APYLP/SGRA Joint Session Proposal Version 2

Can Renewable Energy Change the World?

Moving Beyond "An Inconvenient Truth"

Date: February 2, 2019 (Saturday), 10:30-17:30

Venue: International House of Japan (Roppongi, Tokyo)

Organizers : Atsumi International Foundation, Sekiguchi Global Research Association (SGRA)

International House of Japan Asia Pacific Young Leaders Program (APYLP)

A Change in the Times?

The fossil fuel energy market since the 19th century is in the midst of tremendous change.

The UAE has released plans to install over 3 million solar power panels in the desert, with plans to generate as much energy as one nuclear power reactor in progress. The cost of generating energy is a fifth of thermal power generation in Japan. At the 2017 National Congress of the Communist Party of China, China declared itself a leader in green energy and environmental issues and announced plans to decarbonize. Although the Trump administration withdrew from the Paris Agreement, over 2500 states, cities and large corporations have announced their support for it, and investments in environmental businesses in the international financial market are rapidly increasing.

"Business" – the Driving Force Behind Renewable Energy Following COP21/the Paris Agreement

In the wake of COP21/the Paris Agreement, the international business sector has taken over from countries affected by climate change and environmental NGOS to as the leading force calling for change in energy use and efforts to decarbonize (achieve a renewable energy society). Reasons for this include not only the environmental risks that climate change poses, but also evidence that investments in technological advancements and cutting renewable energy costs pay off.

Towards the Realization of a Renewable Energy Society – Questions, Possibilities, Tasks

Doubts about the realization of a renewable energy society are inevitable. Given the effects of global warming and climate change, the depletion of resources and other issues, a shift towards a renewable energy society (decarbonization) is a pressing issue that international society cannot ignore. However, even if there is a shift in fossil fuel to natural energy boosted by large global capital and global environmental conditions may improve as a result of this, the essence of our current culture of mass production and consumption will not change just because the source of energy which supports it has.

Efforts in the "Revitalization and Independence" of Iitate Village, Fukushima Prefecture

Following lessons learned from the 2011 Great East Japan Earthquake and Fukushima Daiichi nuclear incident, efforts to achieve regional self-sufficiency and independence through community power linked to community building have started taking shape. Compared to Europe, Japan's community power is sorely lagging behind. Overcoming numerous regulations and obstacles, the village of Iitate in Fukushima Prefecture has sought to make community power a symbol of community self-efficiency and the recovery of dignity.

Program Proposal

MC: Sonja Dale, Adjunct Assistant Professor, Mitsubishi University

Opening remarks 10:30 - 10:45	Junko Imanishi　Chair,Sekiguchi Global Research Association Atsumi International Foundation（SGRA）
AM session	
Presentation 1. 10:45 - 11:00	June Park, Adjunct Professor, George Mason University, Korea **Perspectives from International Politics/Economics** *Renewable Energy in Trade Wars:Solar Power in South Korea's Energy Mix and Impact of Protectionism*
Presentation 2. 11:00 - 11:15	Wejing Gao, Professor, University of Kitakyushu **Perspectives from Environmental Technology/China** *Chinese Policy on Renewable Energy and the Direction of Environmental Improvement*
Presentation 3. 11:15 - 11:30	Wen Chang Yeh, Associate Professor, Shimane University **Perspectives from Science/Technology/Innovation** *How low can the costs of solar power go? What tasks lie ahead?* Examining the possibility of renewable energy through specific examples
11:30 - 11:45　Coffee break	
Presentation 4. 11:45 - 12:00	Kenta Sato, Member of the Village Assembly, Iitate Village **Perspectives from Community Revival** *Community Power and the Vision for the Revival of Iitate Village*
Presentation 5. 12:00 - 12:15	Kei Kondo, Executive Director, Iitate Power Co. Ltd) **Perspectives from Community Revival** *The Challenge of 'Iitate Power'*
12:15 - 13:30　Lunch break	
PM session	
Keynote speech 1 13:30 - 14:00	Llewelyn Hughes, Associate Professor, Australian National University *The Impact of Renewable Energy on Japan's Future*
Keynote speech 2 14:00 - 14:30	Hans-Josef Fell, President, Energy Watch Group *German Experience of Energiewende and Community Power*
14:30 - 15:00　Coffee break/split into panel sessions	
Panel Session 15:00 - 16:30	Panel session 1　International Politics/Economics Perspectives Facilitator: June Park With Prof. Hughes (keynote speaker) and Prof. Park (presenter), discuss the possibility of renewable energy from the perspective of the international political economy (international investments, currency, etc). Together with other participants, consider Japan's energy policy and how it fares with other countries.
	Panel session 2　Environment/Innovation Perspectives Facilitators: Weijun Gao & Wen Chang Yeh With presenters Prof. Gao and Prof. Yeh, consider the possibility of renewable energy through focusing on energy and environmental issues and innovation. Discuss the policies of China, a country aspiring to be a leader in green energy.

