

Greenwash of the power sector? Discourse production in the Thai power sector's advertising

Yeji Yoo

Abstract

This paper aims to analyze discourse-making mechanisms surrounding the coal-fired power development plan in Thailand. In recent years climate change has become a global issue. Nevertheless, many countries still have contradictory energy policies or programs to expand fossil fuels while promoting renewable energy at the same time. Thailand, aiming to be a power hub for the Association of Southeast Asian Nations (ASEAN), is not an exception. In the “Power Development Plan 2015-2036”, Thailand announced a contradictory plan including ‘encouraging renewable power generation’ and ‘increasing coal power generation by clean coal technology’. In order to critically analyze their contradictory plan, this paper examines two types of energy discourses (re)produced by the Electricity Generating Authority of Thailand (EGAT): those that maintain and promote their own forms of hegemony, and those that hide the unjust and unsustainable policies and programs. In terms of the first type of discourse, this paper focuses on EGAT’s representation of the importance of energy development in general. Regarding the second type of discourse, such as the greenwash of coal, this paper examines how rhetorical narratives have been created surrounding the previously controversial Mae Moh Lignite power plant in Lampang province, and the currently controversial coal-fired power expansion plan in Krabi province. By utilizing a discourse analysis and documentary research, this paper analyzes the meanings and narratives provided on EGAT’s official website and Social Network Services (SNS), especially focusing on the corporate advertisement of EGAT. Thus, this paper argues that the power development sector in Thailand, represented by EGAT, has focused more on producing rhetorical narratives than on putting efforts into low-carbon energy transition, in the context of the ‘transnational energy development’ paradigm shift.

Keywords: energy development, discourse analysis, coal, green wash, Thailand, EGAT.

1. Introduction

In recent years, low-carbon energy transitions have become one of the most important global challenges. Nevertheless, many countries still have controversial energy policies and plans to maintain and expand the existing fossil fuel-based energy system, while trying to promote renewable energy. This contradictory

process of energy transitions is demonstrated more vividly in developing countries. Thailand, seeking to be a power hub for the Association of Southeast Asian Nations (ASEAN), is a good case to show the tensions and trade-offs arising between industrialization and decarbonization (Delina 2017). Thailand announced the “Power Development Plan (PDP) 2015-2036” with the contradictory plan of ‘encouraging renewable power generation’, as well as ‘increasing coal power generation by clean coal technology’ (Energy Policy and Planning Office (EPPO) 2015). In this context, producing discourses on energy development have become more and more crucial in order to promote contradictory and controversial energy plans while being under the pressure of the global agenda to combat climate change. A hegemonic, justificatory discourse is an essential aspect in building widespread acceptance of current power relationships (Stegemann & Ossewaarde 2018). When hegemonic discourses are used in energy and climate policies, they provide practical impacts to demarcate which policies are possible, represent a specific way of understanding reality, and frame problems and their solutions (Stegemann & Ossewaarde 2018).

By focusing on the case of Thailand, this paper aims to explore various discourse-making mechanisms of the Electricity Generating Authority of Thailand (EGAT), a state-owned electricity generating enterprise. Following the introduction, section 2 reviews previous studies on discourses in general, and examines how the concepts and approaches have been applied in energy and development studies in particular. Section 3 introduces the research and data collection methods of this research. In section 4, this paper unpacks the energy development discourses (re)produced by diverse mechanisms of EGAT, such as corporate advertisement, museums and learning centers, education programs, festivals, Corporate Social Responsibility (CSR) programs and so on. By using the critical discourse analysis, this paper will analyze how the energy discourse has been (re)produced through various mechanisms in Thailand. Section 5 discusses the findings of the paper and concludes the paper.

2. Politics of energy transitions and energy development discourses

Under the influence of the newly emerging global agenda to combat climate change, the aspects of ‘just transition’ and ‘low-carbon energy transition’ cannot be neglected in the national energy development sector. However, since the fossil-fuel based energy system is still powerful, the national power development sector and fossil fuel industry, who want to maintain the status quo and their hegemony, have focused more on producing energy development discourses to support their controversial policies, plans and specific

development projects.

