loss or damage resulting therefrom.

First Published: December 2016

ISBN 978-984-34-1681-0

This book should be cited as:

Khasru, Syed Munir, ed. International Best Practices in Power & Energy Sector: Lessons for South Asia & Bangladesh. 1st ed. Vol. 1. Dhaka: IPAG, 2016. Print.

Price: BDT 950.00 / USD 20.00

Published by:

The Institute for Policy, Advocacy, and Governance (IPAG)

14B Chandrashila-Suvastu Tower
69/1 Bir Uttam Qazi Nuruzzaman Road
Dhaka 1205, Bangladesh.

www.ipag.org

Editorial Team

Editorial team led by:	Prof. Syed Munir Khasru
Editorial team members:	Makshudul A M Mondal Mohammed Masudur Rahman Tanvir Ahmed Khan
Design, Layout, and Typesetting:	Mohiuddin Khokan

The panel of writers in this book are experts in their respective fields. The views and opinions expressed in this article are those of the authors and do not necessarily reflect the official policy or position of the editorial board or the publishing organization. IPAG does not take any legal responsibility for the accuracy, completeness, or usefulness of the information herein, or for actions, decisions, or initiatives arising from the articles.

Table of Contents

<i>Foreword</i>	1
<i>Felicitations from the State Minister of Power, Energy & Mineral Resources, Government of Bangladesh</i>	3
1. Benchmarking Bangladesh's Energy Sector Performance: A South Asian and Global Context	5
2. Solving South Asia's Energy Growth Challenge: Five Technologies Which Can Hold the Key	15
3. Improving Energy Sector Performance: 5 Global Success Stories	29
4. Market Structures for Private Sector Participation in the Power Sector: Learning from the Indian Experience	43
5. Two Models of Energy Cooperation: The GMS Power Pool and the Nord Pool	51
6. Bangladesh Power and Energy Sector: Overview, Prospects and Challenges	63
7. Lessons from International Experiences for Energy Market Reform in Bangladesh	81
8. Grid Interconnection of Renewable Energy	99
9. Governance of Gas and Power Sectors in Bangladesh	107

Foreword

Prof. Syed Munir Khasru

Chairman

The Institute for Policy, Advocacy, and Governance (IPAG)



Bangladesh has emerged as a good example for the developing countries for its remarkable achievements in major socio-economic indicators. From poverty alleviation, women’s education to access to basic healthcare, Bangladesh has made significant progress in the last three decades. The ‘Vision 2021’ aims to elevate the country to a Middle Income Country by 2021 where infrastructure development, particularly ensuring reliable supply and efficient demand-supply management of power & energy, would play a critical role.

Given the important and complementing role played by the non-state actors in supporting the policies and initiatives of the Government, the Institute for Policy, Advocacy, and Governance (IPAG), is pleased to organize a seminar on **‘International Best Practices in Power and Energy Sector: Lessons for South Asia & Bangladesh’** during the ‘National Power and Energy Week-2016’ to be held from December 7-10, 2016 . The objective of the seminar is to bring together the leading international experts of the power & energy sector to share their thoughts, ideas, and insights from which Bangladesh as well as other South Asian countries may benefit from knowledge on the international best practices.

On this occasion, IPAG is delighted to bring about this publication which provides key benchmarks, pertinent case studies, and reflects the thoughts, ideas, and intellectual prowess of international and national experts and researchers. IPAG is joined in this initiative by leading experts from some of the leading global companies and institutes like McKinsey & Company, Boston Consultancy Group (BCG), General Electric (GE), Energy Studies Institute under the National University of Singapore (NUS), and the Oxford Institute for Energy Studies.

The initiative is part of IPAG's strong commitment to promote highest standards of professional excellence and performance standards in the power & energy sector of Bangladesh and beyond. In that journey, we welcome comments and feedback from the policymakers, industry, academia, research community and other relevant stakeholders. Finally, we express our sincere thanks to all the contributors of the book without whose support and cooperation, we could not have done it.

Felicitations

Nasrul Hamid

State Minister for Power, Energy & Mineral Resources
Government of Bangladesh



For an emerging country like Bangladesh, reliable and steady supply of power and energy is a prerequisite for continued economic growth and development. The Government of Bangladesh has undertaken many positive initiatives and achieved significant progress in electricity generation and access to electricity. In 1971, only 3% of the country's population had access to electricity; now the number has increased to more than 70%.

I am pleased that during the 'National Power and Energy Week-2016', the Institute for Policy, Advocacy, and Governance (IPAG) has taken the initiative to organize a Seminar on 'International Best Practices in Power and Energy Sector: Lessons for South Asia & Bangladesh' with convergence of global experts in Dhaka to deliberate on key issues related to international best practices from which Bangladesh and South Asia, at large, can benefit. The event also will provide opportunities for in-depth discussion and deliberation among policymakers, experts and practitioners on different issues pertaining to sustainable development of the power & energy sector.

IPAG's bringing about a publication on this occasion is quite timely as it would help the stakeholders with access to specific policy recommendations as well as to learn from the global best practices in this sector. The thought provoking articles from some of the leading thinkers and strategists of the power & energy sector from home and abroad would help all concerned in enriching their knowledge and strengthening their understanding of the dynamics of this sector. The publication is indeed a much needed and praiseworthy initiative by IPAG. I congratulate IPAG for both organizing the seminar and publishing the book on this occasion.