	Panel session 3 Community Perspectives *Towards making community power a reality in areas affected by nuclear incidents* Facilitator: Love Kindstrand With Kenta Sato and Kei Kondo, who maintain that the realization of community power is the key to the revitalization of Iitate village and other areas affected by nuclear incidents, and Hans-Josef Fell, a key figure in German renewable energy policy and practitioner of community power, discuss "the revitalization of Fukushima and community power," "participation based community power and strategies," and "an area's revitalization, independence and dignity."	
Panel presentations 16:45 - 17:30	Summary presentations from each panel session	
Closing 17:30		**Reception after the event**

Abstracts for Keynote Speeches and Presentations

Keynote Speech 1 (English)

Global Shifts in Renewable Energy

Llewelyn Hughes, Associate Professor, Australian National University

Abstract

The global energy system is undergoing a low-carbon transition. The rate of deployment of renewable energy sources - centered on solar photovoltaics, onshore, and offshore wind - continues to increase markedly, with this growth occurring across different regions, and both developing and developing countries. Government policies are playing a key role in supporting the deployment of low-carbon energy sources by creating consumer demand and supporting innovation. In his address Dr. Hughes will examine the key trends in the deployment of renewable energy globally, focusing on solar photovoltaics, onshore and offshore wind, and other renewable energy technologies, as well as the policies used by governments to support sources of low-carbon energy. Dr. Hughes will also consider Japan's position within the low-carbon energy transition, examining Japan's decarbonization targets, levels of renewable energy deployment, and policies used by the government to support the low-carbon transition, including Japan's support for the export of energy-related technologies.

Keynote Speech 2 (English)

German Experience of Energiewende and Community Power

Hans-Josef Fell, President, Energy Watch Group

Abstract

The complete replacement of our current conventional energy system with emission-free renewable energy sources is at the core of a strategy to tackle the greatest challenges humanity is facing: climate change, nuclear catastrophes, wars over resources and the loss of biodiversity.

All over the world, a constantly growing grassroots movement is forming, fighting for climate protection. From small municipalities to megacities, even 50 states aim at an energy supply fully covered by renewables.

This movement originated in Germany: The successful introduction of the Renewable Energy Sources Act (EEG) in 2000 was the turning point for the expansion of renewable energies around the world. Today, wind and solar energy are the cheapest form of energy generation.

In 2001, Germany agreed on a nuclear phase-out, and in 2011 this decision was reconfirmed. This was made possible by the steep expansion of renewables based on the EEG. From 2000 to mid 2018 the share of renewable energy within the electricity mix rose from 6% to 40%. The last nuclear plant will be shut down by 2022.

More than 90% of investments in renewables in Germany were not made by the big four energy companies but came from different local actors: individuals, farmers, small energy providers, energy communities, energy cooperatives, as well as small and medium-sized enterprises.

This manifold social and democratising movement has not only ensured a high level of acceptance for the transformation of the energy supply but also raised incomes of a broad segment of the population. Already today, many villages and communities have reached a 100% renewable energy supply.

Hans-Josef Fell, founded the world's first community of operators for solar power in 1994 and co-authored the Renewable Energy Sources Act (EEG) as a member of the German parliament.

Presentation 1: International politics/economics Perspectives (English)

Renewable Energy in Trade Wars : Solar Power in South Korea's Energy Mix and Impact of Protectionism

June Park, Adjunct Professor, George Mason University, Korea

Abstract

This lecture examines the impacts of global competition in solar panel production and the conflict of domestic interests among solar-related industries in the U.S. on South Korea's solar-focused renewable energy policy. Examining the Moon Jae-in administration's energy policy amid the impact of the U.S. safeguard on South Korean solar panels, in the lecture I will argue that a) the U.S. safeguard is a hindrance to South Korea's path forward on solar panel production, and that b) Moon's sole focus on sustainability and his ambitious target on solar energy provision via increased installation only results in further adoption of lower-cost Chinese solar panels, foregoing the opportunity for quality upgrade of South Korean panels in terms of durability and efficiency.

As South Korean firms announce their decisions to relocate to the U.S. to avoid U.S. safeguard tariffs, the paper recommends the destination of South Korean solar panel exports be diversified, and that the goals of South Korean energy policy be centered on balancing cost, stability, and sustainability. The paper does not necessarily recommend a full-fledged drive on expanding solar energy use in South Korea; rather, it calls for the strategic reevaluation of energy policy upon which a clear and sound strategy for solar energy should be formulated.