This paper considers discourse as the collection of ideas, concepts and statements that create “thought collectives,” “regimes of truth,” or “grids of intelligibility”, shaping the way people, or institutions, think and act (Sovacool, Burke, Baker, Kotikalapudi, & Wlokas 2017: 686). Michel Foucault argues that discourse should be understood as “something which constrains our perceptions” (Mills, 2003: 55). He points out that there is no non-discursive realm, which does not mean that he denies the existence of physical objects. Rather, our understanding and experiences of material objects and the world as a whole is possible due to discursive mediation. Laclau and Mouffe (as quoted in Mills 2003: 56) also argue that “objects exist and events occur in the real world, but we apprehend and interpret these events within a discursive structure and we are not aware of the way discourse structures our understanding”. In this sense, discourse plays an essential role in structuring and constraining our understanding and perception of reality.

In addition, discourse has been widely studied among social scientists since it is closely associated with power relations (Mills 2003: 54). Producing and circulating particular discourses has the actual effect of promoting existing power structures and forms of hegemony, as well as providing positive images to unjust activities (Sovacool et al.: 2017). The discourse employed in the energy and climate policy demarcates which policy is possible, represents a particular way of viewing reality, and frames problems and their solutions (Rafey & Sovacool 2011). Energy and energy infrastructures are material and physical objects, but hegemonic energy discourses created by the dominant power sector, constrain our understanding and perception on energy and energy infrastructures.

Energy issues have been mostly studied through the lens of resource and economic geography, with a managerial and positivist approach and a techno-economic perspective (Calzonetti & Solomon 1985; Chapman 1961; Luten 1971; Manners 1971; Spooner 1981; van Zyl 1968; Wilbanks 1982; Calvert 2016). However, there is an increasing number of energy studies from the post-structuralist view that analyze the discursive aspects of energy issues (Moezzi, Janda, & Rotmann 2017). In particular, diverse studies have examined the discursive means to link energy issues with national security (Dunham & Schlosser 2016; Fischhendler & Nathan 2014; Rogers-Hayden, Hatton, & Lorenzoni 2011). Since there is a lack of consensus about the meaning of energy security, the term is open for manipulation and various interpretations (Fischhendler & Nathan 2014). Therefore, utilizing dominant (hegemonic) discourses that represent energy as a security problem, has led the public to ‘naturally’ perceive controversial energy infrastructures, such as nuclear power constructions, as necessary (Rogers-Hayden et al. 2011). Similarly,

discourses on climate security are also explored in energy studies. McDonald (2013: 43) examines different approaches to the relationship between climate change and security and divides national, human, international and ecological security discourses. By doing so, he raises questions such as ‘whose security is at stake’, ‘who is responsible for this threat’ and ‘who is able to respond it’, ‘how is this threat defined’, and ‘how do they respond to the threats’, and so on.

Additionally, in the context of the newly emerging global agenda to combat climate change, green growth, sustainable development and energy justice have become central themes in energy studies. The new agenda of green growth and sustainable energy, as part of a wider sustainability discourse, have been critically analyzed as a dominant discourse which is promoted by the EU and economic networks (Brondi, Armenti, Cottone, Mazzara, & Sarrica, 2014; Stegemann & Ossewaarde, 2018). Sovacool et al. (2017) introduce the new field of ‘energy scholarship’ to analyze the discourse on energy justice, used by the states and industries in order to maintain their own hegemony, as well as to hide their unjust practices. More specifically, several scholars provide interesting studies about the green marketing discourses in the automobile industry in the world (Chen 2016; Kushwaha & Sharma 2016; Simão & Lisboa 2017).

Despite their contributions in energy studies by expanding the research scope to the discursive aspects of energy issues, there still exists a lack of studies about cases in developing countries. The current studies mostly focus on cases in Europe and North America, as well as transnational corporations. In this sense, this paper focuses on the Electricity Generating Authority of Thailand (EGAT), a state-owned enterprise responsible for electric power generation and transmission, to analyze its various mechanisms of discourse-making, not only about its energy infrastructure projects but also about electricity itself.

