

# CURRICULUM VITAE

**Name in Full** : Kyung-Jin BOO  
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## Educational Background:

- **Ph.D.**, Urban Affairs and Public Policy with a specialization of Energy and Environmental Policy, Center for Energy and Environmental Policy, College of Urban Affairs and Public Policy, University of Delaware, August 2000. Thesis: *Analysis of Interrelation-ship of Energy, Environment, and Economy: Its Implication for Sustainable Energy Future in Korea.*
- **MBA**, International Business with a specialization of Energy and Resources Policy, College of Business Administration, Seoul National University, August 1983. Thesis: *Optimal Level of Strategic Oil Stockpiling: Deterministic and Stochastic Models.*
- **BS**, Petroleum and Mining Engineering, Seoul National University, August 1979

## Professional Positions:

- **Senior Research Fellow, New and Renewable Energy Division, Korea Energy Economics Institute, February 2009 ~ Present.**
- **Head, New and Renewable Energy Division (Senior Research Fellow), Korea Energy Economics Institute, August 2000~February 2009:** Responsible for policy and economic analysis on renewable energy as well as sustainable energy development and advising the Ministry of Commerce, Industry and Energy (here-in-after, MOCIE) on these issues.
- **Research Associate, Center for Energy and Environmental Policy, University of Delaware, 1995 ~ August 2000.** Senior researcher for the CEEP research projects: The Economics of Solar Technologies in Commercial Building Applications in 11 Utilities across the U.S. Responsible for using CEEP developed software (called PV Planner<sup>®</sup>) to analyze those applications. Sponsored by the National Renewable Energy Laboratory.

- **Director, Department of Alternative Energy Policy, Korea Energy Economics Institute (KEEI), 1991~1994 :** Primary responsibility was as liaison and advisor to the Ministry of Trade, Industry and Energy on all matters related to national renewable energy policy. Actively participated and played a leading role in formulating, evaluating and revising the National Plan of Long-term Alternative Energy R & D (1992~1993).
- **Vice Director, Division of Energy Information and Analysis, Korea Energy Economics Institute (KEEI), 1986 ~ 1990.**
- **Research Associate, Korea Institute of Energy and Resources, Division of Resource Policy Research, 1984 ~ 1985.**
- **Researcher, Korea Institute of Energy and Resources, Division of Resources Policy Research, 1980 ~ 1984.**

#### **Professional Activities:**

- **Korean Representative for the International Standard Organization (ISO) Strategic Advisory Group on Energy Efficiency and Renewable Energy Sources ( SAG E) since May 2008.**
- **Chair, Project Review Team (PRT) for the Renewable Energy and Distributed Generation Task Force (REDG T/F) of the Asia Pacific Partnership on Clean Development and Climate ( APP-CDC) since March 2006.**
- **Chair, Subcommittee on New & Renewable Energy Policy, Presidential Committee for Sustainable Development (PCSD), May 2006~February 2007:** Advising President on Sustainable Development for Korea, focusing on New & Renewable Energy Deployment Policy until 2011.
- **Expert Advisor to the Ministry of Knowledge and Economy (MKE), 2001 ~ Present:** Responsible for advising the national government on renewable energy policy as well as renewable energy economics.
- **Expert Advisor to the Center for Renewable Energy, Korea Energy Management Corporation (KEMCO), 2003 ~ Present:** Responsible for advising the national government on renewable energy policy as well as renewable energy economics
- **A Member of Evaluation Committee for the National RD&D Organization for Hydrogen & Fuel Cell, June 2005~Present; and A Member of Policy Committee for the Hydrogen Energy R&D Center, October 2006 ~ Present:** Advising the relevant Government and the two organizations on policy directions and selection of national multi-year hydrogen and fuel cell projects

- **Expert Advisor to the Ministry of Trade, Industry, and Energy, Republic of Korea (MOTIE), 1991~1993**
- **Member, Advisory Committee to the Korea Energy Management Corporation (KEMCO), 1991 ~ 1993**
- **Member, national delegation to the United Nation Conference on the Law of the Sea, September, 1986.**

## **Honors and Awards**

- ***The Ministerial Award for Contribution to the Establishment of the First National Energy Basic Plan: 2009 to 2030.*** Presented to four major authors from relevant energy sector who contributed to the successful completion of the National Energy Basic Plan.
- ***The Best Research Report*** in 2002, 2005, 2006, 2007, 2008: Presented to the best five reports which are annually elected based on inside and outside evaluation of research reports published in the Korea Energy Economics Institute.
- ***Marvin B. Sussman Prize*** in 2001: Presented to the Ph.D. graduate of the preceding year whose dissertation is judged to be the most outstanding in its theoretical formulation or empiricism.
- ***Peter A. Larson Prize in 2000:*** Awarded to that student whose paper is judged to be a significant contribution to fostering international understanding in the fields of urban affairs, public policy or public administration.
- ***CHEP Panel of Outstanding Graduate Students*** in 1998/1999 : Recognition of master's and doctoral students from each department/school in the College of Human Resources, Education & Public Policy involved in graduate education. Selection is based on evidence of positive working relationship with faculty and students, demonstration of leadership in the college or outside professional work, and potential for contribution in the student's chosen field.
- ***University Competitive Fellowship:*** Consecutively awarded in 1997/1998 and 1998/1999 academic years. One of the highly coveted and most honored awards in University of Delaware. Selection is based on academic performance as well as research activities. Less than 20 out of more than 100 students who are selected by faculties' unanimous decision in each department are selected for each academic year.
- ***Ph.D. Representative*** for the College of Urban Affairs and Public Policy: Elected and served for 1997~1998 academic year. Ph.D. Rep, in cooperation with MA Rep, is res-possible for representing the Ph.D. student body and conveying students' opinions in the process of college decision making. In addition, Ph.D. Rep is coordinating the student body's academic as well as social activities.

