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Institute for Sustainable Energy Policy, Internship report:

At the time of writing, I am currently completing my final day of the 2 month internship at ISEP. Over these two months, I have completed a range of tasks relating to renewable energy research and policy development. Through completing both this work and my own independent research on the Australia renewable energy market I have drastically improved my understanding of the renewables sector. This understanding includes both knowledge of the technicalities of renewable energy systems and sources, as well as understanding of how renewable energy policy is developed and implemented.

Key tasks undertaken at ISEP:

Personal research project:

Most ISEP interns are required to complete their own research at ISEP. This allows them to both engage in knowledge sharing and development with other Interns and staff members, as well as fill spare moments between ISEP tasks. For my own research, I focused on renewable energy in Australia, and the use of utility scale storage batteries to lead to increased installation and use of renewable energy. With this research I presented to prospective ISEP interns, students at Sofia University, and staff at ISEP. You can see a picture of myself presenting to ISEP staff below:



Policy Research:

ISEP regularly conducts renewable energy policy research, as well as consulting with various levels of government and community organisations to develop an array of suitable renewable energy policies. Yamashita-san often works on these policy developments, and requires research assistance from ISEP interns. At my time at ISEP I have researched Japanese energy policy, FIT policies of Australia and the United States, standards for ethical and responsible business for Japanese solar companies, Californian solar rights bill SB-288, and city scale renewable energy policies. The city scale policy research was done for Yamashita's work developing a renewable energy plan for Takarazuka city in Hyogo prefecture. For this project Interns also met frequently with Yamashita to troubleshoot and analysis policies proposed. Attached is an image of my mind map explaining some of this research on my second last day at ISEP.