3. Research and Data Collection Methods

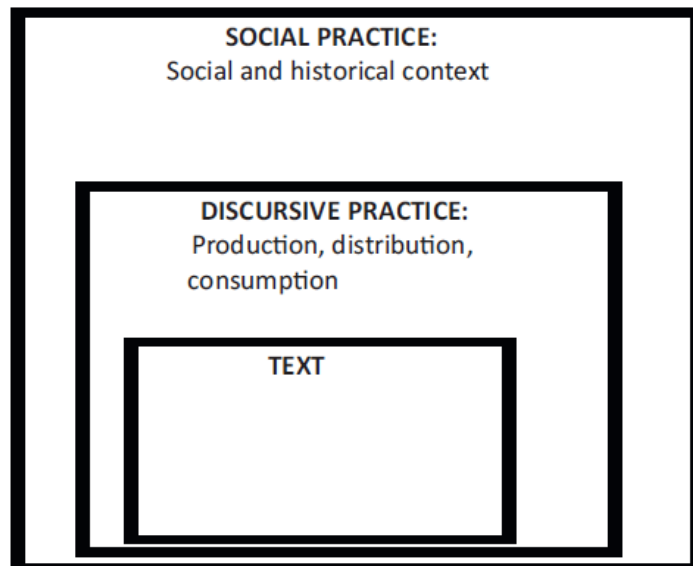
A critical discourse analysis (CDA) approach was used to analyze the energy development discourses of EGAT (re)produced through various mechanisms, such as corporate advertisement, museums and learning centers, festivals and other education programs and CSR programs. Norman Fairclough (2010) suggests that CDA is as a particular approach to discourse analysis by arguing that “discourse can be understood as a set of social relations, including communication between people, as well as relations between communicative events such as conversations and texts” (as cited in Listo 2018: 11). For Fairclough, it is essential to examine and critique unequal power relations constituted through discourse within linguistic or

textual analysis (as cited Listo 2018: 11).

Additionally, Rogers-Hayden, Hatton, and Lorenzoni (2011: 135) argue that the key focus of CDA is on the "tensions and struggles among discourses in generating and/or replacing naturalized (i.e. dominant or hegemonic) meanings". A discourse becomes hegemonic or dominant when it is successful in making its own rules/systems/beliefs regarded as 'natural' and deactivates other counter-discourses (Rogers-Hayden et al. 2011: 135). Therefore, using a CDA includes the analysis of these two aspects by analyzing which discourses maintain hegemony, and how discourses are used to counter dominant beliefs and result in social change (Sayyid & Zac 1998).

Particularly, Fairclough's (1992) analytical framework, focusing on the interrelationship between language and power, is used in this paper. As seen in Figure 1, the discourses consist of three elements such as text, discursive practice, and social practice. Text cannot be separated from its systems of production, distribution and consumption, which create discursive practice. Discursive practice can also be understood within the wider social and historical context of social practice (See Fig. 1).

Figure 1. Fairclough's (1992) three-dimensional model of Critical Discourse Analysis



(Source: Rogers-Hayden et al. 2011: 135)

Based upon the three-dimensional model of CDA, corporate advertisements of EGAT, which have been broadcasted on television and uploaded to its YouTube channel, and reports, resources, and texts which

have been introduced on its official website and social network service (SNS), are analyzed as text, with the emphasis of their close linkage with its discursive practice and social practice, in the context of Thailand.

4. The Case Study: Unpacking the energy discourses of EGAT

Since EGAT was founded in 1969, it has produced various types of corporate advertisement broadcasted on television under its slogan “Power for Thai Happiness”. Recently EGAT started a YouTube channel in order to represent their work more visually. This paper has chosen four advertisements of EGAT: first, the most recent TV advertisement with the title “Together we build the brightness”, second, the SNS uploaded advertisement entitled “Together we beat the darkness”, third, the special advertisement about Mae Moh Power Plant in 2011, and lastly, the advertisement about the balanced energy mix of Thailand in 2014.

