

So Young Yang

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Education	<p>Korea University, Seoul, South Korea February 2024</p> <p>Master of Energy and Environmental Policy</p> <ul style="list-style-type: none">▪ Interdisciplinary major at Graduate school of Carbon Neutrality▪ Specialization/Skills: Energy system & demand modelling, Discrete choice experiments, Data analysis using Python & R <p>Handong Global University, Pohang, South Korea August 2018</p> <p>Bachelor of International Area Studies, US and International Law</p>
Publications	<p>Yang, S. Y., Woo, J., & Lee, W. (2024). <i>Assessing optimized time-of-use pricing for electric vehicle charging in deep vehicle-grid integration system</i>. Energy Economics(SSCI, IF 13.6) https://doi.org/10.1016/j.eneco.2024.107852</p> <p>Yang, Y., Yang, S., Moon, H., & Woo, J. (2024). <i>Analyzing heterogeneous electric vehicle charging preferences for strategic time-of-use tariff design and infrastructure development: A latent class approach</i>. Applied Energy(SSCI, IF 10.1) https://doi.org/10.1016/j.apenergy.2024.124074</p> <p>Choi, S., Kwak, K., Yang, S., Lim, S., & Woo, J. (2022). <i>Effects of policy instruments on electric scooter adoption in Jakarta, Indonesia: A discrete choice experiment approach</i>. Economic Analysis and Policy(SSCI, IF 6.5) https://doi.org/10.1016/j.eap.2022.08.015</p>
(In Progress)	<p>Yang, S., Kim, D., Kang, M., Lee, E. (2024 ~). Do consumers get fair options of 'high efficient & clean energy' services to invest? – in the perspective of spatial justice in the urban area</p>
Presentation	<p><i>"Technology acceptance strategy for enhancing effectiveness of Green technology transfer: ODA case study"</i> [Oral presentation]. <Green ODA Forum>, Seoul, South Korea, 2023. (YouTube)</p> <p>'Assessing potential of optimized time-of-use pricing for EV charging in Deep Vehicle-Grid integration system' [Poster presentation]. <i>INFORMS 2022</i>, Indianapolis, USA, 2022.</p>
Research Project	<p>Korea Energy Economics Institute (Website) March 2024 – February 2025</p> <p>working on 'A study to establish the basis of utilization of heat energy for implementing the net-zero'</p> <ul style="list-style-type: none">▪ Conducted Scenario Analysis the potential of converting surplus renewable electricity into thermal energy using P2H technologies; under electricity demand growth in 2030, 2034, 2036▪ Analyzed the benefits for electricity grid stable operation; reducing intermittency issue <p>Energy Policy & Innovation Strategy Lab (Website) March 2022 – February 2023</p> <p>worked on 'Research on the grid integration model of consumer behavior and power system planning to design optimal demand-side management policies and strategies' – Funded by National Research Fund, South Korea</p> <ul style="list-style-type: none">▪ Developed survey experiment; an advanced Discrete choice experiment to analyze energy consumption pattern in order to anticipate total electricity demand of household▪ To be specific, analyzed elasticity and preference for each home appliances; such as air-conditioner, washing machine, stove, TVs, electric heater... etc. <p>The Export-Import Bank of Korea (Report) January 2022 – September 2022</p> <p>worked on '[2021/22 EIPP Uzbekistan] Policy development for PV panel manufacturing industry and energy'</p> <ul style="list-style-type: none">▪ Analyzed electricity market in Uzbekistan, especially renewable energy implementation status▪ Identified obstacles that hinders ESS implementation and utilization within Uzbekistan <p>World Bank (Report) June 2021 – February 2022</p> <p>worked on 'Battery Energy Storage System (BESS) development in Pacific Islands Countries'</p> <ul style="list-style-type: none">▪ Conducted scenario analysis for renewable energy implementation strategy for targeted states; Micronesia, Tuvalu, and Marshall Islands▪ Analyzed future electricity demand growth provided electric vehicles are expanded▪ Identified social/environmental/economic obstacles for expanding renewable energy grid▪

Professional
Experience

Korea Energy Economics Institute

March 2024 – February 2025

Project assistant (Research assistant)

- Participated to research projects; Surplus electricity converting to heat project, 5-year National Policy Plan for District heating and Cooling
- Published bi-weekly policy review reports on various topics about District heating and cooling
 - ✓ Report topics: Korea Emission Trading System(K-ETS), EU's decarbonization strategy for heating, Integrating renewable energy source for heat generation, Advanced heating network technology

Maintain. Co.

February 2021 – February 2022

Strategy manager & PI for a R&D project

- Supervised a project, 'Research on Industrial waste matching algorithm using Cloud database to enhance recycling (reuse)' – Funded by *Ministry of SMEs and Startups*, South Korea
- Developed a logic flow for automated program for optimal industrial waste recycling strategy
- Analyze regulations and legal framework for recycling industrial waste

*** Patents:**

- (1) Method and system for calculating value of waste based on environment effect, Maintain Co.(**Yang, S.** & Kim, Y). South Korea Patent (2022). <https://doi.org/10.8080/1020210006954>
- (2) Method and system for calculating value of waste based on valuable metal price, Maintain Co.(**Yang, S.** & Kim, Y). South Korea Patent (2022). <https://doi.org/10.8080/1020210006955>

Korea International Cooperation Agency (KOICA)

July 2020 – January 2021

Young Professional (Internship), worked at '*Coalition for Our Common Future*', an NGO

- Managed international conferences on the topic of energy transition and climate change
- Researched policy trends regarding energy transition and climate change; *Electric vehicles, Vehicle-to-Grid, Green building*

Nepal Energy Technology Center

March 2017 – May 2018

Worked on a project for Rwanda to implement eco-friendly coal made of waste peanut shell as an undergraduate student researcher

- Investigated Rwanda's energy market to assess economic feasibility of 'peanut-shell coal'

Awards

(2023) **Individual Research Fund** by *Climate Change Action* – ₩ 1,000,000 (approx. \$ 833.33)

(2023) **Scholarship, Fostering researchers for digital technology and innovation** by *National Research Fund (NRF)*, South Korea – ₩ 6,000,000 (approx. \$ 5,000.00)

(2023) **Scholarship for Energy/Environmental system R&D and implementation for Carbon neutrality** by *Korea Institute of Science and Technology* – ₩ 8,400,000 (approx. \$ 7,000.00)

(2023-2024) **Governmental Scholarship for graduate students (Brain Korea 21 Program)** by *Ministry of Education*, South Korea – ₩ 12,000,000/year (approx. \$ 10,000.00/year)

**Converted ₩ 1,200 = \$ 1.00*

Other
Experiences

Korea University, College of Engineering, ENGY204 Energy Calculus

March 2023 – August 2023

Teaching Assistant for undergraduate class

Individual Research Project

January 2023 – June 2023

Funded by *Climate Change Action* with the research topic of '*Technology acceptance strategy for enhancing effectiveness of green technology transfer with ODA case study*'

Korea University, Grand Challenge

Competition for ideas to solve problems within Energy/Environment field

- Won 1st prize in 2022 with 'Modelling the Net-zero amusement park (100% renewable energy)'
- Won 1st prize in 2023 with 'Utilization of the anaerobic stabilizer in developing countries for improvement of water quality and generation of hydrogen electricity'