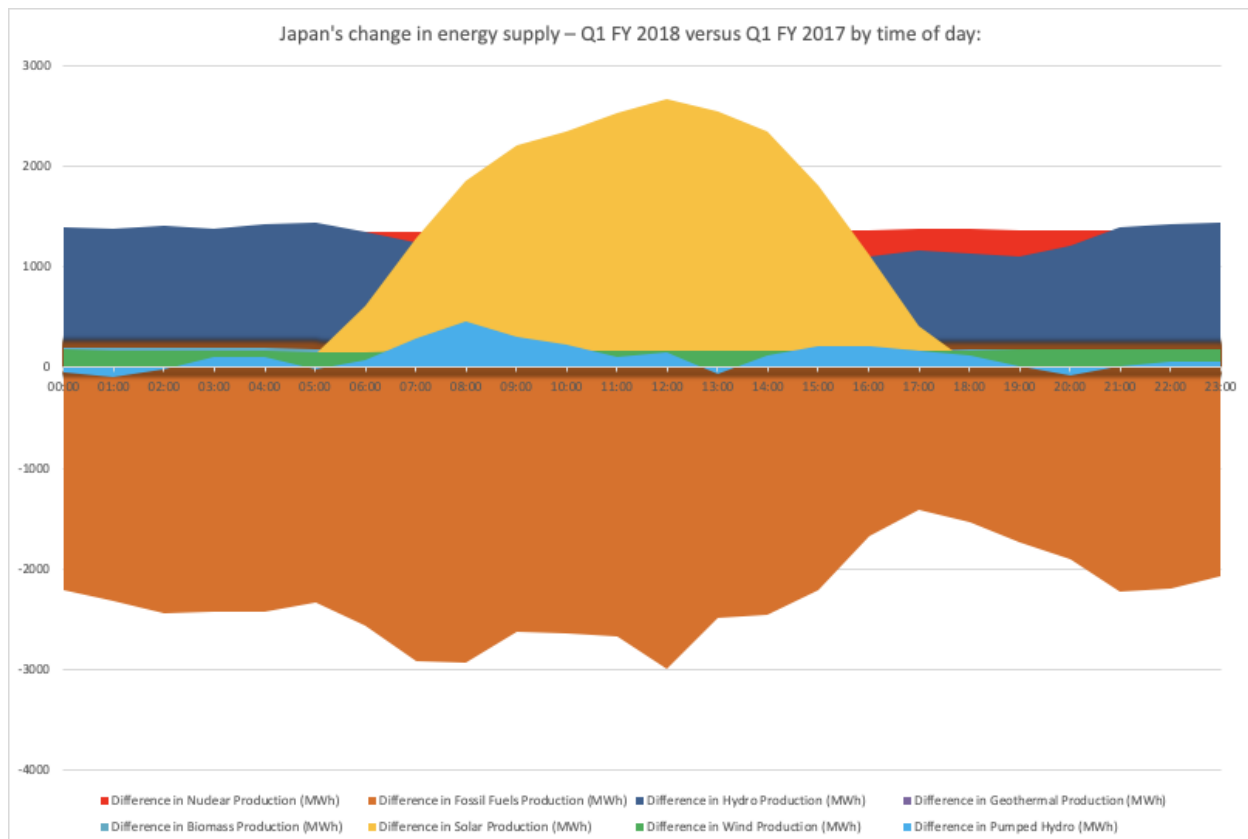


English language proofreading and writing:

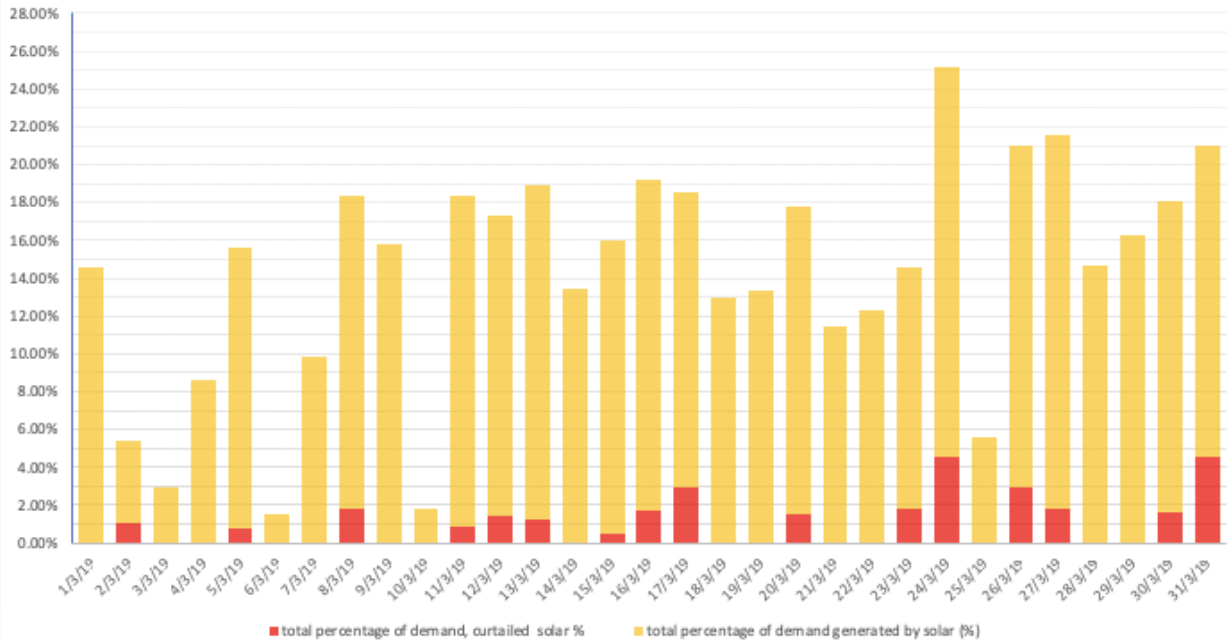
Being a native English speaker, Yamashita-san has asked me to conduct English language proofreading and editing of ISEP material, including the ISEP 2017-2018 FY report and various blog posts for the ISEP energy chart website. I also used my research on Australian energy policy in a comparative blog post I wrote for the ISEP energy chart blog. A number of other interns completed similar tasks comparing energy graphs from their home countries with the ISEP energy chart. Depending on your language skills and proficiency in Japanese and English, It is likely that you will engage in some kind of translating or proofreading work during your time at ISEP.