## Scholarly and Research Work

- **Major Publications, Korea Energy Economics Institute, 2000 - Present**

*A Study on the Establishment of the 3<sup>rd</sup> Basic Plan for New & Renewable Energy Development, Utilization, and Deployment* (2008): A National Project.

*Building a Research Basis for Hydrogen Supply Infrastructure in transition towards the Hydrogen Economy* (2006 – 2011): A Multi-Year National Basic Study for Hydrogen Economy.

*Institutional Arrangements for Building a Foundation of a Hydrogen Economy* (2007): A National Project to realize a hydrogen economy in the long-term.

*A Study on Energy Utilization of Ligneous Biomass in Korea* (2007): A National Project to realize a hydrogen economy by 2040.

*Building a Supply Infrastructure for Hydrogen in Korea* (2006): A Basic Research Theme for KEEI

*Promoting Market for Renewable Energy Generation in Korea* (2005): A Joint Research between KEEI and KEI (Korea Environment Institute)

*A Basic Plan for Renewable Energy Theme Park in Jeonbuk Province* (2005): A Joint Research between Korea Institute of Energy Research and STEPI (Science and Technology Evaluation and Policy Institute)

*Introducing Renewable Portfolio Standards(RPS) in Korea* (2004): A Joint Research with the Korea Institute of Energy Research (KIER) and Ajou University

*A National Vision of Hydrogen Economy and Action Plans* (2005): A National Project to realize a hydrogen economy by 2040.

*Development and Dissemination of GHG Emissions Reduction and Sequestration Technologies in relation to the Kyoto Mechanism* (2003-2005: multi-year project)

*Evaluation of Carbon Taxes based on an Econometric Simulation Model* (2002): Selected as best five research report in KEEI.

*Development of Data-Base for Renewable Energy Industry* (2003). A National Project to build a Data-Base for renewable energy industry.

*Korea's Renewable Energy Strategies as a follow-up to the WSSD.* (2002)

“Less Energy, a Better Economy, and a Sustainable South Korea: An Energy Efficiency Scenario Analysis.” With Byrne and Wang. *Bulletin of Science, Technology & Society.* (2002)

*Introduction of Green Pricing in the Korean Electric Utility Sector* (2001). A National Project to foster renewable energy through introducing green pricing in the electric power sector of Korea.

*Revision of Renewable Energy Development and Promotion Law in Response to Restructuring Activities in the Korean Electricity Sector* (2001). With Zin-O Kim.

- ***Ph.D. Program, Center for Energy and Environmental Policy, University of Delaware, September 1995 - July 2000***

“High-Value Photovoltaic Technology Options for Four US Environmental Protection Agency Facilities.” With Byrne et al. (A report to the National Renewable Energy Laboratory, September 1999).

Technical and Economic Evaluation of Selected U.S. Environmental Protection Agency Facilities for Rooftop PV Applications. Sponsored by National Renewable Energy Laboratory (NREL) in coordination with the Federal Energy Management Program (FEMP).

“Interrelationship of Energy, Environment, Economy; and Its Implications for Sustainable Energy Development in Korea.” (Presented at the 20<sup>th</sup> Annual North American Conference of United States Association for Energy Economics. August 29 to September 1, 1999. Orlando, Florida)

“Mitigating CO<sub>2</sub> Emissions of the Republic of Korea in 2020: The Role of Energy Efficiency Measures.” With Byrne and Wang. (*Proceedings of USAEE/IAEE 1999 20<sup>th</sup> Annual North American Conference*, pp.319-328, 1999)

“High-Value PV Technology Options for Public Facilities in the State of Delaware.” With Byrne. (A report to National Renewable Energy Laboratory, March, 1999)

“Sustainable Energy Options for Asia: Case Studies of China and Korea.” With Byrne, Wang and Yun (Presented at the Kyoto NGO Forum, December 1997).

“The Economic Viability of Dispatchable Peak Shaving PV Systems in Commercial Buildings of Korea.” With Byrne, Wang, and Song (*Proceedings of ISES 1997 Solar World Congress*, Vol.3, pp.294-303. September, 1997).

“Sustainable Energy Policy under the Pressure of Rapid Development: the Case of South Korea” (presented at the National Association for Science, Technology and Society conference, March 6~9, 1997).