The most recent EGAT’s advertisement was frequently aired on television¹. In this 30-second advertisement, three children introduce their communities in Phrae province, Chiang Mai province, and Bang Pakong district in Chachoengsao province. Each of them explains the sun, while images are shown from a vegetable farm with smiling children in Phrae, happy students and teachers in an elementary school in Chiang Mai, and a mangrove forest where people help each other to plant mangrove trees in Bang Pakong. This is followed by EGAT’s representative voice saying “Light up anywhere, anytime, if we cooperate. EGAT wants to see long lasting happiness and brightness everywhere in Thailand”. In this advertisement, the sun signifies electricity, which EGAT generates, and then EGAT’s corporate image is promoted as the agent who provides happiness and brightness for Thai people.

The second 2018 advertisement which was released on EGAT’s SNS², clearly shows EGAT’s energy discourse by comparing the darkness with the brightness. The advertisement, with a length of 2 minutes and 18 seconds, is started with the scene of two EGAT officers looking at EGAT’s pictures and awards which depict its successful history. The advertisement is started with the scene of a dark and cloudy sky – the images of an old lady staring into the darkness with only a kerosene lamp as a light source, a farmer

¹ Please see the link of the extended version of 2018 EGAT advertisement with three children’s voices:
<https://www.youtube.com/watch?v=Hy7eoFknBeo>

² Please see the link of the “Together we beat the darkness” advertisement:
<https://www.youtube.com/watch?v=gfMcR2GAukA>

standing with a farming tool on the dry and cracked soil, and a little girl studying under dim candlelight, appear one by one. After the dark images, the scene is changed by showing EGAT officers working hard in the forest and on a transmission tower, students studying in a computer lab, smiling farmers with their own agricultural products, EGAT officers holding a meeting about “Future Energy System”, the bright city nightscape, a control station of EGAT, wind mills, EGAT Electronic Vehicles (EVs) and so on. Then the scene is changed again to a scene depicting cooperation between farmers and EGAT officers on a rainy day. After that people are staring at the dark and cloudy sky on top of a hill, and eventually bright sunrays are emerging through the clouds, which makes the people smile. The little girl studying, who appeared earlier in the advertisement, appears again but this time with a bright electric lamp. The advertisement is finished with EGAT’s logo and slogan “Power for Thai Happiness”.

Figure 2. EGAT’s 2018 TV advertisement on “Together We Build the Brightness”



In this advertisement, by contrasting the brightness with the darkness, EGAT gives a negative meaning to the darkness, and a positive meaning to the brightness which can be produced by the efforts of EGAT and the Thai people. Another important message of this advertisement is that EGAT is working for the Thai people. The video deploys diverse community development projects supported by EGAT such as “Wan

Kaew” and “Reforestation” which were initiated to celebrate the 60th birthday anniversary of HRH Princess Maha Chakri Sirindhorn (EGAT 2015). Also, there are many scenes of an EGAT officer holding out his hand to an old farmer who, in turn, grabs his hand. This kind of image has the effect of hiding the reality of EGAT’s energy infrastructure development, which has created environmental injustice in communities (EJOLT 2017; Forsyth 2004; Greacen & Greacen 2004; Greenpeace Southeast Asia 2014; Middleton 2012; Schaeffer & Smits 2015; Shoemaker & Robichaud 2018).