Data Analysis/graphing:

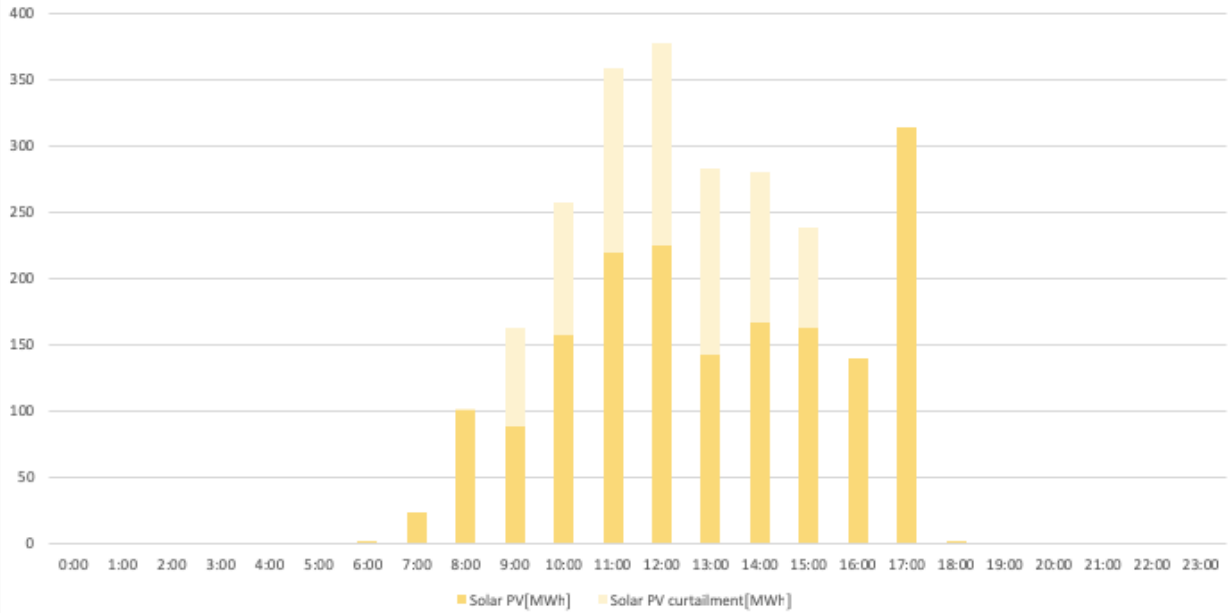
In my last two weeks at ISEP, I worked to provide interesting and relevant data analysis of Japanese energy data for FY 2018. ISEP gathers all the energy data from the 9 utility companies on energy consumption and production, and it is categorized by energy source. With the appropriate analysis and comparison of this data, it is possible to come across varying interesting conclusions about the energy market in Japan. For example, through my own analysis I found that in Q4 FY 2018 Kyuden electrical company was at times curtailing solar at 5% of the total daily demand. I also worked to develop a standardised set of instructions for making hourly averages for each energy source in excel, and how this method can be used to plot average change in energy consumption by resource between two financial years. I have attached a few graphs that I made in my time at ISEP.