“Impacts of Delaware's Low-Income Weatherization Program on Energy and Economic Savings.” 1995. With Byrne, Wang, Berko. Funded by Office of Community Services, Department of Health and Social Services. State of Delaware.

### **Published Research Reports**

- A Study on the Revision of Relevant Laws for the Promotion of New and Renewable Sources of Energy. 1995.
- A Study on the Improvement of New and Renewable Sources of Energy (NRSE) Statistics and Data\_Base in Korea, sponsored by Korea Energy Management Corporation. 1995.
- A Study on Precipitating Commercialization of New and Renewable Energy Technologies. 1993.
- A Study on Efficient R & D Investment for New and Renewable Sources of Energy. 1992.
- A Study on the Domestic Consumption Statistics of NRSE in Korea, sponsored by Korea Energy Management Corporation. 1991.

### **Special Reports**

- Improvement of Support System for Utilization of NRSE in Korea. 1995
- Cost Benefit Analysis of Nationwide Integrated Disposal System of Municipal Solid Wastes. 1994.
- Policy Issues related to Promotion of Renewable Energy Sources. 1993.
- Economic Benefits of Re-utilization of Newspaper Wastes in Korea. 1992.

### **Working Papers and Monographs**

- Economics of Solar Thermal Energy Technologies in Industrial Application. 1994.
- Economics and Policies of New and Renewable Sources of Energy in Korea. 1993.
- Development of Alternative Fuels for Transportation Sector in the Major Developed Countries. 1992.
- Benefit-Cost Analysis of Major Industrial Wastes Utilization. 1991.

### **National Projects**

1. In the early 1990s, the Korean government started the so called 'G7 Technology Standards Projects,' which was to boost the competitive edge of Korean industries in the world export markets by promoting technological development to the level of major industrial countries. I actively participated in planning, revising, and evaluating all G7 Projects related to R & D for Energy Efficiency and Renewables.
2. Because of environmental degradation caused by heavy use of fossil fuels and with the advent of local autonomy in the political arena, central and local governments became interested in local energy planning. KEEI was designated as the lead research institute in this area, was responsible for designing a framework for provincial and city authorities in collaboration with local autonomies. I was involved in this project as an expert on new and renewable sources of energy. I analyzed the supply potential of new and renewable energy sources such as solar energy, wind power, municipal solid waste to energy, industrial wastes to energy, etc. I was co-author of three reports:

- Local Energy Planning for Kyungnam Province. 1994.
- Local Energy Planning for Cheju Island. 1994.
- Local Energy Planning for Taejeon City. 1994.

***Division of Energy Information Analysis, KEEI, 1988 ~ 1990***

1. Primary responsibility was for information and analysis for this division of American and Asian Energy Market. I organized the collection of information and mkt analysis of international energy supply/demand for major energy commodities (oil, natural gas, coal, and uranium). My analysis activities concentrated on the factors influencing world energy markets.
2. Supervised publication of the following periodicals, *Weekly Energy Information*, *Monthly Energy Review*, *Quarterly Energy Market Analysis*, and *Annual Report of World Energy Market*. I also published a special analysis of *American and Asian Energy Markets* every year. Lead author for the following reports:
  - *Analytical Study of Asian Petroleum Market*. 1988.
  - *Deregulation of Energy Market in USA*. 1989.
  - *Rationalization of Petroleum Industry in Japan*. 1990.

***Department of Overseas Resources, KIER, 1980~1987***

1. Primary responsibility was for the policy formulation and implementation related to overseas energy and mineral resources development and import to Korea. At that time Korea had experienced energy and mineral shortages and was forced to pay high world market prices. In collaboration with other experts, I developed strategies to secure a stable supply of major critical resources including crude oil, coal, iron ore, copper, etc. Major authored and co-authored published reports include:
  - Integrated Support System for Overseas Development Import Industry (1984)
  - A Study on Possible Revisions to the Overseas Development Import Law (1983)
  - Improvement of Overseas Development Import Regimes. (1982)
  - Development and Import Strategies of Overseas Natural Resources (1981)
  - Integrated Long-term Supply and Demand Plan of Major Natural Resources in Korea (1980) sponsored by the Ministry of Energy and Resources.
2. From 1985 I was exclusively involved in a national project on deep-seabed mining as an option for overseas resources development import strategies. I actively participated in formulating our national position regarding the Convention on the Law of the Sea, in particular, regarding regulation of mining of deep seabed manganese nodules. I initiated a cooperative approach to this economically as well as politically sensitive issue by holding a series of seminars and public hearings. In a concerted effort with the other Korean institutes, such as the Korea Institute of Marine Studies and the Korea Institute of Geology and Mining, I completed the report, *Economic Analysis of Deep Sea-Bed Manganese Nodules Mining*

*and Korea's Optimal Strategy (1986).*

## **References :**

- John Byrne : Director, Center for Energy and Environmental Policy  
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- Hoesung Lee: Former President, International Association of Energy  
Economic(IAEE)  
Former President of Korea Institute of Energy Economics (KEEI),  
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