Figure 3. EGAT’s 2018 SNS advertisement on “Together We Beat the Darkness”



Particularly, in the case of the Mae Moh Lignite-fired power plant and the mines in Lampang province, due to the toxic gas leaking accident in 1990s these sites and the usage of coal have been regarded as a ‘dirty development’ and the ‘government’s failure to listen to its citizen’s fears’ (Forsyth 2004: 431). However, EGAT keeps providing advertisements to demonstrate that it no longer has air pollution problems. The third advertisement, which focuses on Mae Moh and was released in 2011, is a good example³. The advertisement’s message is clearly written in the explanation of the video, and states that “Happiness at Mae Moh really happened because of the good environment. EGAT does not just produce electricity. EGAT is also responsible for the environment and the community”. The advertisement also utilizes the images of

³ Please see the advertisement on Mae Moh Lignite-fired power plant: <https://www.youtube.com/watch?v=AmdxM01GiWE>

local children with foreign children, visiting Mae Moh district and playing in the green and clean environment of Mae Moh.

Figure 4. EGAT's 2011 advertisement on the Mae Moh lignite-fired power plant.



The last advertisement this paper has selected is about the energy mix in Thailand⁴. This one is different from the other three advertisements in the way that it explains more specifically the energy system, instead of showing abstract images. This advertisement was released in 2014. The factory full of bicycle riders signifies EGAT's electricity generation. A man asks a woman whether the electricity generation of the factory is enough. The woman explains each source, from natural gas to hydropower, solar panels, wind mills and coal. The first and main source of electricity is natural gas, from which 66% of the electricity is generated (with a price caption of 3.32 Thai Baht per unit). However, the bicycle riders in the group of the natural gas are leaving by saying "we are going back home" and the factory becomes darker. The woman mentions that it shows that Thailand has imported natural gas from Myanmar and Malaysia and it symbolizes the situation when they can no longer import natural gas from other countries. In fact, Myanmar

⁴ Please see the advertisement on balanced energy mix: <https://www.youtube.com/watch?v=NNchPe3haDo>

announced a new policy to reserve natural gas for domestic use and the natural gas reserves in the Gulf of Thailand have reduced as well. This concern is reflected in the “PDP 2015-2036”, which focuses on fuel diversification in order to lessen the dependence on one particular fuel, such as natural gas. The advertisement demonstrates this situation very clearly. Then, they talk about other sources such as hydropower (representing 3%, at 1.24 Thai Baht per unit), solar power (representing 1.5%, at 10.93 Thai Baht per unit), and wind generated power (representing 0.5%, at 6.43 Thai Baht per unit). But they mention that hydropower takes up just a little part of the energy mix, solar power is only usable during the daytime, and there is not enough wind in Thailand. After this, the advertisement shows the bicycle riders in the group of coal. The riders look very strong with determined looking faces and firm muscles. On the right side of the image, there is a caption saying “clean coal technology”, representing 18% of the energy mix and at a price of 1.67 Thai Baht per unit. Next, they show a diagram of the energy mix and argue for the necessity of a balanced and sustainable energy mix in Thailand. This advertisement is important to build the energy discourse of clean coal technology and to mitigate people’s concerns on air pollution problems caused by burning coal, as well as people’s worries about a black out. This kind of discourse, to emphasize the balanced energy mix and fuel diversification, has become the discursive foundation of the coal expansion plan in “PDP 2015-2036” (Energy Policy and Planning Office (EPPO) 2015).

Figure 5. EGAT’s 2014 advertisement on “Balanced Energy Mix”



5. Conclusion

In this paper, I analyze the discourse-making mechanisms of EGAT, a state-owned enterprise and one of the most powerful energy developers in Southeast Asia, by focusing on its corporate advertisements released to the public. Within the analytical framework of CDA, the various kinds of EGAT's advertisements were analyzed as a text, which is closely linked to discursive practice. Also, the discursive practice can be understood within the wider social and historical context. In the case of Thailand and EGAT's discourse-making mechanisms in energy development, EGAT has produced diverse advertisements in order to create a clean, green, environmental-friendly, and community-supportive image of its development activities. This has become the dominant energy discourse of the "Power for Thai Happiness" corporate slogan from EGAT. Although energy infrastructure development projects have resulted in environmental injustices in Thai society for the last decades, EGAT keeps producing those images and diversifies its discourse-making mechanisms; not only through releasing advertisements, but also through opening learning centers, museums, and providing diverse education programs for students. Under the newly emerging global agenda to combat climate change, EGAT utilizes their discourse-making mechanisms in order to maintain their hegemony in energy development, as well as to hide their unjust plans and practices such as the previous gas leak accidents in Mae Moh lignite-fired power plant in the 1990s, and more recently, the issue of the coal-fired power expansion plan in "PDP 2015-2036".