Presentation 2: Environment/China Perspectives (Japanese)

Chinese Policy on Renewable Energy and the Direction of Environmental Improvement

Wejing Gao, Professor, University of Kitakyushu

Abstract

China is now the second biggest economic power in terms of GDP and its population becomes 1,370million which is the biggest in the world.

As the result of high economic growth since 2000, however, in 2007, they have discharged the biggest volume of greenhouse effect gas (mainly CO2) in the world, which exceeded America.

We can say, however, during these ten years, China has been promoting the introduction of renewable energy most in the world. Accumulation of hydraulic power generation exceeded 300 million Kw, three times of Brazil which is the second biggest country in terms of hydraulic power generation. As to wind power generation, in 2010, China exceeded America in terms of accumulation and reached to 160 million Kw in 2016. This figure show the twice of that of America. Accumulation of solar power generation exceeded Germany in 2015 and the figure reached to 70 million Kw in the end of 2016.

Chinese policy on renewable energy and their direction of environmental technology will draw the world's attention. He verifies the present situation of China which aims at a leader of ecological civilization from the viewpoint of their policy and technology.

Presentation 3: Science/Technology/Innovation Perspectives (Japanese)

How low can the costs of solar power go? What tasks lie ahead?

Wen Chang Yeh, Associate Professor, Shimane University

Abstract

In considering tactics to deal with global warming, solar energy is proposed as an alternative to fossil fuels because of the large amounts of energy that it generates. However, energy costs are key in determining the spread of energy. Comparing the costs of fossil fuels and energy generation, I examine to what extent new developments in solar energy can lower the cost of energy generation. Although the cost of generating energy may be less than that of fossil fuels, the reliance of solar cells on weather conditions for energy generation is an issue for consideration, and solutions to this problem for this will be considered in this presentation.

Presentation 4: Community Perspectives (Japanese)

Community Power and the Vision for the Revival of Iitate Village

Kenta Sato, Member of the Village Assembly, Iitate Village

Abstract

Following the Fukushima Daiichi nuclear disaster of March 11, 2011, all residents of Iitate village were ordered to evacuate. After 7 years, the evacuation order has now been lifted. However, only 10% of the population – mostly senior citizens – has returned. Given this situation, community power has come to be seen as a source for revitalization. In this forum, I will introduce the disaster in Iitate village, decontamination, the process of returning to the village, and the significance of self-sufficient energy as a strategy in the revitalization of an area. I hope to discuss these as well as other potential issues and strategies with administrators, business people, technicians, and other participants, and to gain new insights from this discussion.

Presentation 5: Community Perspectives (Japanese)

The Challenge of 'Iitate Power'

Kei Kondo, Executive Director, Iitate Power Co. Ltd

Abstract

Iitate Power was founded in 2014 when 67 shareholders who shared the belief that "the nuclear incident is the

responsibility of our generation" gathered from both within and outside of Iitate village. At present, there are 40 solar power plants in Iitate, and while stock dividends have been achieved in the 4 years since its establishment, most of this has been invested in managing the power plants, agricultural business activities, raising wagyu cattle, and returning profits to residents. While maintaining the 3 principles of community power of ownership, self-governance, shared profits that the World Wind Energy Association has proposed, we hope to work towards the continued revival of disaster areas. Many regulations and obstacles lie ahead of us, and in this forum, I hope to discuss together with participants how we can overcome these obstacles and realize an effective, participation-based form of community power.

Speaker Profiles

Llewelyn Hughes (Associate Professor, Australian National University)

Llewelyn Hughes is also an Associate Professor at the Crawford School of Public Policy, and a member of the Executive Committee of the ANU's Energy Change Institute. Hughes has authored numerous papers on energy-policy issues, and is the author of *Globalizing Oil* (Cambridge University Press, 2013). In addition to his academic work, he leads the energy and environmental practice at GR Japan, a public affairs consultancy based in Tokyo, where he helps companies navigate regulatory affairs in the Japanese market. He received a Ph.D. from the Massachusetts Institute of Technology (MIT), and holds a Masters degree from the University of Tokyo. Mr. Hughes is trained as a simultaneous and consecutive interpreter in the Japanese language.

Hans-Josef Fell (President, Energy Watch Group)

Hans-Josef Fell is actively promoting 100% renewable energy worldwide and is providing political advice to many parliaments and governments on the transition to an energy system based entirely on renewables as well as on climate protection. He is analyzing global energy developments and commissioning independent studies on energy, such as the most recent study titled *100% Renewable Electricity Worldwide is Feasible and More Cost-Effective than the Existing System*, whose findings have received much attention among media, politics and scientists worldwide. Hans-Josef Fell is also the author of several books, the latest publication being *Global Cooling - Strategies for climate protection* (CRC Press, 2012).During his time as a member of the German parliament, Hans-Josef Fell authored the draft Renewable Energy Sources Act (EEG), which was adopted in 2000 in the face of strong political opposition. In 1993, he introduced the world's first local feed-in tariff in his hometown Hammelburg and founded the first cooperative worldwide to produce solar electricity.