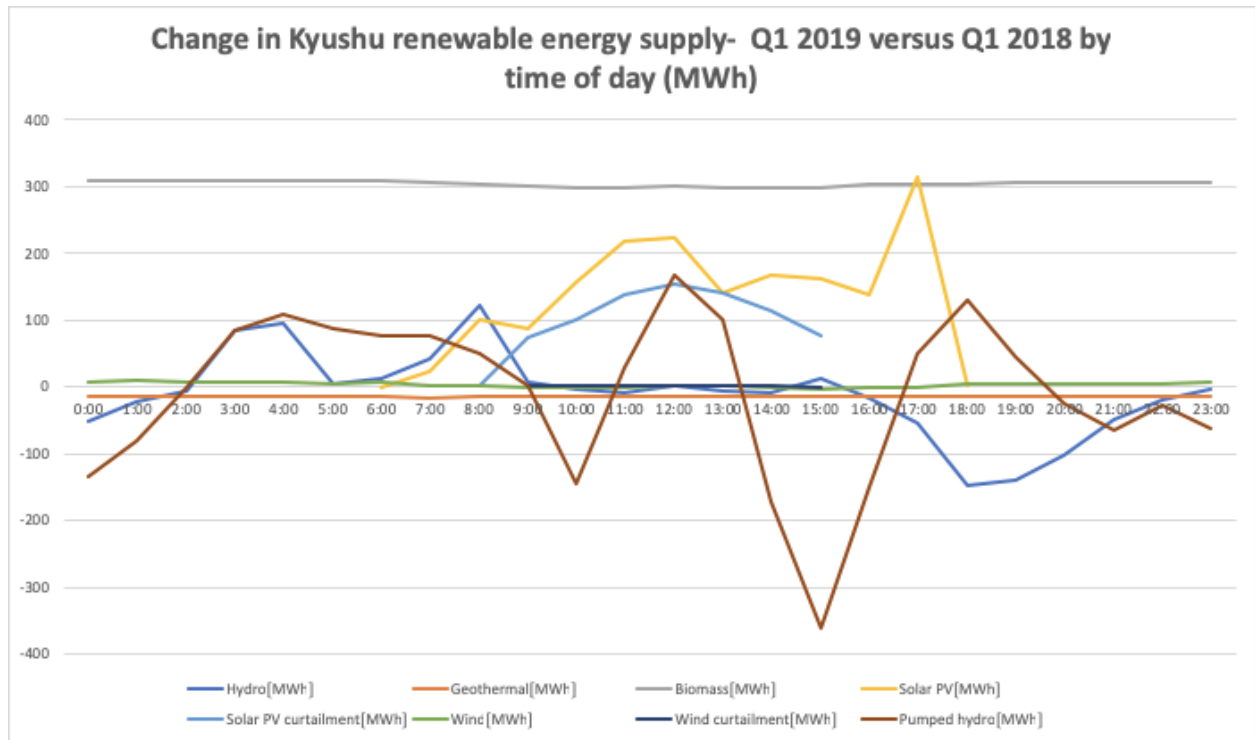


DAILY SOLAR GENERATION AND CURTAILMENT AS A PERCENTAGE OF DEMAND, KYUSHU MARCH 2019



Average increase in solar production and curtailment in Kyushu- Q1 2019 vs Q1 2018 by time of day





Conclusion- what I gained at ISEP:

ISEP remained a highly engaging workplace for the entirety of my internship. In regards to policy, It provided a number of stimulating issues to analyse and research. Getting to analyse and research a diverse range of policy problems has helped me further develop my analytical and research skills. ISEP has also provided numerous real world examples of policy development, such as committee meetings at the national DIET and meetings with staff at the Ministry of Environment. Personally, I feel very lucky to have had the opportunity to attend such events. ISEP has also pushed me to develop my skills in areas I do not commonly work in. For example, In the last two weeks I have drastically improved my data analysis and excel graphing skills. Ultimately, ISEP for me has proven to be a thoroughly enjoyable professional development experience. I have gotten to work with a fantastic and diverse range of Interns and staff, on a range of topics I am passionate about. Yamashita-san has also been a hospitable and helpful mentor with any work I have hoped to achieve here. I hope you too enjoy your time at ISEP.