However, this paper has limitations since it lacks in information such as EGAT's rationale to produce those kinds of advertisement, and their understanding of the public about the advertisements. The interviews with EGAT officers, particularly those working at the department of public relations, as well as with Thai citizens will be added to future research. Also, the detailed information of other mechanisms such as museums and learning centers, CSR programs, festivals and education programs will be further explored. Finally, apart from the discourse-making mechanisms, future research will examine how this discourse is different from the reality.

References

- Brondi, S., A. Armenti, P. Cottone, B.M. Mazzara, and M. Sarrica 2014. Parliamentary and press discourses on sustainable energy in Italy: No more hard paths, not yet soft paths, *Energy Research & Social Science*. 2: 38–48.
- Calvert, K. 2016. From "energy geography" to "energy geographies": Perspectives on a fertile academic borderland, *Progress in Human Geography*. 40(1): 105–125.
- Calzonetti, F. J. and B. Solomon. eds. 1985. *Geographical Dimensions of Energy*. Netherlands: Springer.

- Chapman, J. D. 1961. A Geography of Energy: An emerging field of study, *The Canadian Geographer / Le Géographe Canadien*. 5(1): 10–15.
- Chen, S. 2016. Selling the environment: Green marketing discourse in China's automobile advertising, *Discourse, Context & Media*. 12: 11–19.
- Delina, L. L. 2017. *Accelerating Sustainable Energy Transition(s) in Developing Countries: The challenges of climate change and sustainable development* (1st Edition). Oxon, UK: Routledge.
- Dunham, I. M. and K. Schlosser 2016. Energy security discourses and environmental protection measures in U.S. federal energy legislation: An introductory exploration, *The Extractive Industries and Society*. 3(1): 86–94.
- EGAT. 2015, April 9. EGAT promotes two big projects “Wan Kaew” and “Reforestation”, celebrating the 60th birthday anniversary of HRH Princess Maha Chakri Sirindhorn. Retrieved December 7, 2018, from <https://www.egat.co.th/en/news-announcement/news-release/egat-promotes-two-big-projects-wan-kaew-and-reforestation-celebrating-the-60th-birthday-anniversary-of-hrh-princess-maha-chakri-sirindhorn>
- EJOLT. 2017, September 23. Krabi coal-fired power station project, Thailand. Retrieved July 3, 2018, from <https://ejatlas.org/conflict/krabi-coal-fired-power-station-project>
- Energy Policy and Planning Office (EPPO) 2015. *Thailand Power Development Plan 2015-2036 (PDP2015)*. Retrieved from https://www.egat.co.th/en/images/about-egat/PDP2015_Eng.pdf
- Fairclough, N. 1992. *Discourse and Social Change*. Cambridge: Polity.
- Fairclough, N. 2010. *Critical discourse analysis: the critical study of language* (2nd ed.). Harlow, England: Longman.
- Fischhendler, I. and D. Nathan 2014. In the name of energy security: the struggle over the exportation of Israeli natural gas, *Energy Policy*. 70: 152–162.
- Forsyth, T. 2004. Industrial pollution and social movements in Thailand, in R. Peet and M. Watts (Eds.), *Liberation Ecologies: environment, development and social movements* (Second Edition). London and New York: Routledge.
- Greacen, C. S. and C. Greacen 2004. Thailand's Electricity Reforms: Privatization of Benefits and Socialization of Costs and Risks, *Pacific Affairs*. 77(3): 517–541.
- Greenpeace Southeast Asia 2014. *Krabi at the Crossroads: Dirty Coal VS. Clean Renewable Energy*. Bangkok: Greenpeace Southeast Asia. Retrieved from https://www.greenpeace.or.th/report/True_cost_of_coal/Krabi_Coal_Report-Krabi-at-the-Crossroads-EN-single.pdf
- Kushwaha, G. S. and N.K. Sharma 2016. Green initiatives: a step towards sustainable development and firm's performance in the automobile industry, *Journal of Cleaner Production*. 121: 116–129.
- Laclau, E. and C. Mouffe 1985. *Hegemony and Socialist Strategy: Toward a Radical Democratic Politics*. London: Verso.
- Listo, R. 2018. Gender myths in energy poverty literature: A Critical Discourse Analysis, *Energy Research & Social Science*. 38: 9–18.
- Luten, D. B. 1971. The Economic Geography of Energy, *Scientific American*. 225(3): 164–178.
- Manners, G. 1971. *The Geography of Energy*. London: Hutchinson.
- McDonald, M. 2013. Discourses of climate security, *Political Geography*. 33: 42–51.
- Middleton, C. 2012. Transborder Environmental Justice in Regional Energy Trade in Mainland South-East Asia, *Austrian Journal of South-East Asian Studies*. 5(2): 292–315.
- Mills, S. 2003. 3. Discourse, in Mills S. (eds) *Michel Foucault*, pp. 53–66. London: Routledge.
- Moezzi, M., K.B. Janda and S. Rotmann 2017. Using stories, narratives, and storytelling in energy and climate change research, *Narratives and Storytelling in Energy and Climate Change Research*. 31, 1–10.
- Rafey, W. and B.K. Sovacool 2011. Competing discourses of energy development: The implications of the Medupi coal-fired power plant in South Africa, *Symposium on Social Theory and the Environment in the New World (dis)Order*. 21(3): 1141–1151.
- Rogers-Hayden, T., F. Hatton and I. Lorenzoni 2011. “Energy security” and “climate change”: Constructing UK energy discursive realities, *Global Environmental Change*. 21(1): 134–142.
- Sayyid, B. and L. Zac 1998. Political Analysis in a World Without Foundations, in E. Scarbrough and E. Tanebaum. eds., *Research Strategies in the Social Sciences: a Guide to New Approaches*, pp. 247–267. Oxford: Oxford