June Park (Adjunct Professor, George Mason University Korea)

June Park is also a Non-resident James A. Kelly Korea Fellow at the Pacific Forum. She has been an Asia 21 Young Leader at Asia Society (2017–18) and is a recipient of the Atsumi International Scholarship (2010-11). She is finalizing her first book manuscript, *Trade Wars & Currency Conflict: Northeast Asian States Responses to US Pressures*. Prior to joining George Mason University Korea, she was Adjunct Professor of International Political Economy at Hanyang University, a Research Fellow at the Seoul National University Asia Center, a Postdoctoral Fellow at the Lee Kuan Yew School of Public Policy at the National University of Singapore, and an Asia Studies Fellow at the East West Center in Washington, D.C. She received her PhD in Political Science with a focus on international political economy from Boston University as a Fulbright Fellow.

Weijun Gao (Professor, University of Kitakyushu)

Weijun Gao is a Foreign Associate of the Engineering Academy of Japan, a well-known expert focusing on (1) city environmental planning, (2) distributed energy system planning, (3) building material recycling, (4) health and environmental impact of buildings and cities, (5) geographical information systems and (6) climate change, especially in urban area. He got his Bachelor's Degree in Mechanical Engineering in 1982 from Tongji University, China. In 1987, he got his Master's Degree in Architectural Technology from Zhejiang University, China. In 1996, he got his PhD in Urban Environmental Planning from Waseda University, Japan. He has had much education and research experience as a visiting professor in many universities and institutes, such as Lawrence Berkeley National Laboratory, Xi'an Jiaotong University, Zhejiang University, Sichuan University, and Shanghai University of Electric Power.

Wen Chang Yeh (Associate Professor, Shimane University)

After obtaining a Doctor of Engineering degree in 2000 from the Tokyo Institute of Technology, he was an assistant professor and associate professor at National Taiwan University of Science and Technology. Since 2010, he has been an associate professor at Shimane University, Japan. His specialty is semiconductor devices and processes. Recently he is investigating Si thin-film devices on glass substrate for next generation active matrix displays.

Kenta Sato (Member of the Village Assembly, Iitate Village)

Kenta Sato was born in Iitate village, Fukushima Prefecture, in 1982. After experiencing the Tohoku earthquake in Iitate village in March 2011, he started taking people around the devastated area to have the situation on the ground be better known, which eventually set a precedent for on-site inspection tours by bus. He also came up with the idea of "an individual behavioral record book" to grasp one's radiation exposure level at the time of the disaster. These

activities were broadcast widely both internationally and domestically. He is now running a company within the village and is committed to local society as a member of the village assembly.

Kei Kondo (Executive Director, Iitatepower Co.Ltd.)

Kondo Kei was born in Akiruno City, Tokyo in 1979. After graduating from Kirisutokyo Dokuritsugakuen High School and the College of Agro-Biological Resource Sciences, University of Tsukuba, he was trained in Chiba and Fukushima Prefecture in organic farming. In 2006, he started his career in Nihonmatsu, Fukushima Prefecture, as a new farmer. After being a part-time farmer for 3 years, he finally got his 3-hectare plot of farmland on track. In the face of the Tohoku earthquake, however, he abandoned all his efforts at agriculture and began to approach energy issues.

MC:

Sonja Dale (Adjunct Professor, Hitotsubashi University)

Sonja Dale is an adjunct assistant professor at Hitotsubashi University specializing in gender and sexuality studies and is in charge of the Global Leaders Program at the Faculty of Social Sciences. She received her PhD in Global Studies from Sophia University, and has published papers on non-binary gender identities and gender issues in Japan, most recently contributing a chapter to the edited volume *Intimate Japan: Ethnographies of Closeness and Conflict* (University of Hawaii Press, 2018). She was a recipient of the Atsumi International Foundation Scholarship in 2012, and also participated in the study tours organized by the Foundation to Iitate village in Fukushima in 2013, 2014, and 2015.

Workshop(Panel Session) Facilitator:

Love Kindstrand (Doctoral candidate at the University of Chicago)

Love Kindstrand is a doctoral candidate at the University of Chicago's Department of Anthropology, interested in the ethics and esthetics' of street protest in contemporary Japan.
He is currently working on his dissertation as a research fellow at Sophia University's Institute of Comparative Culture, supported by a fellowship from the Atsumi International Scholarship Foundation.
He is making field research on the activities toward the revival of Iitate Village.