University Press.

- Schaeffer, C. and M. Smits 2015. From matters of fact to places of concern? Energy, environmental movements and place-making in Chile and Thailand, *Geoforum*. 65(C): 146–157.
- Shoemaker, B. and W. Robichaud. eds. 2018. *Dead in the Water: Global Lessons from the World Bank's Model Hydropower Project in Laos*. Madison, Wisconsin: University of Wisconsin Press.
- Simão, L. and A. Lisboa 2017. Green Marketing and Green Brand – The Toyota Case, *International Conference on Sustainable and Intelligent Manufacturing, RESIM 2016, 14-17 December 2016, Leiria, Portugal*. 12: 183–194.
- Sovacool, B. K., M. Burke, L. Baker, C.K. Kotikalapudi, and H. Wlokas 2017. New frontiers and conceptual frameworks for energy justice, *Energy Policy*. 105: 677–691.
- Spooner, D. J. 1981. The Geography of Coal's Second Coming. *Geography*, 66(1), 29–41.
- Stegemann, L. and M. Ossewaarde 2018. A sustainable myth: A neo-Gramscian perspective on the populist and post-truth tendencies of the European green growth discourse, *Sustainable Energy Transformations in an Age of Populism, Post-Truth Politics, and Local Resistance*. 43: 25–32.
- Yan Zyl, F. D. W. 1968. Power supply and industry in South Australia, *Australian Geographer*. 10(6): 507–514.
- Wilbanks, T. J. 1982. Location and energy policy. In J. W. Frazier (Ed.), *Applied Geography: Selected Perspectives*. Englewood Cliffs, N.J: Prentice Hall.

Yeji Yoo, PhD Program in Social Science Faculty of Social Sciences, Chiang Mai University, Thailand